



Planning Commission Executive Summary

Issue Title: Kitsap County Buildable Lands Update
Meeting Date: February 16, 2021
Time Required: 45 minutes
Department: Department of Community Development (DCD)
Attendees: Angie Silva, Dave Ward, and Liz Williams

Action Requested At This Meeting:

No action requested – DCD will present draft assumptions for Steps 0-3 of Kitsap County’s Residential Land Capacity Analysis. Draft assumptions are subject to change based on coordination with local jurisdictions.

Background

Kitsap County, in coordination with local cities, is updating its Buildable Lands Program pursuant to the requirements set forth in the State’s Growth Management Act, RCW 36.70A.215 and WAC 365-196-315. The Growth Management Act requires Kitsap County and its cities to issue a Buildable Lands Report once every eight years. This is one of the first steps counties and cities take prior to updating their Comprehensive Plans, which for Kitsap County is due in June 2024. The purpose and scope of the Buildable Lands Program and subsequent report is to:

- look back at development trends between 2013 and 2019 to review consistency with local policies and plans;
- look forward and evaluate if there is sufficient land supply to accommodate planned population and employment growth, and
- identify reasonable measures, if necessary, to address any inconsistencies that may be identified by the review and evaluation.

In addition to the requirements in state law, Kitsap’s Countywide Planning Policies (CPPs) require local jurisdictions to use an agreed-upon methodology for the forward-looking Land Capacity Analysis (LCA) to determine if there is adequate land supply. At the February 16th Planning Commission briefing, DCD will provide an overview of the draft assumptions for Steps 0-3 of the residential LCA that jurisdictions are considering (Attachment 1). The draft is subject to change as jurisdictions develop an agreed-upon framework for the residential LCA. This working draft also takes into consideration new statutory requirements passed by the state legislature in 2017 (SB 5254). For example, counties and cities are now required to evaluate and identify lands subject to

infrastructure gaps including but not limited to transportation, water, sewer, and stormwater. (RCW 36.70A.215 (3)(b)(i)).

Attachments:

1. Draft Assumptions for Steps 0-3 of Kitsap County's Residential Land Capacity Analysis (this document is subject to change based on coordination with local jurisdictions)

Kitsap County Residential Land Capacity Analysis

Draft Technical Methodology Guidance for Steps 0-3

INTRODUCTION

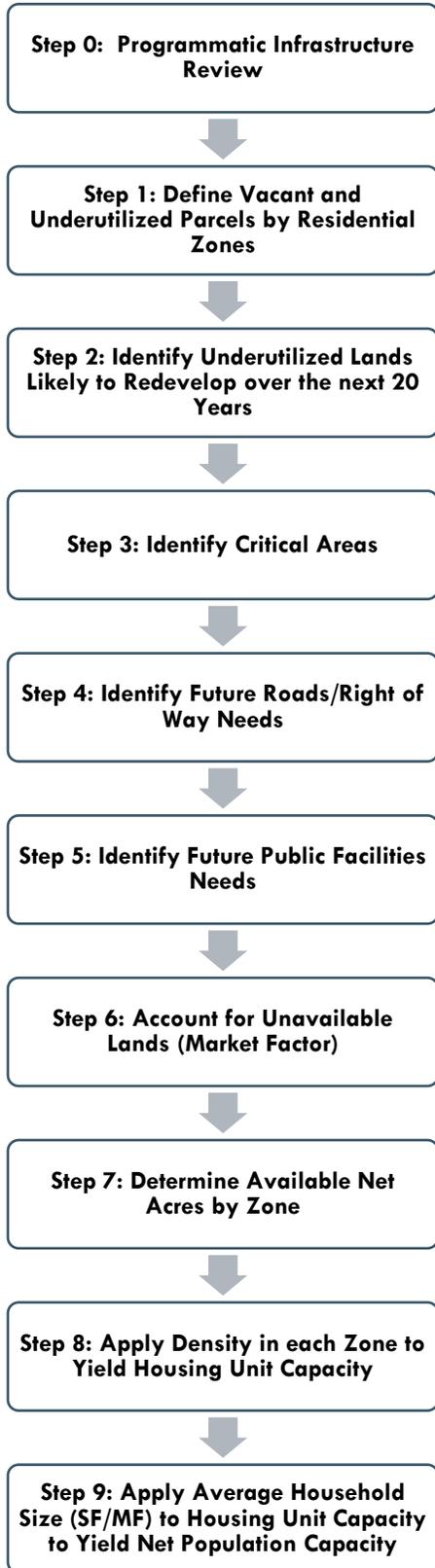
Kitsap County is a Growth Management Act (GMA) jurisdiction and must plan for the accommodation of growth within its boundaries, with most growth focused into urban growth areas (UGAs) where urban services are available or can be made available. A Land Capacity Analysis (LCA) is a necessary component in this planning as it quantifies the housing units, population, and employment growth that can be accommodated within urban areas under existing development regulations. The LCA methodology is also a component of the Buildable Lands Program (BLP) under RCW 36.70A.215. The BLP is required of the more populous counties and their cities (i.e. Clark, King, Kitsap, Pierce, Snohomish, Thurston, and Whatcom Counties) to determine if they are achieving their planned urban densities within UGAs, if not, to identify reasonable measures other than adjusting UGAs to achieve targets and objectives of their comprehensive plans. The BLP review and evaluation efforts are led by Kitsap County, in coordination and participation with its constituent cities. The countywide LCA methodology described in this document (Kitsap County LCA) establishes an overall framework to promote consistency in the calculation of growth capacity, as required in the Kitsap Countywide Planning Policies; however, cities may employ variations to the assumptions used in the methodology with proper “show your work” documentation to account for local circumstances.

The Kitsap County LCA methodology incorporates analysis of housing and population capacity on residential land and employment capacity from land zoned for commercial and industrial uses. This capacity will be measured against the Countywide planning policy growth targets for the 2036 planning horizon. This analysis measures buildable land capacity as of January 1, 2020.

This work relies upon the data and work of the Kitsap County Assessor’s office as their countywide parcel-level data with current uses and improvements will be merged with each municipality’s permitting records of zoning. Additionally, the LCA relies upon County-maintained spatial data on existing land use and infrastructure conditions, including environmentally critical areas and transportation access. The methodology assumes the availability of GIS data listed in each analysis section and assumes that Assessor records provide an accurate record of property value (land vs. improvement value) and current land use.

An overview of the Kitsap County LCA methodology is shown in Exhibit 1. The methodology includes two phases. The first phase is the stand-alone Programmatic Infrastructure Gap Analysis that would typically be carried out by planning staff. The second phase consists of the nine LCA steps that are designed to be executed by a GIS analyst, with direction and input from planners for key assumptions. This document provides detailed guidance for each step of the process, highlighting assumptions that can be varied by individual jurisdictions based on local conditions, with proper documentation.

Exhibit 1. Kitsap County LCA Process



Source: BERK, 2020.

Data Inputs Required

- Kitsap County parcel polygons;
- Kitsap County Assessor parcel records;
- Public service providers and service area boundaries;
- Applicable capital facility plans and system plans;
- Recent building permit data, including a list of parcels created as part of an approved plat;
- Assumed residential density by zoning district (see text box); and
- Environmentally critical areas:
 - Streams (including stream type classification);
 - Water bodies;
 - Wetlands (including wetland type classification);
 - Hydric soils; and
 - Geologic hazard areas (moderate and high hazard risk).

Assumed Density

For each residential zone, jurisdictions will need to select an assumed density (units per acre) to apply in Step 8 of the LCA. This assumed density will also be used in Step 1 when identifying partially utilized parcels.

Commerce recommends using **achieved density** as the best guide for future assumed density. However, this may not be possible or advisable in some situations, such as:

- If the zone had seen very little development activity in recent years;
- Zoning or development regulations have recently changed, and insufficient new permit data is available to evaluate the market response; or
- There have been significant new (or anticipated future) infrastructure investments or other amenities that change market conditions. An example might be new Fast Ferry service to Downtown Seattle.

In these cases, consider drawing upon other sources of information to derive assumed densities, such as:

- Market studies
- Achieved densities in other jurisdictions with similar zoning and market characteristics.

Always consider the impacts of regulations such as setbacks, height limits, and parking requirements on development feasibility when selecting a reasonable assumed density.

STEP 0: PROGRAMMATIC INFRASTRUCTURE GAP REVIEW

In 2017, the state legislature added a requirement for the BLP to include consideration of infrastructure gaps as the lack of transportation or utility infrastructure, such as water, sewer, or stormwater services, can affect the amount and timing of future development and thus impact the amount of land suitable for development or redevelopment. Under the BLP, counties and cities are required to evaluate and identify lands subject to infrastructure gaps including but not limited to transportation, water, sewer, and stormwater. (RCW 36.70A.215 (3)(b)(i))

The Department of Commerce Guidebook published in 2018 further directed GMA jurisdictions should determine whether gaps exist in a jurisdiction's infrastructure that will prevent assigned densities from being achieved or delay development during the remainder of the planning period. This could include:

- Planned and funded capital facilities that are delayed or are no longer funded and are no longer planned to be in service during the 20-year planning period that would impact the ability to add additional capacity;
- Planned transportation improvements that, without being implemented, would limit additional

Attachment 1

development and redevelopment; and

- Areas identified for development but are likely to remain outside of water and sewer service boundaries.

From the perspective of the LCA, properties with limited or no access to critical infrastructure during the planning period may be identified as constrained and either:

- 1) removed from the available land supply at the outset and not carried forward into the remaining Steps 1 through 9 or,
- 2) identified as subject to partially constrained growth and addressed in Step 8, or alternative market factor for Step 6.

This infrastructure gap evaluation in Step 0 is meant to consider areas with system level challenges that affect whether parcels are candidates for growth. Infrastructure gaps should be identified prior to performing detailed analysis of land capacity for residential or commercial/industrial uses, as these infrastructure gaps will directly affect the amount of land available for both residential and employment purposes. In contrast, in Steps 4 and 5, lands determined vacant and underutilized will be applied deductions for infrastructure installed as a natural course of development (e.g. rights of way, stormwater treatment, etc.).

Per the Commerce Guidebook “Methodology steps are cumulative, so in determining how each is estimated, care should be taken to avoid double counting factors.” (Guidebook, page 37) Careful consideration of whether land is partially or fully constrained due to infrastructure should be made, or if as part of development or redevelopment the infrastructure issues can be addressed. There may be other factors at play due to the market conditions or allowable densities. It should be noted that depending on the results of the overall LCA results and targets or densities, if there are inconsistencies reasonable measures may be needed.

Gap Analysis

The gap infrastructure analysis is meant to provide a framework to review whether areawide infrastructure limitations exist and limit the supply of land that are candidates for growth. If there are no known systemwide or areawide infrastructure limitations for water, sewer, stormwater, or transportation, you may use the worksheet in Exhibit 4 to briefly document this finding and move on to Step 1.

The Gap Analysis process consists of two major sub-steps:

- **Step 0.1:** Identify Relevant Infrastructure Systems that Could Preempt or Alter Development; and
- **Step 0.2:** Identify and Map System Capacity Challenges Using Available Information.

Step 0.1 is a high-level review of available information to identify which infrastructure systems may require more detailed review for their potential to prevent assigned densities from being achieved or delay urban development, while Step 0.2 is a more detailed review to identify specific geographic locations with infrastructure constraints.

Step 0.1. Identify Relevant Infrastructure Systems that Could Preempt or Alter Development

The County and cities have been planning under GMA and developing their Capital Facility Plan elements and supporting system plans for decades. While the BLP newly identifies the infrastructure

review and evaluation step, relevant information and capital programs already exists to support the land use plans of each jurisdiction and the LCA.

In Step 0.1, jurisdictions review available information in the CFP to determine if any infrastructure systems have the potential to prevent assigned densities from being achieved during the 20-year planning period. These impediments could either be at a systemwide scale (for example, entire water or sewer system has supply or treatment capacity constraints) or in a specific area (e.g. neighborhood, district, subarea), and they could result in either a total preemption of development potential (e.g., no improvement is planned to deliver necessary urban services for water, sewer, stormwater or transportation), or result in major differences in achievable densities.

This review should answer the following kinds of questions. An answer of “yes” or “maybe” would warrant closer review in the Step 0.2.

- **Water:** Are there major constraints in supply, pressure, or distribution that would preempt development, or markedly constrain expected densities?
- **Sewer:** Are there unsewered areas or areas currently operating on septic without capital plans in place to extend service? Are there areas of septic where failure has been identified by the Health District? Would the lack of areawide sewer due to physical or economic feasibility considerations alter an area’s development potential during the planning period?
- **Stormwater:** Are regional systems necessary for urban-scale development at a systemwide or areawide level?¹
- **Transportation:** Does the jurisdiction contain areas with long-term physical service challenges?²
 - Areas are inaccessible due to geographic constraints; or
 - No infrastructure currently exists to provide physical access.

Step 0.2. Identify and Map Areas Using Available Information

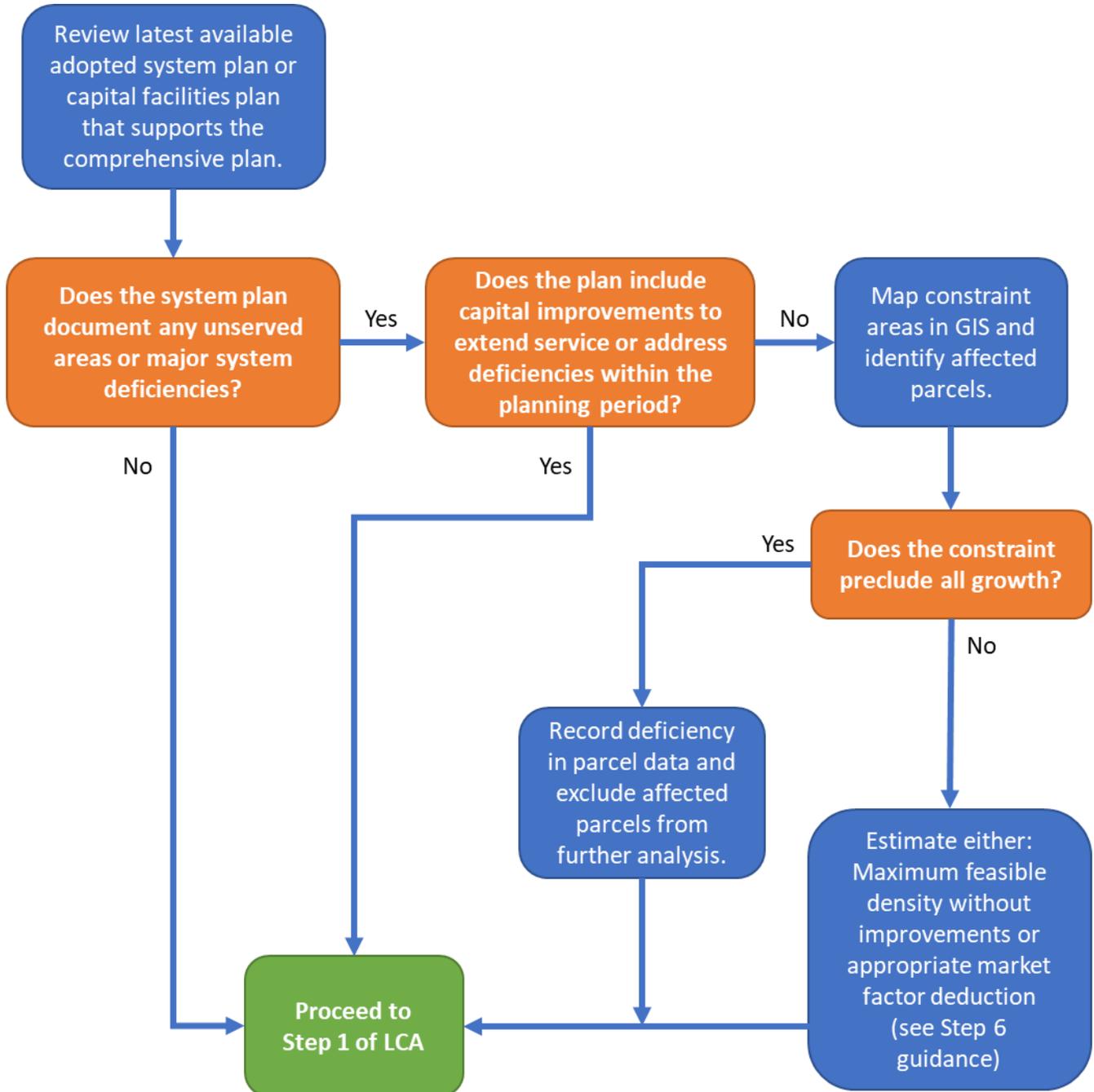
After identifying potentially relevant infrastructure systems in Step 0.1, this Step 0.2 is meant for the County and cities to review available information and plans and consider if there are areawide infrastructure gaps that may preempt or alter the supply of land considered candidates for growth.

This decision tree in Exhibit 2 illustrates the evaluation process that should be followed for each of the relevant infrastructure systems identified in Step 0.1, based on local conditions and service providers. For example, cities are likely to provide more services directly and have fewer unserved or inaccessible areas than the county. The decision tree in Exhibit 2 allows these jurisdictions to conduct the gap analysis efficiently and prioritize resources for detailed analysis only in situations where infrastructure systems are found to have gaps or major deficiencies.

¹ These questions address areawide/system concerns. See Step 5 Public Facilities deductions for site/parcel specific public and private facilities like stormwater needed for development of vacant, partially-utilized, or underutilized land.

² These questions are addressing areawide physical challenges or systemic issues. Parcel/site specific deductions are addressed in Step 4.

Exhibit 2. Infrastructure Gap Analysis Jurisdiction Decision Tree



Source: BERK, 2021.

The infrastructure review is meant to use readily available information. GIS analysis would only be required if mapping is called for in the decision tree.

If responses to the decision tree indicate mapping is necessary, then add the following fields to the parcel layer. Following steps below will explain how to calculate values for these fields.

Exhibit 3. GIS Database Fields to be Added – Infrastructure Gap Analysis

Field Name	Field Type	Comments
Infrastructure Gap	Text	Note infrastructure gap type (water, sewer, stormwater, etc.), if present.
Constant	Binary	If infrastructure gap is likely to preclude development (i.e., conditions are expected to remain constant during the planning period), set value to TRUE. Otherwise, set value to FALSE.
Alt Density	Numeric	If infrastructure gap does not preclude development, but limits density, note the maximum density allowed in units per acre (or FAR for non-residential properties) for use in Step 8. Used in tandem with the “Alt Market Factor” field. Do NOT provide values for both fields.
Density Units	Text	Unit of measure for density: <ul style="list-style-type: none"> ▪ “du/ac” for residential properties. ▪ “FAR” for commercial/industrial properties.
Alt Market Factor	Numeric	If infrastructure gap does not preclude development, but limits growth capacity, note the assumed market factor for use in Step 6. Used in tandem with the “Alt Density” field. Do NOT provide values for both fields.

Source: BERK, 2020.

Infrastructure Gap Analysis Worksheet

An infrastructure gap analysis worksheet is included in Exhibit 4 below. A jurisdiction would already have the information needed in existing plans, and would focus only on systems with the potential to prevent assigned densities from being achieved or delay urban development during the 20-year planning period at a systemwide or areawide scale. If there are no systemwide or areawide constraints with any system, continue to Step 1.

Exhibit 4. Programmatic Infrastructure Gap Review Worksheet

Step	Response / Description
<p>Step 0.1: Determine if any of the following infrastructure systems have the potential to prevent assigned densities from being achieved or delay urban development during the 20-year planning period at a systemwide or areawide scale. An answer of “yes” or “maybe” to the following questions would warrant closer review for that infrastructure type in the Step 0.2.</p>	
<ul style="list-style-type: none"> ▪ Water: Are there major constraints in supply, pressure, or distribution that would preempt development, or markedly constrain expected densities? 	
<ul style="list-style-type: none"> ▪ Sewer: Are there unsewered areas or areas currently operating on septic without capital plans in place to extend service? Are there areas of septic where failure has been identified by the Health District? Would the lack of areawide sewer due to physical or economic feasibility considerations alter an area’s development potential during the planning period? 	
<ul style="list-style-type: none"> ▪ Stormwater: Are regional systems necessary for urban-scale development at a systemwide or areawide level? 	
<ul style="list-style-type: none"> ▪ Transportation: Does the jurisdiction contain areas with long-term physical service challenges? Areas are inaccessible due to geographic constraints; or no infrastructure currently exists to provide physical access. 	
<p>Step 0.2: Complete the following <u>using available information</u> only for relevant systems where you answered “yes” or “maybe” to the questions above. Answer the following questions separately for each relevant system identified.</p>	
<ul style="list-style-type: none"> ▪ Review latest available adopted system plan or capital facilities plan. Provide a list or links to plans relevant systems under review. 	
<ul style="list-style-type: none"> ▪ Does the system plan document any underserved or major system deficiencies? If yes, describe. 	
<ul style="list-style-type: none"> ▪ Does the plan include capital improvements to extend service or address deficiencies in the planning period? If yes, describe and proceed to Step 1. 	
<ul style="list-style-type: none"> ▪ Does the constraint preclude all growth? If yes, identify affected parcels in GIS: <ul style="list-style-type: none"> ○ Document the infrastructure gap type in the Infrastructure Gap field. ○ Use the Constant field to flag any parcels where lack of infrastructure would make development unfeasible within the 20-year planning period and the current status of the property is unlikely to change. ○ Exclude affected parcels from further analysis. Continue to Step 1. 	
<ul style="list-style-type: none"> ▪ Does the constraint partially constrain growth? If yes, identify the areas spatially, document the infrastructure gap type in the Infrastructure Gap field, and note the alternative densities for Step 8, or alternative market factor for Step 6. Only one assumption should be varied, either density or market factor, but not both, to avoid double counting. <ul style="list-style-type: none"> ○ Density Limitation: If infrastructure conditions would not preclude development, but they are likely to limit growth capacity, set the field Alt Density to the maximum anticipated density (dwelling units per acre or floor area ratio) and document the source of this assumption. The property would be flagged, and the appropriate density would be applied in Step 8. ○ Market Factor: If infrastructure conditions would not preclude development, but they are likely to limit growth capacity, and the limitation can be addressed by market factor considerations in Step 6, set the field Alt Market Factor equal to the anticipated market factor reduction associated with infrastructure conditions and document the source of the assumption. The parcels would be flagged, and the appropriate market factor would be applied in Step 6. 	

RESIDENTIAL LCA

The Residential LCA identifies vacant, partially underutilized and underutilized parcels in residential zones to calculate available capacity for development of housing units and associated population. Results will demonstrate whether existing zoning regulations allow for the growth needed to meet assigned residential growth targets for the 20-year planning period. The first step in this process is to categorize properties according to their development potential. The following steps apply only to properties located in residential zoning districts.

Step 1. Define Development Status and Classify Parcels

The land capacity analysis is designed to measure capacity for new growth and therefore focuses primarily on vacant and redevelopable land. Assumptions regarding future development potential vary with site-specific conditions, so a detailed classification of properties must be performed as the first step in the analysis.

To prepare for this analysis add the following fields to the parcel layer. The steps below will explain how to calculate values for these fields.

Exhibit 5. GIS Database Fields to be Added – Residential LCA Step 1

Field Name	Field Type	Comments
Zone	Text	Zoning district
Assumed Density	Numeric	Assumed density (units per acre) for the zone. This may be the achieved density from the “look back” analysis, or a revised assumption based on a change in conditions or development regulations (see text box above). Set to NULL for all non residential or mixed-use zones.
Potential Units	Numeric	The potential residential units on the parcel based on assumed density with no deductions considered. This field is used only for determining which parcels are partially utilized. Not in final land capacity calculations.
LCA Class	Text	Land Capacity Analysis Classification, as determined in Step 1 (Excluded, Pipeline, Vacant, Partially Utilized, or Under-Utilized).
Pipeline Density	Numeric	Approved/proposed density (in du/ac) for Pipeline properties, as determined in Step 1.1. For non-Pipeline properties, set value to Null.
Platted Lot	Text	If the parcel is a platted lot, set to TRUE. Else FALSE.

Source: BERK, 2020.

- **Step 1.1: Identify Pipeline Properties (OPTIONAL).** Pipeline development refers to growth that has been permitted or approved but was not yet built as of January 1, 2020. Unless there is a reason to believe the growth will not actually be completed, this growth can be accounted for in the capacity calculations. Jurisdictions that wish to account for pipeline development separately in their LCA can remove the parcels from the land supply at the outset of the process and add them back in later

based on approved final permits or development agreements. This can result in a more accurate accounting of capacity for growth. In addition, the process for approving plats, master plans, and building permits can provide a more accurate, site-level review of critical areas than the regional approach used in this LCA. Properties can be classified as “Pipeline” if they meet any of the following criteria, and jurisdictions that complete this optional step can select to use any or all of these criteria. *These criteria can be refined to best reflect local circumstances.*

- The property is part of a final single-family plat and has not yet been approved for a building permit. The primary purpose of including such properties in the pipeline is to capture large plots of land being developed for single-family home sites where individual lots have not yet been recorded with the County Assessor. Assign future growth for these parcels as one single-family unit per platted lot.
- A preliminary plat has been approved (e.g. preliminary plat) and site development permits have been issued, but the final plat is not yet complete. However, the construction permit shows evidence of commitment and the proposal densities appear to be best reflected in the final capacity rather than the typical LCA process. Treat lots like a final plat above – one single-family unit per platted lot.
- A final land use permit has been approved for the property (e.g. multifamily or mixed-use site plan) but not yet constructed as of January 1, 2020. Assign future growth for these parcels consistent with type and number of units described in the approved land use permits.
- The property is part of an approved master planned or phased development under a development agreement. For final development agreements, assign approved density levels and classify the properties as “Pipeline.” If the master plan or development agreement is preliminary or still pending, assign the proposed density levels, but do not classify the land as “Pipeline.”
- **Step 1.2: Identify Excluded Properties.** Parcels with the following use classifications are not likely to redevelop and should be classified as “Excluded”:
 - Utility parcels;
 - Transportation parcels or right-of-way;
 - Marinas;
 - Cemeteries;
 - Hospitals;
 - Governmental services;
 - Schools (including higher education);
 - Churches and other places of worship;
 - Cultural, entertainment, and parks/recreation properties;
 - Tidelands and water areas; and
 - Current Use Exempt parcels (RCW 84.34); note if there is a clear intent to develop in the planning period, treat as pipeline, vacant, or partially utilized as appropriate.

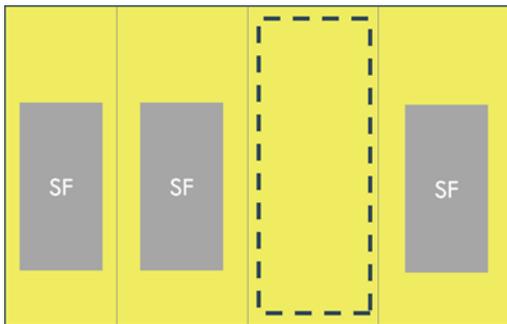
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- Open space
- Shoreline parcels less than 1 acre

In addition, any properties identified as “Constant” in the Infrastructure Gap Analysis should be classified as “Excluded.”

- **Step 1.3: Identify Vacant Properties.** Vacant parcels are properties with no development or very minimal improvements, regardless of size. See Exhibit 6. These are identified in County Assessor parcel data as having a property class code associated with vacant/undeveloped land (“910 – Undeveloped Land,” or “990 – Other Undeveloped Land”). For these parcels, set LCA_Class to “Vacant”.

Exhibit 6. Example of a Vacant Parcel



Source: BERK, 2020.

Step 1.4: Identify Partially Utilized Properties. Partially utilized properties are parcels currently occupied by a use, but which encompass enough land to be further subdivided without rezoning. Typically, this category consists of parcels zoned for single-family residential development that are large enough to be subdivided for the creation of additional single-family lots (see Exhibit 7). For parcels not classified as Vacant or Pipeline, assign the “Partially Utilized” classification if the property meets **all** of the following criteria:

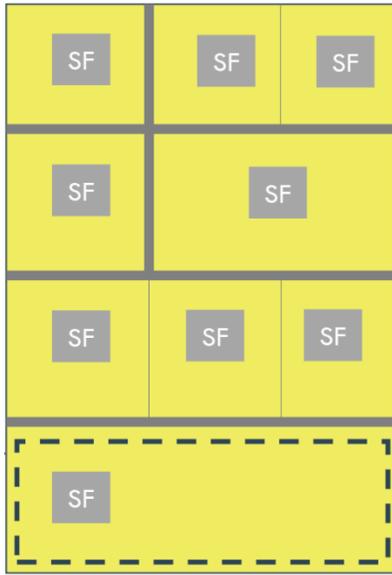
- The parcel is in a residential zone where the predominant form or new housing development is expected to be single family
- Based on assumed density for that zone, the parcel has potential to support at least 2.5 X number of existing units. and
- The parcel is not part of a subdivision restricted from future subdivision by covenant.

To identify Partially Utilized parcels in residential zones, do the following:

- Calculate the field Potential Units as number of units that could be built at the assumed density level for that zone (parcel acres x Assumed Density).
- Compare Potential Units to the existing units on the parcel. If Potential Units is at least 2.5x existing units, then classify the parcel as Partially Utilized. (LCA Class = “Partially Utilized”)

Note: Critical areas will be accounted for in Step 3. Then remaining acreage of Partially Utilized parcels will be aggregated and standard deductions will be applied. So, the Potential Units field is not used to calculate land capacity.

Exhibit 7. Example of a Partially Utilized Parcel



Source: BERK, 2020.

- **Step 1.5: Identify Under-Utilized Properties.** Under-utilized properties contain some amount of existing development, but there is a strong possibility that the existing use will be converted to a more intensive use during the planning period. For example, a single-family home on a property with multifamily or commercial zoning could be considered under-utilized (see Exhibit 8). For parcels not classified as Vacant, Pipeline, or Partially Utilized, assign the “Under-Utilized” classification if the property meets **any** of the following criteria:
 - The property is in a residential or mixed-use zone where the predominant form or new housing development is expected to be multifamily, and the existing use is a detached single-family home, cottage, mobile/manufactured home, or garage/shed; or
 - The property is zoned for multifamily or mixed-use, and the improvement to land value ratio is < 0.5 (i.e., assessed improvements value divided by assessed land value <0.5).

Exhibit 8. Examples of Under-Utilized Parcels



Source: BERK, 2020.

- **Step 1.6: Identify Platted Lots.** Single-family parcels that are platted lots recorded prior to the January 1, 2020 “lookback” date should be identified and removed from the land supply prior to application of critical areas deductions (Step 3) if they are classified as Vacant, Partially Utilized, or Under-Utilized. As part of approved plats, these properties have already undergone critical areas review and should not have deductions applied again. Development potential for these platted lots is calculated separately in Step 8.

Where platted lots are identified, set the “Platted Lot” field to TRUE. Platted lots are identified by Assessor tax account number with the following query:

```
SELECT FROM GIS.PARCEL_POLY WHERE [ACCT_NO] >= '37**_***_***_****'
```

Step 2: Exclude Parcels Unlikely to Develop

This step refines the classifications from Step 1. This refinement is intended to address additional factors that could affect development potential, including high-value homes that may be unlikely to redevelop or subdivide, despite having adequate acreage to do so.

- **Step 2.1: Exclude High-Value Residential Parcels.** For Partially Utilized parcels that meet the following criterion, change LCA Class to “Exclude”:
 - The assessed value of property improvements is greater than 2.5 X the parcel’s assessed land value.

Step 3: Identify Critical Areas

Critical areas are defined by the GMA generally as wetlands, floodplains, geologically hazardous areas, fish and wildlife habitat conservation areas, and critical aquifer recharge areas. These are environmentally sensitive areas that must be protected under the GMA and are generally not available for development. This step determines critical areas locations and applies a mosaic feature that generalizes buffers and required setbacks. Once identified, these areas are deducted from the remaining vacant, partially utilized, and underutilized land supply.

This analysis assumes a percentage of critical areas can be legally developed under the current Critical Areas Ordinance. The likelihood that an area can be developed depends upon the type of environmental sensitivity. This method differentiates “Areas of Moderate Geologic Hazard” from other “Critical Areas” and applies a different partial reduction of acreage for each category when calculating developable land supply.

The Critical Areas mosaic represents the areas most highly encumbered by the presence of environmental

DEVELOPMENT POTENTIAL OF HIGH-VALUE HOMES

Step 2.1 examines properties with special circumstances that make them unlikely to redevelop, regardless of subdivision potential or zoning. Often, these properties are high-value, luxury single-family homes with larger lot sizes and high improvement values relative to the value of the underlying land.

The methodology identifies these properties on the basis of achieved density and improvement-to-land value ratio to control for variations in land values across large areas. Local jurisdictions may consider local property value conditions and set alternative thresholds, as appropriate.

CRITICAL AREAS

The methodology for Step 3 is based on Kitsap County’s adopted framework for regulating critical areas. Local jurisdictions may include additional environmental constraints or apply different reduction factors, depending on local regulations.

features. Components of the mosaic include the following critical areas categories:

- **Streams:** Both perennial and seasonal streams, as well as their associated buffer areas.
- **Wetlands:** Delineated wetland areas and their associated buffers, as regulated by the Critical Areas Ordinance.
- **Water Bodies:** Areas of standing water that cover a portion of a parcel, including lakes, ponds, bogs, or saltwater.
- **Hydric Soils:** Inclusion of hydric soils in the critical areas mosaic captures areas that have the potential to be classified as wetlands, even if no formal wetland delineation has been performed.
- **Areas of High Geologic Hazard:** Unstable areas with steep slopes or other geologic characteristics that make them highly unsuitable for development.

Areas of Moderate Geologic Hazard include lands with moderate slopes, seismic concerns, or erosion risks, but they are not as sensitive as the high geologic hazard areas included in the Critical Areas mosaic and are therefore assigned a lower reduction factor.

Exhibit 9 provides a detailed description of each critical areas mosaic component, data sources, associated buffer widths, and land supply reduction factors.

- **Step 3.1: Construct critical areas mosaic.** For each class of critical area (streams, water bodies, wetlands, hydric soils, and geologic hazards), apply the following GIS operations:
 - Buffer features according to adopted buffers and setbacks, as established in the latest Critical Areas Ordinance.
 - With the exception of Moderate Geologic Hazard area, dissolve all critical area and buffer/setback areas to create a single Critical Areas polygon.
 - Dissolve all Moderate Geologic Hazard features and associated buffer/setback areas to create a single polygon.
- **Step 3.2: Overlay critical areas mosaic on parcel base.**
 - Select Vacant, Partially Utilized, and Under-Utilized parcels and dissolve to create an aggregated Developable Lands GIS feature class. The dissolve operation should respect LCA classification, zoning, and any infrastructure gaps identified in Step 0. Ensure that the resulting feature class maintains the following attributes:
 - LCA Classification;
 - Zoning;
 - Infrastructure gap type; and
 - Infrastructure density limit (identified as part of Step 0.2).
 - Overlay the Critical Areas polygon and the Areas of Moderate Geologic Hazard polygon with the aggregated Developable Lands feature class. Perform a union of these three datasets to generate an updated Developable Lands feature class consisting of the following:
 - Areas with no environmental constraints;

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- Critical Areas; and
 - Areas of Moderate Geologic Hazard.
- Areas of environmental constraint that do not intersect Vacant, Partially Utilized, or Under-Utilized parcels should be excluded from the updated Developable Lands feature class.
 - At this point, the GIS feature class can be exported into a tabular format for additional spreadsheet-based operations in Microsoft Excel or a similar program. Subsequent steps will refer to this as the “Buildable Lands table.”
- **Step 3.3: Apply critical area reductions**
 - Add a “Developable Acres” column to the Buildable Lands table. This column represents the baseline aggregate acreage available for development after consideration of critical areas and is calculated in the following steps. Further deductions for roads, infrastructure, and public uses will be applied in Steps 4-7.
 - For each record in the Buildable Lands table, calculate developable acres as follows:
 - For areas without environmental constraints, set equal to total acreage of the polygon.
 - For areas impacted by Critical Areas, set Developable Acres to 25% of overall polygon acreage (75% reduction).
 - For areas impacted by Areas of Moderate Geologic Hazard, set Developable acres to 50% of overall polygon acreage (50% reduction).

Exhibit 9. Parameters for Identifying Critical Area Reductions

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
Streams					
DNR Water-courses	S: All waters, within their bankfull width, as inventoried as “shoreline of the state” under chapter 90.58 RCW (Segments of Big Beef Creek, Curley Creek, Chico Creek, Burley Creek, Union River, Blackjack Creek and Tahuya River)	200 feet	15 feet beyond buffer	75%	WCHYDRO contains watercourses represented as arcs or lines created by the Washington State Department of Natural Resources. These occur alone as single arc watercourses representing streams, ditches, or pipelines, or as centerlines through water body polygons such as double-banked streams, lakes, impoundments, reservoirs, wet areas,
	F: Segments of natural waters other than Type S Waters, which are within the bankfull widths of defined channels and periodically inundated areas of their associated wetlands or within lakes, ponds or impoundments having a surface area of 0.5 acre or greater at seasonal low water and which in any case contain fish habitat.	150 feet	15 feet beyond buffer	75%	

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
	NP: Segments of natural waters within the bankfull width of defined channels that are perennial nonfish habitat streams. Perennial streams are flowing waters that do not go dry any time of the year of normal rainfall.	50 feet	15 feet beyond buffer	75%	or glaciers. Also included are areas where the Wild Fish Conservancy has field-surveyed streams, where accessible, for fish presence and overall condition.
	NS: Segments of natural waters within the bankfull width of defined channels that are not Type S, F or Np Waters. These are seasonal, nonfish habitat streams in which surface flow is not present for at least some portion of the year of normal rainfall.	50 feet	15 feet beyond buffer	75%	
Wetlands					
Wetlands	<p>Category I: Category I wetlands include, but are not limited to, wetlands that represent rare or unique wetland types, those that are more sensitive to disturbance than most wetlands, those that are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime, or those that provide a high level of function. Category I wetlands score twenty-three points or more out of twenty-seven on the wetlands ratings system.</p> <p><i>(Washington State Wetland Rating System for Western Washington, revised 2014, or as hereafter amended)</i></p>	92.5 feet		75%	All wetland delineations are done in accordance with the approved federal wetland delineation manual and applicable regional supplement. All areas within the county that meet the wetland designation criteria are designated critical areas and are subject to the provisions of Kitsap County Code Title 19 – Critical Areas Ordinance.
	<p>Category II: Category II wetlands are those wetlands that are more difficult to replace and provide high levels of some functions. Category II wetlands score between twenty and twenty-two points out of twenty-seven on the wetlands ratings system.</p> <p><i>(Washington State Wetland Rating System for Western Washington, revised 2014, or as hereafter amended)</i></p>				Through personal communication with environmental review staff, the most common wetland categories found in urban areas are Category III and IV wetlands. The characteristics of these common wetland types were moderate level

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
	<p>Category III: Category III wetlands are those wetlands with a moderate level of function and can often be adequately replaced with mitigation. Category III wetlands score between sixteen and nineteen points on the wetlands ratings system.</p> <p><i>(Washington State Wetland Rating System for Western Washington, revised 2014, or as hereafter amended)</i></p>				<p>of function. In very rare circumstances since the adoption of the 2017 CAO, low functioning/value Category II were delineated. Discussion was also held on common modifications of buffer standards allowed in code. This includes buffer averaging, administrative buffer reductions of 25% or less (Type II decision) or if greater than a 25% buffer reduction, buffer variance approved by the Hearings Examiner (Type III decision).</p> <p>To calculate average buffer widths, the most common wetland category found in urban areas was used (Category III to IV). The range of buffer widths from moderate functioning wetlands are 75ft to 110ft, with average at 92.5 feet.</p>
	<p>Category IV: Category IV wetlands have the lowest level of function and are often heavily disturbed. Category IV wetlands score less than sixteen points out of twenty-seven on the wetlands ratings system.</p> <p><i>(Washington State Wetland Rating System for Western Washington, revised 2014, or as hereafter amended)</i></p>				

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
Water Bodies					
Water Bodies	<ul style="list-style-type: none"> ▪ Bay, Estuary, Ocean or Sea (Water Body cartographic feature code: 116) ▪ Lake, Pond, Reservoir, Gravel pit or quarry filled with water (Water Body cartographic feature code: 421, 101, 402) ▪ Marsh, wet area, swamp or bog (Water Body cartographic feature code: 111) 			75%	WBHYDRO contains water body polygons, such as double-banked streams, lakes, impoundments, reservoirs, wet areas, or glaciers. The purpose of including these features in the mosaic is to ensure that isolated water areas (such as lakes, ponds, or bogs) not covered by other categories are properly accounted for and removed from the land supply.
Hydric Soils					
Department of Natural Resources Soil Survey	<p>Soil Description:</p> <ul style="list-style-type: none"> ▪ Bellingham silty clay loam ▪ McKenna gravelly loam ▪ Mukilteo peat ▪ Norma fine sandy loam ▪ Semiahmoo muck ▪ Shalcar muck ▪ Shelton-McKenna complex ▪ 0-10 percent slope ▪ Tacoma silt loam 			75%	Potential wetlands

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
Geohazards					
Geohazard	<p>Areas of High Geologic Hazard:</p> <p>a) Areas with slopes greater than thirty percent and mapped by the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County as "Unstable" (U), "Unstable Old Land Slides" (UOS) or "Unstable Recent Slides" (URS).</p> <p>b) Areas deemed by a Geologist to meet the criteria.</p>			75%	The GEOHAZARDS feature class is a union of the DNR & Natural Resource Conservation Service's (SCS) 1980 Soil Survey for Kitsap County and the soil STABILITY classification from the 1979 "Quaternary Geology and Stratigraphy of

Type	Type Description	Buffer Width	Minimum Building Setback	% Reduction	Comment
	<p>Areas of Moderate Geologic Hazard:</p> <ul style="list-style-type: none"> a) Areas designated U, UOS, or URS in the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County, with slopes less than thirty percent; or areas found by a qualified geologist to meet the criteria for U, URS, and UOS with slopes less than thirty percent; or b) Slopes identified as "Intermediate" (I) in the Coastal Zone Atlas or Quaternary Geology and Stratigraphy of Kitsap County, or areas found by a qualified geologist to meet the criteria of I; or c) Slopes fifteen percent or greater, not classified as I, U, UOS, or URS, with soils classified by the Natural Resources Conservation Service as "highly erodible" or "potentially highly erodible;" or d) Slopes of fifteen percent or greater with springs or groundwater seepage not identified in Items 1 and 2, above; or e) Seismic areas subject to liquefaction from earthquakes (seismic hazard areas) such as hydric soils as identified by the Natural Resources Conservation Service, and areas that have been filled to make a site more suitable. Seismic areas may include former wetlands which have been covered with fill. 			50%	Kitsap County" thesis work by Jerald Deeter.

Source: Kitsap County, 2014.