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DATE: February 7, 2020
TO: SCT PAC Buildable Lands Subcommittee
CC: Snohomish County Buildable Lands Team
FROM: Morgan Shook, Bob Parker, and Margaret Raimann, ECONorthwest
SUBJECT: SNOHOMISH COUNTY BLP METHOD ALTERNATIVES AND EVALUATIVE CRITERIA

Background

To address changes to the Review and Evaluation Program for Buildable Lands as described in E2SSB-5254, ECONorthwest is working with Snohomish County to assist in identifying and addressing recommended updates to the County's Buildable Lands Procedures Report and Reasonable Measures Program documents. The County contracted with ECONorthwest to develop and recommend updates to the methodology in collaboration with the Snohomish County Buildable Lands Team, a subcommittee of the Snohomish County Tomorrow (SCT) Planning Advisory Committee (PAC), and other key stakeholders. Following this process, the Snohomish County Buildable Lands Team will use the recommendations to update the methodology in the 2021 Buildable Lands Report (BLR).

In December 2018, the Department of Commerce published updated Buildable Lands Guidelines (Guidelines) as a response to the requirements passed in E2SSB-5254. Snohomish County identified key issues necessary to address in the methodology for the 2021 BLR. The issues that the County worked with ECONorthwest to review and evaluate were: (1) land classification definitions, (2) market factor, (3) infrastructure gaps, and (4) reasonable measures.

This memorandum describes ECONorthwest's approach to analyzing these key issues; describes analysis resulting in the recommended alternatives for each key issue; and evaluates each proposed alternative based on a set of criteria. The subcommittee will assist in providing input on the proposed alternatives according to the evaluation criteria for the final proposed methodology refinements.

Approach

Our approach, generally, followed the following steps for each key issue:

1. Review updated Department of Commerce Buildable Lands Guidelines (Guidelines) to understand recommended methods.
2. Use empirical analysis, if necessary or possible, to compare the existing methodology to potential updated approaches.
3. Determine if an updated method is necessary compared to the status quo.
4. Develop recommended alternatives (or refinements) to the current methodology.
5. Evaluate alternatives using criteria (defined in this section).

The remainder of this section describes the primary datasets used to complete the analysis, as well as provides definitions of the evaluative criteria.

Description of Datasets

ECONorthwest worked closely with Snohomish County Buildable Lands staff to gather and understand the datasets central to the buildable lands process. We reviewed previous BLR methodologies and compared them to the recommendations in the updated Guidance. Snohomish County staff provided several datasets at the beginning of the project including historic buildable lands GIS data for the 2002, 2007, and 2012 BLRs; as well as development history data files for all development types.

County staff also provided supplemental GIS information (e.g., zoning, UGA boundaries, current parcels, etc.), but the key datasets used for our analysis were the historic BLRs and development history datasets. Our analysis eventually used the 2012 BLR as the basis for comparing previous land classifications to development history because of changes to definitions of land classifications between BLRs and complexity in joining parcel data across time periods. To allow for comparison of the parcel-based BLR datasets with parcel- or plat-based development history data, we completed a series of pre-processing tasks to create a relational database.[1]

For each key issue, we supplemented analysis of available data with conversations with County staff and discussions with the Subcommittee. These discussions led to either further refinement of our analysis or a determination that existing data and understanding of the remaining issues was sufficient to recommend updates to these procedural issues with the methodology.

Definition of Evaluative Criteria

After analysis of each key issue and development of recommended alternatives, ECONorthwest evaluated each alternative based on four criteria. The criteria, and the scale of evaluation (low to high), are defined as:

- **Ease of implementation.** This indicates the level of effort required to implement and/or maintain the recommended updates to the methodology. A "high" rating of this metric would indicate that the alternative is easy to implement.
- **Availability of data.** This indicates whether data to apply this recommended update is readily available or would require collection of new data. A "high" rating of this metric would indicate that the data is readily available.
- **Alignment with DOC Guidance.** This indicates whether the alternative meets the requirements outlined in the Guidelines. A "high" rating of this metric would indicate that the recommended update aligns directly with a recommendation in the Guidelines.

[1] The relational database assigned project development from 2011 to 2018 to the 2011 parcels included in the 2012 BLR. We intersected 2011 parcels with development over the 2011 – 2018 time period to classify 2011 parcels that saw different types of development. Note that the reference to "parcels" in the 2012 BLR includes both parcels and economic units. Economic units are combined parcels that logically fit based on current uses. We used the 2012 BLR geometries for our analysis, and evaluated projects based on where they intersected with either parcels or economic units, but use the term "parcel" for brevity here.

- **Empirical evidence.** This indicates whether the alternative is based on empirical evidence. A "high" rating of this metric would indicate that the recommended alternative is based on strong empirical evidence.

The remainder of this memo provides the results of this approach for each key issue—land classification, market factor, infrastructure gaps, and reasonable measures.

Recommended Alternative Methodological Approaches

For each key issue, this section provides relevant background information; a summary of analysis and results; recommended alternative approaches; and an evaluation of each approach. Where necessary, detailed analysis or supplemental information for key issues is provided in the appendices at the end of this memo.

Land Classifications

A core element of a buildable lands analysis is the classification of land, typically based (at least initially) on a rule-based methodology. The definitions of land classifications determine, in part, how much capacity is assigned to each parcel in the final BLR. Thus, accurately defining the classifications has implications for assumptions in subsequent steps of the buildable lands analysis and BLR results. Starting with the updated Guidance and existing methodology, we compared development history with the County's previous BLR results to help inform potential alternative approaches to land classification.

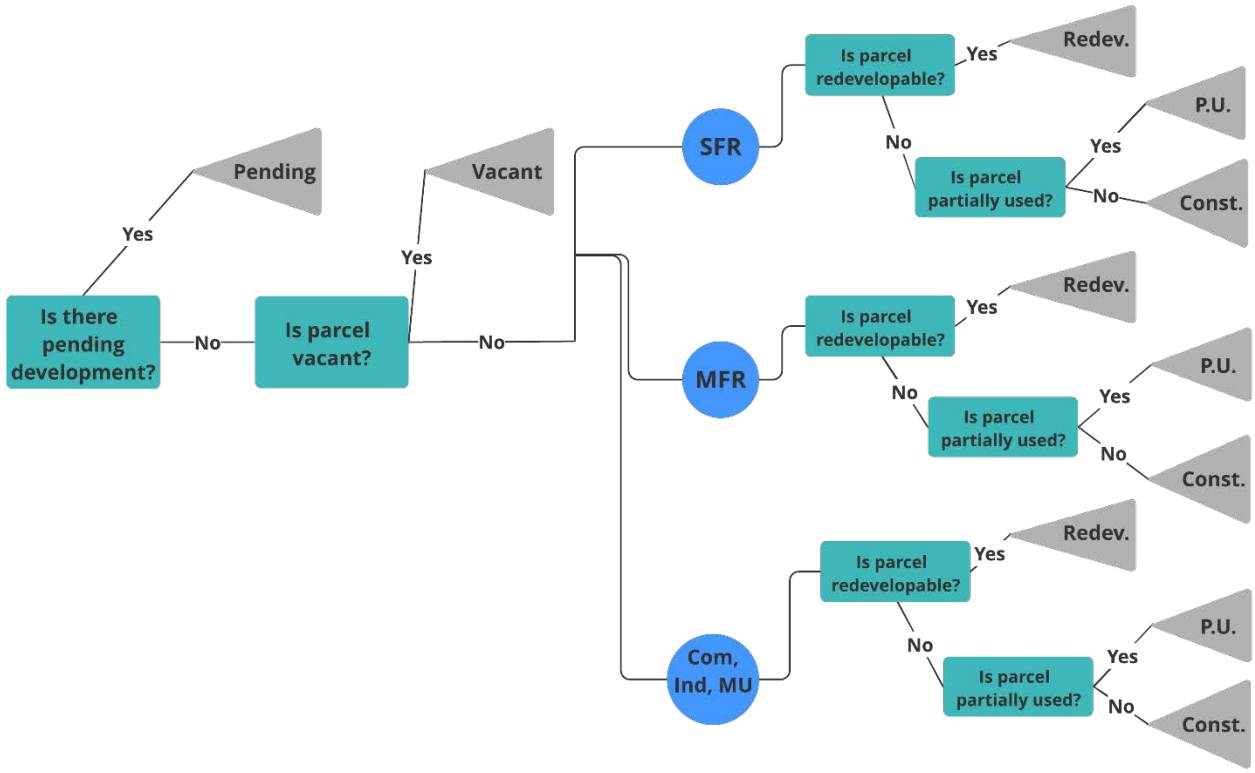
Relevant E2SSB-5254 requirements

E2SSB-5254 requires that counties attempt to improve the overall accuracy of their BLRs to account for changes in growth patterns, with specific emphasis on accuracy of estimating redevelopable land.

Existing Snohomish County Methodology

The 2012 Snohomish County BLR identified seven land classifications for parcels within urban growth areas. The County uses a rule-based methodology to define a land classification for each parcel, which is followed by a manual review of aerial imagery and discussion with jurisdiction staff to determine the final land classification of the parcels. The land classification helps to determine the treatment of a parcel in subsequent steps of the buildable lands analysis, including the eventual capacity calculated for a parcel. Land classifications are generally assigned to two groups of classifications either (1) those that anticipate development (i.e., have capacity assigned) or (2) those where no development is anticipated (i.e., no capacity assigned). Exhibit 1 shows the logic for evaluating parcels by development type.

Exhibit 1. Snohomish County Existing Land Classification Methodology



The land classifications that are eventually assigned capacity, and their definitions used for the 2012 BLR are:

- **Vacant.** A parcel is considered vacant if there is not an existing structure on the parcel or the existing structure value is low enough that it would not preclude development. The 2012 BLR uses a threshold of improvement value less than or equal to $2,000 to identify vacant parcels.
- **Redevelopable**. A parcel is redevelopable if the existing structure is more valuable than $2,000, but still not valuable enough to retain the structure if development would occur. The 2012 BLR used the following thresholds for redevelopable lots based on current property use type:
  - *Single family* parcels where the existing building (i.e., house) has an improvement value of less than or equal to $100,000 and an improvement-to-land value ratio less than or equal to 0.75.
  - *All other (multifamily, commercial, industrial, or mixed-use)* where the existing buildings have an improvement-to-land value ratio less than or equal to 1. Some exceptions, such as condominiums, gas stations, and warehouse buildings are accounted for in the model.
- **Partially-used.** A parcel with existing structure(s) valued at greater than $2,000, that does not meet the redevelopable definition, and that can accommodate further development without tearing down the existing structure(s) is considered partially-used.

The 2012 BLR uses the following thresholds for partially-used lots based on current property use type:

- *Single family* parcels in which the parcel size is at least twice the zoned lot size.
- *Multi-family* parcels with a building footprint less than or equal to 20% of the buildable parcel area and the existing density is less than allowed under the current zone.
- *Commercial, industrial, or mixed-use* parcels where the floor-to-area ratio is less than or equal to 25%. For uses such as restaurants, auto dealerships and gas stations that require substantial amounts of parking, the floor-to-area ratio is less than or equal to 10%.

- **Pending.** A parcel where a pending development application or recent platting occurred. The County excluded these parcels from the rule-based land classification model, and assigned the planned capacity based on the application and/or plat.

For parcels that did not fit these classifications or parcels with special considerations, Snohomish County assigned either a "Constant" or "Special" land classification, and did not assume any capacity on these parcels. "Special" parcels included government-owned property, churches, schools, or other tax-exempt properties.

Analysis

The key questions that guided our initial analysis of land classification were: What developed since the 2012 BLR? For properties that developed, what was the land classification in 2012? What are the characteristics of properties that developed? The data summarized in this section helped to provide a preliminary, summary-level understanding of the answers to these questions. We used this summary of trends in development for beginning discussions with County staff and the Subcommittee. The outcomes of these discussions led to further analysis to better understand the characteristics of land that developed in Snohomish County, and how these characteristics may inform alternative methodological approaches.

Summary of development history by land classification

As part of the 2021 BLR update and to address recommendations identified in the Guidelines, ECONorthwest completed an analysis of Snohomish County's existing land classifications based on the 2012 BLR methodology. We compared the 2012 BLR land classifications to actual development between 2011 and 2018, using the County's development history data. The results of the County's validation study showed that the 2012 BLR fairly accurately predicted actual development in terms of units built, as well as the classification of constant and redevelopable parcels. The validation study also found that most of the parcels classified as partially-used in the study were instead redeveloped.[2]

[2] The Snohomish County Validation Study found that of the 106 out of 220 validation study development projects that were classified redevelopable, 94 (89%) actually redeveloped; while of the 42 projects that developed that were classified partially-used, only 7 (17%) were infill developed. The rest (35 or 83%) were actually redeveloped,

Exhibit 2 shows a summary of the number of parcels that developed between 2011 and 2018 categorized by 2012 BLR land classification and development type. Of the 1,769 developed parcels, about 16% were classified as constant, 21% were classified as redevelopable, and 17% were classified as partially used.

Exhibit 2.Developed Parcels Distribution by Land Classification and Development Type

	Development Type				Total	
Classification	Single Family	Multi Family	Mixed Use	Comm.	Number	Percent
Constant	69%	5%	2%	23%	282	15.9%
Vacant	69%	16%	5%	10%	155	8.8%
Redevelopable	69%	11%	3%	18%	383	21.7%
Partially Used	95%	0%	0%	5%	311	17.6%
Special	0%	17%	0%	83%	12	0.7%
Pending	86%	4%	2%	8%	626	35.4%
					1,769	100%

Source: ECONorthwest; Snohomish County

Exhibit 3 shows the average improvement value for parcels that developed between 2011 and 2018, categorized by 2012 BLR land classifications where capacity was assumed (i.e., vacant, redevelopable, and partially used) and development type. The average improvement value on redevelopable single-family parcels that developed was $77,625 and the average improvement value on partially-used parcels was $202,923.

Exhibit 3. Average Improvement Value of Developed Parcels by Land Classification and Development Type[3]

	Single Family	Multifamily	Mixed Use	Comm.
Vacant	$289	$2,912	-	$165,786
Redevelopable	$77,625	$156,146	$140,045	$388,455
Partially Used	$202,923	$174,900	-	$9,364,015

Source: ECONorthwest; Snohomish County

suggesting a need to move more locations that previously would have been considered partially-used into the redevelopable category. Constant parcels were predicted such that only 15 (7%) projects out of the 220 total development projects occurred on land categorized as constant in 2012.

[3] The land status classification shown in this table is based, not on the initial, rule-based formulas, but instead reflects the final land status classification of parcels following a manual review of aerial photos and discussions with jurisdiction staff. Specifically in the 2012 BLR, there were situations in which the April 2011 Assessor data showed built structures with improvement values which had been demolished by the time the County met with city staff. As a result, the County updated the land status field with more current information, but retained the improvement value that was associated with the previous structure.

Exhibit 4 shows the distribution (by quartile) of improvement-to-land value ratios for developed parcels in redevelopable and partially used land classifications by development type. It also shows the distribution of improvement-to-land value ratios for parcels that did not develop.

Exhibit 4. Improvement-to-Land Value Ratio of Developed Parcels by Land Classification and Development Type

Quartile	Single Family	Multi Family	Mixed Use	Comm.	No Development
Redevelopable					
Bottom 25%	0.00-0.14	0.00-0.11	0.05-0.09	0.00-0.007	0.00-0.32
25% - 50%	0.14-0.29	0.11-0.31	0.09-0.18	0.08-0.25	0.32-0.52
50% - 75%	0.29-0.48	0.31-0.61	0.18-0.40	0.25-0.46	0.52-0.71
Top 75%	0.48-1.33	0.61-1.34	0.40-0.83	0.46-2.23	0.71-4.53
Partially-Used					
Bottom 25%	0.00-0.67	1.39	-	0.01-0.32	0.00-0.92
25% - 50%	0.67-0.95	-	-	0.32-0.84	0.92-1.21
50% - 75%	0.95-1.21	-	-	0.84-2.25	1.21-1.64
Top 75%	1.21-4.40	-	-	2.25-2.98	1.64-13.03

Source: ECONorthwest; Snohomish County

To further understand the characteristics of developed parcels, we also completed a preliminary regression model, starting with single-family-zoned parcels. The regression resulted in several statistically significant variables including improvement value, floor-to-area ratio, and parcel size. The results indicated that other variables may be beneficial for updating the methodology for land classification. This initial analysis led to further work to first replicate the County's current methodology, then use the existing thresholds to determine potential adjustments to the parameters for these thresholds.[4]

After the preliminary analysis and comparison of the 2012 parcels and recent development data (described in the previous section), ECONorthwest evaluated characteristics of parcels that developed using an econometric approach (logit regression model), described in the next section. The results of these analyses help to inform the ultimate goal of recommending potential updates to methods that would better identify parcels that might develop.

[4] In this memo we reference "thresholds" and "parameters" in descriptions of assumptions for land classifications. "Thresholds" indicates the different variables applied to assign a land classification—e.g., improvement value or parcel size. "Parameters" for the thresholds indicates the specific values assigned to a threshold—e.g., $100,000 improvement value.

Econometric approach

USING AN ECONOMIC MODEL TO UNDERSTAND KEY RELATIONSHIPS

Econometrics is a generic term used to describe the quantitative analysis to understand observed data. Econometrics allows for the analysis of large amounts of data for the purpose of discovering simple relationships. Snohomish County has compiled a novel dataset on land classification and development over the past 20 years that allows for more rigorous analysis. ECONorthwest has implemented a variety of mathematical and statistical techniques to assess alternative approaches to doing land classifications.

A logit model is a type of regression model that explains the relationship of individual characteristics to probability of development, and fits well with the buildable lands methods and conditions. A parcel has many characteristics and the logit model allows for understanding the likelihood that a parcel will develop given its unique characteristics and development type. The thresholds (and parameters for those thresholds) set by the BLR methodology determine how land is classified, and the logit model can help to identify the optimal threshold parameters, given other considerations for probability of development.

Another goal of this analysis was to better identify redevelopable and partially used parcels that developed. The County does not collect comprehensive, detailed data on these variations in development, though the County did complete this determination between infill and redevelopment for their validation study. Similarly, ECONorthwest reviewed the actual development of a representative sample of parcels and applied it to the logit model inputs. Thus, this allowed us to analyze thresholds based not only on whether or not development occurred, but also thresholds that better indicate whether an existing structure would be retained (partially-used) or torn down (redeveloped).

MODEL FINDS KEY VARIABLES RELATE PARCEL CHARACTERISTICS TO PROBABILITY OF DEVELOPMENT

Between 2011 and 2018, slightly less than one percent of the nearly 175,000 parcels in the Snohomish County UGA redeveloped, with some parcels retaining existing structures and others completely redeveloping. A comprehensive understanding of the factors that lead to a parcel being redevelopable can help understand the capacity for future development in the County. One approach combines parcel level characteristics and development outcomes in an econometric model that predicts the likelihood of redevelopment using existing data and observations through time. The multinomial logit model (model) is regularly used to predict the probabilities of different categorical outcomes given a set of descriptive variables.

Since the development patterns vary across development types, a separate model is estimated for each type (single-family; multifamily; and commercial, industrial, mixed-use) with slight variation in the specification between each to account for other parcel characteristics currently used by Snohomish County in its land classification definitions. The detailed results of the model are provided in Appendix A. Generally, the model finds the current variables used in the buildable lands methods have appropriate statistical power for explaining whether or not a

parcel will develop. This is a critical finding in that it allows the methods to relate parcel characteristics to the probability that it will develop over some given time.

General findings from the model indicate that the existing land classification scheme (e.g., improvement value, improvement to land value ratio) can reasonably be used to predict actual development. Additional insight suggests that other variables (i.e., gross buildable acres) can be used to relate parcel characteristics to the probability of development.

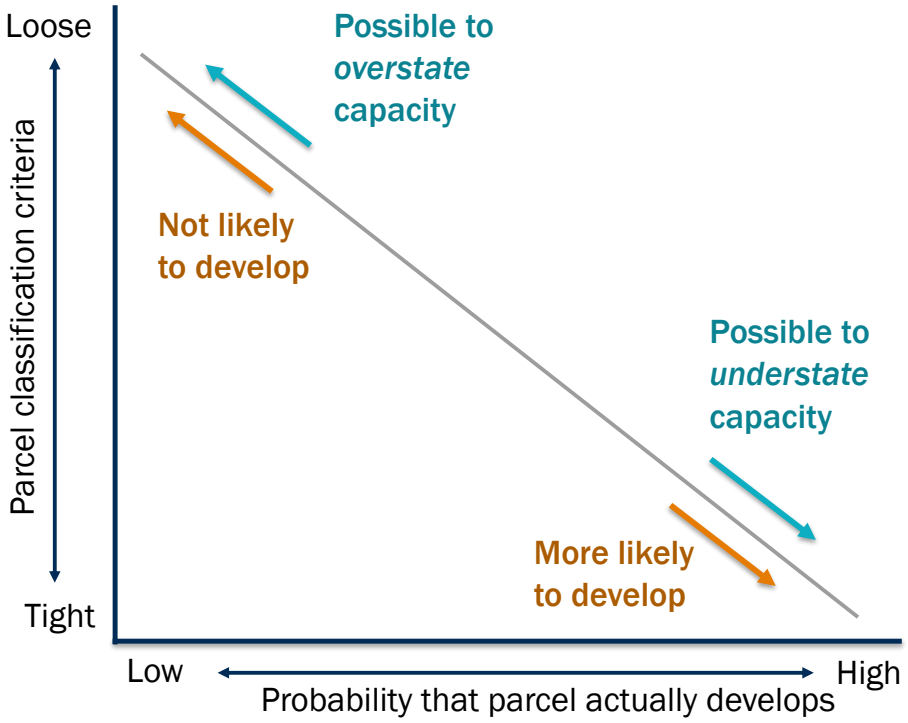
MODEL RESULTS CAN BE USED TO IDENTIFY TRADEOFFS FOR LAND CLASSIFICATION METHODS

With respect to buildable lands methods, the assignment of land classification represents the first and significant step towards more accurately identifying buildable capacity. There are two main objectives of such an exercise:

1. First, the method should seek to maximize the accurate identification of "constant" parcels. These are parcels where no development is expected.
2. Second, the method should seek to maximize the accurate distinction between "redevelopable" and "partially used" parcels. Partially used parcels are those where an existing structure is likely to be retained and so adjustment to buildable capacity are needed.

The results from the model above indicate potential to better assign land classification types, through identification of key parameters that predict development, as well as the differences between partially-used and redeveloped parcels. Exhibit 5 shows the tradeoffs of loosening or tightening conditions. For example, if the County increased the threshold for improvement-to-land value ratio from 0.75 to 1.0 for single family parcels, the model would assign a "redevelopable" classification to more parcels that will in fact redevelop during the planning period, but will also assign this classification to more parcels that will not actually redevelop during the planning period, and therefore overstate the actual capacity of land.

Exhibit 5. Tradeoffs of Adjusting Land Classification Thresholds.



Using the results from the model, it is then possible to sort 2012 land classifications by the predicted likelihood of redevelopment and then test different parameters for each threshold (i.e. improvement value, improvement to land value ratio, gross buildable acres, etc.) to determine how they sort into different land classifications. Here it is possible to see what combination of thresholds can 1) maximize the percentage of "constant" parcels that do not develop, while (2) more accurately assessing what parcels will develop but maintain an existing structure.

The following series of results for the three development types[5] are derived from those results that provide the best maximization of the issues above. Here the model tests a multitude combination of variables and thresholds and reports out the results regarding land classifications. The results shown below are selected as the highest-performing set of variables and thresholds.

[5] The development types for the modeling thresholds used the "land type" provided in County GIS data for the 2012 BLR. This field is defined as the generalized future land use designation.

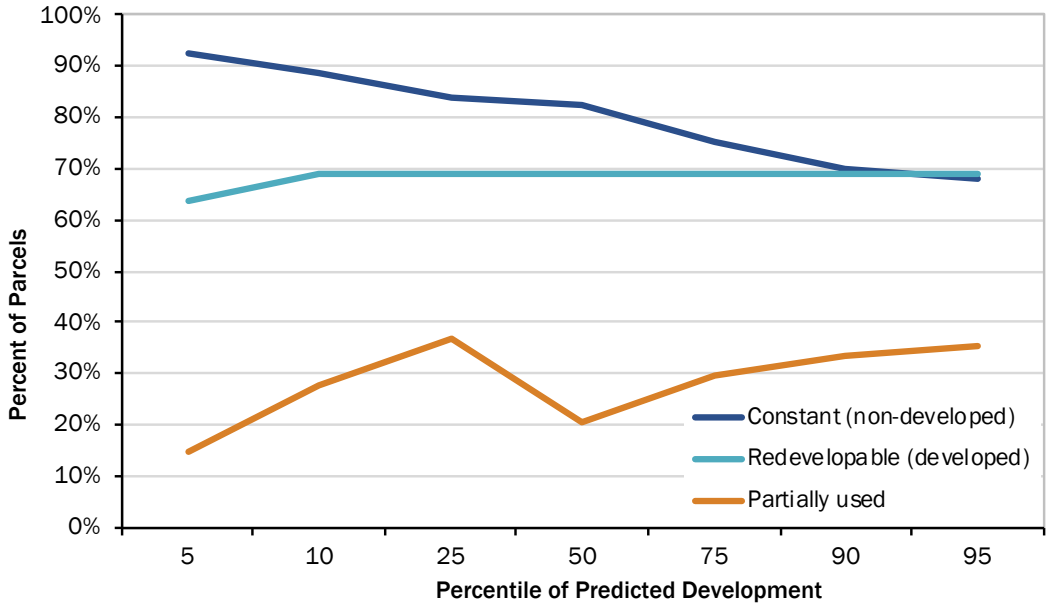
Single-family thresholds

Exhibit 6 shows how adjustments to parameters for modified thresholds for partially-used parcels in the methodology predict actual development. The parameters at this point are:[6]

- $7,500 improvement value for vacant parcels
- $103,750 improvement value and 0.70 ILR for redevelopable parcels
- 1.53 improvement-to-land value ratio and 0.33 gross buildable acres for partially-used parcels

Criteria for the modeling results become narrower (or "tighter" as fewer parcels meet those criteria) as the percentile of predicted development increases. The thresholds for partially-used are improvement-to-land value ratio and gross buildable acres. The highest performing results have thresholds (i.e., the point where the redevelopable and partially used lines are closest together) at the 25th percentile.

Exhibit 6. Percentile of Predicted Development for Recommended Single-Family BLR Thresholds



Source: ECONorthwest; Snohomish County

[6] The values included in this analysis are based on 2011 assessor data. We recommend that the County adjust for inflation before updating thresholds in future BLRs.

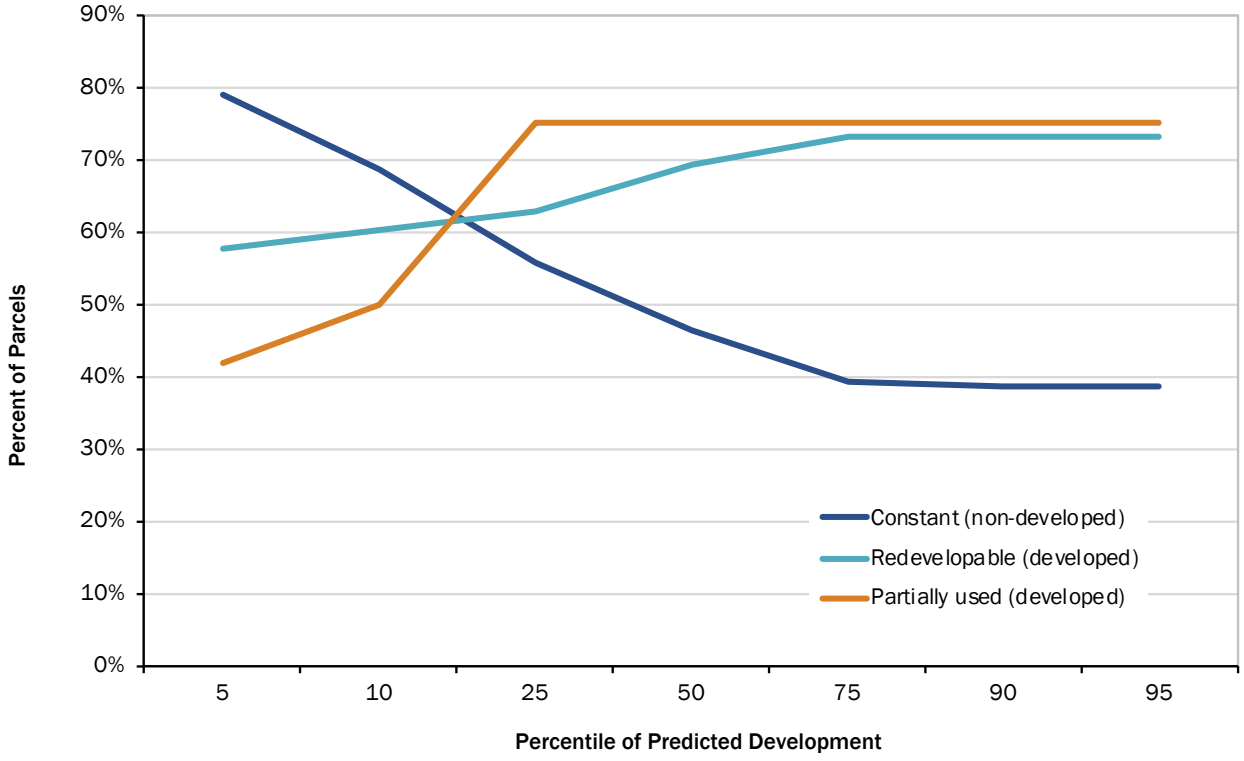
Multifamily thresholds

Exhibit 7 shows the adjustments to parameters for thresholds for parcels in multifamily land classifications by percentile of predicted development. The highest performing thresholds for multifamily are:

- $3,500 improvement value for vacant parcels
- 0.76 improvement-to-land value ratio for redevelopable parcels
- $91,200 improvement value and 0.10 building footprint-to-lot size ratio for partially-used parcels

The highest performing results are at the 10th percentile.

Exhibit 7. Percentile of Predicted Development for Recommended Multifamily BLR Thresholds



Source: ECONorthwest; Snohomish County

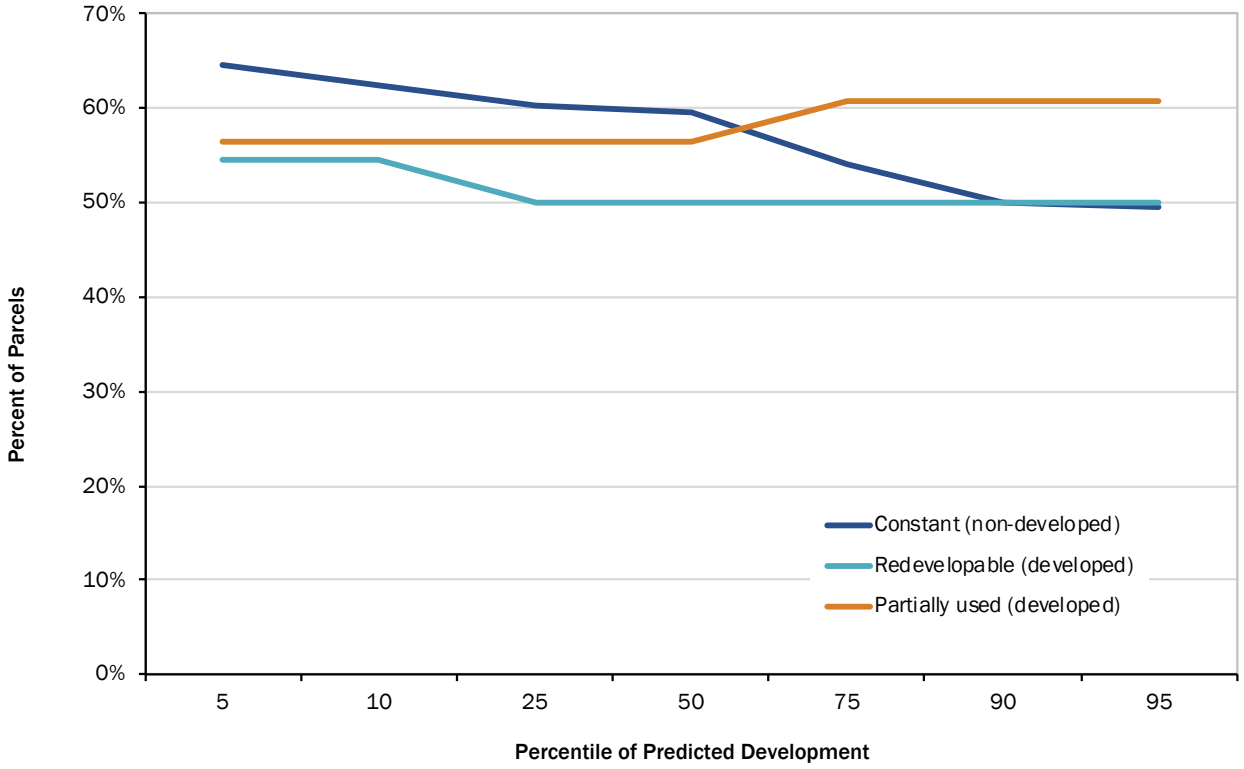
Commercial, industrial, and mixed-use thresholds

Finally, Exhibit 8 shows the adjustments to parameters for thresholds for parcels in commercial, industrial, and mixed-use land classifications by percentile of predicted development. The highest performing thresholds for these development types are:

- $400 improvement value for vacant parcels
- $338,400 land value for redevelopable parcels
- $757,950 land value and $502,450 improvement value for partially-used parcels

The highest performing results are at the 5th percentile.

Exhibit 8. Percentile of Predicted Development for Recommended Commercial, Industrial, and Mixed-Use BLR Thresholds



Source: ECONorthwest; Snohomish County

ADDITIONAL CONSIDERATIONS FOR REDEVELOPABLE LAND

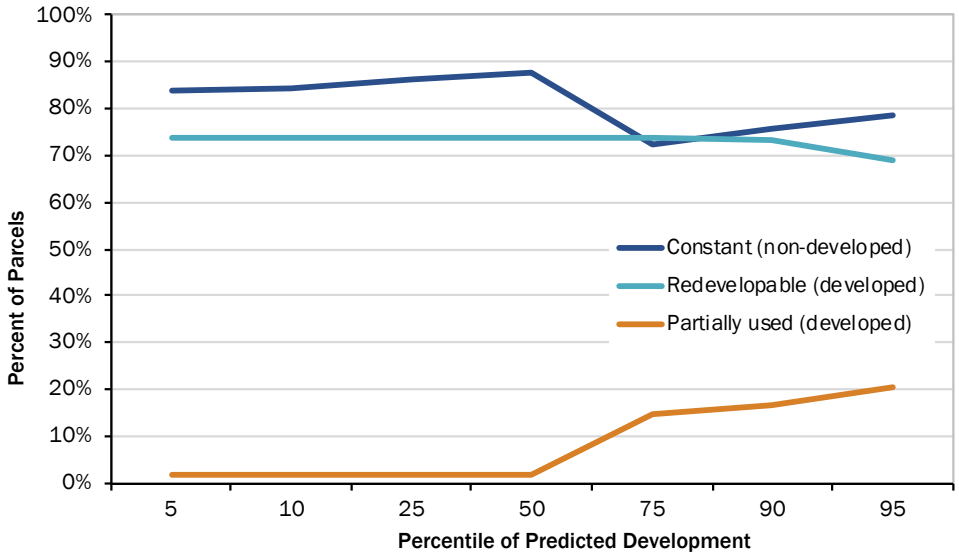
For the single family development type, the logit model results did not indicate a large shift in the recommended, or "best performing," threshold for redevelopable land. (The existing threshold is $100,000 and the best performing is $103,750.) We conducted additional tests for increasing the redevelopment threshold to $125,000 and $150,000. This sensitivity test provided further insight into the level of predictability of development.

Exhibit 6 shows that at the 25th percentile of predicted development, about 84% of parcels are constant and do not develop, while 69% of parcels are redeveloped, and 37% of parcels are developed as partially used. The threshold assumed for redevelopable parcels at this percentile of predicted development is about $100,000.

Exhibit 9 and Exhibit 10 show the results of a sensitivity test using $125,000 and $150,000 improvement value thresholds for the redevelopable land classification. All other thresholds remain the same as show in Exhibit 6. For the redevelopable threshold of $125,000, the best performing threshold is at about the 90th percentile where 76% of parcels are constant and do not develop, 73% of parcels are redeveloped, and 17% of parcels are developed as partially used.

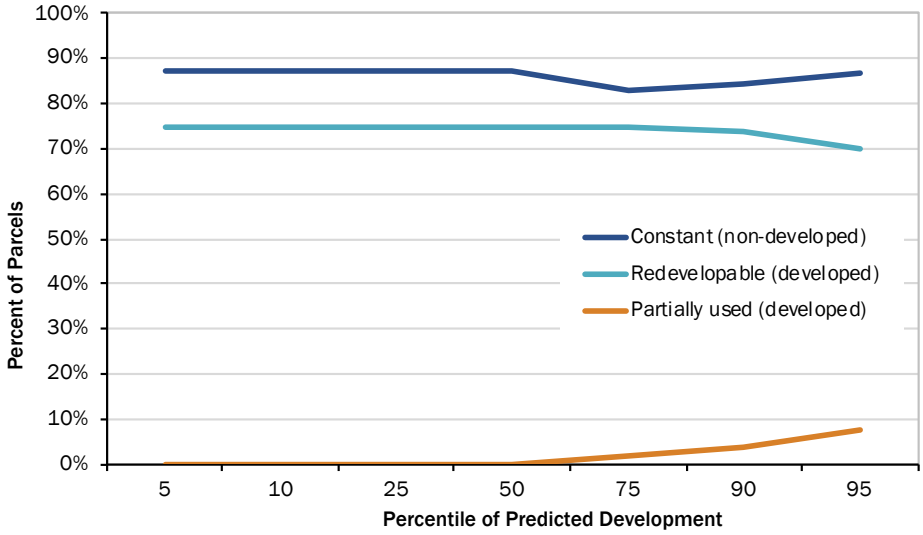
For the redevelopable threshold of $150,000, the best performing threshold is also at about the 90th percentile where 84% of parcels are constant and do not develop, 74% of parcels are redeveloped, and 4% of parcels are developed as partially used. Thus, the result of setting a higher threshold for the redevelopable land classification is that more parcels are classified as redevelopable and fewer parcels are classified as partially used.

Exhibit 9. Sensitivity Test: Percentile of Predicted Development for Single-Family BLR Thresholds (Redevelopable: $125,000)



Source: ECONorthwest; Snohomish County

Exhibit 10. Sensitivity Test: Percentile of Predicted Development for Single-Family BLR Thresholds (Redevelopable: $150,000)



Source: ECONorthwest; Snohomish County

Recommended Alternatives

Based on the analysis of land classifications, we recommend that the County consider the following alternatives:

- **Update thresholds for each development type.** Using recommended thresholds at or similar to results from the logit model, we recommend updating thresholds for vacant, partially used, and redevelopable land classifications where necessary.
- **Adjust for inflation.** Since the analysis was based on assessor data from 2011, we recommend adjusting thresholds for inflation for the 2021 BLR using the Seattle CPI-U.
- **Collect data on redevelopment.** Similar to the County's process for their validation study, we reviewed a representative sample of developed parcels for whether buildings were retained (infill) or removed (redevelopment). Tracking this data along with development history will help to better understand the redevelopable land classification in future BLRs.[7]

[7] This recommendation would not be able to be implemented until after the 2021 BLR, but is worth noting due to the updated Guidelines' emphasis on data collection.

Evaluation of Recommended Alternatives

This section provides an evaluation of the recommended alternatives for land classifications, as identified above and based on our review of the County's existing methods. The evaluative criteria are listed at the beginning of this memo and allow for objective evaluation of options and the benefits and drawbacks of each.

Recommended alternative	Ease of implementation	Availability of data	Alignment with DOC Guidance	Empirical evidence
Update thresholds for each development type	*High*. Requires simple modification to threshold input in model.	*High*. Does not require additional collection of data.	*High*. Guidance recommends better accuracy in land classifications and prediction of capacity to land.	*High*. Logit model results indicate increasing the vacant threshold for most development types would better predict development of vacant lots.
Adjust for inflation	*High*. Requires simple modification to threshold input in model.	*High*. Does not require additional collection of data.	*High*. Guidance recommends better accuracy in land classifications and prediction of capacity to land.	*High*. The analysis in this memo relied on the 2012 BLR results, which used 2011 assessor data. Adjusting thresholds that rely on dollar values should be updated for inflation when using updated assessor data for the 2021 BLR.
Collect data on redevelopment	*Low*. Requires determining a process for the collection of new data and relies on capacity from county staff to maintain the data.	*Low*. This data is not currently collected on a consistent basis.	*High*. Guidance recommends better accuracy in land classifications and prediction of capacity to land. This can include improving data collection methods.	*Medium*. One shortcoming in the analysis of land classifications was the lack of data on redevelopment. We created synthetic datasets based on representative samples, but results would have been stronger with a complete dataset.

Market Factor Assumptions

Relevant E2SSB-5254 requirements

E2SSB-5254 requires that counties adequately address reductions for uncertainty, with specific emphasis on the "use of a reasonable market supply factor." The Guidelines provide a list of potential considerations for updating market supply factors that address a range of issues that influence development in a particular area, such as infrastructure or development costs; timing of permitting and construction; land availability and suitability; and willingness of property owners or other economic conditions. The Guidance also notes that market factors may vary across counties as well as cities within a county.

The Guidance provides suggested methods for addressing each consideration, with acknowledgement that many of these issues overlap and generally contribute to an overall market factor. Snohomish County's coverage of nearly 20-years of buildable lands and development data allowed for an evaluation of the market factor unavailable in years prior. The analysis in this section allows for a comprehensive review of the market factor, where the issues related to the market factor are inherent in the results.

Existing Snohomish County Methodology

The Snohomish County BLRs completed in 2002, 2007, and 2012 assumed market factor reductions of 15% for vacant land and 30% for partially used and redevelopable land. These assumptions were based on property owner surveys completed in 1993 (City of Marysville) and 2005 (Snohomish County). The Guidance references the methods used in Snohomish County as examples for collecting data on market factors, in addition to other types of analysis. The Guidance also recognizes the difficulty in collecting and analyzing data for purposes of developing a reasonable market factor assumption.

Analysis

ECONorthwest and County staff discussed potential issues of updating the market factor assumptions with the subcommittee during the first meeting. While preferring an empirical analysis approach, the subcommittee suggested that updating the property owner survey would not provide improved results. ECONorthwest and County staff agreed with this assessment, adding that property owner surveys are point-in-time based (i.e., they reflect the current, static intent of property owners, ignoring potential decisions as conditions change), and they are unlikely to be able to be completed in the timeframe needed for this updated methodology research.

Another approach to assessing market factor suggested in the Guidance is a sample area approach. ECONorthwest worked with County staff to identify sample areas that represent different types of markets or geographies. These areas represent locations in the County's UGA where developer interest has been focused at some point during the past 20 years. The areas cover a range of different areas in the County's UGA including single-family development in SWUGA and non-SWUGA, as well as multifamily and mixed-use development in the City of Lynnwood. ECONorthwest completed preliminary analysis of these sample areas for discussion

with the Subcommittee, and County staff continued refining results. Using 2002 BLR data (based on a 2001 parcel extract), the research studies what property has remained unchanged since 2001, as indicated by the lack of development or the lack of development proposals as of 2019. The results are summarized below and the detailed results are provided in Appendix B.

Bothell MUGA sample area (SWUGA)

The 2002 BLR estimated additional capacity of 1,105 housing units prior to the market factor reduction in the Bothell MUGA sample area. Of those, 102 units were in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This represents 9% of the total additional housing unit capacity estimated for the area in the 2002 BLR.

For vacant parcels in the 2002 BLR, 6% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 15% market availability reduction factor that the Snohomish County BLR methodology applied to vacant parcels.

For underutilized parcels in the 2002 BLR (partially-used and redevelopable parcels), 10% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 30% market availability reduction factor that the Snohomish County BLR methodology applied to underutilized parcels.

Exhibit 11 shows aerial imagery of this area from the time periods 2002 and 2018 included in the analysis.

Exhibit 11. Bothell MUGA sample area comparison, 2002 and 2018

Source: Snohomish County

Stanwood/Cedarhome sample area (non-SWUGA)

The 2002 BLR estimated additional capacity of 653 housing units prior to the market reduction factor in the Stanwood/Cedarhome (non-SWUGA) sample area. Of those, 101 units were in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This represents 15% of the total additional housing unit capacity estimated for the area in the 2002 BLR.

For vacant parcels in the 2002 BLR, 12% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 15% market availability reduction factor that the Snohomish County BLR methodology applied to vacant parcels.

For underutilized parcels in the 2002 BLR (partially-used and redevelopable parcels), 16% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 30% market availability reduction factor that the Snohomish County BLR methodology applied to underutilized parcels.

Exhibit 12 shows aerial imagery of this area from the time periods 2003 and 2018 included in the analysis.

Exhibit 12. Stanwood/Cedarhome sample area comparison, 2003 and 2018

Source: Snohomish County

Recommended Alternatives

Based on the analysis of market factor in the sample areas, we recommend that the County consider the following alternatives:

- **Assign different market factors for SWUGA and non-SWUGA.** The samples studied in this analysis reflect two distinct geographic areas—the SWUGA and non-SWUGA. While the observed market factor in both areas was below the existing market factors for vacant and underutilized land, the resulting market factors in the SWUGA were also lower than the non-SWUGA.
- **Assign different market factor for different development types.**

Note to reviewers: We are working with County staff to finalize the information for this recommendation.

Evaluation of Recommended Alternatives

Recommended alternative	Ease of implementation	Availability of data	Alignment with DOC Guidance	Empirical evidence
Assign different market factor thresholds by geography	*High*. Requires simple modification to market factor input in model.	*High*. Does not require additional collection of data.	*High*. Guidance recommends varying thresholds by geography and evaluating market factor using a similar approach used in our analysis.	*Medium-High*. The Guidance also suggests property owner surveys may be useful to determine market factor, but we determined that the cost and ultimate accuracy of the survey would not provide additional clarity. The analysis completed aligns with suggestion from Guidance to use development history data and trends to evaluate market factor.

Infrastructure Gaps

ECONorthwest evaluated the updated Guidance and the recommendations related to accounting for uncertainty due to infrastructure gaps. Working with County staff and through initial discussions with the subcommittee, we identified two case study areas to apply the recommended approach from the Guidance. This section provides a summary of our approach and analysis, as well as a recommended approach for the County.

Relevant E2SSB-5254 Requirements

E2SSB-5254 requires that Counties adequately address reductions for uncertainty, with specific emphasis on infrastructure gaps. The Guidance suggests that evaluation of capital facilities plans is sufficient for identification of most major infrastructure gaps, while considering the following factors:

- "Is there a long-term lack of urban development in the area?
- How did the recent comprehensive plan address the needed infrastructure provision, and is that information still valid?
- If the infrastructure is anticipated to be provided later in the planning period, is development likely to occur quickly so that planned development is realized within the planning period, or will some of the area remain undeveloped?"

The Guidance suggests that if an infrastructure gap is identified and a sufficient rationale explaining why an area can eventually meet predicted capacity over the 20-year period cannot be provided, then the jurisdiction may assume reduced capacity in that area or apply a reasonable measure to address the issue.

Existing Snohomish County Methodology

Snohomish County's existing Buildable Lands Report accounts for uncertainty of several factors in Step 4 of the methodology. Reductions related to infrastructure include a capital facilities analysis and a public/institutional use reduction. This process involves reviewing maps with each jurisdiction to identify areas that are subject to these reductions.

Analysis

ECONorthwest conducted two case studies for areas that may be subject to infrastructure gaps under the updated Guidance, which emphasizes providing rationale for reductions for uncertainty. Appendix C provides example findings for these two areas—one in the Arlington UGA and one in the Granite Falls UGA. After completing this type of analysis, the jurisdiction may find that the rationale for not meeting growth targets is not due to infrastructure gaps, but another factor, such as a market factor.

The Brekhus-Beach subarea in the City of Arlington is currently developed with infrastructure for rural uses. While physical factors, including topography and geology, make development of urban levels of service difficult, it would be reasonable to develop a master development plan with allocation of infrastructure costs. Without existing funding for urban infrastructure in this

area, however, this presents an overlap with market factors. In this case, the lack of urban development in the Brekhus-Beach subarea is more likely due to market factors over infrastructure gap issues, and will be addressed during the next planning period.

Similarly, the potential infrastructure gaps located in the southeast corner of the Granite Falls UGA will likely be addressed within the planning period. While barriers to development in this area include limited water, sewer, and transportation access, other physical features of the area, including topography do not present further limitations. Again, the infrastructure gap overlaps with issues related to the market for development in this area, and funding for infrastructure.

Exhibit 13 summarizes the recommended alternative for updates to the 2021 Buildable Lands Report.

Exhibit 13. Summary of process to identify infrastructure gaps.

1. Identify potential infrastructure gap	2. Assess factors	3. Provide rationale
•Draft map review with local jurisdictions •Results of BLR show unmet capacity or growth target	•Length of lack of urban development •Information in recent comprehensive plan or facilities plans •Likelihood of development within the planning period	•Infrastructure gap will (*or will not*) be addressed in planning period •Infrastructure gap is not the factor affecting capacity or growth patterns (e.g, market or other factor) •Sufficient evidence for reduced capacity or application of reasonable measure to address the infrastructure gap

Recommended Alternatives

We recommend that the County update the methodology to address infrastructure gaps during two stages of the process, to meet the updated Guidance:

- **Draft map review stage.** When the County reviews maps with each jurisdiction, they should identify areas (if any) that may not achieve the predicted capacity specifically due to infrastructure gaps. After identifying the potential infrastructure gap, County and jurisdiction staff should work to assess the reasons for the infrastructure gap. Assessment of the factors related to infrastructure gaps can include how long the area has gone without urban development; identification of area in comprehensive plans or facilities plans; or the likelihood of development within the planning period. The County should work with the jurisdictions to develop findings that either provide a rationale articulating how the area is expected to eventually meet the predicted capacity over the 20-year planning period, or for assuming reduced capacity in an area. It may be

possible that areas with potential infrastructure gaps are already addressed in the Capital Facilities Plan and, as the Guidance suggests, do not require additional findings.

- **Reasonable measures stage.** If the County reports that a jurisdiction is not meeting growth targets, the jurisdiction may point to specific infrastructure gaps as a contributing factor. If this is the case, the jurisdiction would provide findings that document this issue and may need to adopt reasonable measures to specifically address the infrastructure gap if the rationale for overcoming the issues without taking actions is insufficient.

Our assessment of this issue and the updated Guidance is that the County's current methodology is generally compliant with this requirement. Consistent with other issues addressed in the updated Guidance, the County may need to provide additional documentation ("showing work") on processes that are already part of the buildable lands process. Based on discussions with staff and the SCT PAC Subcommittee and stakeholder representatives, it may also be rare to identify infrastructure gaps that fit the parameters defined in the Guidelines, as most infrastructure issues within a UGA will resolve in a 20-year period.

Evaluation of Recommended Alternatives

Recommended alternative	Ease of implementation	Availability of data	Alignment with DOC Guidance	Empirical evidence
Update methodology to reflect procedural steps to address infrastructure gaps	*High*. Requires documentation of work that the County already completes as part of the BLR update.	*Medium*. If a jurisdiction identifies a potential infrastructure gap, the information should be available in existing plans. Additional data collection may be required if the issue is not already documented.	*High.* The intent of the infrastructure gap issue is to provide an opportunity for situations, albeit rare, to address infrastructure gaps in a jurisdiction. The recommended procedural elements align with the understanding of the guidelines for addressing this.	*Medium-Low.* We completed qualitative analysis through case studies to determine the nature of potential infrastructure gaps. Since this situation is rare in the County, we did not need to complete further analysis to make a recommendation.

Reasonable Measures

The final issue we evaluated as part of this process was potential updates to addressing reasonable measures in the 2021 BLR. RCW 36.70A.215(1)(b) defines reasonable measures as:

> "...those actions necessary to reduce the differences between growth and development assumptions and targets contained in the county-wide planning policies and the county and city comprehensive plans with actual development patterns."

Reasonable measures are required when the results of the BLR show that a jurisdiction is not meeting growth targets or has insufficient land to accommodate projected growth. This section provides an evaluation of potential updates needed to the reasonable measures process to align with updated Guidelines.

Relevant E2SSB-5254 requirements

Requires the jurisdictions to apply reasonable measures under a set of circumstances, unless they are able to provide a rationale for how the issue will be resolved over time without specific additional actions. Without that rationale, the Guidelines emphasize the need to use specific reasonable measures to address an issue.

"Based upon the outcome of the assessment, reasonable measures must be adopted and implemented unless it is determined that they are not necessary to resolve the inconsistency. It is important that CPPs and/or administrative procedures outline how these determinations will be made and documented."

Appendix B of the Guidelines provides a list of several reasonable measures that Buildable Lands counties currently used, with comments on measures that have a large or moderate impact on addressing issues related to density, capacity, or growth patterns.

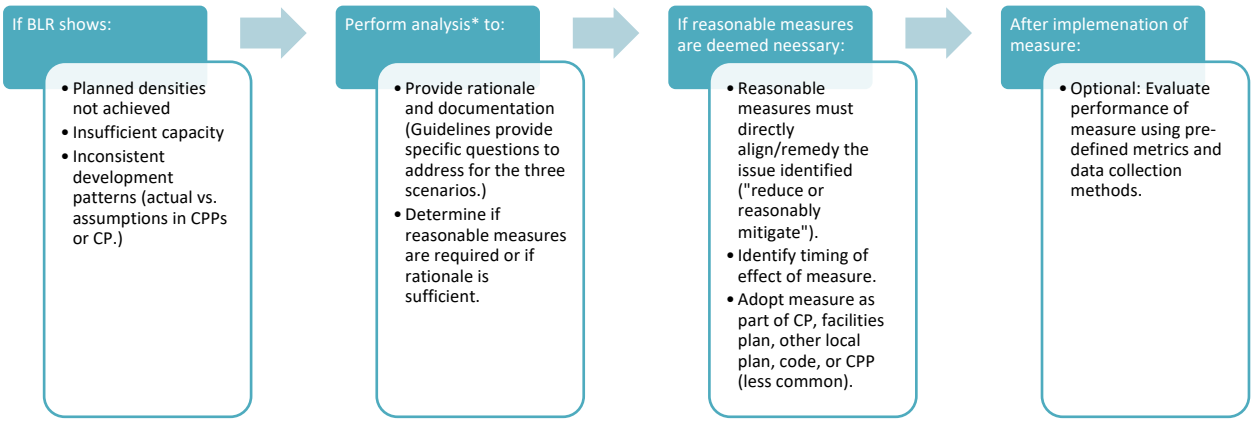
Existing Snohomish County Methodology

The existing Countywide Planning Policies (CPPs) provide a list of reasonable measures that jurisdictions can adopt depending on the issue identified in the BLR. This list is formatted as a matrix (Appendix D of the CPPs for Snohomish County, 2011), and categorizes measures by issues related to residential or employment capacity, increases and impacts of densities, and other measures. The matrix assigns each measure's applicability to certain issues (either direct applicability or partial applicability, if any) such as "increases density" or "provides affordable housing."

Analysis

ECONorthwest evaluated the updated Guidance and the recommendations related to reasonable measures. Working with County staff and through initial discussions with the subcommittee, we suggested updates to the County's current list of reasonable measures and the applicability of these measures to align with the Guidance.

Exhibit 14. Summary of process for determining whether reasonable measures are required.



Source: Department of Commerce Buildable Lands Guidelines (2018) pp. 42-45
*Note: Guidelines state: "It is important that CPPs and/or administrative procedures outline how these determinations will be made and documented."

Recommended Alternatives

Based on the required updates related to reasonable measures defined in the Guidelines, ECONorthwest recommends adding the following elements to the CPP reasonable measures matrix:

- Identification of measures applicable to issues defined in the Guidelines—planned densities not achieved; insufficient capacity; or inconsistent development patterns
- Scale of impact of each measure, aligning with comments on certain measures provided in Appendix B of the Guidelines. Jurisdictions may need to apply multiple measures to address an issue if the scale of impact is small.

Appendix D provides the proposed updated matrix.

Evaluation of Recommended Alternatives

Recommended alternative	Ease of implementation	Availability of data	Alignment with DOC Guidance	Empirical evidence
Update reasonable measures matrix with additional measures and metrics	*High.* Requires updating existing document with suggested changes in Appendix D.	*Medium.* It is difficult to determine the actual impact of reasonable measures over time. The recommended scales of impact are based on available best practices and research compiled in the Guidelines and other related documents.	*High.* The Guidance recommends adopting reasonable measures that consider the relative scales of impact.	*Low.* This is a procedural element and it is not necessary to supplement with analysis.

Next Steps

The SCT PAC Subcommittee will review this memo and discuss the recommended alternatives on February 11, 2020. Based on this discussion, the subcommittee will provide a recommendation to the SCT PAC for their review on March 12, 2020. These recommendations and any suggested modifications from the SCT PAC will be used as the basis for a recommended methodological update to the SCT Buildable Lands Procedures Report and the SCT Reasonable Measures Program documents. ECONorthwest and County staff will then present these revised documents for elected official review and approval at the SCT Steering Committee.

Appendix A. Multinomial Logit Model

Between 2012 and 2018, slightly less than one percent of the nearly 175,000 parcels in Snohomish County redeveloped, with some parcels retaining existing structures and others completely redeveloping. A comprehensive understanding of the factors that lead to a parcel being redevelopable can help understand the capacity for future development in the County. One approach combines parcel level characteristics and development outcomes in an econometric model that predicts the likelihood of redevelopment using existing data and observations through time. The multinomial logit model is regularly used to predict the probabilities of different categorical outcomes given a set of descriptive variables.

Modeling Approach

The modeling approach is applied to data representing all Snohomish County parcels and their characteristics in 2012. A separate variable identifies the 1,663 parcels that had redeveloped by 2018. This includes all parcels, regardless of their development type and whether the parcels ultimately retained an existing structure. The share of redeveloped parcels by development type is listed in Exhibit 15 below.

Exhibit 15: Parcel Outcomes by Development Type, 2012 - 2018

	Did Not Redevelop	Redeveloped	Total
Single Family Residential			
Number	128,603	824	129,427
Percent	99%	1%	100%
Multi-Family Residential			
Number	31,332	501	31,833
Percent	98%	2%	100%
Commercial, Industrial, and Mixed Use			
Number	8,290	258	8,548
Percent	97%	3%	100%
Total			
Number	168,225	1,583	169,808
Percent	99%	1%	100%

Source: ECONorthwest Analysis of Snohomish County Parcel Data

This existing parcel-level data does not identify whether any of these parcels that redeveloped retained an existing structure and would have been classified as "partially used."[8] To identify this outcome independently, a sample of redeveloped parcels were selected and manually inspected to see whether they retained an existing structure when redeveloped. The share of redeveloped parcels that retained an existing structures is listed in

[8] The County collects this data at the development level.

Exhibit 16 below.

Exhibit 16: Sampled Parcels that Redeveloped and Retained an Existing Structure, by Development Type, 2012 - 2018

	Completely Redeveloped	Redeveloped and Retained an Existing Structure	Total
Single Family Residential	73%	27%	100%
Multi-Family Residential	87%	13%	100%
Commercial, Industrial, and Mixed Use	97%	3%	100%

Source: ECONorthwest Analysis of Snohomish County Parcel Data

A subsequent 5% check identified one parcel that was subsequently recoded, implying a potential 6%[9] error rate from manual inspection of parcels.

The multinomial logit model predicts the probabilities for each of the three discrete development outcomes using the following form:

$$Probability_{Outcome,Parcel} = \frac{\exp\left(\alpha_{Outcome} + \beta_{Outcome} * Characteristics_{Parcel}\right)}{\sum_{Outcome=1}^{J} \exp\left(\alpha_{Outcome} + \beta_{Outcome} * Characteristics_{Parcel}\right)}$$

Since the development patterns vary across development types, a separate model is estimated for each, with slight variation in the specification between each to account for other parcel characteristics currently used by Snohomish County in its land classification definitions. Non-linear specifications are used for the improvement value and land value variables to allow for varying marginal effects across parcels.

Once the models are estimated, probabilities of each outcome are calculated for each parcel, based on the estimated coefficients on parcel characteristics. These predicted probabilities provide an ordering condition or evaluate different thresholds for mutually exclusive assignments of parcels into land classifications. These thresholds are extracted as the median characteristic values from successive percentiles of parcels by their predicted development outcome. These thresholds are then applied in a series of scenarios to evaluate different alternative mechanisms County planners can use to identify land classifications, and ultimately, buildable lands. For all models, interpretation of individual coefficients should be done with caution, as several of the variables exhibit multicollinearity by construction. This is less of a concern in our application since we are only using full predicted probabilities to extract and test potential land classification thresholds.

[9] Error Rate = 1 / (335*5%)

Results

Single Family

The characteristics of single family parcels included in the model are displayed in

Exhibit 17 below.

Exhibit 17: Single Family Parcel Characteristics, 2012

Variable	Mean	Standard Deviation	Min	Max
Gross Buildable Acres	0.26	0.94	0	95.3
Improvement Value	$ 148,141	$ 160,795	$ 0	$ 12,700,000
Land Value	$ 121,855	$ 132,159	$ 100	$ 8,256,400
Improvement-Land Value Ratio	1.37	0.70	0	7.95
Sub-dividable Lot?	18%	39%	0	1

Source: ECONorthwest Analysis of Snohomish County Parcel Data

The results of the multinomial regression model of single family parcel development outcomes are displayed in Exhibit 18 below. The gross buildable acres and whether a lot is large enough to subdivide are both positive and statistically significant predictors of the two development outcomes. This means that larger lots are more likely to be developed, however the lack of meaningful difference between the gross buildable acres coefficient for the two redevelopment outcomes (0.80 versus 0.81) means that it is not a predictor of whether the parcel will retain an existing structure. The improvement-land value ratio coefficient is negative and statistically significant for both development outcomes, however the effect is half as large for partially-used parcels. This means that a lower improvement-land value ratio increases the likelihood that a parcel will be redeveloped, however parcels with slightly larger ratios will be more likely to retain an existing structure.

Exhibit 18: Single Family Regression Results

Multinomial logistic regression				Number of observations	=	29,267
				LR chi2(10)	=	715.55
				Prob > chi2	=	0
Log likelihood = -610.58				Pseudo R2	=	0.37
Outcome	**Variable**	**Coef.**	**Std. Err.**	**z**		**P>z**
Redeveloped	**Gross Buildable Acres***	**0.80**	**0.12**	**6.70**		**0.00**
	ln(Improvement Value)	-0.16	0.19	-0.86		0.39
	ln(Land Value)	0.28	0.26	1.10		0.27
	Improvement-Land Value Ratio*	**-1.92**	**0.48**	**-4.02**		**0.00**
	Sub-dividable Lot?*	**3.94**	**0.73**	**5.37**		**0.00**
	Intercept	-7.37	2.52	-2.93		0.00
Partially Used	**Gross Buildable Acres***	**0.81**	**0.15**	**5.24**		**0.00**
	ln(Improvement Value)	0.23	0.36	0.64		0.53
	ln(Land Value)	-0.01	0.41	-0.03		0.98
	Improvement-Land Value Ratio**	**-0.89**	**0.48**	**-1.85**		**0.07**
	Sub-dividable Lot?*	**2.53**	**0.44**	**5.70**		**0.00**
	Intercept	-8.21	2.96	-2.78		0.01

Source: ECONorthwest Analysis of Snohomish County Parcel Data
Note: * Significant at 5% level; ** Significant at 10% level

Multifamily

The characteristics of multi-family parcels included in the model are displayed in Exhibit 19 below.

Exhibit 19: Multi-Family Parcel Characteristics, 2012

Variable	Mean	Standard Deviation	Min	Max
Gross Buildable Acres	0.40	1.40	0	32.9
Improvement Value	$ 242,031	$ 1,102,833	$ 0	$ 25,500,000
Land Value	$ 144,390	$ 440,370	$ 100	$ 15,600,000
Improvement-Land Value Ratio	1.47	1.05	0.00	16.2
Building Footprint–Buildable Lot Area Ratio	0.16	0.12	0.00	1.31

Source: ECONorthwest Analysis of Snohomish County Parcel Data

The results of the multinomial regression model of multi-family parcel development outcomes are displayed in

Exhibit 20 below. The gross buildable acres and building footprint to buildable lot area ratio variables are positive and statistically significant for the redeveloped outcome, while improvement value and the improvement to land value ratio is negative and statistically significant. No variables are statistically significant for the partially-used outcome, however this is not surprising given that only 0.26% (2% x 13%) of all multi-family parcels redeveloped and retained an existing structure.

Exhibit 20: Multi-Family Regression Results

Multinomial logistic regression		Number of observations		=	5,249
		LR chi2(10)		=	114.08
		Prob > chi2		=	0
Log likelihood = -266.32		Pseudo R2		=	0.18
Outcome	**Variable**	**Coef.**	**Std. Err.**	**z**	**P>z**
Redeveloped	**Gross Buildable Acres***	**1.20**	**0.17**	**6.90**	**0.00**
	ln(Improvement Value)*	**-0.44**	**0.19**	**-2.28**	**0.02**
	ln(Land Value)	0.14	0.29	0.48	0.63
	Improvement-Land Value Ratio*	**-0.77**	**0.31**	**-2.52**	**0.01**
	BF-BLR*	**5.48**	**1.30**	**4.21**	**0.00**
	Intercept	0.37	2.71	0.14	0.89
Partially Used	**Gross Buildable Acres**	0.38	0.32	1.19	0.23
	ln(Improvement Value)	-0.18	0.49	-0.36	0.72
	ln(Land Value)	0.52	0.56	0.93	0.35
	Improvement-Land Value Ratio	0.13	0.36	0.36	0.72
	BF-BLR	-4.34	4.32	-1.00	0.32
	Intercept	-9.31	3.42	-2.72	0.01

Source: ECONorthwest Analysis of Snohomish County Parcel Data
Note: * Significant at 5% level

Commercial, Industrial, Mixed Use

The characteristics of commercial, industrial, and mixed use parcels included in the model are displayed in Exhibit 21 below.

Exhibit 21: Commercial, Industrial, and Mixed Use Parcel Characteristics, 2012

Variable	Mean	Standard Deviation	Min	Max
Gross Buildable Acres	1.28	5.86	0	136.3
Improvement Value	$ 604,904	$ 2,623,487	$ 0	$ 50,500,000
Land Value	$ 535,123	$ 1,876,515	$ 100	$ 46,100,000
Improvement-Land Value Ratio	1.31	1.54	0	14.9
Floor Area Ratio	0.18	0.37	0	3.26

Source: ECONorthwest Analysis of Snohomish County Parcel Data

The results of the multinomial regression model of commercial, industrial, and mixed use development outcomes are displayed in

Exhibit 22 below. The land value variable is positive and statistically significant for both development outcomes, with a slightly larger effect for parcels that did not retain an existing structure. The floor area ratio and improvement-land value ratio variables would potentially be negative and statistically significant (with a differential effect between development outcomes) with a larger sample size, however this estimate is limited by the small number (0.09%) of commercial, industrial, or mixed use parcels that experienced infill development.

Exhibit 22: Commercial, Industrial, and Mixed Use Regression Results

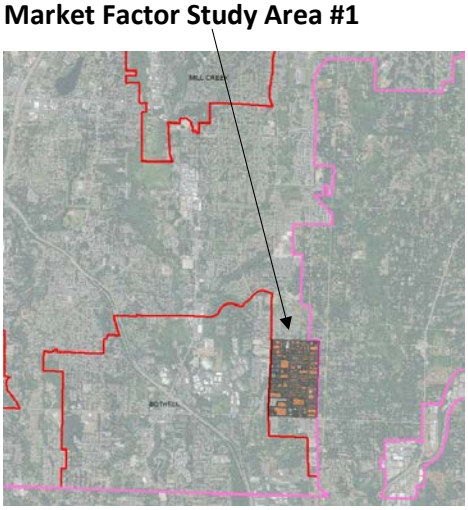
Multinomial logistic regression			**Number of observations**	**=**	**1,321**
			LR chi2(10)	**=**	**42.14**
			Prob > chi2	**=**	**0**
Log likelihood = -159.54			**Pseudo R2**	**=**	**0.12**
Outcome	**Variable**	**Coef.**	**Std. Err.**	**z**	**P>z**
Redeveloped	**Gross Buildable Acres**	-0.23	0.35	-0.67	0.51
	ln(Improvement Value)	-0.14	0.22	-0.63	0.53
	ln(Land Value)*	**0.98**	**0.46**	**2.14**	**0.03**
	Improvement-Land Value Ratio	-0.68	0.64	-1.07	0.28
	Floor Area Ratio	-0.67	1.58	-0.42	0.67
	Intercept	-14.9	6.04	-2.46	0.01
Partially Used	**Gross Buildable Acres**	-0.02	0.29	-0.06	0.95
	ln(Improvement Value)	-0.09	0.17	-0.55	0.59
	ln(Land Value)*	**0.86**	**0.37**	**2.32**	**0.02**
	Improvement-Land Value Ratio	-0.01	0.23	-0.06	0.95
	Floor Area Ratio	-1.28	1.27	-1.01	0.31
	Intercept	-13.8	4.76	-2.90	0.00

Source: ECONorthwest Analysis of Snohomish County Parcel Data
Note: * Significant at 5% level

Appendix B. Market Availability Reduction Factor Research

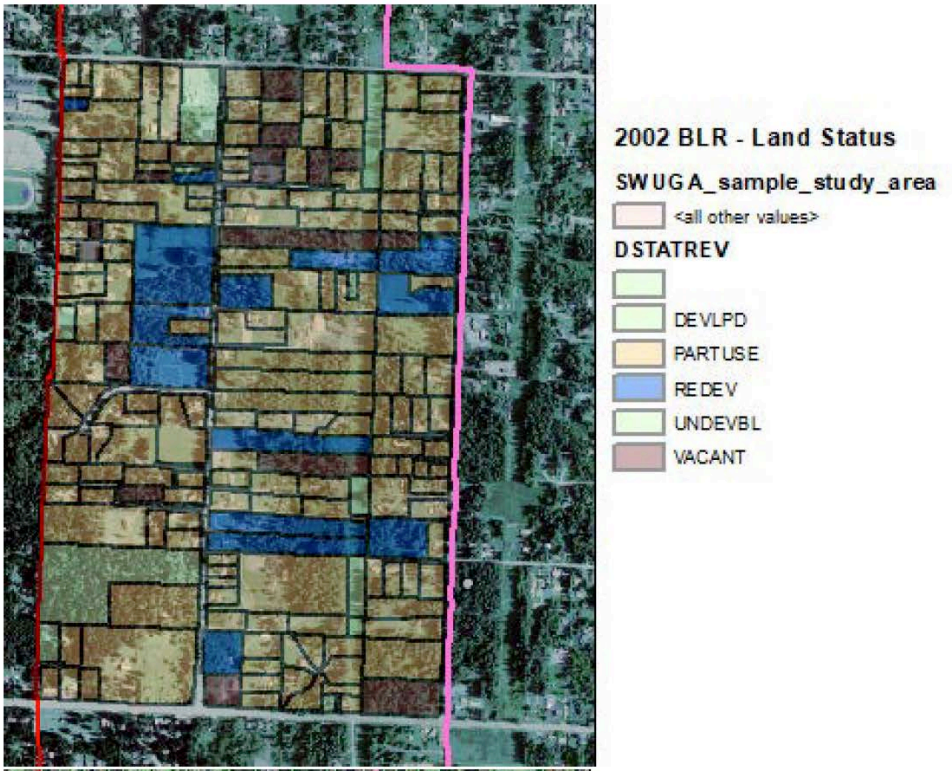
Market Availability Reduction Factor Research – Snohomish County (Dec-11-2019 DRAFT)

Market Factor Study Area #1

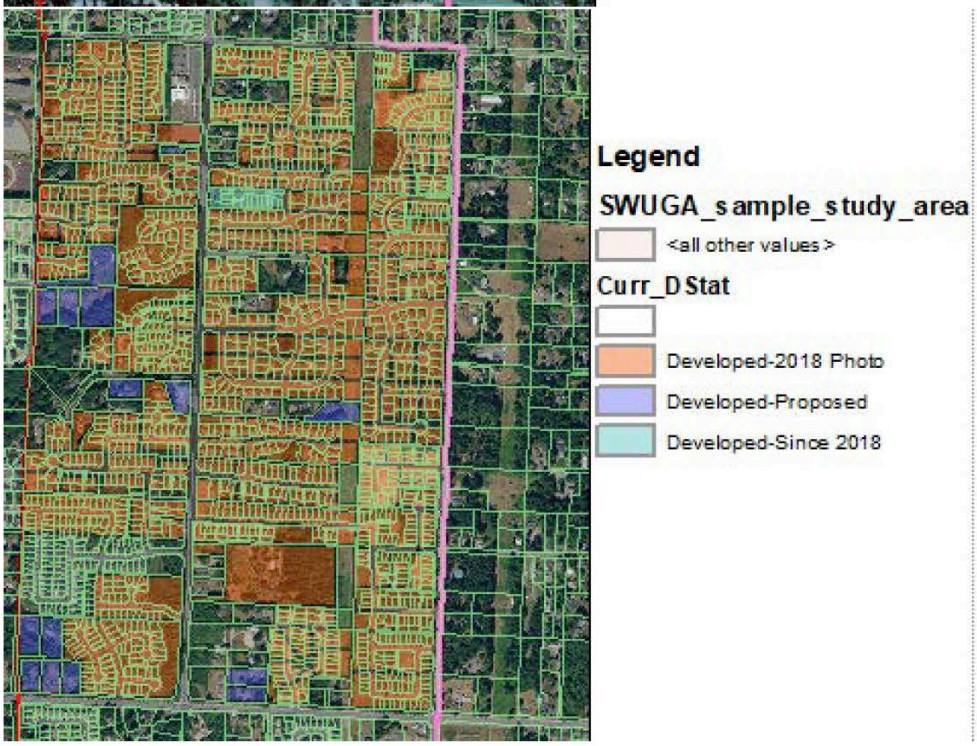


2002 Aerial Photo

2018 Aerial Photo



Land Status Classifications (Vacant, Partially Used, Redevelopable) determined based on a 2001 Assessor parcel extract



Vacant, Partially Used, Redevelopable parcels from the 2002 BLR which have actual or proposed development as of 2019

Results:

Of the 1,105 housing units (prior to the market factor reductions) that were estimated as additional capacity in the 2002 BLR within Market Study Area #1, 102 units were in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This represents 9% of the total additional housing unit capacity estimated for the area in the 2002 BLR.

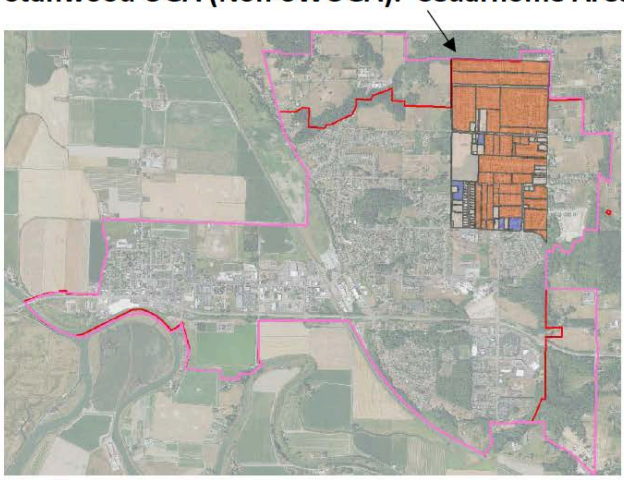
For vacant parcels in the 2002 BLR, 6% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 15% market availability reduction factor that our methodology applied to vacant parcels.

For underutilized parcels in the 2002 BLR, 10% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 30% market availability reduction factor that our methodology applied to underutilized parcels.

Vacant, Partially Used, Redevelopable parcels from the 2002 BLR which have actual or proposed development as of 2019		
	2002 Additional Housing Unit Capacity:	
VACANT Total	131	100%
VACANT Developed-2018 Photo Total	123	94%
VACANT Unchanged	8	6%
PARTIALLY USED Total	826	100%
PARTIALLY USED Developed-2018 Photo Total	688	83%
PARTIALLY USED Developed-Since 2018	10	1%
PARTIALLY USED Developed-Proposed Total	44	5%
PARTIALLY USED Unchanged	84	10%
REDEVELOPABLE Total	148	100%
REDEVELOPABLE Developed-2018 Photo Total	138	93%
REDEVELOPABLE Unchanged	10	7%
UNDERUTILIZED Total	974	100%
UNDERUTILIZED Developed Total	880	90%
UNDERUTILIZED Unchanged	94	10%
ALL VACANT AND UNDERUTILIZED Total	1105	100%
ALL VACANT AND UNDERUTILIZED Developed Total	1003	91%
ALL VACANT AND UNDERUTILIZED Unchanged	102	9%
NOTE: Underutilized = Partially-Used + Redevelopable		

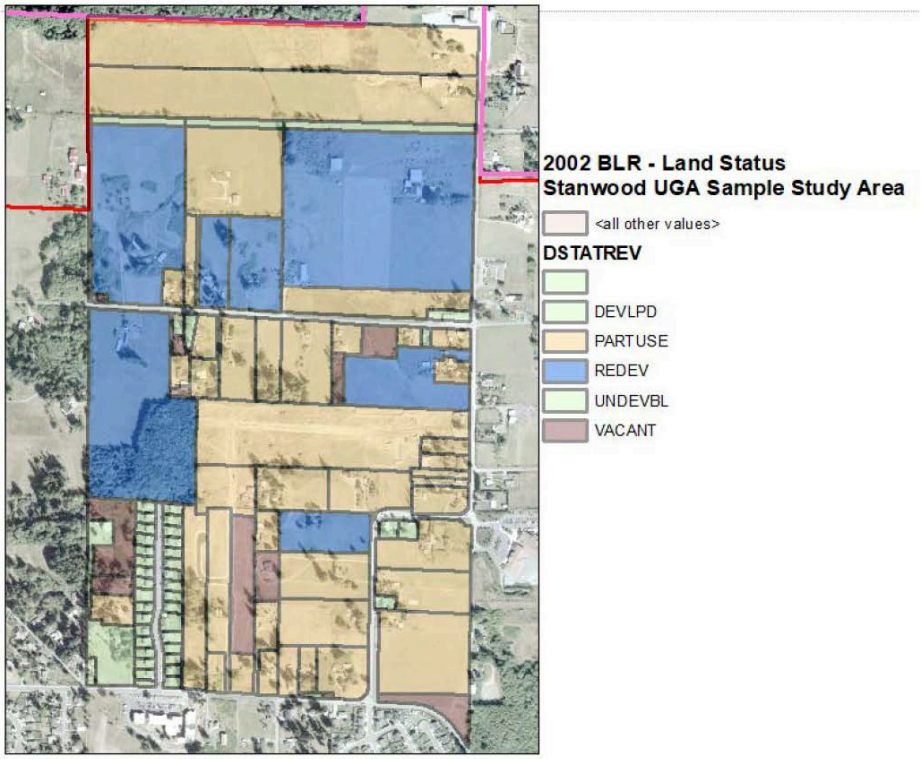
Market Availability Reduction Factor Research – Snohomish County (Dec-31-2019 DRAFT)

Stanwood UGA (Non-SWUGA): Cedarhome Area

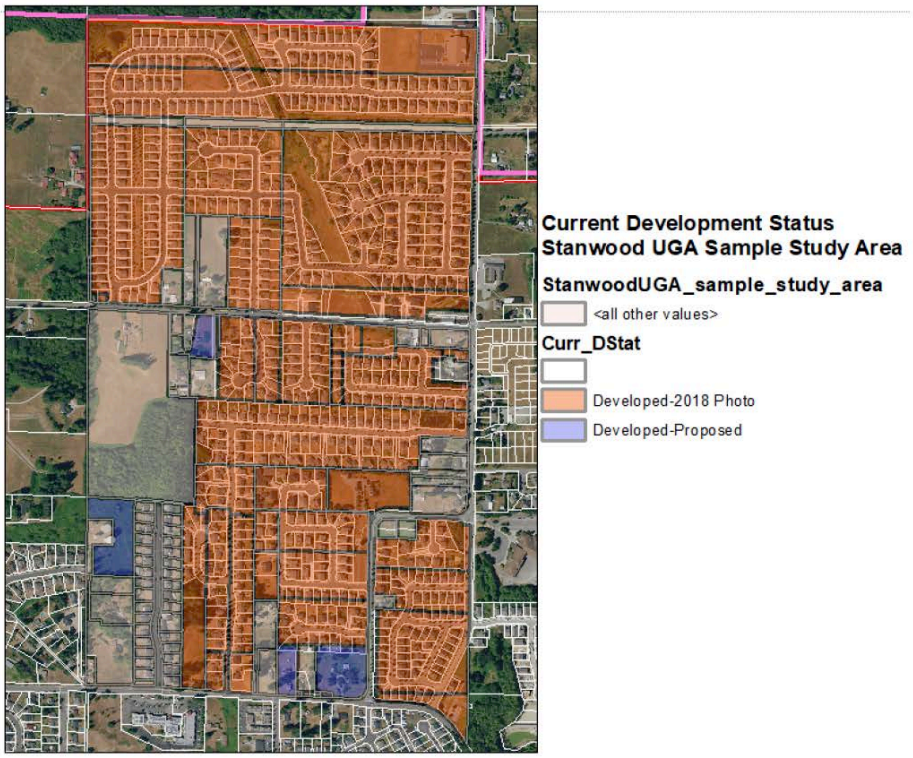


2003 Aerial Photo

2018 Aerial Photo



Land Status Classifications (Vacant, Partially Used, Redevelopable) determined based on a 2001 Assessor parcel extract



Vacant, Partially Used, Redevelopable parcels from the 2002 BLR which have actual or proposed development as of 2019 (also showing current 2019 parcel lines in white)

Results:

Of the 653 housing units (prior to the market factor reductions) that were estimated as additional capacity in the 2002 BLR within the Cedarhome market study area, 101 units were in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This represents 15% of the total additional housing unit capacity estimated for the area in the 2002 BLR.

For **vacant parcels** in the 2002 BLR, 12% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 15% market availability reduction factor that our methodology applied to vacant parcels.

For **underutilized parcels** in the 2002 BLR, 16% of the estimated additional housing unit capacity was in parcels that did not develop (or have proposed development) in the 18 years from 2001-2019. This is lower than the 30% market availability reduction factor that our methodology applied to underutilized parcels.

Vacant, Partially Used, Redevelopable parcels from the 2002 BLR which have actual or proposed development as of 2019

	2002 Additional Housing Unit Capacity:	
VACANT Total	34	100%
VACANT Developed-2018 Photo Total	21	62%
VACANT Developed-Proposed Total	9	26%
VACANT Unchanged	4	12%
PARTIALLY USED Total	397	100%
PARTIALLY USED Developed-2018 Photo Total	352	89%
PARTIALLY USED Developed-Proposed Total	16	4%
PARTIALLY USED Unchanged	29	7%
REDEVELOPABLE Total	222	100%
REDEVELOPABLE Developed-2018 Photo Total	154	69%
REDEVELOPABLE Unchanged	68	31%
UNDERUTILIZED Total	619	100%
UNDERUTILIZED Developed Total	522	84%
UNDERUTILIZED Unchanged	97	16%
ALL VACANT AND UNDERUTILIZED Total	653	100%
ALL VACANT AND UNDERUTILIZED Developed Total	552	85%
ALL VACANT AND UNDERUTILIZED Unchanged	101	15%

NOTE: Underutilized = Partially-Used + Redevelopable

Appendix C. Infrastructure Gap Analysis Memorandum

DATE: November 5, 2019
TO: SCT PAC Subcommittee
CC: Snohomish County Buildable Lands Team
FROM: Morgan Shook and Margaret Raimann, ECONorthwest
SUBJECT: DRAFT Snohomish County Infrastructure Gap Analysis Summary

Purpose

To address changes to the Review and Evaluation Program for Buildable Lands as described in E2SSB-5254, ECONorthwest is working with Snohomish County to assist in identifying and addressing needed updates to the County's Buildable Lands Methodology. The County contracted with ECONorthwest to develop recommended updates to the methodology in collaboration with the Snohomish County Buildable Lands Team, a subcommittee of the Snohomish County Tomorrow (SCT) Planning Advisory Committee (PAC), and other key stakeholders.

Snohomish County completed Buildable Lands Reports in 2002, 2007, and 2012. In 2017, the Washington Legislature passed E2SSB-5254, which updated the requirements for counties that are subject to the Review and Evaluation Program, including Snohomish County. The Department of Commerce responded to the updated requirements with an update to the Review and Evaluation Program Buildable Lands Guidelines, released in 2018. Snohomish County will update the methodology for the 2021 Buildable Lands Report (BLR) to reflect these requirements.

The updated legislation includes updated requirements related to review of areas with infrastructure gaps. The Guidelines describe an approach for counties to identify areas within UGAs with infrastructure gaps in the updated Buildable Lands Report. Based on the documentation provided, these areas may be subject to reductions in capacity or specific reasonable measures. ECONorthwest used a case study approach to address this analysis. Snohomish County staff initially provided two study areas—one in the Arlington UGA and one in the Granite Falls UGA—to evaluate the barriers to infrastructure development. Additional areas may be included in the final report, depending on additional information provided by County staff or subcommittee members.

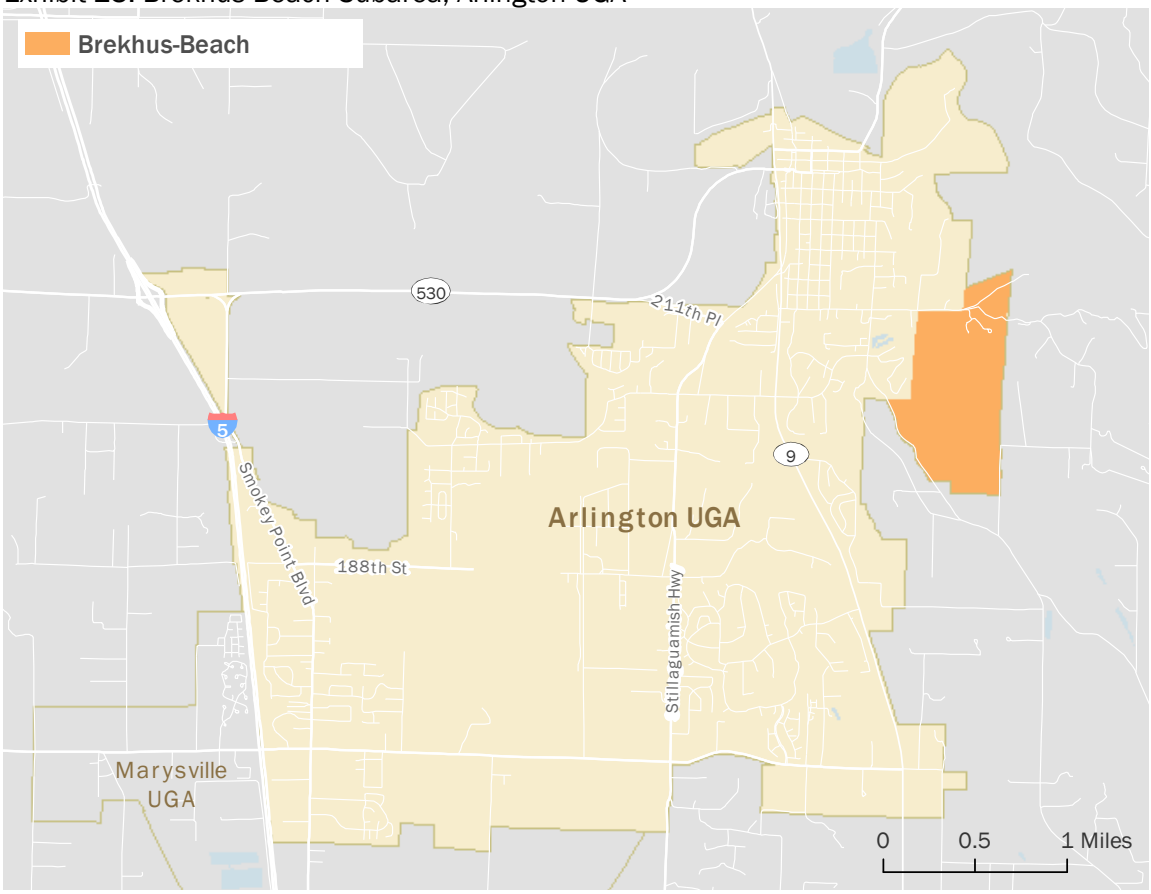
The purpose of this memorandum is to provide background on the case study areas and summarize the key infrastructure barriers to developing these areas at urban densities.

Brekhus-Beach Subarea

Background

The Brekhus-Beach subarea (Exhibit 23) is located in the City of Arlington, at the eastern border of the city limits. This section summarizes the information available on the Brekhus-Beach subarea, as documented in the City of Arlington Comprehensive Plan. The Brekhus-Beach subarea, formerly known as Burn Hill, was annexed into Arlington in 2007.

Exhibit 23. Brekhus-Beach Subarea, Arlington UGA



Source: Snohomish County.

In 2005, the subarea was permitted into Arlington's UGA as part of the Snohomish County Comprehensive Plan under the condition that the subarea was designated as a County Transfer of Development Rights (TDR) receiving area. The goal of this TDR program was to encourage the protection of agricultural lands in the Stillaguamish River Valley by allowing developers to purchase development rights from agricultural workers. This program was unsuccessful, however.[10]

[10] City of Arlington. (2017). *Comprehensive Plan, Chapter 4: Description of Planning Area*. Page 4-3. Retrieved from: https://www.arlingtonwa.gov/DocumentCenter/View/438/04---Description-of-Planning-Area-PDF

The Brekhus-Beach subarea is **337 total acres** and it makes up **5% of the planning area**.[11] Its existing use is single-family residential uses on large lots (50 to 40 acres).[12] The Quall Ridge subdivision developed at the south end of Brekhus-Beach, which occurred prior to annexation of the area into Arlington.[13] The primary hindrance to further developing the Brekhus-Beach area according to Growth Management Act requirements is infrastructure costs.[14]

Summary of barriers to development

The following summarizes the barriers to develop Brekhus-Beach. More detail can be read in the previous sections.

- The topography and geology of Brekhus-Beach make installation of infrastructure, such as roads and sewers, costly. Steep slopes near Portage Creek and Eagle Creek will pose road development challenges.
- The current infrastructure is developed for rural use. As part of becoming annexed into Arlington, it was conditional for owners to create a master development plan. The City of Arlington helped the owners develop a high-level master plan, but the full master development plan has yet to materialize. Thus, the subarea will remain rural until its completion.
- The vicinity of the subarea lacks a developed arterial road network.
- Two critical areas are identified in the subarea, Portage Creek and Eagle Creek. These are two fish-bearing streams that have associated wetlands.
- Under the Growth Management Act, lands in the Arlington Urban Growth Area are required to develop at urban densities (4+ houses per acre); however, there is no market or infrastructure financing available to achieve this level of development. At the moment, only a density of 20,000 square feet per parcel is permissible without sewer or other facilities.

Conversation with Arlington staff

We spoke with Marc Hayes, Director of Community and Economic Development at Arlington, about the infrastructure gaps in Brekhus-Beach. His insights regarding the development of the area are provided below. Please note that none of the words in the bullets to follow are verbatim; they are a summarization of our interview with him.

- **Q:** We are seeking more specificity around the infrastructure gaps identified in Arlington's Comprehensive Plan. Can you tell us more about the expectations of these infrastructure gaps, specifically, who is responsible for addressing them? (e.g., if roads

[11] *Ibid*. Page 4-17.

[12] *Ibid*.

[13] *Ibid*.

[14] *Ibid*. Page 4-18.

are noted as an infrastructure gap, is it the responsibility of the developer or the local government to invest in these?)

- **A:** We are speaking with several parties interested in developing the Brekhus-Beach subarea. With respect to water/wastewater service extensions, this cost will be borne by the developers and they are aware of this. For roads, however, we have a due diligence from a public standpoint to develop these.

  Regarding the developer conversations, we are still relatively early on in our discussions. I met with a developer about two weeks ago. We need to develop a high-level master plan to figure out the lot yields.
- **We** are also interested in hearing more explanations from you regarding the recordation of the infrastructure gaps and your understanding of them.
- **A:** There is quite a lot of topography to account for in this area. We are looking at a topographical map internally to try to decide where the core roadway would be developed.

  There are also quite a few acres of critical area up there. When we did our analysis of it, we used a 35% discount rate to account for those critical acres, which leaves us with about 218 acres for development of property.
- **We** are curious if the issues for development identified are with regards to land assembly or whether it is indeed infrastructure gaps.
- **A:** It all ties together. I could see this area getting developed in two ways: 1) multiple property developers who split the cost, or 2) a single developer that takes care of the whole cost. There are already multiple property owners interested in the area, but no single developer wants to finance development entirely by themselves.

  The development of this area has been troubled from the beginning. The County sold the TDR credits tied to the area, which set the market rate. However, the market rate was too high for local developers to afford. The City eliminated the credits about three years ago.

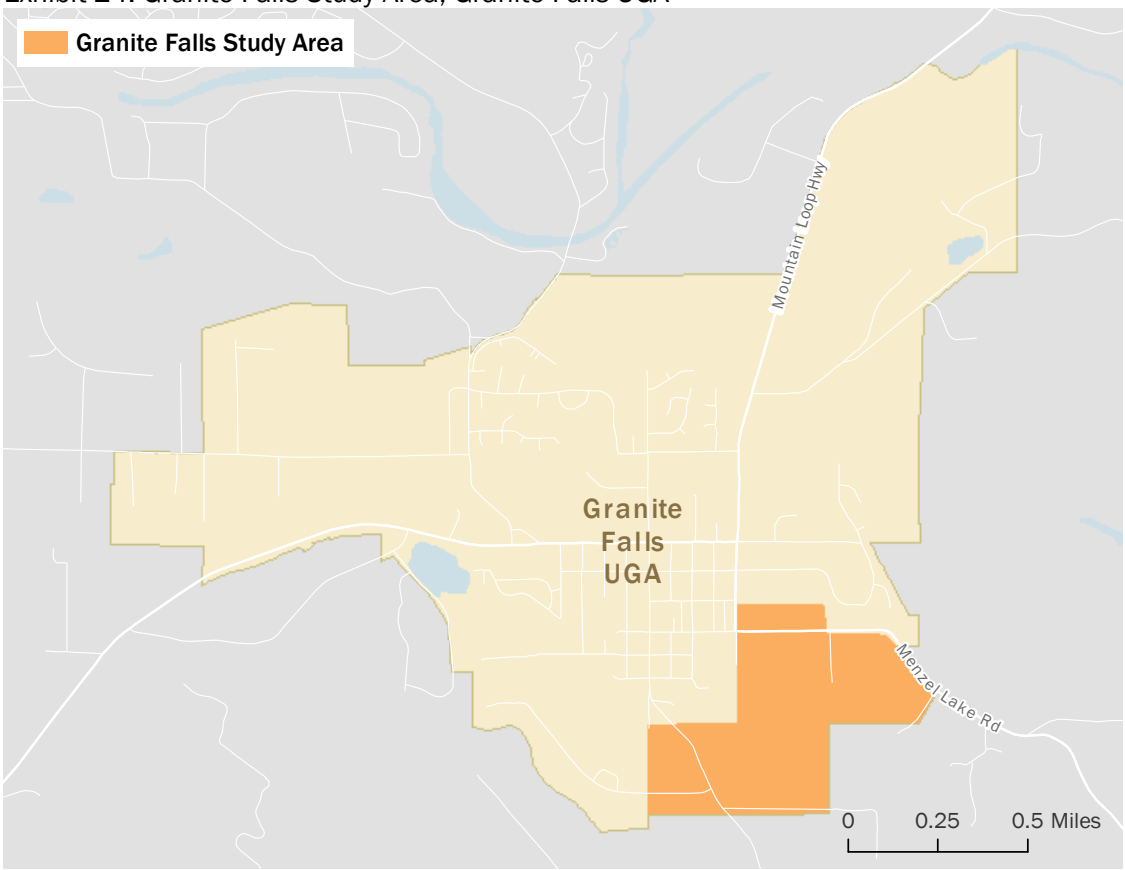
  At the moment, they are planning the Brekhaus-Beach area to be a mixed neighborhood with single family residential, multifamily, and other types of housing. The development of the master plan for the area has been challenging to undertake.

Granite Falls Site

Background

In the unincorporated portion of the Granite Falls UGA, a 162-acre site has substantial infrastructure gaps and has not experienced development in over 20-years. The site (Exhibit 24) is bounded by: Menzel Lake Road and Granite Falls city limits (North), Granite Falls city limits (West), Menzel Lake Road (East), and 84 St. NE. (South). It is composed of 51 parcels, of which 16 are less than 1 acre in size.

Exhibit 24. Granite Falls Study Area, Granite Falls UGA



Source: Snohomish County.

The primary land uses on the site include a mix of large, undeveloped parcels and several single-family residences with individual septic systems on smaller rural sized lots. Adjacent land uses include single-family residential development to the north, which are served by sanitary sewer systems, and large rural parcels with single family residences and one rural cluster subdivision to the South and East.

The topography of the site is generally flat. It is primarily wooded with pastured areas along the North and West portion of the site where houses are located. The westerly portion is adjacent to the Pilchuck River floodplain, and there are no known or classified wetlands on the site.

Summary of barriers to development

- **Water and Sewer:** The site is within the City's jurisdiction for sewer and water, but currently there is limited water service (true for all unincorporated areas of the UGA). Sanitary sewer service would be extended to properties upon annexation (true for all unincorporated areas of the UGA).
    - The site is not served by urban infrastructure, including sanitary sewers.
    - The single-family residences on rural lots are served by individual, on-site sewage disposal systems.
- **Transportation:** site includes Robe Menzel Road (a minor collector) and Menzel Lake Road (a major collector).
- **Transit:** site not currently served by transit; nearest bus stop is approx. 2.5 miles away.
- Future development in the area will increase demands on transportation, public services, and utilities
    - Public service facilities are generally in place to handle additional demand due to the development of the surrounding parcels
    - Future vehicle trips would depend on individual developments
    - Utility connections would depend on individual developments

Conversation with Granite Falls staff

We spoke with Brent Kirk, City Manager and Public Works Director, about the infrastructure gaps in Granite Falls. His insights regarding the development of the area are provided below. Please note that none of the words in the bullets to follow are verbatim; they are a summarization of our interview with him.

Q: We are seeking more specificity around the infrastructure gaps identified in Granite Falls' Comprehensive Plan. Can you tell us more about the expectations of these infrastructure gaps, specifically, who is responsible for addressing them? (e.g., if roads are noted as an infrastructure gap, is it the responsibility of the developer or the local government to invest in these?)

A: There will not be public funding for private development. A few things I can tell you about the area of interest are that:

1. The groundwater table is very high. There are several wetland zones spread across the area too.
2. There is no sewer infrastructure out in the infrastructure gap region. The City also does not serve that area with water. To provide adequate water supply to that area would require an extension of our water main as well as an installation of a master

meter. It's estimated to cost about $300,000 for the infrastructure installation alone. From a financial perspective, this does not pencil out for the City.

3. As a bit more of an external issue that is still related to the area is that Granite Falls' wastewater treatment plant is at capacity right now. To upgrade the plant, the City estimated it would cost at least $16 million.
4. Ultimately, I think the area that should be developed in Granite Falls is on the western side of the City, not the southeastern side, where the identified infrastructure gap area is. Expanding toward I-5 and Highway 9 (to the west) is more sensible from a development perspective than developing the infrastructure gap area. This is because if the infrastructure gap area is developed, it will create commuting flow issues across the City as residents will try to move across the City to reach it. The level of service would go from its current grade of A to B down to a score of a D or F.

Q: We are also interested in hearing more explanations from you regarding the recordation of the infrastructure gaps and your understanding of them.

A: Another huge issue for us is that we're an island in a sea of much larger cities.

Next Steps

The subcommittee will review these preliminary findings at the meeting on November 12th, 2019, and may recommend additional analysis areas or more detailed discussion of these areas. ECONorthwest will incorporate this analysis, and any additional analysis related to infrastructure gaps in the draft recommended methodology updates.

Appendix D. Reasonable Measures Matrix Recommended Updates

● Directly applicable

◐ Partially applicable

Measures to increase density	Applicability of Measure										*Additional metrics*			
											Issue Category			Scale of impact
	Increases densities	Increases redevelop-ment	Increases Infill	Changes housing type/ increases options	Provides affordable housing	Economic Develop-ment	Make efficient use of infra-structure	Ensure efficient land uses	Urban design/ form	Prevents dev. in critical areas	Planned Densities not Achieved	Insuffi-cient Capacity	Inconsis-tent Dev. Patterns	
Measures that increase Residential Capacity														
Permit Accessory Dwelling Units (ADUs) in single family zones.	◐		●	◐	●		●					✓		Small
Provide Multifamily Housing Tax Credits to Developers	●		●	●	◐		◐	●				✓		Small-Moderate
Provide Density Bonuses to Developers	●	◐	◐	◐	◐		●	●				✓		Small-Moderate
Transfer/Purchase of Development Rights	●	◐	◐	◐			◐					✓		Small-Moderate
Allow Clustered Residential Development	◐			●			◐	◐		●		✓		Moderate
Allow Co-housing	◐	◐	◐	◐	●							✓		Small
Allow Duplexes, Townhomes, and Condominiums	◐		◐	●	●		◐					✓		Moderate
Increase Allowable Residential Densities	●				◐						✓	✓		High
Mandate Maximum Lot Sizes	●						◐	●				✓		High
Mandate Minimum Residential Densities	●						◐	●			✓	✓		High
Reduce Street Width Standards	●						◐	●				✓		Small
Allow Small Residential Lots	●				●		◐	●				✓		Small
Encourage Infill and Redevelopment	●	●	●				◐	●				✓		Small-Moderate
Enact an inclusionary zoning ordinance for new housing developments	◐			◐	●							✓		Small-Moderate
Plan and zone for affordable and manufactured housing development	◐			●	●							✓		Small-Moderate
Measures that increase Employment Capacity														
Develop an Economic Development Strategy						●				◐		✓		Small-Moderate
Create Industrial Zones		◐				●						✓		Small-Moderate
Zone areas by building type, not by use	●					●						✓		Moderate
Develop or strengthen local brownfields programs		●	●									✓		Small-Moderate

● Directly applicable

◐ Partially applicable

Measures to increase density	Applicability of Measure										*Additional metrics*			
											Issue Category			
	Increases densities	Increases redevelop-ment	Increases Infill	Changes housing type/ increases options	Provides affordable housing	Economic Develop-ment	Make efficient use of infra-structure	Ensure efficient land uses	Urban design/ form	Prevents dev. in critical areas	Planned Densities not Achieved	Insuffi-cient Capacity	Inconsis-tent Dev. Patterns	Scale of impact once implemented
Measures that support increased densities														
Encourage the Development of Urban Centers and Urban Villages	●	◐	◐	◐	◐	◐					✓			Moderate-High
Allow Mixed Uses	◐	◐	◐	◐	◐			●	●		✓	✓		Low
Encourage Transit-Oriented Design	◐			◐	◐	◐	●	●			✓			Moderate-High
Downtown Revitalization	◐	●	●	◐	◐	●	◐				✓		✓	High
Require Adequate Public Facilities	◐						●				✓			Small-Moderate
Specific Development Plans	◐	◐	◐	◐	◐	◐	◐			◐	✓			Moderate-High
Encourage Transportation-Efficient Land Use	◐			◐	◐	◐	◐				✓			Small-Moderate
Urban Growth Management Agreements	◐						◐	●		◐	✓			Small
Create Annexation Plans	◐						◐	●		◐	✓			Small-Moderate
Encourage developers to reduce off-street surface parking	◐						◐	◐			✓			Small-Moderate
Implement a program to identify and redevelop vacant and abandoned buildings	◐	●				◐	◐				✓			Small-Moderate
Concentrate critical services near homes, jobs, and transit							●	●			✓			Small
Locate civic buildings in existing communities rather than in Greenfield areas							◐	◐			✓			Small
Implement a process to expedite plan and permit approval for smart growth projects	◐	◐	◐	◐	◐	◐	◐	◐		◐	✓			Small
Measures to mitigate the impact of density														
Design Standards									●				✓	Small
Urban Amenities for Increased Densities									●				✓	Small
Conduct community visioning exercises to determine how and where the community will grow									●				✓	Small
Other measures														
Mandate Low Densities in Rural and Resource Lands								●					✓	Small
Urban Holding Zones								●				✓		Moderate-High
Capital Facilities Investments							●	●				✓		High
Environmental Review and Mitigation Built into the Subarea Planning Process	◐	◐	◐	◐	◐	◐	◐	◐	◐	◐			✓	Small
Partner with nongovernmental organizations to preserve natural resource lands										●			✓	Small

Potential Measures to Add

Name	Description	Scale of Impact
Administrative and Procedural Reforms	Key consideration: how to streamline the review process and still achieve the intended objectives of local development policies	Small
Streamline Zoning Code and other Ordinances	The policy is intended to increase density and lower housing costs.	Small to moderate
Preserving Existing Housing Supply	Approaches include examples such as: housing preservation ordinances, housing replacement ordinances, etc.	Small to moderate
Re-Designate or Rezone Land for Housing	The policy increases opportunity for comparatively affordable multifamily housing and provides opportunities for mixing residential and other compatible uses.	Small to large
Allow Stacked Townhouses, Garden Apartments and larger-scale Apartments in high density zones		Small to large
Allow Live-Work housing or Mixed-use housing in commercial zones		Small to large
Allow small or "tiny" homes	Smaller homes allow for smaller lots, increasing land use efficiency. They provide opportunities for affordable housing, especially for homeowners.	Small
Parcel assembly	Parcel assembly can lower the cost of multifamily development because the City is able to purchase land in strategic locations over time. Parcel assembly is often associated with development of affordable housing (affordable to households with income below 60% of MFI), where the City partners with nonprofit affordable housing developers.	Small to large
Land Banking	Land banksB21 support housing development by reducing or eliminating land cost from development, with the goal of increasing the affordability of housing.	Small to large
Community Land Trusts	A land trust is typically a nonprofit organization that owns land and sells or leases the housing on the land to income-qualified buyers.	Small to large
Public Land Disposition	Land acquired with funding sources such as tax increment, EB-5, or through federal resources such as CDBG or HUD Section 108 can be sold or leased at below market rates for various projects to help achieve redevelopment objectives.	Small to moderate
Reduced / Waived Building Permit fee, Planning fees, or SDCs	Programs that reduce various development fees as an incentive to induce qualifying types of development or building features.	Small
Scaling SDCs to Unit Size	Offering lower SDC for smaller units can encourage development of smaller units, such as small single-family detached units or cottage cluster units.	Small to moderate
SDC Financing Credits	May help to offset the an SDC charge, which is a one-time fee that is issued when there is new development or a change in use.	Small to moderate
Sole Source SDCs	Retains SDCs paid by developers within a limited geographic area that directly benefits from new development, rather than being available for use city-wide.	Small to moderate
Fees or Other Dedicated Revenue	Directs user fees into an enterprise fund that provides dedicated revenue to fund specific projects.	Not listed

Name	Description	Scale of Impact
Reimbursement District	A Reimbursement District is a cost sharing mechanism, typically Initiated by a developer. The purpose is to provide a reimbursement method to the developer of an infrastructure improvement, through fees paid by property owners at the time the property benefits from the improvement.	Small to moderate
Linkage Fees	Linkage fees are charges on new development, usually commercial and / or industrial development only, that can be used to fund affordable housing.	Small to moderate
Nonprofit Corporation Low Income Housing Tax Exemption	Land and improvement tax exemption used to reduce operating costs for regulated affordable housing affordable at 60% AMI or below.	Small to moderate
Low-Income Rental Housing Tax Exemption	The low-income rental housing program exemption lasts 20 years. Rents must reflect the full value of the property tax abatement and City can add additional criteria.	Small to moderate
Construction Excise Tax (CET)	CET is a tax assessed on construction permits issued by local cities and counties. The tax is assessed as a percent of the value of the improvements for which a permit is sought, unless the project is exempted from the tax.	Depends on amount of available funding
Phasing/tiering Urban Growth	From Guidelines appendix B	
Creative Use of Impact Fees	From Guidelines appendix B	
Promote Vertical Growth	From Guidelines appendix B	
Narrow Streets/Reduce Street Width	From Guidelines appendix B	
Allow for alternative sanitary sewer systems in unincorporated UGAs	From Guidelines appendix B	
Remove preplanning allowances in UGAs	From Guidelines appendix B	
Provide for regional stormwater facilities in unincorporated UGAs	From Guidelines appendix B	
Strengthen and amend policies to promote low impact development	From Guidelines appendix B	
Consolidated comprehensive plan land use designations	From Guidelines appendix B	
SEPA Categorical Exemptions for Mixed Use and Infill Development & Increased Thresholds for SEPA Categorical Exemptions	From Guidelines appendix B	