

Sumas UGA

Residential Land Capacity Analysis Summary of Options

14-Aug-09

Land Capacity Analysis	City Proposal			Executive Recommendation				Option 3				
	City	Unincorp. UGA	UGA Total	City	Unincorp. UGA	UGA Total	Urban Reserve	UGA with Reserve	City	Unincorp. UGA	Urban Reserve	UGA with Reserve
Inventory - Gross Developable Acres	183	89	272	183		183	79	262				
- Pending Projects	0	-	0	0		0	-	0				
- Critical Areas Subtraction	65	53	118	65		65	44	109				
- Public Uses Subtraction	-	-	-	-		-	-	-				
Subtotal	118	36	154	118		118	35	154				
- Other Public Uses Subtraction (%)	5.0%	5.0%	5.0%	5.0%		5.0%	5.0%	5.0%				
Subtotal	113	34	147	113		113	33	146				
- Infrastructure Subtraction (%)	19.0%	19.0%	19.0%	19.0%		19.0%	19.0%	19.0%				
Subtotal	91	28	119	91		91	27	118				
- Market Factor Subtraction (%)	20.1%	24.6%	22.2%	20.1%		20.1%	24.6%	22.2%				
Net Developable Acres	72	21	92	72		72	20	92				
x Assumed Net Densities	5.5	4.1	5.2	5.6		5.6	4.8	5.4				
Dwelling Unit Capacity	394	85	479	402		402	98	500				
- Existing DUs in partially/under-utilized	56	-	56	56		56	-	56				
+ Pending and Master Planned Project Dwelling Units	2	-	2	2		2	-	4				
Dwelling Unit Capacity with Pending and Master Planned	340	85	425	348		348	98	446				
x Occupancy Rate	94.4%	95.2%	94.8%	94.5%		94.5%	95.2%	96.9%				
x Average Household Size	2.5	2.8	2.5	2.5		2.5	2.9	2.5				
Population Growth Capacity	792	228	1,020	824		824	267	1,091				

2008 Population **1,279**

	Land Demand		Supply	Surplus (Deficit)	
	Population Allocation per Option	Net Developable Acres Needed	Net Acres Available	Net Acres Surplus (Deficit)	Population Surplus (Deficit)
City Proposal	793	74	92	18	227
<i>Urban Reserve</i>					
<i>UGA and Reserve</i>					
Executive Recommendation	793	69	72	2	31
<i>Urban Reserve</i>	-	-	20	20	267
<i>UGA and Reserve</i>	793	69	92	23	298
Option 3 --					
<i>Urban Reserve</i>					
<i>UGA and Reserve</i>					

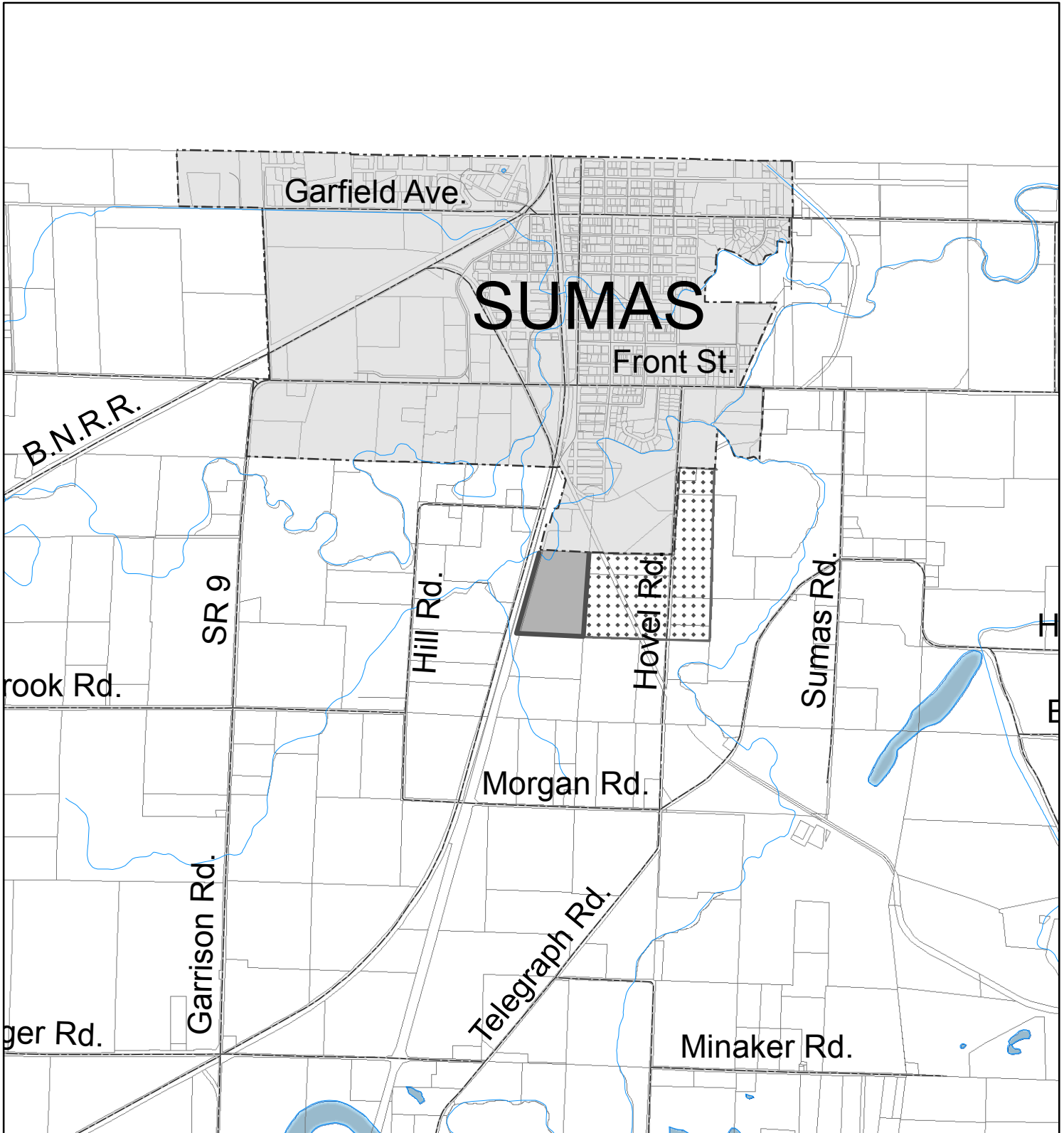
Sumas

Commercial / Industrial Land Capacity Analysis Summary of Options



14-Aug-09

Land Capacity Analysis	City Proposal			Executive Recommendation				Option 3				
	City	Unincorp. UGA	UGA Total	City	Unincorp. UGA	UGA Total	Urban Reserve	UGA with Reserve	City	Unincorp. UGA	Urban Reserve	UGA with Reserve
Inventory - Gross Developable Acres	252	26	278	252	26	278		278				
- Pending Projects	-	-	-	-	-	-		-				
- Critical Areas Subtraction	63	23	86	63	23	86		86				
- Public Uses Subtraction	5	-	5	5	-	5		10				
Subtotal	184	3	187	184	3	187		187				
- Other Public Uses Subtraction (%)	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%		5.0%				
Subtotal	175	3	178	175	3	178		178				
- Infrastructure Subtraction (%)	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%		10.0%				
Subtotal	158	3	160	158	3	160		160				
- Market Factor Subtraction (%)	17.6%	15.0%	17.6%	17.6%	15.0%	17.6%		17.6%				
Net Developable Acres	130	2	132	130	2	132		132				
x Assumed Floor Area Ratios	0.12	0.22	0.12	0.12	0.22	0.12		0.12				
Building Square Ft Capacity	654,587	21,116	675,703	654,587	21,116	675,703		675,703				
- Sq Ft Existing Bldgs on Underutilized Parcels	-	-	-	-	-	-		-				
+ Pending Project Square Ft	-	-	-	-	-	-		-				
Building Sq Ft Capacity with Pending	654,587	21,116	675,703	654,587	21,116	675,703		675,703				
x Occupancy Rate	95.0%	95.0%	95.0%	95.0%	95.0%	95.0%		95.0%				
/ Employment Density	1,317	629	1,273	1,317	629	1,273						
Employment Growth Capacity	472	32	504	472	32	504		504				

	Land Demand		Supply	Surplus (Deficit)	
	Employment Allocation per Option	Net Developable Acres Needed	Net Acres Available	Net Acres Surplus (Deficit)	Employment Surplus (Deficit)
City Proposal	391	102	132	30	113
<i>Urban Reserve</i>					
<i>UGA and Reserve</i>	391	102	132	30	113
Executive Recommendation	391	102	132	30	113
<i>Urban Reserve</i>	-	-	-	-	-
<i>UGA and Reserve</i>	391	102	132	30	113
Option 3 --					
<i>Urban Reserve</i>					
<i>UGA and Reserve</i>					



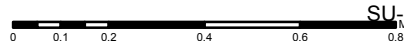
- Sumas Urban Growth Area

-  Urban Growth Area
-  Urban Growth Area Reserve

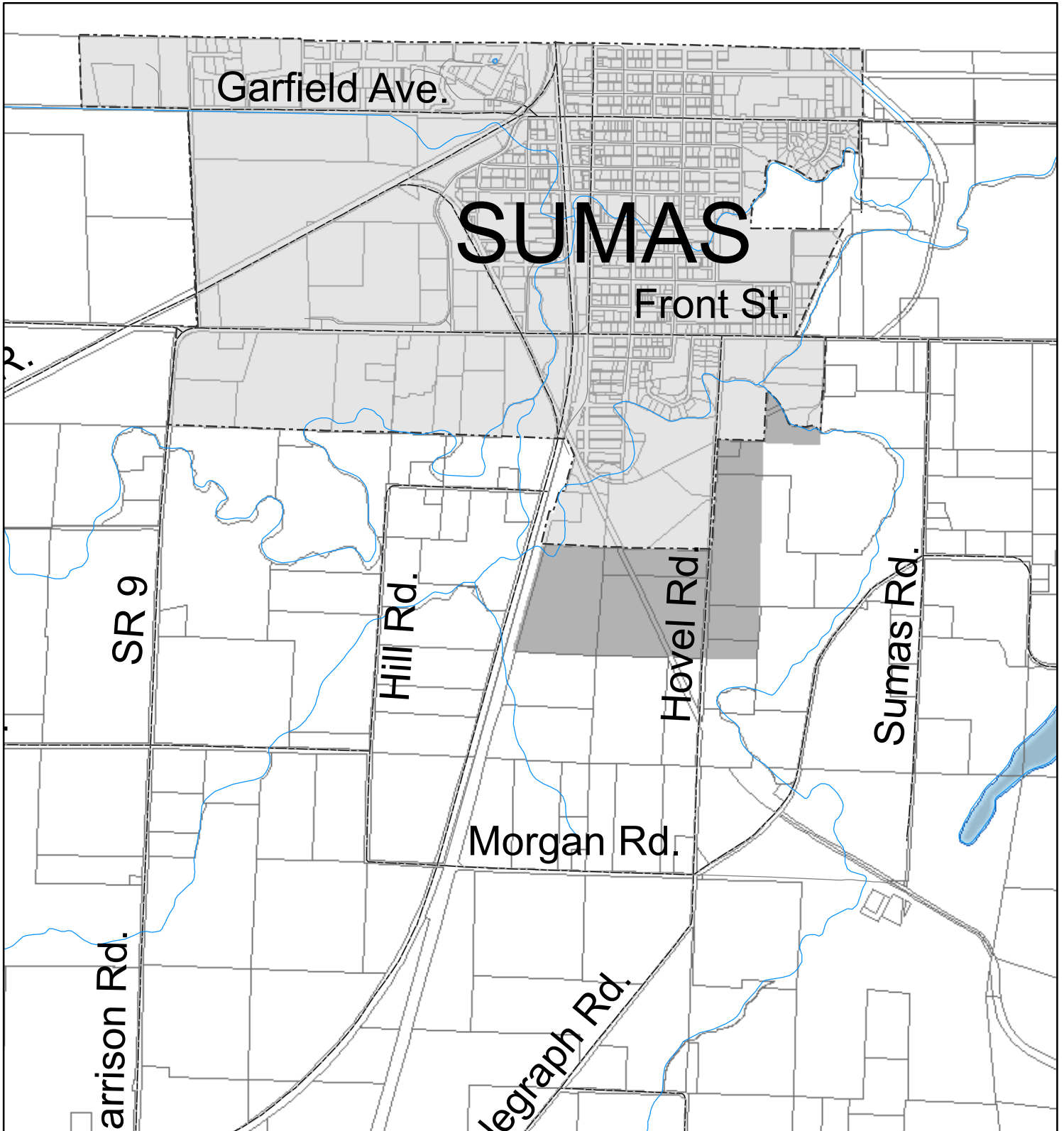
Whatcom County
Comprehensive Plan
-August, 2009

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SU-LCA-3



July 2009

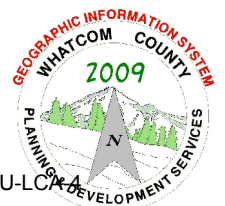
DRAFT - Sumas Urban Growth Area Proposal

 Existing Urban Growth Area

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0 365 710 1,420 2,130 2,840 Feet



Land Capacity Analysis Assumptions August 14, 2009

Sumas UGA Residential Assumptions		Source
Occupancy Rate: Single Family	95.2%	OFM 2008, per Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 5.1.
Average Household Size: Single Family	2.85	Same as above
Occupancy Rate: Multi-family	93.9%	Same as above
Average Household Size: Multi-family	2.21	Same as above
Critical Areas Subtraction	See Land Capacity Analysis (LCA) summary for acres subtracted	US Fish Wildlife Service - National Wetland Inventory, and Dept. Fish Wildlife 2003 Priority Habitats and Species data (PHS); 10-Meter Digital Elevation Model (DEM) USGS base elevation data (10 Meter ground spacing) to derive slopes greater than 35 percent; Floodway/100 Year Frequently Flooded is FEMA 2007 data as part of their Flood Insurance Rate Maps (FIRM) program; Peat Soils: Soil Survey Geographic Database (SSURGO) by US Dept. of Ag. Natural Resource Conservation Service; Manual edits performed on the basis of localized knowledge provided by Rollin Harper, City Planner, City of Sumas on a few selected small areas.
Public Uses Subtraction	See LCA summary for acres subtracted	This subtraction is for lands that are already publically owned and for future public uses. Source: Rollin Harper, City Planner, City of Everson.
Other Public/Quasi-Public Uses: Single family	5.0%	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 3.3.
Other Public/Quasi Public Uses: Multi-family	5.0%	Same as above
Infrastructure Subtraction: Single family	19.0%	Rollin Harper, City Planner, City of Sumas Urban Growth Area Proposal proposes to use at least 19% infrastructure subtraction instead of the 13.09% derived from a small sample from historical data based on past 5 years of approved plats.
Infrastructure Subtraction: Multi-family	19.04%	Past 5 Years Development and Approved Plats. Provided by Rollin Harper, City Planner, City of Sumas.
Market Factor: Vacant Single family	15.0%	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 3.6.
Market Factor: Partially-Utilized: Single family	25.0%	Same as above
Market Factor: Vacant Multi-family	15.0%	Same as above
Market Factor: Under-Utilized Multi-family	25.0%	Same as above
Assumed densities		Used 9,045 for Res-Medium density and 6,000 for Res-High Density – compromise between city proposal and planned densities

Sumas UGA Commercial/Industrial Assumptions		Source
Employment Density: Retail	634	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 5.2 states that the Bellingham employment analysis will be used as a starting point with adjustments to account for jurisdictional differences. The Bellingham analysis was used for the Sumas UGA, as there is not specific employment density information for this UGA. Employment densities from the Bellingham study are provided in an e-mail attachment from Chris Behee dated 5/26/09.
Employment Density: Commercial	623	Same as above
Employment Density: Industrial	1,500	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 5.2 states that the Bellingham employment analysis will be used as a starting point with adjustments to account for jurisdictional differences. Rollin Harper, City Planner for City of Sumas has provided data based on achieved employment density within the City of Sumas.
Floor Area Ratio: Retail	.25	Due to lack of data, past 5 years development, provided by City of Bellingham is used as a standard.
Floor Area Ratio: Commercial	.19	Past 5 years of development and approved plats, provided by Rollin Harper, City Planner, City of Sumas..
Floor Area Ratio: Industrial	.11	Past 5 years of development and approved plats, provided by Rollin Harper, City Planner, City of Sumas.
Occupancy Rate: Retail	95.0%	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 5.2.
Occupancy Rate: Commercial	95.0%	Same as above
Occupancy Rate: Industrial	95.0%	Same as above
Infrastructure Subtraction: Retail	10.00%	Standard deduction utilized per Whatcom County Land Capacity Analysis Detailed Methodology (section 3.4).
Infrastructure Subtraction: Commercial	10.00%	Same as above
Infrastructure Subtraction: Industrial	10.00%	Same as above
Critical Areas Subtraction	See LCA summary for acres subtracted	See residential for source
Public Uses Subtraction	See LCA summary for acres subtracted	This subtraction is for lands that are already publically owned and for future public uses. Source: Rollin Harper, City Planner, City of Sumas.
Other Public/Quasi Public Uses: Retail	5.0%	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 3.3.
Other Public/Quasi Public Uses: Commercial	5.0%	Same as above
Other Public/Quasi Public Uses: Industrial	5.0%	Same as above
Market Factor: Vacant Retail/Commercial	15.0%	Whatcom County Land Capacity Detailed Methodology, August 14, 2009, Section 3.6.
Market Factor: Under-Utilized Retail/Commercial	25.0%	Same as above
Market Factor: Vacant Industrial	15.0%	Same as above
Market Factor: Under-Utilized Industrial	25.0%	Same as above