

APPENDICES

APPENDIX A

Kitsap County Trends Analysis

KITSAP COUNTY

UGA SIZING AND COMPOSITION REMAND

Local Circumstances, Trends, and Land Capacity Methods

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1.0 INTRODUCTION

Based on an August 2011 decision by the Central Puget Sound Growth Management Hearings Board (CPSGMHB), Kitsap County is re-examining its urban growth areas (UGAs) expanded during the 2006 Comprehensive Plan update process. As part of the remand process, the CPSGMHB found Kitsap County out of compliance with the Growth Management Act (GMA) in the following areas:

- **Urban Density/Minimum Densities:** The CPSGMHB found local circumstances did not support the County's reduction of minimum densities in its UGAs to four units per acre. The Board concluded the reduction and resultant UGA expansion created inconsistencies with the comprehensive plan, did not comply with RCW 36.70A. 110, and was not guided by GMA Goals 1 and 2 on Urban Growth and Reducing Sprawl, respectively.
- **Land Capacity Analysis - Accounting for Environmentally Critical Areas Twice:** The CPSGMHB determined the County double-dipped when it discounted twice for constrained lands in its Urban Restricted designation. Specifically, the County's use of a zoning density minimum after critical areas were already discounted understates the actual capacity for development of UR-designated lands.
- **Land Capacity Analysis – Minimum Density:** The CPSGMHB found four dwelling units per acre was not an appropriate capacity multiplier in the County's Urban Low and Urban Cluster designations; it is not a supportable measure of capacity based on local circumstances; and is not consistent with the GMA Goals, the Buildable Lands Report (BLR) and the County's Comprehensive Plan.

The purpose of this white paper is to review and evaluate the County's approach to UGA land capacity analysis in light of recent CPSGMHB remand findings. In particular, this white paper provides data on "local circumstances"

such as trends regarding densities and land capacity deduction factors, and how those local circumstances apply to the estimation of UGA land capacity s to accommodate forecast growth.

The white paper is divided into the following sections:

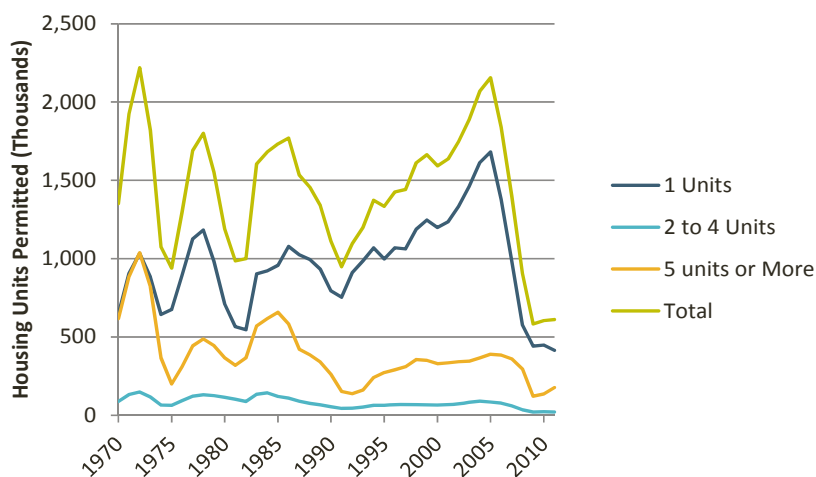
- Introduction
- Growth Trends
- Local Conditions and Land Capacity Evaluation, including achieved densities, public facilities and rights-of-way deductions, market factors, and household size and occupancy
- Summary Recommendations

2.0 GROWTH TRENDS

2.1 National and Local Real Estate Market Trends

Real estate markets have been very cyclical in the past with periods of booms and busts. This trend can be seen clearly in Exhibit 1 below, which shows the number of housing units permitted over the last 40 years in the United States. The last decade saw a large increase in the number of units permitted through 2005 with over two million units permitted a year. There was then a steep decrease over the next four years to 2009, which had a little over 600,000 units permitted that year. The annual total for 2009 and 2010 are well below the median number of units permitted in the last 40 years of 1.4 million units.

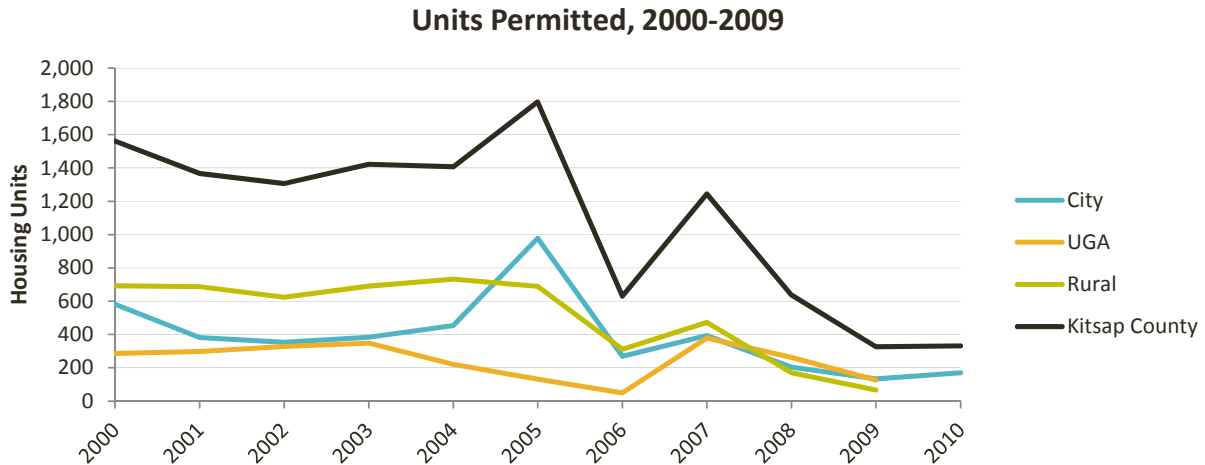
Exhibit 1. Annual Housing Units Permitted in United States, 1970-2010



Source: US Census Building Permit Survey, 2012; BERK

While the amount of development has stabilized, due to excess supply (especially for single-family housing), the lack of strong job growth and stricter lending practices, the amount of new housing development has remained low compared to historical trends. Nationally, multi-family development is the primary housing type that has experienced growth and been able to receive project financing since 2009. This can be seen in the chart above where permits for single unit dwellings continued to decrease to 2010, and permits for buildings with five or more units started increasing in 2009.

Exhibit 2. Residential Building Permits: Units Permitted, 2000-2009



Source: Puget Sound Regional Council; BERK, 2012

Kitsap County growth has also followed the overall national trend over the last decade, as shown in Exhibit 2. The number of units permitted dipped in 2001 and 2002 from almost 1,600 in 2000 and then grew to a high of almost 1,800 units in 2005. The number of units has dropped significantly since then with less than 400 units permitted in 2009 and 2010. In Kitsap County, only 13 of the net 333 units permitted in 2010 were multi-family units. This indicates that Kitsap County is not seeing the same bump in multi-family development that is occurring nationally.

2.2 Kitsap County Population and Employment Trends

Population Trends

Kitsap County's population has grown from approximately 232,000 persons in the year 2000 to approximately 251,000, a 19,000 person increase roughly. About one third of the growth occurred in the cities and the balance in unincorporated County, both in UGAs and rural areas.

The Kitsap Regional Coordinating Council (KRCC) has developed Countywide Planning Policies with the cities and Kitsap County consistent with GMA. The Countywide Planning Policies established 2000-2025 population allocations in 2004 in the range of the Washington State Office of Financial Management projections. The year 2000 and 2025 allocations to sub-geographies were based on a Puget Sound Regional Council (PSRC) model and 2000 Census.

The 2000-2025 population allocations can be updated to recognize new base years. For the 2006 Kitsap County Comprehensive Plan, the base year was modified to 2005 assuming annual growth rates, given there was no other information available at a smaller geography. Currently, 2010 Census information is available at the block level allowing population to be estimated within UGA boundaries. Based on the UGA assumptions of the Countywide Planning Policy population allocations and current 2010 Census information, Exhibit 3 shows updated growth allocations for the cities and UGAs. These illustrate future population demand and can be compared to land supply for each UGA.

Exhibit 3. Population Growth and Targets

City or UGA	2000	2010	2025	Net	Net	2005-2010	2010-2025
	Population	Population	Target	Change	Change	Comp Plan	Updated
				2000-2025	2010-2025	Target	Target
City of Bremerton	37,258	37,709	52,017	14,759	14,308		
Bremerton East UGA*	5,412	4,093	7,622	2,210	3,529	1,905	3,529
Bremerton West UGA*	3,229	2,900	5,246	2,017	2,346	1,756	2,346
Bremerton Port UGA (SKIA)	68	129	0	-68	-129		-129
Central Kitsap UGA	21,743	24,285	30,476	8,733	6,191	7,526	6,191
Gorst UGA	154	151	227	73	76	73	76
Silverdale UGA	15,276	15,556	23,335	8,059	7,779	6,988	7,779
City of Bainbridge Island	20,308	23,025	28,660	8,352	5,635		
Kingston UGA	1,871	2,201	5,006	3,135	2,805	2,816	2,805
City of Poulsbo	6,813	9,185	10,552	3,739	1,367		
Poulsbo UGA**	901	517	4,256	3,355	3,739	2,378	3,739
City of Port Orchard	7,693	8,569	11,293	3,600	2,724		
Port Orchard UGA***	11,570	12,773	21,279	9,709	8,506	8,212	8,506
McCormick Woods UGA							
ULID6	1,241	2,485	9,265	8,024	6,780	7,553	6,780
Total City	72,072	78,488	102,522	30,450	24,034	NA	NA
Non-City UGA	61,465	65,090	106,712	45,247	41,622	39,207	41,622
Non-City UGA							
(without Poulsbo)	60,564	64,573	102,456	41,892	38,012	36,829	38,012
Other Unincorporated	98,432	107,555	122,337	23,905	14,782	20,421	14,782
Total	231,969	251,133	331,571	99,602	80,438	59,628	56,404

Source: Countywide Planning Policies for Kitsap County; US Census 2010; BERK

Notes:

- * The Year 2000 information is from the Countywide Planning Policies, with a source identified as "PSRC Model." Because of the apparent loss of population between 2000 and 2010 in the identified East Bremerton and West Bremerton UGAs, a review of 2000 Census Blocks was conducted. The year 2000 information appears inaccurate, and should correctly state: Bremerton East UGA 4,372 and Bremerton West UGA 2,894. Based on census blocks at the years, 2000 and 2010 there has been little growth to minor loss of population. Thus, the net change from 2000-2025 and 2010-2025 is generally similar. The year 2000 results for the City of Bremerton using block information are very similar to the reported results, and it is unlikely that the error in West and East Bremerton is corrected by changing city population figures.
- ** Year 2010 estimated based on 2010 Census blocks. Year 2000 was based on prior City and/or County plans. The reasons for the discrepancies are unknown between the year 2000 and 2010. The Poulsbo UGA has not been amended since before 2006. The City of Poulsbo and Poulsbo UGA figures have not been adjusted for annexations.
- *** The Countywide Planning Policies noted a population allocation to the Port orchard expansion area, as well as an allocation to the city and unincorporated UGA. For this remand effort, the population allocation for the unincorporated Port Orchard UGA and expansion area have been combined.

The State of Washington Office of Financial Management (OFM) is charged with developing 20-year growth forecasts for counties. Low, medium, and high forecasts are produced every five years. OFM recently issued a new range of forecasts in 2012 for the years 2010 to 2040. The 2012 OFM projections for the year 2025 are as follows:

- Low Projection 2025: 240,939
- Medium Projection 2025: 289,265
- High Projection 2025: 355,786

Under the GMA, counties are required to update population allocations every 10 years and are responsible for selecting a 20-year GMA planning target from within the range of high and low prepared by OFM. The adopted CPP growth target – 331,571 – is within the new OFM range.

The KRCC, made up of the County, four cities, two tribes and other special purpose districts work collaboratively to select the range of population forecasts and allocate them specifically to individual jurisdictions. Under an inter-local agreement, the County approves by ordinance the population forecast, but three cities must ratify the population allocations to become effective. In 2004, the KRCC approved and ratified 20-year forecasts in the 2004 Countywide Planning Policies in advance of the 2006 Comprehensive Plan Update. It is expected the KRCC will be developing new allocations in 2013 and 2014 in light of the new OFM information and will be considering the allocations in 2016, the year of the next scheduled Comprehensive Plan Update.

KRCC will likely consider a growth projection for the year 2035 (about 20 years from 2016). 2012 OFM projections for 2035 are:

- Low Projection 2035: 244,467
- Medium Projection 2035: 320,475
- High Projection 2035: 432,873

Employment Trends

Employment growth in Kitsap County increased from 2000 to 2010 by over 9,000 jobs, though the job growth has been flat between 2005 and 2010, as any increases following 2005 were generally lost in the subsequent recession. See Exhibit 4 which shows that much of the job growth between 2000 and 2010 were in the services and government sectors.

Exhibit 4. Countywide – Covered Employment Estimates

Year	Const/ Res	FIRE	Manuf- acturing	Retail	Services	WTU	Govern- ment	Education	Total
2000	3,658	2,580	1,721	10,027	25,321	1,801	18,813	6,933	70,854
2005	4,476	3,316	1,660	10,853	29,677	2,275	20,666	7,293	80,216
2010	3,420	2,663	1,771	10,361	31,043	1,961	21,800	7,048	80,067

Source: PSRC

Since job totals are similar between the years 2005 and 2010, it is expected that the County’s job projections for 2005-2025 remain applicable for the remainder of the planning period. See Exhibit 5 for current Kitsap County employment forecasts. Of the approximately 49,000 job increase from 2005-2025, approximately 66% are assumed to occur in the County and 34% in the cities based on their comprehensive plans.

Exhibit 5. Countywide – Employment Forecasts

Sector	1995	2004	2025 Trended	2004 Distribution	2025 Distribution
Industrial Sector Jobs					
Construction Resources	3,331	4,263	7,600	5%	6%
Manufacturing	1,303	1,589	10,700*	2%	9%
Warehousing/Transportation /Utilities	1,523	1,877	3,100	2%	2%
Total Industrial Jobs	6,157	7,729	21,400	10%	17%

Sector	1995	2004	2025 Trended	2004 Distribution	2025 Distribution
Commercial Sector Jobs					
Retail	8,336	9,969	15,100	13%	12%
Finance/Insurance/Real Estate	2,504	3,269	6,100	4%	5%
Services	21,725	28,541	53,900	37%	24%
Subtotal Commercial	32,565	41,779	75,100	53%	59%
Government	27,680	28,607	30,900	37%	24%
Total Commercial / Government Jobs	60,245	70,386	106,000	90%	83%
Total	66,402	78,115	127,400	100%	100%

Sources: PSRC; E.D. Hovee & Company, LLC as reported in Kitsap County 10-Year Comprehensive Plan Update and Integrated Final Environmental Impact Statement, December 2006

Note: *For the manufacturing sector, the 2025 number was first trended and then adjusted to equal 9% of the employment total (allowing the new jobs total to float upwards).

3.0 LOCAL CONDITIONS AND LAND CAPACITY EVALUATION

3.1 Overview of Land Capacity Methodology

Kitsap County Land Capacity Analysis (LCA)

Land capacity is an estimate of the amount of development that land can accommodate given land use regulations and local development conditions or circumstances. It is the key tool used to determine UGA capacity for growth. The land capacity analysis (LCA) framework methodology was originally developed and adopted by Kitsap County in 2005. The LCA methodology was endorsed by the KRCC and used to determine the buildable lands inventory for all of unincorporated Kitsap County (as well the cities of Port Orchard and Poulsbo)¹. The UGA land capacity analysis yields a buildable land “supply” which can then be compared to population and employment “demand” to indicate a relative land supply and demand comparison for the forecast 20-year Growth Management Act (GMA) planning period. The LCA begins with determining a gross supply of existing vacant and underutilized lands zoned for future development that can accommodate additional growth. The methodology then applies a series of “reduction factors” to that gross supply of developable land to account for undeveloped or underutilized lands that, for a variety of reasons, are not likely to accommodate additional growth. Once a net supply of “buildable” land is identified, then appropriate density multipliers and household size estimates are applied to derive total housing unit and population capacity.

The LCA involves a series of steps to derive net population and housing unit capacity for residential lands and net buildable acres for commercial/industrial zoned lands (reduction factors are noted with a minus (-) sign):

- Define Vacant Parcels by Residential Zone
- Define Underutilized Parcels by Residential Zone Based on a Combination of Existing Use, Zoning Density, Parcel Size and Assessed Value

¹ The cities of Bremerton and Bainbridge Island utilized the LCA methodology as their framework for buildable lands analysis. However, in some cases, both cities utilized slightly different definitions and/or assumptions within that overall framework that best applied to the factors affecting land supply for their own respective jurisdictions.

- Identify Critical Areas (-)
- Future Roads/R-O-W Needs (-)
- Future Public Facilities Needs (-)
- Account for Unavailable Lands (-)
- Yields Net Available Acres by Zone
- Apply Appropriate Density in each Zone to Yield Housing Unit Capacity
- Apply Average Household Size to Housing Unit Capacity to Yield Net Population Capacity

A brief overview of these steps is shown in the following subsections.

Define Vacant Parcels by Residential Zone

The first step determines the gross supply of vacant parcels by residential, commercial and industrial zone. This data is retrieved from queries of the Kitsap County Assessor’s parcel database. The vacant lands database excludes vacant public, other tax-exempt and applicable current use tax parcels. There is no minimum parcel size exclusion from the vacant land data set.

Define Underutilized Parcels by Residential Zone Based on a Combination of Existing Use, Zoning Density, Parcel Size and Assessed Value

Underutilized lands include parcels zoned for more intensive uses than that which currently occupies the property. Parcels are identified by a set of criteria, including existing use, parcel size, zoning density and assessed value. Underutilized shoreline parcels less than one acre and other underutilized parcels less than 0.5 acre are excluded from the redevelopable land supply (i.e., they are presumed not to have significant capacity-inducing redevelopment potential). This step determines the total amount of underutilized lands actually considered likely to redevelop or accommodate additional future development.

With the remand review and alternatives under consideration, the County is proposing to remove underutilized lots from previously approved and developed plats in several UGA land use alternatives. Redevelopment of these lots (typically on older plats from the 1960s-1970s) is often substantially impeded if not functionally-prohibited by plat requirements or covenants. An example of these impediments includes strict plat covenants and requirements for majority approval of affected landowners within a plat if additional lots are to be created. Kitsap County DCD reviewed recorded plat amendment for the past eleven years (2000-2010) and found that no recorded plat amendments increased lot density or created any new residential lots on previously approved plats. For this reason, the Preferred Scenario identified in the FSEIS removes 75% of these remaining underutilized platted lots from the redevelopable urban land supply. The 25% of these underutilized platted lots that remain in the land supply will account for some additional development capacity, including capacity for accessory dwelling units (ADUs).

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. The LCA determines actual critical areas boundaries, including buffers and required setbacks through site-specific GIS analysis. Once identified, these areas are deducted from the remaining vacant and underutilized land supply (although allowable density transfer from applicable critical area buffers is modeled). The GIS applications to determine critical area coverage and development limitation at the parcel level are based on the currently adopted Critical Areas Ordinance (CAO), as applicable.

Future Roads/R-O-W Needs (-)

This step accounts for the fact that future roads and rights-of-way will be needed to accommodate new development in UGAs and that land needed for new roads, trails, and other rights-of-way will not be available to accommodate residential or commercial/industrial development. An average 20% reduction factor was applied to the remaining UGA buildable land supply at this point to account for future road and rights-of-way needs (based on review of land dedicated to roads and rights-of-way in approved final plats). Please see Section 3.3 regarding this factor.

Future Public Facilities Needs (-)

This step accounts for the fact that future public facilities and other non-residential land uses will be needed to serve new development in UGAs and that land needed for new neighborhood parks, schools, stormwater treatment, utilities, fire and public safety services, libraries, churches, day-care facilities and other public-purpose lands will not otherwise be available to accommodate residential or commercial/industrial development. In 2005, an average 15% reduction factor was applied to the remaining UGA buildable land supply at this point to account for future public facility and non-residential land needs (based on estimates of the percentage of land dedicated to public purposes in recent plats). Most GMA “buildable lands” counties also conduct a separate second evaluation under this step to identify future “known” regional public land needs identified in the comprehensive plan, such as major planned new arterial expansions, regional parks, jails, major utility expansions, etc. and deduct those known acres from the remaining buildable land supply. Kitsap County could consider such a refinement in this step by analyzing identified capital facility land needs in the Comprehensive Plan. Please see Section 3.3 regarding this reduction factor.

Account for Unavailable Lands (-)

This step accounts for vacant and underutilized lands, otherwise considered buildable, but that are likely to be unavailable for further development (i.e., held off the market) based on landowner intent (e.g., property owners who don’t wish to sell, properties with legal encumbrances such as a conservation easement, property owners who choose not to maximize their zoned development potential, property held for investment purposes, etc.). In 2005, a 5% vacant land and 15% redevelopable land reduction factor was applied to the remaining buildable land supply at this point to account for unavailable lands. Underutilized lands are discounted more heavily than vacant lands since, other things being equal, they are less likely to redevelop than a similar vacant parcel is to develop over any given period.

These unavailable land “market factors” were purposely set very low by Kitsap County at the time of adoption of the initial LCA methodology because the LCA framework also included (at that time) a “sewer reduction factor” that also removed some lands from the buildable land supply—owing to site characteristics and sewer extension cost constraints. The sewer reduction factor was meant to address the concern that due to location, topography and cost of providing sewer infrastructure, some areas of the UGAs were not likely to develop as planned under developer-financed sewer infrastructure improvement requirements of the county code. That portion of the LCA methodology was appealed to the CPSGMHB, which subsequently ruled that the sewer reduction factor was invalid and that all UGAs are presumed, by definition, to have adequate sanitary sewer service provision. The LCA for the buildable lands analysis was subsequently modified to eliminate the sewer reduction factor for all jurisdictions. However, the County maintained the adopted 5% vacant and 15% redevelopable market factors. They remain the lowest “market factors” utilized by any LCA methodology among the major GMA counties surveyed in western Washington. Please see section 3.4 for additional discussion of market factors.

Yield Net Available Net Acres by Zone

This step calculates the net buildable acres remaining in each applicable zone after all the “reduction factors” have been applied and accounted for in the LCA.

Apply Appropriate Density in each Zone to Yield Housing Unit Capacity

This step currently applies the minimum housing unit density in each zone to determine total housing unit capacity for the applicable jurisdiction². The UGA Sizing and Composition Remand Order specifically addresses this step. The CPSGMHB found that the use of minimum densities in the LCA methodology for some challenged urban residential zones was either inconsistent with the “achieved” densities subsequently found for those zones in the 2007 Buildable Lands Report or, in the case of the Urban Restricted (UR) zone, underestimates capacity due to the deduction of critical areas compounded by the use of the minimum density. The CPSGMHB ordered the County to consider “local circumstances” in defining appropriate density multipliers for the Urban Restricted (UR), Urban Cluster (UC) and Urban Low (UL) zones that more fairly measure their capacity for future growth. See the following Section 3.2 for an analysis of “achieved” plat densities and their application to this step of the LCA.

Apply Average Household Size (SF/MF) to Housing Unit Capacity to Yield Net Population Capacity

Finally average household size populations (currently taken from the 2000 US Census) are applied to the appropriate jurisdiction to determine total population capacities. This result offers a direct comparison of the total population capacity or supply for each jurisdiction and UGA with its associated 20-year forecast population growth or demand. However, this step of the current LCA methodology does not utilize a vacancy or occupancy rate to calculate the “available” housing unit capacity prior to estimating population capacity (i.e., it currently assumes 100% occupancy of the housing capacity). Please see Section 3.5 for further discussion of household size and occupancy.

Urban and Rural Population Discussion

The urban areas are expected to accommodate additional population due to a revised land capacity analysis and, where possible, their boundaries reduced accordingly. While a reduction in UGA size correspondingly increases the size of rural areas, it does not increase the expected rural population for the 2005-2025 time period. A land capacity analysis is not performed for rural areas of the County as they are not “sized” to accommodate a specific amount of development for a 20-year planning period. GMA expects the build-out of rural areas to occur over a longer period of time and thus the size of rural areas is not directly linked to the population demand expected during the 20-year period as UGAs must be. Adjustments in the size of the rural and urban areas as part of the Comprehensive Plan update will be considered in future Buildable Land Reports to ensure accurate accounting of urban and rural development patterns. Kitsap County will continue to rely on the Reasonable Measures described in Final SEIS Section 3.2.2 as the techniques to encourage growth in urban areas and achieve the desired rural / urban development balance. Any changes in countywide population allocations will only occur as modifications to the Countywide Planning Policies, and cannot be done through the County comprehensive plan.

Other County LCA Examples

The review of other counties’ LCA approaches does not define local circumstances for Kitsap County, but shows analysis methods that could be applied to Kitsap County where appropriate to local circumstances. Kitsap County’s LCA method is similar to those of other counties as shown in Exhibit 6. The County’s 20% rights-of-way deduction and 15% public purpose deduction are in the range of other examples, though some of the other counties deduct regional facilities based on their Comprehensive Plans. Kitsap County’s market factor is among the lowest reviewed.

² Minimum densities of the planned zone range were originally applied because the County could ensure the zone would development at least to the minimum of the planned density range for the given zoning classification and the LCA methodology was developed and adopted before the buildable lands analysis yielded any “achieved” density data from 2000-2005.

Exhibit 6. Unincorporated County UGA Land Capacity Deductions for Rights-of-Way, Public Purposes and Market Factors: Comparison of Puget Sound Counties, 2007 Buildable Lands or Land Capacity Reports

Jurisdiction	Future Rights of Way/Infrastructure	Future Public Purposes	Market Factors	
			Vacant	Redevelopable
Whatcom County	Different by UGA and sometimes by SF/MF land use type based on UGA plat review. Ranges from 19% to 27% by UGA. Appears to include roads, stormwater and on-site recreation/open space.	5% to account for non-residential uses in residential zones (plus CP-derived and GIS-generated documented needs for regional public facilities and institutions)	15% (constant across all zones and UGAs)	25% (constant across all zones and UGAs)
Snohomish County	Deducted separately from developable land base based on CP GIS-analysis of documented need for new roads and other uses. Methodology only notes that "net residential area" calculations "exclude roads, wetlands, native growth protection areas, recreational areas and detention ponds".	5% to account for non-residential uses in residential zones (plus CP-derived and GIS-generated documented needs for public facilities and institutions)	15% (constant across all zones and UGAs). Applied to subdividable parcels only--not to already platted lots.	30% (constant across all zones and UGAs). Applied to subdividable parcels only--not to already platted lots.
King County	Different by zone and by vacant/redevelopable status. Ranges from 10% to 20% by UGA, by zone and by development status. Includes roads and access tracts only.	Different by zone and by vacant/redevelopable status. Ranges from 5% to 30% by UGA, by zone and by development status. Includes on-site stormwater, recreation and open space uses. CP-derived regional public land needs not addressed separately.	10% (constant across all zones) in East Subarea UGAs; 15% constant in South Subarea UGAs	30% (constant across all zones) in East Subarea UGAs; 25% constant in South Subarea UGAs
Pierce County	15% (constant across all zones). Appears to apply to roads and ROW needs only. There is a separate "Parks & Open Space" plat deduction step indicated in the LCA, however, it is labeled "N/A" and is not applied to the LCA calculations of net available developable acres.	16% to account for non-residential uses in residential zones (plus CP-derived GIS-generated documented needs for public facilities and institutions).	10%--SF zones; 20% Mixed Use/MF zones (constant across all UGAs)	20%--SF zones; 40% Mixed Use/MF zones (constant across all UGAs)
Thurston County	34.5% (based on plat review in unincorporated UGAs and excluding critical areas). This deduction includes: 22% roads & ROW; 10% stormwater; and 2.5% open space (excluding critical areas).	10% to account for non-residential uses in residential zones (plus CP-derived and GIS-generated documented needs for public facilities and institutions)	Market factor is not deducted from buildable land supply but expressed as a "percent of excess capacity" after UGA sizing calculations are made (land supply-land demand). Average excess capacity "market factors" ranged from 23%-31% for all UGAs.	

Jurisdiction	Future Rights of Way/Infrastructure	Future Public Purposes	Market Factors	
			Vacant	Redevelopable
Kitsap County	20% based on plat review in unincorporated UGAs (constant across all zones). Applies only to road and ROW land needs	15% (constant across all zones). Applies to both private and public regional land needs for stormwater, recreation, open space, schools, and other community facilities such as fire stations, churches, community centers, etc. No separate additional calculation of CP-derived and GIS-generated land needs for public facilities and institutions is utilized.	5% (constant across all zones and UGAs).	15% (constant across all zones and UGAs).

Source: Mark Personius

Abbreviations: SF – single family; MF – multifamily; CP – comprehensive plan

3.2 Achieved Densities

Plat Evaluation 2000-2010

Consideration of residential plat (subdivision) and building permit activity informs two key aspects of the Remand Order relating to land capacity: First, to help determine “achieved” or other appropriate density multipliers for the applicable UGA residential zones (i.e., expected future densities that fairly measure zone capacity); and secondly, to inform assessments of “local circumstances” surrounding land absorption and the rate of residential development over the past ten years. Plat activity is typically a leading indicator of future residential market activity and a measure of land devoted to new residential development.

Plat Densities

Platted densities reflect the density of new lots created in long plats (subdivisions resulting in the creation of ten or more new lots) and short plats (creation of 2-9 lots) approved from 2000-2010. Long plat densities are the best indicator of “achieved densities” since a net density figure can be accurately determined that accounts for critical areas, roads and rights-of-way, utilities and other land within plats not devoted to buildable lots. Kitsap County does not require applicants to provide information allowing for easy calculations of short plat net densities. Thus, short plat densities are reported in gross acres and will have the effect of lowering long plat-achieved densities when their gross acres are converted to net acres and “blended” with long plat data. Summary analysis of achieved “blended” densities from UGA long plats and short plats approved from 2000-2010 is shown in Exhibit 7. In total, 2,349 new residential lots were created in the listed zones from 2000-2010.

Exhibit 7. Plat Densities

A. Short Plats and Long Plats

Zone	Approved Long Plats (LPs)						Approved Short Plats (SPs)		
	Plats	Lots	Gross Acres	Net Acres	Net Density	Gross/ Net Deduction Factor	Plats	Lots	Gross Acres
Urban Restricted	5	220	66.56	25.41	8.66	0.62	11	26	13.11
Urban Cluster	3	783	181.87	102.77	7.62	0.43	0	0	0
Urban Low	30	1,025	265.46	152.12	6.74	0.43	69	204	130.24
Urban Medium	0	0	0.00	0.00	0.00	0.00	0	0	0
Urban High	2	81	7.91	5.39	15.03	0.32	2	4	3.09
Urban Village	0	0	0	0	0	0	0	0	0
Mixed Use	0	0	0	0	0	0	2	4	1.58
Illahee Greenbelt	0	0	0	0	0	0	1	2	2.47
Totals	40	2,109	521.80	285.69	NA	NA	85	240	150.49

B. Average Blended Achieved Densities

Zone	Total Lots	Total Gross Acres	% Total Gross Acres		% Total Lots		Average Gross Density		Gross Density x % Lots		Weighted Gross Density	Weighted Gross/Net Conversion Factor	Average Lots/Net Acre	Plan Density (DU/Net Acre)
			LP	SP	LP	SP	LP	SP	LP	SP				
Urban Restricted	246	79.67	83.5%	16.5%	89.4%	10.6%	3.31	1.98	2.96	0.21	3.17	0.04	8.29	1-5
Urban Cluster	783	181.87	100.0%	0.0%	100.0%	0.0%	4.31	0.00	4.31	0.00	4.31	0.00	7.62	4-9
Urban Low	1,229	395.70	67.1%	32.9%	83.4%	16.6%	3.86	1.57	3.22	0.26	3.48	0.10	6.07	4-9
Urban Medium	0	0.00	0.0%	0.0%	0.0%	0.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10-18
Urban High	85	11.00	71.9%	28.1%	95.3%	4.7%	10.24	1.29	9.76	0.06	9.82	0.04	14.41	19-30
Urban Village	0	0	0	0	0	0	0	0	0	0	0	0	0	10-18
Mixed Use	4	1.58	0.0%	100%	0%	100%	0	2.53	0	2.53	2.53	NA	NA	10-30
Illahee Greenbelt	2	2.47	0.0%	100%	0%	100%	0	0.81	0	0.81	0.81	NA	NA	1-4
Totals	2,349	672.29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Kitsap County Special Projects Division; Mark Personius

Notes:

Blended average net plat density is calculated by weighting the share of total long plat (LP) and short plat (SP) lot creation to their achieved gross densities to derive an average weighted gross density by zone that includes both LP and SP lots (weighted by the percentage of lots created in each category and each zone); then adjusting the long plat (LP) achieved net densities by zone by the applicable gross/net density conversion factor (i.e., a measure of how much SP gross densities impact LP achieved net densities in each zone).

Gross/Net Deduction Factor Comparison: Current adopted "average" LCA development reduction factors--20% ROW and 15% Public Purpose Lands (or 35% total, excluding critical areas)--appear to be slightly lower than observed average long plat gross/net conversions (43%) for the Urban Cluster and Urban Low zone approved long plats from 2000-2010; and significantly lower than the average actual Urban Restricted zone long plat deduction factor (62%) experienced from 2000-2010. The majority of the differences between the observed plat gross/net conversion factors and the applied factors in the LCA for the UR, UC and UL zones are presumed to be accounted for by critical areas--certainly to a greater extent in the UR zone than any other zone, as would be expected.

New lots created from long plats constitute the vast majority (90%) of all new lot formation during the past decade. The greatest number of plats and new lot formation occurred in the Urban Low zone (52%), followed by the Urban Cluster (33%) and Urban Restricted zones (10%), and last Urban High (4%). Significantly more long plat lots were approved from 2006-2010 (23 plats creating 1,602 new lots) than the previous five-year period from 2000-2005 (17 plats comprising 507 lots). It is likely the plat activity differential between the two periods was due to increased development expectations in the latter half of the decade (potentially due to the rate of single family/multifamily building permit absorption in the first half of the decade) and/or simply the time it takes for plats to work their way through the preliminary/final approval process (i.e., plats that were initiated from 2000-2005 but did not receive “final” plat approval until 2006 or later).

Short plats typically occur on smaller “infill” parcels in UGAs (e.g., the average short plat parent parcel size from 2000-2010 was less than 2.5 acres). Approved residential short plats from 2000-2010 created 240 new lots on 150 gross acres. Short plat activity was fairly evenly distributed between the 2000-2005 and 2006-2010 time periods. More than one-half of the new short plat lots were created from 2000-2005 while about 44% of the new short plat lots have been created since 2006.

The plat density analysis compares average achieved net plat densities with the Comprehensive Plan “plan densities”. Particular findings of achieved densities by UGA residential zone for 2000-2010 are discussed below:

- Urban Restricted (UR)—The achieved net plat density exceeded 8 units/acre. This is significantly higher than the “plan” density range of 1-5 du/acre. Total of 16 plats (majority short plats) created 246 lots. Although long plats (on larger parcels) constituted less than half the number of approved short plats (on smaller parcels), they, nevertheless created almost 90% of the new lots in this zone. Kitsap County has noted that it amended its code in 2008 to require the 1-5 dwelling units/acre density range to be based on net developable area (rather than the gross acreage which previously allowed for significantly higher densities in proximity to environmentally sensitive areas). Additionally, the determination of allowed densities within this zone requires a review of on-site and adjacent critical areas rather than solely being the discretion of the developer (i.e. the higher the value of critical areas in and around the project, the lower the allowed density). The effect of these changes should result in a reduced average density and a maximum density ceiling of 5 dwelling units/acre in the UR zone for future plats. Due to this code change, the use of the UR achieved density figure from 2000-2010 (8.29 dwelling units/acre) should not be used as a basis for future UR zone land capacity estimates. Much of the land within the Urban restricted zone covered by or broken into smaller less contiguous pieces by critical areas within the zone. Lacking reliable local plat data that reflects this recent code change, it would be more appropriate for the County to consider a UR zone density multiplier that, at a minimum, utilizes the average or mid-point of the UR plan density range (i.e., 2.5 dwelling units/acre) or reflects the maximum 5 dwelling units/acre end of the range.
- Urban Cluster (UC)—The achieved net plat density was 7.62 units/acre (within the plan density range of 4-9 dwelling units/acre). Total of only three (3) very large long plats that created 783 lots in the UC zone. While the number of approved UC plats is relatively small, the large number of lots created (consistent with the intent of this zone application to single-ownership large-scale developments) suggests that the average achieved density figure is a reliable indicator of expected future densities in this zone.
- Urban Low (UL)—Achieved net plat density was 6.07 (within the plan density range of 4-9 dwelling units/acre). Total of 99 plats created 1,229 new lots. Again, although long plats (on larger parcels) constituted less than half the number of approved plats, they, nevertheless accounted for more than 80% of the new lots in this zone. More plats and new lots were created in the UL zone than any other urban zone. Therefore, the approximate 6.0 achieved density figure appears to be a reliable indicator of expected future densities in the UL zone.

- Urban Medium (UM)—There were no approved plats and no new lots created in the UM zone during the past ten years. The plan density range is 10-18 du/acre. There is very limited local development data or “circumstances” that inform selection of an appropriate future density multiplier for this zone. Building permit data indicate there has been some demand for housing in the UM zone (282 single family and multifamily units permitted from 2000-2010). However, it is unclear, at this point, whether an adequate supply of existing lots in this zone has discouraged creation of new lots or if other factors (e.g. weak housing market) or particular geographic limitations are affecting the lack of plat activity in the UM zone. The only informative UM development data comes from approved condominium development from 2000-2010. During that time, there were four approved condominium projects in the UM zone that created 52 lots on 6.2 gross acres—resulting in an average achieved density of 8.4 units per gross acre. Since achieved net densities would be somewhat higher than the achieved gross, local conditions suggest that an appropriate density multiplier for the UM zone (based on local conditions) would range from the minimum (10 du/acre) to less than the mid-point (14 du/acre) of the plan density range. For example, if using the average gross/net deduction factor of two long plats in the UH zone (32%) as a proxy, a gross density of 8.4 units per acre would equal 11.1 units per net acre (8.4×1.32).
- Urban High (UH)—The achieved blended net plat density was 14.4 units/acre. This was significantly below the plan density range of 19-30 units/acre. The plat sample size is relatively small—only four plats (two long and two short) that created 85 new lots in the UH zone. There were no condominium developments approved in the UH zone during the last decade. Based on the local development circumstances, it may be appropriate for the County to review the implementing code requirements for the UH zone to help determine why the minimum plan densities have not been met to date and to ascertain whether conditions in the approved plats to date were unique and/or suggest implications for future expected density outcomes. Looking forward—from a land capacity viewpoint—review of achieved densities to this point suggests that an appropriate density multiplier for this zone would be no higher than the minimum of the plan density range (e.g., 19 du/acre).
- Mixed Use (MU)—The plan density range for the mixed use zone is 10-30 du/acre. There were no long plats approved in the MU zone during the past decade. There were two short plats approved that created four new lots at a gross density of 2.5 units per acre. There was only one condominium development approved during that time—it created two new units and an achieved gross density of 4.1 du/acre, which was well below the plan density range of 10-30 du/acre for this zone. Local conditions, therefore, seem to suggest that an appropriate density multiplier for this zone would appear to be no higher than the minimum of the plan density range (e.g., 10 du/acre).
- Urban Village Center (UVC)—The plan density range for the UVC zone is 10-18 du/acre. There were no approved long plats or short plats in the UVC zone during the past decade. There were also no condominium units approved during that time. Local conditions, therefore, seem to suggest that an appropriate density multiplier for this zone would appear to be no higher than the minimum of the plan density range (e.g., 10 du/acre).
- Illahee Greenbelt Overlay Zone (IGOZ)—The plan density range for the IGOZ zone is 1-4 du/acre. There were no long plats approved in the IGOZ zone during the past decade. There were also no condominium units approved during that time. There was only one 2.5 acre short plat approved that created two lots at an average gross density of 0.81 units per acre. Local conditions, therefore, seem to suggest that an appropriate density multiplier for this zone would appear to be no higher than the minimum of the plan density range (e.g., 1 du/acre).

Permitted Units

Permitted units measure the total amount of new UGA residential units permitted from 2000-2010 on existing lots. This measure examines building activity on existing lots rather than new lot creation from plat activity. This data is a useful indicator of housing unit growth as well as existing lot consumption for residential use when compared with the amount of land platted (subdivided) for new residential lots. Note that any permitted densities derived from these figures represent gross densities and are not an accurate indicator of net achieved densities.

New single-family and multi-family housing units permitted in the UGAs by zone from 2000-2010 are shown in Exhibit 8 and Exhibit 9.

Exhibit 8. Single Family Building Permits 2000-2010

Time Period	Zone	Units	% of Total Units	Gross Acres	Units/Gross Acre
2000-2005					
	Urban Restricted	139.0	9.2%	90.5	1.5
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	1,137.0	75.5%	385.4	3.0
	Urban Medium	177.0	11.8%	233.9	0.8
	Urban High	50.0	3.3%	3.5	14.3
	Urban Village Center	2.0	0.1%	0.5	4.0
	Mixed Use	0.0	0.0%	0.0	0.0
	Illahee Greenbelt	0.0	0.0%	0.0	0.0
	<i>Subtotal</i>	<i>1,505.0</i>	<i>100.0%</i>	<i>713.8</i>	
2006-2010					
	Urban Restricted	156.0	21.4%	56.1	2.8
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	512.0	70.2%	150.7	3.4
	Urban Medium	13.0	1.8%	2.8	4.6
	Urban High	40.0	5.5%	3.4	11.7
	Urban Village Center	0.0	0.0%	0.0	0.0
	Mixed Use	3.0	0.4%	0.8	3.8
	Illahee Greenbelt	5	0.7%	3.5	1.4
	<i>Subtotal</i>	<i>729.0</i>	<i>100.0%</i>	<i>217.3</i>	
2000-2010 Totals					
	Urban Restricted	295.0	13.2%	146.6	2.0
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	1,649.0	73.8%	536.1	3.1
	Urban Medium	190.0	8.5%	236.7	0.8
	Urban High	90.0	4.0%	6.9	13.0
	Urban Village Center	2.0	0.1%	0.5	4.0
	Mixed Use	3	0.1%	0.8	3.8
	Illahee Greenbelt	5	0.2%	3.5	1.4
	<i>Totals</i>	<i>2,234.0</i>	<i>100.0%</i>	<i>931.1</i>	

Source: Kitsap County; Mark Personius

Exhibit 9. Multifamily Building Permits 2000-2010

Time Period	Zone	Units	% of Total Units	Gross Acres	Units/Gross Acre
2000-2005					
	Urban Restricted	24.0	7.2%	41.2	0.6
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	0.0	0.0%	0.0	0.0
	Urban Medium	66.0	19.8%	10.4	6.3
	Urban High	240.0	72.1%	4.7	51.1
	Urban Village Center	3.0	0.9%	0.2	15.0
	Mixed Use	0.0	0.0%	0.0	0.0
	Illahee Greenbelt	0.0	0.0%	0.0	0.0
	<i>Subtotal</i>	<i>333.0</i>	<i>100.0%</i>	<i>56.5</i>	
2006-2010					
	Urban Restricted	0.0	0.0%	0.0	0.0
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	27.0	15.6%	11.5	2.3
	Urban Medium	26.0	15.0%	28.7	0.9
	Urban High	120.0	69.4%	30.7	3.9
	Urban Village Center	0.0	0.0%	0.0	0.0
	Mixed Use	0.0	0.0%	0.0	0.0
	Illahee Greenbelt	0.0	0.0%	0.0	0.0
	<i>Subtotal</i>	<i>173.0</i>	<i>100.0%</i>	<i>70.9</i>	
2000-2010 Totals					
	Urban Restricted	24.0	4.7%	41.2	0.6
	Urban Cluster	0.0	0.0%	0.0	0.0
	Urban Low	27.0	5.3%	11.5	2.3
	Urban Medium	92.0	18.2%	39.1	2.4
	Urban High	360.0	71.1%	35.4	10.2
	Urban Village Center	3.0	0.6%	0.2	15.0
	Mixed Use	0.0	0.0%	0.0	0.0
	Illahee Greenbelt	0.0	0.0%	0.0	0.0
	<i>Totals</i>	<i>506.0</i>	<i>100.0%</i>	<i>127.4</i>	

Notes: Excludes 542 unit nursing home permitted as MF units in the Neighborhood Commercial zone from 2000-2005.

Source: Kitsap County; Mark Personius

A total of 2,234 new single-family units were permitted in the unincorporated UGAs from 2000-2010 consuming a total of 931 acres of the UGA residential land supply. In addition, 506 new multi-family units were permitted during the same time period within studied zones consuming approximately 127 acres of the UGA residential land supply. New UGA permitted single-family and multi-family units combined from 2000-2010 amounted to 2,740 new units on 1,058 acres.

The permit data indicate that about two-thirds (67%) of all the new residential units permitted in the last decade were permitted prior to 2006. Single family permits issued between 2006-2010 amount to less than one-half of the 2000-2005 results. Unlike new residential subdivision activity, new housing unit starts in the UGAs have slowed dramatically in the last five years in response to the economic recession. Overall, from 2000-2010, the absorption of new single-family units alone in the UGAs (2,234) was similar to the creation of all new urban residential lots (2,349) created through new plats.

Parcel Size Analysis

Another trend evaluated was the consumption of buildable (vacant and underutilized) parcels from 2006 to 2010. Since 2006, the amount of gross acres of buildable parcels within the UGAs evaluated (Bremerton East, Bremerton West, Central Kitsap, Gorst, Kingston, Port Orchard, Silverdale and ULID6) decreased by 1,171 acres. Note, the 2010 parcel acres were summarized using the same 2006 UGA boundaries to exclude annexation that have occurred since 2006. This allows the acres totals within UGAs to be comparable from 2006 to 2010. Exhibit 10 depicts the total gross acres and average parcel size of buildable parcels based on the parcels' size. The smallest category, 0.05 acres, corresponds to the smallest possible lot size allowed (2,400 s.f.) in the UGAs under the existing zoning.

Exhibit 10. Buildable Parcels by Gross Parcel Size

Parcel Size (Gross Acres)	2006			2010 (within 2006 UGA)		
	Gross Acres	Acres as Percent Total	Average Parcel Size (Acres)	Gross Acres	Acres as Percent Total	Average Parcel Size (Acres)
>10	3,494	35.7%	26.1	2,535	29.4%	23.0
5-10	1,701	17.4%	7.2	1,370	15.9%	7.1
2-5	2,506	25.6%	3.2	2,372	27.6%	3.1
1-2	1,086	11.1%	1.4	1,197	13.9%	1.3
0.5-1	582	6.0%	0.7	769	8.9%	0.8
0.05-0.5	401	4.1%	0.2	351	4.1%	0.2
< 0.05	8	0.1%	0.0	13	0.2%	0.0
Total	9,778	100.0%	2.1	8,607	100.0%	1.7

Source: Kitsap County; BERK, 2012

Overall, the average lot size decreased from 2.1 acres in 2006 to 1.7 acres in 2010. During the same period, the makeup of parcel sizes also changed with smaller parcels increasingly making up a larger share of all buildable parcel acres. The percent of large size parcels, those five acres or greater, decreased as a percent of total buildable parcels' acres, and parcels less than five acres increased as a percent of the total buildable parcel acres. Decreasing larger lots indicates that larger, easier to develop parcels are being taken out of the buildable land supply first. This finding corresponds to Exhibit 7, which shows approved plats from 2000 to 2010. Long plats, which are likely to be developed on parcels of two to five acres or more, accounted for 522 total gross acres while short plats accounted for 146 gross acres over the same period. Looking forward, a larger share of smaller sized parcels indicates that short plats may compose a larger share of plat development in the future than what was experienced from 2000 to 2010.

The average short plat parent parcel size from 2000-2010 was less than 2.5 acres. Considering Exhibit 10, which shows acreage in the larger parcels greater than 2 acres is shrinking (by approximately 6.4%) whereas smaller parcels, two acres or less are increasing, more short plats could be possible and could slightly reduce the blended achieved densities calculated above in Exhibit 7, part B. For example, if the share of short plat lots were to increase by about 10% (from approximately 17% in Exhibit 7 part A, to 27% based on the share of parcels around 2 acres or less in 2010 per Exhibit 10) this could slightly reduce the Urban Low blended achieved density from 6.07 to 5.89. If the share of short plats increased by 5% from 17% to 22% then the Urban Low blended achieved density would be approximately 5.9.

3.3 Public Facilities and Rights of Way Deductions

Since creating the LCA methodology in 2005, Kitsap County has deducted 20% of buildable land for rights-of-way and 15% of buildable land for public purposes; these were estimated based on long plats. Exhibit 11 reviews final long plats completed between 2006 and 2010 in order to determine if these deduction factors warrant

adjustment. The period from 2006-2010 was selected for review because it represented plats that were approved following significant code changes in 2006 and following the analysis of the 2005 ULCA which established discount factors on earlier samples of plats. Exhibit 12 shows the results for a random sample of short plats in UGAs.

Right-of-Way Deduction

Results in Exhibit 11 show that the right-of-way deduction in final long plats is trending at 19% similar to the 20% deduction factor. Results in Exhibit 12 show results for short plats at about 19% as well, though this may be a little overestimated as some short plats combine utilities within the access tract; the lower estimate of 16% removes high and low results. Currently there are no adjustments in the LCA method to account for regional road improvement projects and for regional trails.³ If regional improvements were assumed the percentage could increase. On the other hand, the road standards for short plats are lesser than for long plats, and access reductions are more variable as shown in Exhibit 12. On the whole, maintaining the 20% deduction factor appears appropriate.

Public Facilities Deduction

Results in Exhibit 11 show that the public facility deduction in final plats is trending at 22-25%, higher than the 15% currently deducted. The lower estimate of 22% removes the high and low extreme of the plat deductions, and the higher estimate of 25% does not remove any outliers. It should be noted that the public facility deductions do not account for regional facilities such as regional stormwater, regional sewer, or other similar facilities.⁴ The newly calculated deductions do not account for changes in stormwater rules adopted in 2010, which indicates for smaller parcels such as 1 acre in size, the cost to comply with new detention requirements will likely increase⁵. Short plats tend to include larger lots and fewer tracts than long plats (as shown in Exhibit 12 with only 2-3% removed for public facilities though this is likely underestimated as the utilities are often shown in combined access tracts). However, since parcels of 1 acre could be affected by the increasing stormwater rules, this would tend to forecast increasing facility size on smaller developments. Given the potential for greater percentages due to regional facilities, variable deductions for short plats that have less efficient lot patterns, and increasing stormwater standards for smaller lots – testing a public facility deduction around the mid-point of the 15-25% range would still be conservative, i.e. 20-22%.

³ The Transportation Improvement Program adopted in December 2011 includes approximately five projects requiring rights-of-way acquisition in UGAs, and the Parks CIP adopted in December 2011 includes Unidentified Multi Use Trails - 70 miles, a portion of which could occur in UGAs (e.g. if following the Mosquito Fleet Trail Plan).

⁴ The Stormwater Capital Improvement Program adopted in December 2011 includes approximately five regional stormwater projects, some of which may or may not require use of some buildable land. Sewer plans identified in the Draft Capital Facilities Plan show a need for numerous pump stations. Additional regional park acquisition is proposed in the 2012 Parks Recreation and Open Space Plan to meet a target level of service.

⁵ Kitsap County. January 2010. Executive Summary: Stormwater Regulation for Sites that Clear Less than 1 Acre. Prepared for Board of County Commissioner meetings dated January 6 and 13, 2010.

Exhibit 11. Final Long Plat Analysis – Right of Way and Other Public Facility Deductions

Plat Name	UGA	Year Recorded	Total Acres - Critical Areas (1)	Right-of-Way		Stormwater/Utility/Open Space	
				Acres (2)	%	Acres (3)	%
Coyote Ridge	Port Orchard	2006	4.83	1.20	25%	0.64	13%
Gazebo	Port Orchard	2006	2.07	0.46	22%	0.00	0%
Sedgwick Place	Port Orchard	2006	9.01	0.89	10%	0.89	10%
Spicewood	Port Orchard	2006	1.48	0.22	15%	0.07	5%
	Bremerton						
Gerard's View	East	2007	6.26	1.51	24%	0.10	2%
Hawkstone	ULID 6	2007	8.51	1.13	13%	1.64	19%
Indigo Pointe	Port Orchard	2007	4.13	1.23	30%	0.21	5%
Madeline Woods	Central Kitsap	2007	7.07	2.23	32%	0.58	8%
Strathmore	ULID 6	2007	15.80	2.53	16%	5.67	36%
Sunset East	Central Kitsap	2007	12.24	3.11	25%	1.46	12%
Leora Park II	Port Orchard	2008	5.31	1.15	22%	0.66	12%
Riddell North	Central Kitsap	2008	3.62	0.80	22%	0.29	8%
The Ridge		2006-					
Div 1 and 2 (4)	ULID 6	2009	59.24	10.93	18%	13.86	23%
The Ridge Div 3	ULID 6	2008	44.94	8.21	18%	13.85	31%
Archer Point	Port Orchard	2009	3.60	0.68	19%	0.89	25%
Black Jack							
Terrace	Port Orchard	2009	13.69	0.72	5%	10.28	75%
Collings Plat	Central Kitsap	2009	8.22	1.82	22%	1.65	20%
Madrona Glen	Port Orchard	2009	4.41	0.98	22%	0.79	18%
Reite Estates	Port Orchard	2009	4.44	0.81	18%	0.52	12%
Kingston Cedars	Kingston	2010	4.71	1.07	23%	0.59	13%
McCormick							
Woods Div 15	ULID 6	2010	5.27	0.73	14%	2.57	49%
Total Acres Reviewed			228.85	42.41	19%	57.21	25%
ROW - Removal of low and high			208.09	39.46	19%		
Stormwater/Infrastructure/Open Space -							
Removal of low and high			213.09			46.93	22%

Source: Kitsap County Special Projects Division; Kitsap County Auditor; BERK

Notes:

- (1) Total acres estimated based on original parcel boundaries per plat diagram, staff reports, or GIS. Excludes tracts or portions of tracts identified as critical areas.
- (2) Includes dedicated public rights of way and access tracts. Estimated by plat information, GIS, or subtraction of lots/tracts from total plat area.
- (3) Includes all other tracts dedicated for stormwater, utilities, and open space/recreation.
- (4) Plats reviewed jointly given shared streets and open space tracts.

Exhibit 12. Short Plat Analysis – Right of Way and Other Public Facility Deductions

Auditor File Number	UGA	Year Recorded	Total Acres Minus Critical Areas (1)	ROW Acres (2)	ROW %	Stormwater/Utility/Open Space Acres (3)	Stormwater/Infrastructure/Open Space %
200605310033/ 200605310038 (4)	Port Orchard	2006	1.53	0.39	25%	0.05	0.002%
200606120428	Port Orchard	2006	2.19	0.24	11%	0.14	6.5%
200606140208	Central Kitsap	2006	1.02	0.24	24%	0.00	0%
200701110131	Port Orchard	2007	0.28	0.00	0%	0.00	0%
200701180339	Silverdale	2007	0.65	0.00	0%	0.00	0%
200701240085	Central Kitsap	2007	0.46	0.00	0%	0.00	0%
200803110335/ Strode Short Plat 7270	Port Orchard	2008	0.48	0.10	22%	0.02	5%
200803280043	Central Kitsap	2008	2.75	0.92	34%	0.08	3%
200904280055/ Caymans Run	Central Kitsap	2009	1.80	0.45	25%	0.00	0%
200906040143	Silverdale	2009	0.43	0.02	5%	0.00	0%
201008030331	Central Kitsap	2010	0.47	0.03	7%	0.06	12%
201012280226	Port Orchard	2010	0.55	0.05	9%	0.00	0%
Total Acres Reviewed			12.62	2.45	19%	0.35	3%
ROW - Removal of low and high			9.59	1.53	16%		
Stormwater/Open Space – Removal of low and high			11.87			0.29	2%

Source: Kitsap County Special Projects Division; Kitsap County Auditor; BERK

Notes:

- (1) Total acres estimated based on original parcel boundaries per plat diagram, staff reports, or GIS. Excludes tracts identified as critical areas.
- (2) Includes dedicated public rights of way and access tracts. Estimated by plat information, GIS, or subtraction of lots/tracts from total plat area.
- (3) Includes all other tracts dedicated for stormwater, utilities, and open space/recreation. Likely underestimated while ROW is overestimated as sometimes there is a joint access/utility tract.
- (4) Plats reviewed jointly given shared streets and open space tracts.

3.4 Market Factors

As described earlier in Section 3.1, Kitsap County uses the lowest market factors of all western Washington counties conducting land capacity analyses as part of the GMA-mandated buildable lands program. Conversations with Michael Hubner, the former Buildable Lands and Land Use Manager for the Suburban Cities Association in King County (pers com December 22, 2011), confirm that county planners have not updated their market factor methodologies since the last round of buildable lands reports in 2007. A review of other counties' buildable lands reports showed that market factor assumptions increased from 2002 to 2007 for some communities. Market factors in general, have had very little quantitative support due to the difficulty in predicting property owner preferences over a long-range planning period.

To consider trends in market factors, this evaluation reviews development trends among vacant and redevelopable parcels showing the absorption of land. Exhibit 13 shows that approximately 11% of the buildable land supply calculated in 2006 has been absorbed as of 2010. Generally, all the land absorbed has been vacant. Due to updated LCA results for 2010 parcels some redevelopable land was added to the supply and essentially none consumed. Thus, the County's approach for having a lower market factor for vacant land and a higher market factor for redevelopable land continues to be appropriate.

Exhibit 13. Buildable Acres Absorption

UGA	2006			2010			2006-2010 Absorption		
	Vacant	Redevelop- able	Total Buildable	Vacant	Redevelop- able	Total Buildable	Vacant	Redevelop- able	Total Buildable
Bremerton East	63	67	129	58	83	140	5	-16	-11
Bremerton West	50	62	112	36	67	103	14	-5	9
Central Kitsap	424	456	879	372	572	945	51	-117	-65
Gorst	11	25	37	1	5	6	11	20	31
Kingston	308	75	383	138	80	218	170	-5	165
Pt Orchard	612	898	1,510	536	874	1,410	76	24	101
Silverdale	935	666	1,600	724	659	1,384	210	6	217
ULID 6	986	0	986	805	0	805	181	0	181
Total	3,389	2,248	5,637	2,670	2,340	5,010	719	-91	627

Source: Kitsap County Special Projects Division; BERK

3.5 Occupancy and Household Size

Occupancy

The current LCA methodology does not recognize vacancy or occupancy rates in deriving additional *population* capacity from the available *housing unit* capacity—it assumes 100% occupancy of the net housing capacity. This approach tends to overestimate UGA *population capacity* by failing to recognize the “vacancy chain” component of the housing market. The vacancy rate is the difference between total units and occupied units (or the occupancy rate). They are the percentage of housing units vacant in any community (at any given time) that do not accommodate household population. Some GMA counties utilize the vacancy/occupancy rate calculation as part of the final derivation of UGA population capacity from net housing unit capacity so as to more accurately compare population capacity of UGAs with their corresponding GMA population growth allocations.

The final step in the current LCA methodology calculates UGA population capacity according to the following formula:

- Additional Population Capacity = Net Housing Unit Capacity x Average Household Size

Kitsap County could consider refining that final step to incorporate the occupancy rate according to the following formula:

- Additional Population Capacity = Net Housing Unit Capacity x Occupancy Rate x Average Household Size

Utilizing a vacancy (or occupancy) rate calculation in this manner has no effect whatsoever on the housing unit capacity determination of the UGAs—only on their corresponding population capacity. Note that the total UGA housing unit capacities would still be utilized for capital facility planning purposes.

Typical “healthy” vacancy rates for typical communities in “normal” housing markets range from 3%-7%. The vacancy rate for the Kitsap County UGAs housing stock increased from an average 5% in 2000 to 8% in 2010 likely due to the weak housing market, foreclosures, etc. The 2000 vacancy rate (5%) is within this typical range and is reflective of more “normal” housing market conditions. Countywide including cities, UGAs, and rural areas the figures are 6.7% in 2000 to 9.5% in 2010. On the whole, Kitsap County’s overall vacancy rate was at the higher end of that normal range in 2000 but this would be expected (even under normal conditions) for communities that have a greater influence of transient population (e.g., large presence of military population) that tends to relocate more often. The higher than normal 9.5% countywide vacancy rate in 2010 reflects the distressed housing market effects of the Great Recession and would be expected to return to more normal rates as the housing market recovers in future years.

For planning purposes, if the County selected this approach to modify its LCA methodology, utilizing an average 5% UGA vacancy rate (within the typical 3-7% range) would be supported by local circumstances and more fairly measure the future population capacity of the UGAs. Some counties also subtract an estimate of “group quarters” population from the GMA population growth allocations so as to more accurately reflect the projected household population growth forecast from the total population forecast (i.e., the number of projected households that are expected to require new housing units as opposed to the [relatively small] share of growth that are accommodated in institutional quarters such as nursing homes, etc.). This another refinement to the LCA that the County could consider to more accurately reflect the household population demand for new housing units.

Alternatively, the County could consider incorporating the vacancy rate (or its equivalent effect) into its estimate of lands unavailable for development (i.e., the market factor). This would support increasing the “redevelopable” lands (underutilized parcels with existing units) market factor alone from 15% to 20%. Even a 20% figure could be considered conservative given that the land absorption trends from 2006-2010 indicate that essentially no redevelopable lands (as identified in the current LCA methodology) actually “redeveloped” (i.e., reduced the potential housing capacity of redevelopable lands as calculated in the LCA). In fact the supply of those parcels actually increased.

It is difficult to assess the role of the vacant land market factor by looking only at local vacant land absorption during the past five years. A period that also coincided with the housing crisis and the collapse of the housing market. But the current LCA methodology does not exclude any vacant parcels from the gross developable land supply. Even small non-conforming and otherwise small difficult parcels to develop (e.g., sliver parcels) are included in the vacant land supply. Some portion of these parcels are not likely to develop either for regulatory or market reasons. Many GMA counties exclude these small non-conforming parcels in calculating the land supply *in addition to* applying higher vacant land market factors to the land supply than Kitsap County. The effect of sewer constraints (cost of extension on feasibility of development of some parcels due to topography and/or parcel configuration) certainly contribute to some lands being held off the market—lands that are now not accounted for by the current 5% vacant land market factor (under current 2006 UGA boundaries). Combined with consideration of the effect of the vacancy rate on population capacity (if not utilized as an explicit component of the LCA), the above factors suggest that the County could consider increasing the vacant lands market factor to 10% or higher, which would still be well within the range of market factors used by neighboring counties.

Household Size

The County uses a household size of 2.5 for single family dwellings and 1.8 for multifamily dwellings based on the US Census 2000 information. Parallel information based on unit type is not available for the 2010 Census. Only household size by tenure is available. However, tenure-based household size information is not at the block scale, which allows data to be reviewed at geographies similar to UGA boundaries. Further the renter household size would include both single family rentals and multifamily rentals and would not identify a unit based household size.

Comparing average household size for all occupied units in blocks located in cities/UGAs (irrespective of tenure), it has decreased from 2.6 in 2000 to 2.52 in 2010. Given the data available and that occupied household sizes have decreased, we suggest retaining the current unit based household sizes of 2.5 and 1.8 at this time.

4.0 SUMMARY RECOMMENDATIONS

The evaluation in Section 3.0 indicates that the County could consider adjusting elements of its LCA based on local conditions and trends over the last 2000-2010 period. Potential adjustments include the following:

- Achieved densities – reflecting blended achieved densities in long plats and short plats and potential trends towards greater numbers of lots created by short plats in the future
- Public facilities deductions – reflecting observed long plat data and how these may be qualitatively affected by regional facilities, changes in development standards, and short plats
- Market factors – the County could consider incorporating the vacancy rate (or its equivalent effect) into its estimate of lands unavailable for development (i.e., the market factor)
- Household size and occupancy rates – reflecting that not all dwellings will be occupied at all times and using Census-based information regarding occupancy