

# Lake Whatcom Watershed Annual Build-out Analysis Report 2020

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*Photo by William Yin*

**City of Bellingham**  
**Planning & Community Development Department**  
**February 2020**



## INTRODUCTION

Annually, beginning in 2005, the City of Bellingham Planning Department has performed a Lake Whatcom Watershed Build-out Analysis (Build-out Analysis) of existing residential housing units and potential developable lands in the watershed. The purpose of the annual analysis is to provide a summary of development in the Lake Whatcom Watershed. The analysis is a “gross” analysis, to make the process simple and repeatable on a yearly basis.

## METHODS AND ANALYSIS

This simple analysis utilizes the GIS parcel square footage and the underlying zoning density to determine the gross potential residential capacity per parcel. The Build-out Analysis does NOT take into consideration specific lot restrictions such as 25-year restrictions, other temporary or permanent restrictions, current building permits, or critical area reductions. Lands in public ownership (including all land owned by the Sudden Valley Community Association), land devoted to utilities/streets, and lands where residential construction is not permitted are excluded from the available land supply\*. The analysis uses Whatcom County Assessor's land use codes and improvement valuations to identify existing residential units. Parcels with improvement values less than \$10,000 are considered vacant and re-developable in this analysis.

**Existing Dwelling Units:** Parcels with a Whatcom County Assessor's residential land use code and an improvement value greater than \$10,000 (including uses coded with forestry or ranch descriptions and an improvement value greater than \$10,000).

**Vacant Land:** Parcels in an area with a residential zoning use (or where residential units are permitted) as well as an Assessor improvement value less than or equal to \$10,000.

**Developable Capacity (Potential Units):** determined using current total parcel acreage of a vacant parcel (derived from GIS and excluding areas over water) and the underlying current zoning density.

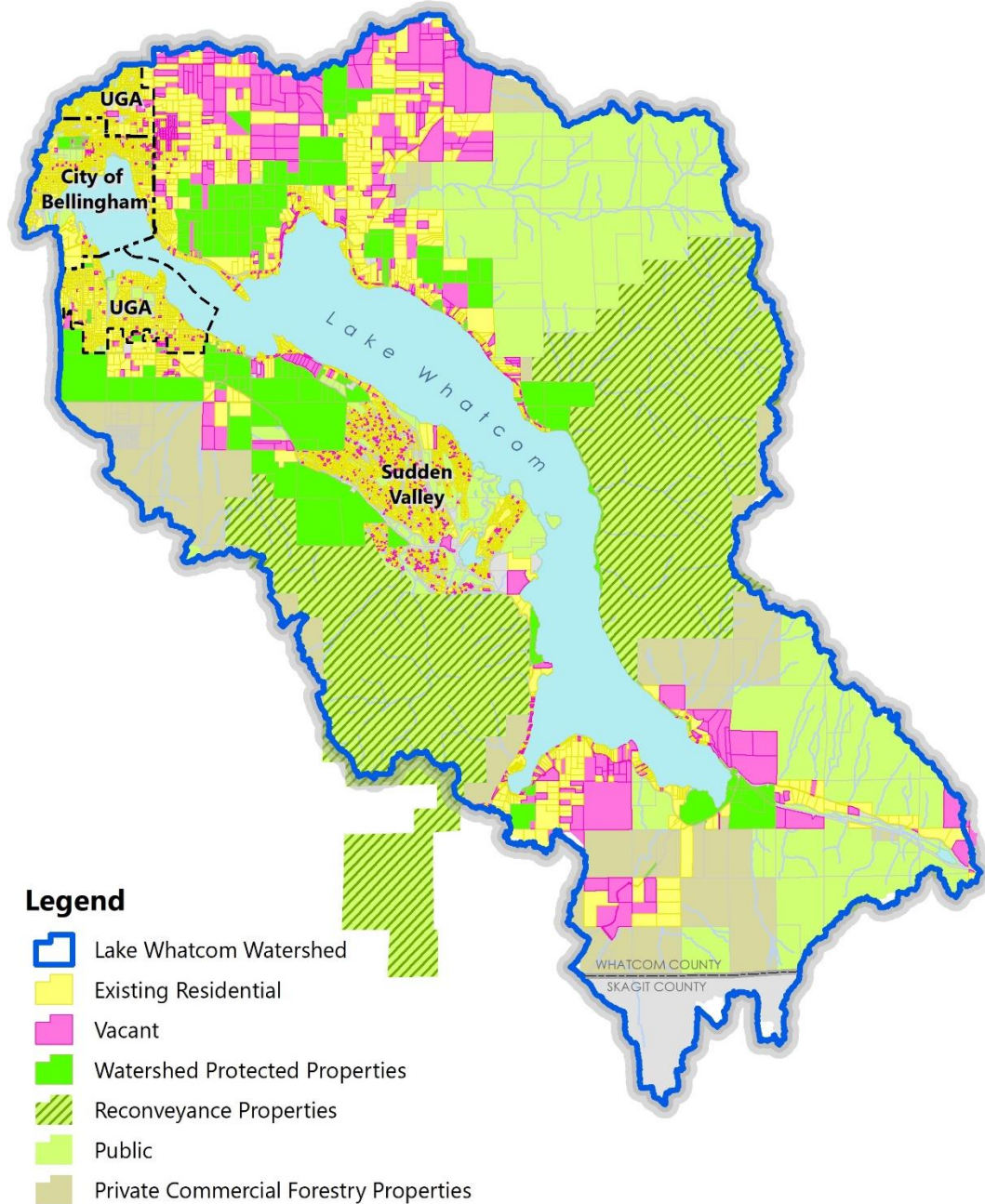
Parcel data since the beginning of this analysis in 2005 has varied greatly in accuracy. In 2005, Whatcom County parcel GIS spatial data was not updated at the same time as the Assessor's database and resulted in “unmatched” GIS parcel records, or records that did not contain current information. Recent efforts by the City and County have resulted in better and more accurate parcel data, though this issue does still occasionally occur in current parcel data.

Since the first year of this analysis, there have been year-to-year discrepancies in capacity estimates. Several factors cause these annual changes. **First** is the above-mentioned “back-log” in parcel data updates. Assessor paper maps, assessor GIS datasets and the Assessor database are not always updated at the same time. This results in data that is “out-of-sync” with each other. **Secondly**, the GIS parcel data is spatially updated and made more accurate each year. This results in minor changes to the parcel acreage in which capacity is calculated, and in turn can adjust the capacity potential. **Thirdly** is the issue of predicting/modeling capacity based on current zoning and acreage versus what actually ends up happening in actuality. For example, down zoning and up zoning can affect capacity calculations, as we saw in February of 2008 when the Geneva UGA boundary was adjusted, and portions of that area were “down zoned” (Ord. 2008-003). Annexation of UGA lands will also cause a shift in the number of units (existing and vacant) between the UGA and the City, as was the case in 2011 with the Geneva/Idaho Annexation. Lot consolidations, clustering, ownership changes from/to public, watershed boundary adjustments and assessor valuations are other influences on development status and capacity calculations.

*\*Exception of 9 WA Department of Natural Resources (DNR) parcels located just south of Strawberry Point in the RR5A\* zoning area. DNR is actively pursuing the sale of these properties for residential use, and therefore are included in the Developable Capacity calculations (starting in 2018 analysis).*

## 2020 Lake Whatcom Watershed Buildout Analysis

Watershed Breakout Areas	Existing Dwelling Units As of Jan 2020	Developable Capacity (Potential Units on Vacant Lands)	Gross Potential Buildout (Existing Units + Potential Units)	Developable (Vacant) Acres	Total Assessed Value of Developable (Vacant) Lands
City	1,614	101	1,715	22	\$8,748,935
UGA	1,573	87	1,660	43	\$6,833,673
Sudden Valley	2,635	551	3,186	130	\$9,718,231
Rural Watershed	1,330	749	2,079	3,291	\$51,748,287
<b>Totals</b>	<b>7,152</b>	<b>1,488</b>	<b>8,640</b>	<b>3,486</b>	<b>\$77,049,126</b>



## EXISTING SINGLE FAMILY PARCELS BY SIZE

By examining the size of parcels with existing **single-family units**, we are able to understand the zoning density of existing residential areas. Between the four regions (City, UGA, Sudden Valley & Rural areas), the size of parcels varies greatly. For example, Sudden Valley single-family lots are generally quite small (<7,200 sf per unit) whereas the average single-family lot in the Rural areas is closer to one acre.

CITY	# of Parcels	# of Existing Units	Percentage
<7,200 sf	247	247	23%
7,200 sf - 10,000 sf	301	302	28%
10,000 sf - 15,000 sf	357	357	33%
15,000 sf - 20,000 sf	90	90	8%
20,000 sf - 1 acre	76	76	7%
1 acre - 5 acres	12	12	1%
<b>TOTAL:</b>	<b>1083</b>	<b>1084</b>	<b>100%</b>
UGA	# of Parcels	# of Existing Units	Percentage
<7,200 sf	29	29	2%
7,200 sf - 10,000 sf	340	340	22%
10,000 sf - 15,000 sf	711	711	47%
15,000 sf - 20,000 sf	196	196	13%
20,000 sf - 1 acre	205	205	13%
1 acre - 5 acres	43	43	3%
5 acres - 10 acres	2	2	0%
<b>TOTAL:</b>	<b>1526</b>	<b>1526</b>	<b>100%</b>
SUDDEN VALLEY	# of Parcels	# of Existing Units	Percentage
<7,200 sf	1281	1282	53%
7,200 sf - 10,000 sf	516	518	22%
10,000 sf - 15,000 sf	394	394	16%
15,000 sf - 20,000 sf	126	127	5%
20,000 sf - 1 acre	71	71	3%
1 acre - 5 acres	5	5	0%
5 acres - 10 acres	1	1	0%
10 acres - 20 acres	2	2	0%
20 acres - 50 acres	1	1	0%
<b>TOTAL:</b>	<b>2397</b>	<b>2401</b>	<b>100%</b>
RURAL WATERSHED	# of Parcels	# of Existing Units	Percentage
<7,200 sf	129	129	10%
7,200 sf - 10,000 sf	63	63	5%
10,000 sf - 15,000 sf	122	122	10%
15,000 sf - 20,000 sf	143	143	11%
20,000 sf - 1 acre	241	245	19%
1 acre - 5 acres	361	368	29%
5 acres - 10 acres	150	153	12%
10 acres - 20 acres	34	35	3%
20 acres - 50 acres	19	19	1%
<b>TOTAL:</b>	<b>1262</b>	<b>1277</b>	<b>100%</b>

## DEVELOPABLE PARCELS BY ZONING DENSITY

In order to understand whether future development might be more or less dense we have examined the underlying allowable zoning density of the Developable or Vacant parcels.

Below is a breakdown by region and by zoning density of the Developable/Vacant parcels.

CITY	# of Vacant Parcels	Potential Units	Percentage
RS (6,000 sf density)	9	9	9%
RS (7,200 sf density)	31	42	42%
RS (10,000 sf density)	5	5	5%
RS (12,000 sf density)	12	14	14%
RS (15,000 sf density)	3	3	3%
RS (20,000 sf density)	28	28	28%
<b>TOTAL:</b>	<b>88</b>	<b>101</b>	<b>100%</b>

UGA	# of Vacant Parcels	Potential Units	Percentage
UR (217,800 sf density)	87	87	100%
<b>TOTAL:</b>	<b>87</b>	<b>87</b>	<b>100%</b>

SUDDEN VALLEY	# of Vacant Parcels	Potential Units	Percentage
RR3 (14,520 sf density)	518	544	99%
RR2 (21,780 sf density)	1	1	0%
R5A (217,800 sf density)	2	6	1%
<b>TOTAL:</b>	<b>521</b>	<b>551</b>	<b>100%</b>

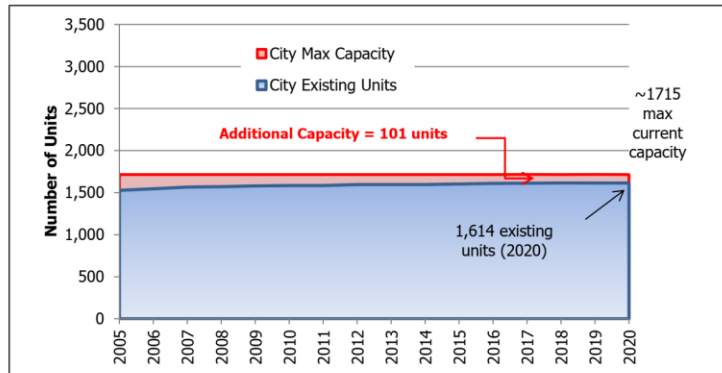
RURAL WATERSHED	# of Vacant Parcels	Potential Units	Percentage
RR2 (21,780 sf density)	8	8	1%
R2A (87,120 sf density)	11	11	1%
R5A (217,800 sf density)	507	604	81%
RR5A (217,800 sf density)	18	19	3%
RR5A* (217,800 sf density)	15	15	2%
RF (871,200 sf density)	71	92	12%
<b>TOTAL:</b>	<b>630</b>	<b>749</b>	<b>100%</b>



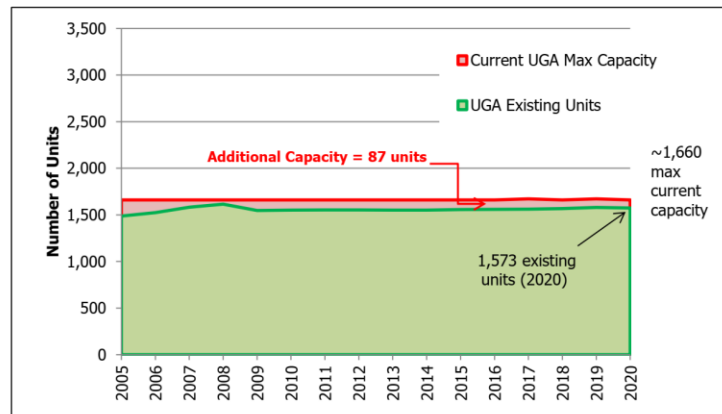
## A LOOK BACK

Even though there are several reasons for year-to-year discrepancies in capacity, this body of work provides a general idea of development trends over time and available capacity:

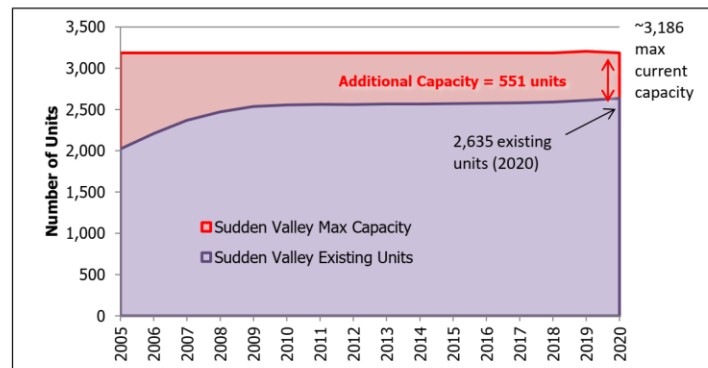
**City**



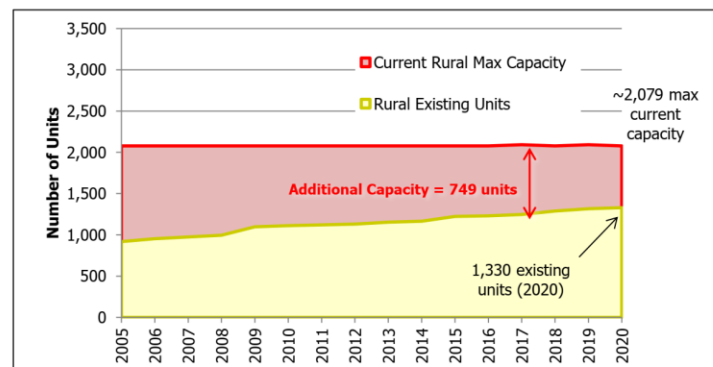
**UGA**

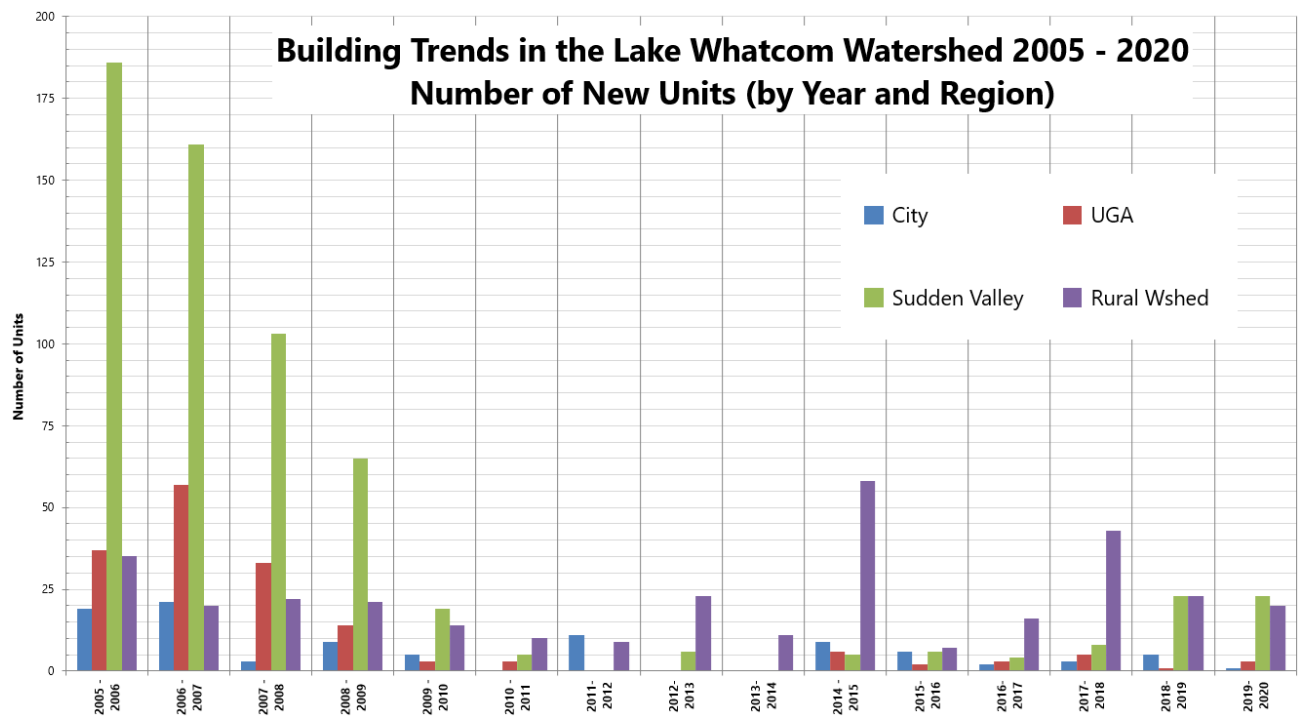


**Sudden Valley**



**Rural Watershed**





## OWNERSHIP MAP

There are several timber companies and private owners that own large portions of property in and around the Lake Whatcom Watershed. Most of these large private holdings are within areas zoned Commercial Forestry and Rural Forestry. Due to development restrictions on CF lands, these lands are not included as lands with potential capacity for residential development. However, logging and other activities allowed on these lands do have potential to affect the water quality of the Lake Whatcom Watershed. Below is a map highlighting these major private and public ownership holdings, as well as the land reconveyance from DNR to Whatcom County.

