Methods and Procedures Technical Supplement: Response to E2SSB-5254

In 2019, Snohomish County began preparing for the 2021 Buildable Lands Report (BLR). Part of this preparation process included reviewing new legislation (E2SSB-5254) that resulted in changes to the Review and Evaluation Program for Buildable Lands. 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 County worked with ECONorthwest to review and evaluate a subset of these issues including: (1) land classification definitions, (2) market factor rates, (3) infrastructure gaps assessment, and (4) reasonable measures.

Purpose and Approach

This document provides a summary of the analysis and findings for the portions of the Methods and Procedures that are recommended to be updated to comply with the updated Guidelines. The document is organized by each key issue that the County reviewed during this process using the following framework:

1. **Legislative (E2SSB-5254) requirements.** A key driver of reviewing the issues discussed in this process was the emphasis on these topics in the E2SSB-5254 legislation and supporting updated Guidelines. The discussion of each issue begins with a more detailed description of the regulatory framework.

2. **Findings and analysis.** Snohomish County staff and ECONorthwest completed analysis throughout the process, and documented key steps and findings of the analyses for each issue. This document is intended to summarize that work, and may not provide details that may be useful to some readers of this document (see the last section for references to more detailed analysis and findings).

3. **Recommended updates.** The discussion of each key issue concludes with the references to relevant sections of the Methods and Procedures document that are augmented by the recommended updates. This discussion describes how the updates would potentially change the County's existing process.

4. **Supporting documentation.** The last section of this document provides a comprehensive list of the supporting documents produced during the update process.

Approach

A consistent approach was used to review the existing methods and procedures following a set of evaluative 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, to compare the existing methodology to potential updated approaches.
3. Determine if an updated method is recommended compared to the status quo.
4. Develop recommended alternatives (or refinements) to the current methodology.
5. Evaluate alternatives using criteria: (1) ease of implementation; (2) availability of data; (3) alignment with DOC Guidelines; and (4) empirical evidence.
6. Document recommended changes and reference applicable steps in the Buildable Lands Methods and Procedures Document.

Public process

As part of the 2021 BLR methodology review and update, Snohomish County convened a subcommittee of the Snohomish County Tomorrow (SCT) Planning Advisory Committee (PAC). The subcommittee included city and county planning staff, representing 11 cities and the county. The SCT PAC subcommittee met four times between September 2019 and February 2020. During each meeting, Snohomish County staff from the Buildable Lands Team, along with ECONorthwest, presented analysis results and findings for each issue. The subcommittee provided context and background information about their jurisdictions, as well as discussed the findings and helped to focus the scope of the analysis. After review of the analysis of the key issues, the subcommittee approved the recommendations, as summarized in this document.

This process also included outreach to stakeholder groups. Snohomish County held a stakeholder workshop in November 2019 to discuss preliminary findings and the overall process for updating the BLR methodology to align with the new requirements. County staff and ECONorthwest facilitated discussions with small groups of stakeholder representatives from the development, environmental, and infrastructure-provider communities. Input from these groups was collected as part of the evaluation of recommended revisions and refinements to the BLR methods and procedures. The County followed-up with the stakeholder representatives to describe the status of the project and provide opportunities to comment and ask questions about the effort as it went through the SCT review process.

Issue 1. Land Classification

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 Guidelines and existing methodology, ECONorthwest 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, which includes improving accuracy of land status classifications.

Findings and analysis

The 2012 Snohomish County BLR identified seven land status 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., additional capacity assigned) or (2) those where no development is anticipated (i.e., no additional capacity assigned[1]). Of the seven land status classifications, four are used for additional capacity determinations—vacant, partially-used, redevelopable, and pending. Exhibit 1 shows the logic for evaluating parcels by development type. A complete description of land classification definitions is included in the 2012 BLR Methodology section (page 15) of the 2012 Buildable Lands Report for Snohomish County.

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[1] These areas are classified as a "constant" land status where the existing use is anticipated to remain unchanged during the remaining portion of the current GMA planning period.

Exhibit 1. Snohomish County Existing Land Classification Methodology
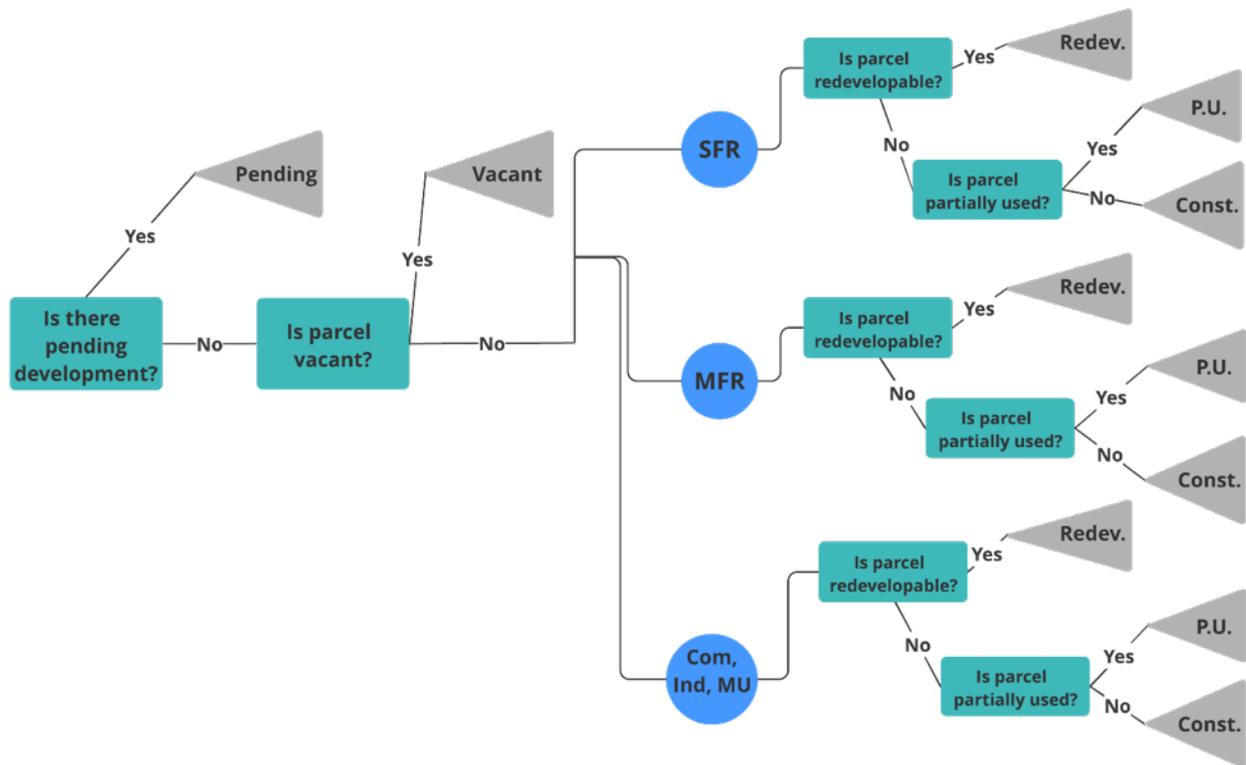
Note: SFR = Single-Family Residential; MFR = Multifamily Residential; Com = Commercial; Ind = Industrial; MU = Mixed-Use; Redev. = Redevelopable; P.U. = Partially Used; Const. = Constant.

Validation study

In 2019, Snohomish County staff completed a validation study to review and compare estimates from the 2012 BLR with recent development history data. The study included a sample of 219 projects that developed for residential uses between 2013 and 2018.[2] The projects included single-family, multifamily, or mixed-use development types within the UGA (cities and unincorporated UGAs).

Exhibit 2 to Exhibit 4 show summary statistics of the distribution of projects included in the validation study located on either redevelopable or partially-used economic units.[3] Exhibit 2 shows the improvement to land value ratios quartiles (using 2011 assessed values from the Snohomish County Assessor) for projects that developed consistent with their redevelopable and partially used land status classifications. Generally, the partially-used classification has

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[2] The sample included projects where site boundaries corresponded to economic unit or parcel boundaries in the 2012 BLR. The sample excluded projects where project boundaries were split by 2012 economic unit or parcel boundaries; development is occurring in phases (some of which were incomplete); pending land status classification was assigned in 2012 BLR; or condominium conversion occurred with no net increase in units.

[3] In most cases, parcels and economic units are synonymous. However, some situations warrant the combination of parcels or the division of parcels into economic units based on location, ownership and/or land use.

higher ratios than the redevelopable classification and the multifamily development type is higher than the single-family development type.

Exhibit 2. Improvement to Land Value Ratio Quartiles by Land Classification and Development Type.

ILR Quartiles	Single Family	Multi Family
Redevelopable		
Bottom 25%	0.000 - 0.142	0.004 - 0.112
25% - 50%	0.142 - 0.353	0.112 - 0.231
50% - 75%	0.353 - 0.643	0.231 - 0.353
Top 75%	0.643 - 1.397	0.353 - 2.009
Partially-Used		
Bottom 25%	0.163 - 0.474	0.363 - 0.425
25% - 50%	0.474 - 0.701	0.425 - 0.709
50% - 75%	0.701 - 0.993	0.709 - 1.179
Top 75%	0.993 - 1.387	1.179 - 1.796

Source: Snohomish County Validation Study, 2019.

Exhibit 3 shows the improvement value quartiles (using 2011 assessed values from the Snohomish County Assessor) for projects that developed consistent with their redevelopable and partially used land status classifications. Generally, the partially-used classification has higher improvement values than the redevelopable classification, and the single-family development type is higher than the multifamily development type for the redevelopable classification.

Exhibit 3. Improvement Value Quartiles by Land Classification and Development Type.

| Improvement Quartiles	Single Family	Multi Family
Redevelopable		
Bottom 25%	$0 - $44,475	$2,000 - $32,000
25% - 50%	$44,475 - $96,500	$32,000 - $49,800
50% - 75%	$96,500 - $231,975	$49,800 - $160,800
Top 75%	$231,975 - $1,857,400	$160,800 - $5,109,100
Partially-Used		
Bottom 25%	$51,400 - $92,125	$54,600 - $103,875
25% - 50%	$92,125 - $135,750	$103,875 - $156,500
50% - 75%	$135,750 - $245,750	$156,500 - $201,850
Top 75%	$245,750 - $499,900	$201,850 - $229,300

Source: Snohomish County Validation Study, 2019.

Exhibit 4. Median Improvement Value by Land Classification and Development Type.

Improvement Median	Single Family	Multi-Family
Redevelopable	$ 96,500	$ 49,800
Partially-Used	$ 135,750	$ 156,500

Source: Snohomish County Validation Study, 2019.

The results of the validation study showed that overall, the actual yield of housing units was higher than the predicted yield in the 2012 BLR. Exhibit 5 and Exhibit 6 show this comparison by development type and predicted land status from the 2012 BLR. The validation study also found that while the predicted land status of redevelopable for projects that actually redeveloped was generally accurate, most of the parcels classified as partially-used in the study were instead redeveloped.[4]

Exhibit 5. Comparison of Predicted Housing Unit Yields in 2012 BLR with Actual Yields by Development Type
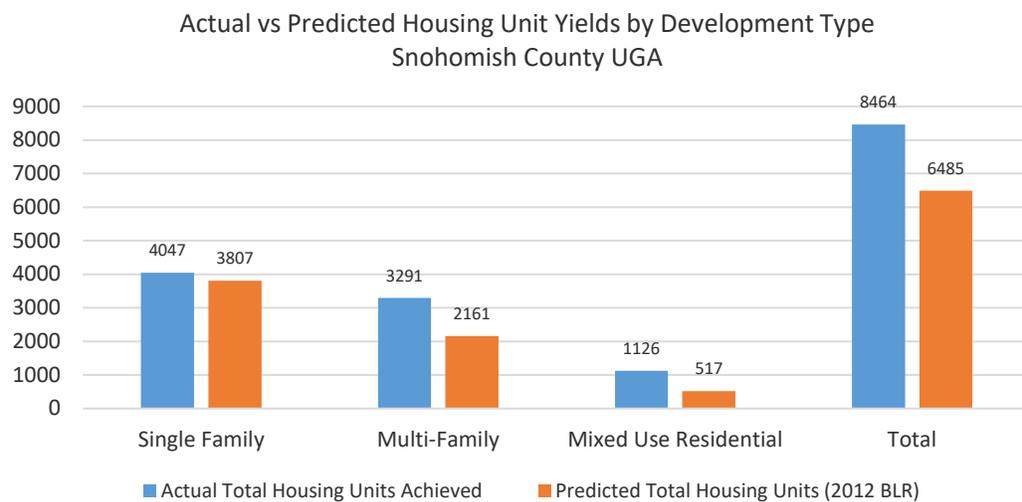
Source: Snohomish County Validation Study, 2019.

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[4] The Snohomish County Validation Study found that of the 105 out of 219 validation study development projects that were classified redevelopable, 93 (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, 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 219 total development projects occurred on land categorized as constant in 2012.

Exhibit 6. Comparison of Predicted Housing Unit Yields in 2012 BLR with Actual Yields by Predicted Land Status

Actual vs Predicted Housing Unit Yields by Predicted Land Status
Snohomish County UGA
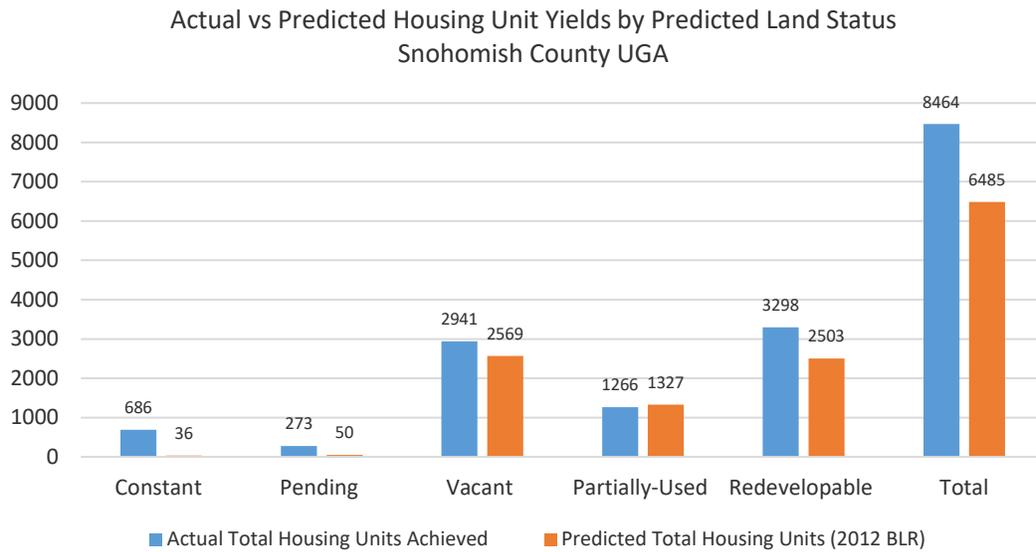
Source: Snohomish County Validation Study, 2019.

Land classification analysis

Building on the findings from the validation study, ECONorthwest completed further analysis to better understand the characteristics of areas that developed, as compared to the 2012 BLR land status classification. This approach was done at the parcel level for all parcels that developed between 2011 and 2018, and compared these parcels to classifications in the 2012 BLR. The purpose of this inquiry was to use data potentially to inform the land classification process. The key questions that guided the analysis were:

- What developed since the 2012 BLR?
- What are the characteristics of properties that developed?
- For properties that developed, what was the land classification in 2012?
- What relationships exist between property characteristics, actual development, and land classification?

The analysis started with a 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. The analysis, which centered around an econometric approach, is documented in the "Snohomish County Method Alternatives and Evaluation Criteria" memorandum. Appendix A of the memorandum provides detailed results of the econometric approach using a multinomial logit model.

In summary, 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,[5] given other considerations for probability of development.

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 as predictive variables for development. Additional insight suggests that other variables (i.e., gross buildable acres) can be used to relate parcel characteristics to the probability of development.

With respect to buildable lands methods, the assignment of land classification represents the first and significant step towards more accurately identifying buildable capacity given best available data and information. 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.

Exhibit 7 shows the "best performing" threshold parameters based on the logit model results for each development type, compared to the existing parameters (in this case, "best performing" is defined as meeting the two objectives above). It also shows thresholds that are not part of the existing methodology, but indicate parcel characteristics that performed well in the model and may provide improved predictability of development.

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[5] In this document 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.

Exhibit 7. Summary of Existing and "Best Performing" Land Classification Threshold Parameters by Development Type

	Single Family		Multifamily		Commercial, Industrial, Mixed Use	
	Existing	Best Performing	Existing	Best Performing	Existing	Best Performing
Vacant						
Improvement Value	$2,000	$7,500	$2,000	$3,500	$2,000	$400
Redevelopable						
Improvement Value	$100,000	$103,750	n/a	n/a	n/a	n/a
ILR	0.75	0.7	1	0.76	n/a	n/a
Land Value	n/a	n/a	n/a	n/a	n/a	$338,400
Partially Used						
Improvement Value	n/a	n/a	n/a	$91,200	n/a	$502,450
ILR	n/a	1.53	n/a	n/a	n/a	n/a
Gross Buildable Acres	2x zoned lot size	0.33	n/a	n/a	n/a	n/a
Building Footprint-to-Lot Size	n/a	n/a	0.25	0.10	n/a	n/a
Land Value	n/a	n/a	n/a	n/a	n/a	$757,950

Source: Snohomish County; ECONorthwest analysis

Recommended updates

As stated above, the analysis of land classification showed that the model classifies land that does or does not develop with reasonable accuracy. The analysis showed that there are some areas where refinement to the model may provide some improvements in predictive accuracy. These recommended refinements are:

- **Update thresholds for each development type.** Using recommended thresholds at or similar to results from the logit model, we recommend reviewing the results of the logit model for use in updating the thresholds for determining vacant, partially used, and redevelopable land classifications for the 2021 BLR.

  - This recommendation augments the information in Chapter 5: Phase II Data Collection, Analysis, and Evaluation of the Methods and Procedures Document. The methodology section of the 2021 BLR should also consider this recommendation.

- **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.

  - This recommendation augments the information in Chapter 5: Phase II Data Collection, Analysis, and Evaluation of the Methods and Procedures Document.

- **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 as part of the long-

term development monitoring process will help to better understand the redevelopable land classification in future BLRs.[6]

- This recommendation augments the information in Chapter 5: Phase II Data Collection, Analysis, and Evaluation of the Methods and Procedures Document, as well as Appendix E: Proposed Data Structure.

Issue 2. Market Factor

The market availability factor reduction is an adjustment to the estimated capacity that allows for consideration of parcels (without identifying specific parcels) that will be held out from development throughout the 20-year GMA plan horizon. The Snohomish County BLRs completed in 2002, 2007, and 2012 assumed market availability 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 Guidelines reference the methods used in Snohomish County as examples for collecting data on market factors, in addition to other types of analysis. The Guidelines also recognize the difficulty in collecting and analyzing data for purposes of developing a reasonable market factor assumption.

Relevant E2SSB-5254 requirements

E2SSB-5254 requires that counties adequately address reductions for uncertainty regarding the eventual availability of land for development, 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 Guidelines also note that market factors may vary across counties as well as cities within a county.

The Guidelines provide 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.

Findings and analysis

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 development activity has been focused at some point during the past 20 years. The areas

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[6] 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.

represent a range of different areas in the County's UGA including single-family development in SWUGA and non-SWUGA. Effort was made to examine other land use types (such as multifamily and mixed-use development) however, unlike for single-family development, it was not possible to find a location with the necessary criteria (zoning and generally "built-out" development) to evaluate the utilization rates of capacity estimated in the 2002 BLR by 2019 for multifamily and mixed-use areas.

Using 2002 BLR data (based on a 2001 parcel extract), County staff studied properties with additional capacity estimated in the 2002 BLR that remained unchanged since 2001, as indicated by the lack of development or the lack of development proposals as of 2019. The results are summarized in Exhibit 8 and the detailed results are discussed in the "Snohomish County Method Alternatives and Evaluation Criteria" memorandum (dated February 7, 2020).

Exhibit 8. Summary of Existing and Observed Market Factors for Single-Family Residential by Geographic Area and Land Classification

	Existing Market Factor Assumption	Observed Market Factor 2002-2018	
		Bothell MUGA (SWUGA)	Stanwood/ Cedarhome (non-SWUGA)
Vacant	15%	6%	12%
Under-utilized	30%	10%	16%

Source: Snohomish County; ECONorthwest analysis

Recommended updates

Based on the analysis of market factors in the sample areas, the recommended updates to the methodology are:

- **Assign different market factors for SWUGA and non-SWUGA.** The single-family development samples studied in this analysis reflect two distinct geographic areas—the SWUGA and non-SWUGA. While the observed market factor in both areas were below the existing market factors for vacant and underutilized land, the resulting market factors in the SWUGA were also lower than the non-SWUGA (reflecting the land market conditions of the SWUGA as a higher demand area).

  - This recommendation augments the information in Chapter 5: Phase II Data Collection, Analysis, and Evaluation of the Methods and Procedures Document. The methodology section of the 2021 BLR should also consider this recommendation.

- **Monitor different market factors for different development types.** County staff also discussed potential market factor adjustments for different development types. However, the necessary information for the other types, such as multifamily and mixed-

use development, was not available as it was for single-family development. In future BLRs, the County may decide to evaluate these differences as data collection continues.

- ▪ This would not require immediate updates to the Methods and Procedures document.

Issue 3. Infrastructure Gaps

ECONorthwest evaluated the updated Guidelines and the recommendations related to accounting for uncertainty due to infrastructure gaps.[7] Working with County staff and through initial discussions with the subcommittee, we identified two case study areas to apply the recommended approach from the Guidelines. 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 Guidelines suggest 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 Guidelines suggest 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.

Findings and analysis

ECONorthwest conducted two case studies for areas that may be subject to infrastructure gaps under the updated Guidelines, which emphasizes providing rationale for reductions for uncertainty. Appendix C in the "Snohomish County Method Alternatives and Evaluation Criteria" memorandum 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

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[7] The Guidelines provide the following elaboration on infrastructure gaps: "While the capital facilities plan addresses a number of items, including water, sewer, storm, schools and transportation infrastructure to support growth, infrastructure gaps pertaining to those capital projects may still be possible."

another factor, such as a market factor. The detailed results are discussed in the "Snohomish County Method Alternatives and Evaluation Criteria" memorandum, and Exhibit 9 summarizes the recommended alternative for updates to the 2021 Buildable Lands Report.

Exhibit 9. 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 updates

The recommended updates to address infrastructure gaps to meet the updated Guidelines are:

- **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 Guidelines suggest, do not require additional findings.

  - This recommendation augments the information in Chapter 5: Phase II Data Collection, Analysis, and Evaluation of the Methods and Procedures Document.

- **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.

- This recommendation augments the information in the Reasonable Measures Program document

Issue 4. Reasonable Measures

The final issue 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 the updated Guidelines.

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."

The recommended updates to the reasonable measures program is discussed in the Technical Supplement: Response to E2SSB-5254 for the Reasonable Measures Program document.

List of Supporting Documents

Below is a list of relevant supporting documents referenced in this supplement:

- *Snohomish County Tomorrow Recommended Methodology and Work Program for a Buildable Lands Analysis for Snohomish County and its Cities (Procedures Report, July 2000)*

- *Snohomish County Tomorrow Recommended Method for Evaluating Local Reasonable Measures Programs (June 2003)*

- *2012 Buildable Lands Report for Snohomish County (June 12, 2013)*

- *Snohomish County Method Alternatives and Evaluation Criteria, memorandum from ECONorthwest (February 7, 2020)*