



MEMORANDUM

TO: City Council

FROM: Ben Swanson and Boyd Benson

DATE: February 10, 2015

RE: 2015 Capacity Analysis Study/EIS Alternatives

CC: File

INTRODUCTION

The City of Duvall Public Works and Planning Departments completed a buildable lands and Transportation Analysis Zone (TAZ) study to support development of the 2015 Comprehensive Plan amendment. The study includes baseline measurements of existing residential and commercial uses within the City and forecasts of future growth used to support residential population growth estimates, transportation planning, and modeling efforts for a period of 20 years to the horizon year of 2035. In addition, four Draft Environmental Impact Statement (EIS) alternatives are proposed. For purposes of this memo, the following 2015 baseline will serve as the "No-Action" alternative described in the EIS section. City limits, Urban Growth Areas (UGA), and Urban Growth Area Reserve (UGAR) areas considered in this evaluation are depicted on Figure 1.

The information generated by this study will be used for a variety of planning purposes, including impacts evaluated under the Environmental Impact Statement associated with the Comprehensive Plan Amendment. The current residential count and the future residential estimate will assist in better understanding current residential uses, projecting potential additional residential and commercial development, and estimating future population. The information will also be used by the City's transportation consultant in updating the Transportation Comprehensive Plan Model and to forecast traffic, level of service, and required transportation improvements based on existing and future residential and commercial needs.

Prior to this analysis, a Housing Analysis Study was completed for the 2004 Comprehensive Plan update by the Planning Department (June 3, 2004). This information was used to develop the 2004 Comprehensive Plan update and the 2006

Transportation Comprehensive Plan Element update. The information was further updated as part of the 2008 Transportation Element. The 2004 and 2008 studies assumed a horizon year of 2022. This analysis assumes a 2035 horizon year but is otherwise consistent with the previous plans and updates.

Staff completed a Transportation Analysis Zone (TAZ) study to support development of the 2008 Transportation Plan and 2015 update. Staff subdivided the City into a total of 80 geographic TAZs within the City based on zoning, transportation linkages, travel patterns, and other physical and modeling factors. The 2015 analysis used the same TAZs developed for the 2008 analysis with the addition of several new TAZs used to evaluate EIS alternatives associated with the UGA and UGAR areas. Baseline measurements of residential and commercial uses were developed for each TAZ by City Staff in conjunction with the City's transportation consultant. The remainder of this memorandum documents the approaches and results of the 2015 study.

BASELINE 2015 RESIDENTIAL AND COMMERCIAL USE RESULTS

Residential

City of Duvall staff completed a majority of the buildable lands analysis using a geographic information system (GIS) that included 2012 air photo images, King County parcel/assessor data, sensitive areas data, and current Duvall infrastructure information. In addition, staff completed field visits and utilized City records (building permits and plats) to update the data.

Residential counts include existing single- and multi-family units within City limits and UGAs as of January 2015. Development within the southwest (Burhen) UGA and east UGAR was not included as part of the baseline calculation. Pipeline projects and entitled undeveloped lots not completed by January 2015 were included in the future residential calculation. Total residential counts for the 2015, 2008, and 2004 analyses are presented in Table 1, *Existing Residential Counts*.

Table 1: Existing Residential Counts

Date	Multi-family Units	Single-Family Units
June 2004	256 ¹	1,765 ¹
July 2008	362 ^{2,3}	1,978 ³
January 2015	389 ^{2,3}	2,197 ³

¹2004 numbers corrected to remove residences counted in the planning process but not completed at that time.

²Includes Mobile Homes

³Does not include UGAR area (2008 value recalculated to remove UGAR residences).

Commercial Floor Area

City of Duvall staff documented existing Commercial Floor Area within City Limits based on King County parcel/assessor data along with City updates based on building permit data and measurements. There was no significant commercial development between 2008 and 2015 and little change in the total commercial floor area as presented in Table 2a, *Commercial Floor Area*. Details of existing commercial development within each zone are presented in Table 2b, *Current Commercial Floor Area by Zone*.

Table 2a: Commercial Floor Area

Date	Commercial Floor Area (SF)
June 2004	NA (poor Data)
July 2008	425,727 ¹
January 2015	426,221 ¹

¹2008 to 2015 differences result from updated King County GIS building area data

Table 2b: Current Commercial Floor Area by Zone

Zone	Existing Commercial Development			
	Total FA (SF)	Max FA/Gross Lot Area	Min FA/Gross Lot Area	Ave. FA/ Gross Lot Area
UT	12,259	31%	14%	18%
OT	101,908	191%	27%	65%
MT	138,715	88%	15%	42%
MU12	25,960	18%	16%	18%
LI	56,200	54%	15%	18%
CO	91,179	43%	1%	18%
Total	426,221			

Employment

The City of Duvall uses Puget Sound Regional Council’s estimates to track employment data. These employment estimates are based on the Washington State Employment Security Department’s (ESD) Quarterly Census of Employment and Wages (QCEW) series (formerly known as ES-202). This series consists of employment for those firms, organizations and individuals whose employees are covered by the Washington Unemployment Insurance Act. Covered employment excludes self-employed workers, proprietors, CEOs, and other non-insured workers. Typically, covered employment has represented 85 to 90 percent of total employment. Note that this includes part-time and temporary employment, and if a worker holds more than one job, each job would appear in the database. Total employment within City limits for 2004, 2008, and 2015 is presented in Table 3, *Existing Employment within City Limits*.

Table 3: Existing Employment within City Limits

Source	Count
Total PSRC Count (2004)	1,023
Total PSRC Count (2008)	1,165
Total PSRC Count (2013)	1,298

FUTURE RESIDENTIAL AND COMMERCIAL USE RESULTS

General

There are currently a total of 14 zoning types within the City. The zoning types include residential, mixed residential and commercial/light-industrial, commercial/light-industrial, and public facilities. The residential zones are separated into R-4 (four units per acre), R-4.5 (4.5 units per acre), R-6 (six units per acre), R-8 (eight units per acre) and R-12 (12 units per acre). The mixed-use zones include zones with specific requirements and characteristics within different portions of the City, and include Old Town (OT), Uptown (UT-1), Midtown (MT), Riverside Village (RIV), Mixed-Use-12 (MU12), and Mixed-Use Institutional (MUI). The commercial zones include Commercial (CO) and Light-Industrial (LI). The Public Facilities (PF) zone includes parks, open space, and public facility buildings and other facilities. Existing Zoning is presented in Table 4, *Existing Zoning*.

Table 4: Existing Zoning

Zoning	Description ¹
R4	4 units per acre
R4.5	4.5 units per acre
R6	6 units per acre
R8	8 units per acre
R12	12 units per acre (20% attached minimum)
OT	Retail, office, residential (100% attached)
UT-1	Retail, office, residential (100% attached)
MT	Commercial, office, residential (100% attached)
RIV	Retail, office, residential (100% attached)
MU12	Commercial and residential (20% attached minimum)
MUI	Mixed-use and institutional (100% attached)
CO	Retail, office, and residential (100% attached)
LI	Light industrial and office (no residential allowed)
PF	Parks, schools, City facilities (no residential allowed)

¹Percent attached is the minimum percentage of attached residential units with respect to the total residential units.

The following presents the approach used in this study and the 2008 update to estimate future residential and commercial development within the City Limits and UGA.

Vacant and Redevelopable Residential Property and Capacity Analysis

Vacant and redevelopable residential properties within the City were identified by examining parcel maps with respect to existing uses to determine which properties are available for future development or redevelopment based on the existing zoning and code requirements (see Figure 2: Vacant and Redevelopable Property Map). Development within the southwest (Burhen) UGA and east UGAR was not included as part of the baseline calculation.

Identification of Vacant, Pipeline and Redevelopable Residential Property

Properties within the R-4 through R-12 zones were evaluated with respect to development or redevelopment potential based on the following:

- All vacant parcels were identified as developable.
- All pipeline parcels were identified as developable.

- Redevelopable parcels were identified as those parcels which would accommodate additional lots, assuming that the parcels were of sufficient area to provide additional lots based on the zoning classification. Per DMC, the unit count for a parcel is rounded from the number resulting from the parcel acreage multiplied by the residential count per acre (for example, a 0.3 acre parcel in R4 yields $(0.3) \times (4 \text{ units per acre}) = 1.2$ units rounded down to 1 unit and a 0.45 acre parcel in R4 yield $(0.45) \times (4 \text{ units per acre}) = 1.8$ units rounded up to 2 units).
- Developed residential lots encumbered by sensitive areas tracts.
- Developed residential lots with access constraints including insufficient frontage width and/or existing home location.

Capacity of Vacant, Pipeline, and Redevelopable Residential Property

Properties identified as vacant or redevelopable within the R-4 through R-12 zones were evaluated with an approach generally consistent with that of the 2004 and 2008 studies. Pipeline projects, including existing entitled and preliminary projects, were used to forecast anticipated residential and commercial development. The method used to estimate future residential and commercial uses in areas with unknown development plans are presented in the following sections and are summarized along with Existing Zoning presented in Table 4, *Existing Zoning*, and Table 5a, *FAR and Residential Development Assumptions*, and Table 5b, *Existing Vacant and Redevelopable Land within City Limits & North UGA*.

As in 2008, the 2015 capacity evaluation included revised assumptions that better reflect actual development trends. The 2008 and 2015 capacity evaluations are based on the following:

- Vacant and pipeline residential properties were anticipated to develop at 90 percent of maximum development potential to account for any yield reductions associated with critical areas.
- Redevelopable residential properties were anticipated to redevelop at 45 percent of maximum development potential to account for any yield reductions because of site constraints and the associated costs of redevelopment.
- The UGA was estimated R-4 density consistent with the land use designation.

Vacant and Redevelopable Commercial and Mixed-Use Property

The 2008 and 2015 commercial, light industrial and mixed-use capacity evaluations are based on existing commercial Floor Area data summarized in Table 2b, the information in Table 5a, *FAR and Residential Development Assumptions*, and the following:

- Pipeline commercial, light industrial, and mixed-use properties were anticipated to develop at 90 percent of maximum development potential.
- Vacant commercial, light industrial, and mixed-use properties were anticipated to develop at 75 percent of maximum development potential to account for any yield reductions associated with development costs or critical areas.
- Redevelopable commercial, light industrial, and mixed-use properties were anticipated to develop at 45 percent of maximum development potential to account for any yield reductions associated with existing structures, development costs, or critical areas.

Mixed-Use 12 (MU12)

Based on the requirements in DMC 14.18.080, the Mixed-Use-12 Zone allows both commercial and residential uses. Based on proposed and past development within the City, development within this zone is estimated at:

- 25 percent commercial site area based on the gross site area.
- 20 percent commercial FAR based on the commercial site area.
- 8 units per non-commercial gross acre, including 20 percent attached per DMC 14.18.020.
- One residential unit per 1,000 square feet of mixed-use floor area.

Old Town (OT), Uptown (UT1), Midtown (MT), Riverside Village (RIV), and Commercial (CO).

There are no minimum FAR requirements for these zones. However, based on past development within the City and the pre-application submittal for the Copper Hill Square Building D project, future use within these zones is estimated as:

- 75 percent commercial FAR based on the gross site area.
- One residential unit per 1,000 square feet of mixed-use floor area.

Mixed-Use Institutional (MUI)

Mixed-Use Institutional is located only within the South UGA portion of the City and includes the proposed CamWest/Lake Washington Technical College project. Data from the 2014 Duvall Urban Village site plan was used to estimate potential commercial, residential, and educational growth in this zone:

- 15 percent commercial FAR based on the gross site area (Duvall Urban Village Proposal).
- Total of 91,000 square feet of education use (Lake Washington Technical College Parcels).
- No residential use (Duvall Urban Village Proposal).

Light-Industrial (LI)

There are no minimum FAR requirements for these zones. However, based on past development within the City use within this zone is estimated as:

- 30 percent commercial FAR based on the gross site area.

Table 5a: FAR and Residential Development Assumptions

Zone	Commercial Floor Area (FA)	Residential Portion
OT	(gross acreage)x(0.75)	(FA)x(1 unit/1,000SF)
UT-1	(gross acreage)x(0.75)	(FA)x(1 unit/1,000SF)
MT	(gross acreage)x(0.75)	(FA)x(1 unit/1,000SF)
RIV	(gross acreage)x(0.75)	(FA)x(1 unit/1,000SF)
MU12	(gross acreage)x(0.25)x(0.20)	(gross acreage)x(0.75)*(8 units/acre) +(FA)x(1 unit/1,000SF)
MUI	See above text	See above text
CO	(gross acreage)x(0.3)	(FA)x(1 unit/1,000SF)
LI	(gross acreage)x(0.3)	None

NOTE: City Council concurrence on CO FA percentage required prior to finalization.

Table 5b: Existing Vacant and Redevelopable Land within City Limits & North UGA

	Total (City)	Vacant	Redevelopable	Total Vacant &

	and North UGA) ¹	Residential		Commercial		Redevelopable		Commercial			
		Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total
Number of Parcels (#)	2541	65	2.6%	44	1.7%	87	3.4%	30	1.2%	226	8.9%
Parcel Area (Acres)	1412.4	117.4	8.3%	87.7	6.2%	185.0	13.1%	59.3	4.2%	449.4	31.8%

¹Includes Commercial, Residential, and Public Facilities Parcels.

RESULTS OF THE 2015 LAND USE FORECAST FOR CURRENT ZONING

Land Use

The 2008 and 2015 Land Use Forecasts were completed using the same methodology and had similar results with the following differences:

- Duvall Municipal Code change from 60 percent attached to 20 percent attached residential within the MU12 district (increase in attached and reduction in multi-family units).
- Removal of the UGAR from the 2015 analysis.
- The southwest (Burhen) UGA was not included in either analysis.

Both maximum and anticipated growth were calculated for the 2035 horizon year. Maximum growth is based on the ultimate development potential of the property as allowed by the Comprehensive Plan and Zoning regulations. Anticipated growth was calculated using the 90 percent, 75 percent, and 45 percent modifiers as earlier described in the Residential and Commercial capacity calculations. Table 6, *Land Use Forecast for City Limits and UGA*, summarizes the land use forecast for the City Limits/UGA using existing Comprehensive Plan and Zoning for the period between 2015 and 2035.

Table 6: Land Use Forecast for City Limits and UGA

USE	2015	2035 Anticipated		2035 Maximum	
		TOTAL	Increase over 2015	TOTAL	Increase over 2015
SFR (Units)	2,197	3,038	841 (38%)	3,637	1,440 (66%)
MFR (Units)	389	669	280 (72%)	828	439 (113%)
Commercial FA (SF)	370,021	963,254	593,233 (160%)	1,245,772	875,751 (237%)
Light Industrial FA (SF)	56,200	91,221	35,021 (62%)	117,998	61,798 (110%)

Population

Population in Duvall is estimated at 7,325 based on Office of Financial Management data. Based on U.S. Census information, the population in Duvall was 4,616 residents in 2000 census and 6,695 during the 2010 census representing an annual growth rate of 3.79 percent. This rate is slightly higher than the 2010 to 2014 annual growth rate of 2.27 percent growth developed from OFM data. Total 2035 population estimates

were developed for the City Limits/UGA based the current population and the Land Use Forecast data as presented in Table 7, *Population Estimates for Duvall*.

Table 7: Population Estimate for Duvall

Area	2015	2035 Anticipated		2035 Maximum	
		TOTAL ¹	Increase over 2015	TOTAL ¹	Increase over 2015
City Limits	7,325	10,600	3,275 (45%)	12,309	4,984 (68%)
North UGA	27	447	420(1,545%)	994	967 (3,556%)
Total	7,352	11,048	3,696 (50%)	13,302	5,950 (81%)

¹SFR=3.02 Residents per unit and MFR=2.80 residents per unit per OFM (2010)

EIS ALTERNATIVES

General

As stated above, staff is proposing four land use alternatives for review under the EIS. The EIS alternatives evaluate the proposal, the no-action alternative, and other "reasonable alternatives" [WAC 197-11-786, 197-11-440(5)]. A reasonable alternative is a feasible alternate course of action that meets the proposal's objective at a lower environmental cost. The EIS examines all areas of probable significant adverse environmental impact associated with the various alternatives including the no-action alternative and the proposal.

The EIS alternatives are:

- Alternative 1 or no-action alternative – summarized in previous forecast
- Alternative 2 – proposed 2015 comprehensive plan and zoning changes, and Burhen predestination.
- Alternative 3 – predestinating UGAR at a Residential four units per acre density
- Alternative 4 – relocating some (or all) of the existing UGAR area to a new location south of Big Rock Road and predestinating the new area to 25 percent commercial and 75 percent residential at an R6 density.

Alternative #1 or No-Action Alternative

The no-action alternative assumes no change to the existing comprehensive plan designations and zoning. This alternative is based on analysis all parcels within the City limits and the north UGA (predestinated as R4). The proposed Burhen annexation and predestination, and development within the southeast UGAR, were not included in the no-action alternative.

Alternative #2 - Proposed 2015 Comprehensive Plan and Zoning Changes, and Burhen Predestination.

General

Staff proposed eliminating the Riverside Village (RIV) zone and the Mixed-Use 12 zone (MU12), reducing the acreage of Residential 12 (R12) units per acre zoning and creating a Residential 20 (R20) units per acre zone as part of the 2015 Comprehensive Plan update. These proposed changes are in response to historically problematic zones,

lack of housing options, or unnecessary hardships created by the existing Comprehensive Plan and Zoning designation. The proposed changes are not intended to increase or reduce the existing population projections or change the amount of land available for commercial development. The proposal includes the adding a predestination to the Burhen property in anticipation of annexation. An element of the predestination would include the addition of a new open space/parks comprehensive plan and zoning designation.

The results of these proposed changes and proposed actions are summarized in Table 8, *EIS Alternative #2: Proposed 2015 Comprehensive Plan and Zoning Changes*, Figure 3, *EIS Alternative #2: Proposed 2015 Comprehensive Plan and Zoning Changes*, and the text below.

Table 8: Proposed 2015 Comprehensive Plan and Zoning Changes

Max SFU	Adj SFU	Max MFU	Adj MFU	Max CO MFU	Adj CO MFU	MAX CO FA (SF)	Adj CO FA (SF)	Max Population	Adj Population
-75	-39	303	149	-113	-43	-128,416	-52,949	306	178
Net changes adjusted below for R20 to R8 SFR Yield at 3 properties on 143rd									
-28	-13	187	84	-113	-43	NC	NC	123	76

(Requires discussion from City Council)

Riverside Village (RIV)

The proposed rezone is in response to the sale of the existing manufactured home community which represents approximately three-fourths of the Riverside Village zone. Under the terms of the sale, the parcel must remain a manufactured home community (affordable housing) for well beyond the 20-year Comprehensive Plan cycle; therefore, no foreseeable commercial development will take place on this parcel.

As a result, staff recommends a comprehensive plan amendment and rezoning of this parcel to Residential 6 units per acre (R6) to allow the existing manufactured home community to operate as a legal conforming use. The R6 designation was derived by averaging the existing units per acre at the community. The remaining seven parcels within the RIV zone would change to an Old Town (OT) zone which is compatible with surrounding land uses. A Comprehensive Plan amendment is not required for the RIV to OT change because the RIV and OT designation are the same.

Mixed-Use 12 (MU12)

Staff recommends elimination the majority of the Mixed-Use 12 zone because of challenges associated with the zone’s location, required commercial element, and density.

- DMC 14.18 requires a minimum of 25 percent of the gross usable area be dedicated to commercial development, and this commercial development is constructed concurrently or phased through a development agreement. All MU12 development within the last decade requested phasing (delaying the commercial development) through a developer agreement due to a greater demand for residential development in the Duvall area.
- A large portion of the land zoned MU12 is located along the NE 143rd Place corridor. This zoning designation is not appropriate at this location as it does not front a major or minor arterial and therefore limits traffic trips, access, and

circulation.

- Density for the residential portion of MU12 development requires a minimum of eight units per acre and a maximum of 12 units per acre, similar to the R12 zone. Developers have repeatedly stated that this density is too high for single-family development (difficult to meet design guidelines and open space requirements) and too low for multi-family development (not profitable for a developer to build based on number of allowed units).

Staff proposes that areas currently zoned MU12 and contiguous to arterial roads be zoned Commercial. MU12 properties near arterial road and adjacent to residential areas are proposed at the new R20 zone described below. The remaining MU12 adjacent to lower density residential areas is proposed at the R8 zone or other transitional zoning that allows a gradual increase in residential density or use.

The Duvall Village and Duvall Urban Village properties would remain under the MU12 zoning designation. These properties have preliminary plats that are approved or pending approval. Upon final plat approval, these properties will undergo comprehensive plan amendment and rezone in accordance with their established uses.

Residential 12 (R12)

The R12 zone has the same challenges described for the residential portion of the MU12 zone. The majority of the R12 zones build to the minimum requirement of eight units per acre based on existing preliminary plats and residential developments. Several existing developments are currently built at greater than R8 standards and technically meet the R12 density standards. Staff proposes that such developments are retained in the R12 zone to avoid creating legal nonconforming lots. All other vacant and redevelopable R12 properties would be rezoned to an R8 to create a smoother transition between zones.

Residential 20 (R20)

Staff proposes a new R20 comprehensive plan designation and zone to satisfy the multi-family need in Duvall, specifically small unit condominiums and apartments that were not feasible in the R12 and MU12 zones. Additionally, the R20 zone will aid in compliance with the Growth Management Act by promoting a variety of residential densities and housing types. Approximately 92 percent of the City's residential units are single-family detached or mobile homes. The new R20 zones provide housing options for existing residents looking to downsize, retirement communities, and potential affordable housing in Duvall.

Predesignation of Burhen Annexation Area and New Parks and Open Space

The Burhen annexation area consists of a 39-acre area south of Safeway on the corner of NE 140th Street and SR-203. The area is currently designated UGAR through an agreement between the City and King County. The agreement stipulates the comprehensive plan and zoning designations that include a commercial allowance and a new open space/park designation. The new open space/park designation is a requirement of King County and is intended to limit the allowed uses to recreation. The County feels the existing Public Facilities designation is too liberal with the allowed uses. In accordance with the agreement, the two northern parcels will be predesignated commercial, and the southern two parcels will be designated open space/parks with a floating one-acre commercial designation to be determined at time of annexation.

Development within this area was estimated to include the following based on King County pre-zoning designation:

- North parcel: Full commercial development.
- South portion of property: One acre of floating commercial with the remaining to be open space or parkland.

Alternative #3 - Predesignating Existing UGAR East at R4-4.5.

General

The Urban Growth Area Reserve in the east portion of the City (UGAR East) contains over 300 acres and includes the south and southeast urban growth areas. This area is placed in a reserve status until the City requires additional capacity in accordance with the Duvall Annexation Plan. Unlike the UGA, the UGAR East does not carry a predesignated comprehensive plan or zoning designation. When additional capacity is needed, the City would designate all or portions of the UGAR East to UGA and assign the area a comprehensive plan designation. Due to the size of the UGAR East, staff would propose a phased approach.

Description

The proposal includes:

- Annexing and Public Facilities designation for the 4.9-acre Riverview School District parcel located at the Northeast corner of the UGAR, immediately east of the existing Eagle Rock School.
- Pre-designation of existing UGAR East to R4-4.5 comprehensive plan designation as depicted on Figure 4, *EIS Alternative #3: UGAR East Pre-Designation*.
- A phased approach by first designating the area west of the Batten Road UGA. The area east of Batten Road would remain UGAR until additional capacity is needed.

Proposed Action

Proposed action would designate the area west of Batten Road as UGA and predesignate it R4-4.5 with four residential units per acres. The area east of Batten Road would remain UGAR except for annexation of the 4.9-acre Riverview School District parcel. The City would periodically review the need for and potential capacity of this area. The results of the proposed actions are summarized in Table 9, *EIS Alternative #3: UGAR East Pre-Designation*.

Table 9: UGAR East Pre-Designation

Location	Total Area (acres)	Max SFU	Max Population	Adj SFU	Adj Population
UGAR East (east of Batten Road)	202	811	2,449	406	1,102
UGA East (West of Batten Road)	131	523	1,579	262	711
Total	333	1,334	4,029	667	1,813

Alternative #4 - Relocation of the UGAR

General

This alternative proposes reallocating the UGAR to an area south of Big Rock Road. Based on preliminary studies, much of the existing UGAR located east of Batten Road is encumbered by sensitive areas. Preliminary findings from the Watershed Plan show high environmental values and functions in this area that may limit development and potential density in the UGAR. As a result, the area may not support necessary buildable land to support an urban density as required by RCW 36.70A.110. In addition, connection to City services such as sewer, water, storm, and roads is hampered by topography and sensitive areas.

Alternative 4 includes removing part or all of the existing UGAR east of Batten Road and replacing with an approximately equal area south of Big Rock Road as depicted in Figure 5: *EIS Alternative #4: Relocation of the UGAR*. Potential benefits and outcomes for alternative development in the area south of Big Rock Road include:

- Preliminary findings from the Watershed Report show lower environmental values and functions in the area south of Big Rock Road when compared to the existing UGAR east of Batten Road. Therefore, the area south of Big Rock Road may provide increased residential density in accordance with GMA while minimizing degradation to the natural environment.
- This area is currently served by City water and more easily served by the existing sewer main in Big Rock Road.
- Development would take access from Big Rock Road, an existing minor arterial.
- Due to the proximity of Big Rock Road, staff estimates that up to 25 percent of the area may be commercial. This would include land in the vicinity of Big Rock Road and the Mixed-Use Institutional zone.

King County controls the allocation and location of the City’s UGA, and any proposed action concerning the UGAR must include preliminary discussions with the County. An amended EIS would be required to take formal action should the County be receptive to this approach.

Future development within the UGA south of Big Rock Road is estimated at 25 percent commercial area and net R6 in the remaining area with a 45 percent chance of development as summarized in Table 10, *EIS Alternative #4: Relocation of the UGAR*.

Table 10a: Relocation of the UGAR (ALL removed east of Batten)

Location	Area (acres)	Maximum Development				Anticipated Development			
		Max CO FA (SF)	Max SFU	Max MFU	Max Population	Adj CO FA (SF)	Adj SFU	Adj MFU	Adj Population
Remove UGAR East	-202	0	-811	0	-2,449	0	-365	0	-1,102
Add BRR South	176	382,467	788	0	2,380	172,110	355	0	1,071
Total Change	-26	382,467	-23	0	-69	172,110	-10	0	-31

Table 10b: Relocation of the UGAR (Partial removed east of Batten)

	Maximum Development	Anticipated Development
--	---------------------	-------------------------

Location	Area (acres)	Max CO FA (SF)	Max SFU	Max MFU	Max Population	Adj CO FA (SF)	Adj SFU	Adj MFU	Adj Population
UGARN removed	-135	0	-541	0	-1,634	0	-243	0	-735
BRR South added	137	298,672	615	0	1,857	134,402	277	0	836
Total Change	3	298,672	74	0	223	134,402	33	0	101

List of Figures:

- Figure 1: City of Duvall City Limits, UGAs, and UGARs.
- Figure 2: Vacant and Redevelopable Residential Property Map.
- Figure 3: EIS Alternative #2: Proposed 2015 Comprehensive Plan and Zoning Changes.
- Figure 4: EIS Alternative #3: UGAR East Pre-Designation.
- Figure 5a: EIS Alternative #4: Relocation of the UGAR (All removed east of Batten).
- Figure 5b: EIS Alternative #4: Relocation of the UGAR (Partial removed east of Batten).