

# 2015 Land Quantity Analysis Result and Methodology

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This report contains the City of Spokane Land Quantity Analysis, which includes a summary of the methodology used in the analysis and supporting tables and graphics. The data used to produce the report is from the Spokane County Assessor's Office, City of Spokane permit data, and parcel data constructed by the City of Spokane's GIS department.

## **RESIDENTIAL LAND QUANTITY ANALYSIS**

The City of Spokane 2015 Land Quantity Analysis (LQA) Result and Methodology report estimates the amount of land available and its development capacity within the City of Spokane to support residential and non-residential growth.

County-wide Planning Policies direct jurisdictions to utilize the LQA methodology developed by the Washington State Department of Community Trade and Economic Development, now the Department of Commerce, and from the guidebook, "Urban Growth Area Guidebook: Reviewing, Updating and Implementing Your Urban Growth Area." This report analyzes land quantity using updated 2015 data. The analysis includes a review of 2014 aerial photography to verify the accuracy of results of using several sources of land use information.

Below is a summary of the City of Spokane's application of the adopted methodology:

### **Step 1**

#### ***Identify land that can accommodate future growth.***

In determining residential land quantity, land with residential capacity falls into one of four categories:

##### **Capacity within Approved Developments**

Approved projects include projects that have not been built or are under construction but not occupied. This also includes approved and vested preliminary plats and planned unit developments with future phases yet to be finalized, and other vested projects with remaining housing units to be completed.

##### **Vacant land**

Vacant lands are identified as parcels with improvements valuing less than \$500. This includes vacant lots under an acre where it is assumed they will not be further subdivided and vacant parcels over an acre in size where it is assumed they will be further subdivided or developed to an assumed average zoned density. Vacant lots that are over 10 years old are reduced by a 30 percent market factor (please see Step 5 for an explanation of this 30 percent market factor), as it is assumed that some older lots will not be available for development within the next 20 year period.

##### **Partially used land**

Partially used land is land that contains existing residential development but is large enough to be further subdivided. Partially used residential land must include enough acreage to be subdivided into five or more lots based on existing zoning.

Areas where specific land use assumptions are being used

This includes areas where specific studies and plans have been developed within the City.

**Step 2**

***Subtract all parcels that the community defines as not developable due to physical limitation.***

While recognizing that most land has development potential, certain properties have physical and/or regulatory constraints, such as wetlands, steep slopes, or regulated shorelines. Some properties may never develop or may develop at densities less than allowed by zoning. Therefore, land area containing physical limitations within areas classified and regulated as Critical Areas are not included in the residential land supply. The Critical Areas that have been entirely removed from the assumed land supply are:

Critical Areas deduction

<i>Wetlands &amp; Wetland Buffers:</i>	Inventoried wetlands and an associated 100 foot buffer area are subtracted from the land inventory.
<i>Fish and Wildlife Buffers:</i>	Streams and associated riparian area buffers are subtracted from the land inventory.
<i>Geologically Hazardous Areas:</i>	Certain hazardous geologic units and slopes over 16 percent are deducted from the land inventory.

**Step 3**

***Subtract lands that will be needed for other public purposes.***

Land needed for public purposes is addressed in the following ways. First, land that is necessary for new infrastructure, such as road right-of-way and rain water retention is subtracted from the acreage figures generated in Step 1. A 20 percent across the board reduction is taken from residential land initially identified as vacant or partially-used for these purposes.

It should be noted that land zoned for multi-family uses (the RMF and RHD zones) has a 20 percent deduction for future public right of way that is often not dedicated as public right-of-way. The zoning code allows the density calculation to be applied to a whole site and does not require that the number of units allowed on a site deduct for internal traffic circulation. Often there is little if any land dedicated for public right of way in multi-family developments and applying the 20 percent right-of-way deduction has the potential to underestimate the residential capacity in these multi-family zoning categories.

Secondly, other databases are used to further determine if the land is to be set aside for other public purposes. Land within the following Spokane County Assessor's property class codes and exemptions are used to identify lands that may appear to be vacant but, in reality, are not available for residential development. These situations involve both public and private

properties owned by entities such as utility companies, school districts, or parks departments. The following table illustrates the Assessor property use codes and exemptions that are evaluated to determine if they are not available.

#### **Assessor Exemption & Property Use Codes**

41 Trans – Railroad	67 Service – Governmental	76 Park
42 Trans – Motor	68 Service – Educational	77 Churches
43 Trans – Aircraft	71 Cultural Activity	79 Other Cultural
44 Trans – Marine	72 Public Assembly	Cemetery Exempt
45 Trans – Highway	73 Amusement	DoR Institutional Exempt
46 Trans – Parking	74 Recreational	Government Property
47 Communication	75 Resort- Camping	Operating Property Exempt
48 Utilities	State Levy Exempt	
49 Trans – Other	Public Schools Exempt	

#### **Step 4**

***Subtract all parcels which the community determines are not suitable for development for social and economic reasons.***

Single family residential parcels that are large enough to be further subdivided into five or more lots, but have an improvement value greater than three times the lot area, are considered unlikely to be further subdivided or redeveloped and are excluded from the available land supply calculations.

#### **Step 5**

***Subtract ...that percentage of land... which is assumed will not be available for development within the plan's 20 year time-frame.***

In the adopted *Land Quantity Analysis Methodology for Spokane County*, a technical committee of elected officials and technical experts determined that a build-out factor of 70 percent was an acceptable average countywide, also referred to as a “market factor.” The adopted methodology assumes that 30 percent of the vacant land supply with residential development capacity will not be available for development during the next twenty-year planning horizon.

## **Step 6**

### ***Safety Factor.***

The methodology states that if a jurisdiction is not capable of monitoring its land supply it may build in a safety factor of additional land area to the projected 20-year land area needs to assure adequate land capacity. A safety factor has not been included. The land supply information will be monitored and updated using the City's GIS inventory, permit system and data from the Spokane County Assessor Office.

Additionally an amendment to the Countywide Planning Policies in 2008 established criteria for monitoring population growth and mandating land quantity and population capacity studies when certain growth triggers are met. This strategy is intended to ensure that adequate land supply will be monitored and maintained throughout the planning horizon.

## **Step 7**

### ***Determine total capacity.***

#### *Density Assumptions*

The density assumptions used for vacant and partially used land categories are summarized below.

#### *Lower Density Residential Zones*

Residential Single Family Zone (RSF): This zone allows a density range of 4 to 10 dwelling units (du) / acre. An average density of 6 dwelling units per acre (lot size of 7,200 sq. ft. lot size) is used.

Residential Two Family Zone (RTF): This zone allows a density of up to 20 du / acre. An assumed density of 15 dwelling units per acre (average of 2,900 sq. ft. per residential unit) is used.

#### *Higher Density Multi-Family Residential Zones*

Residential Multifamily Zone (RMF): This zone allows a density range of 15 to 30 du / acre. At this time a density of 22.9 du / acre (average of 1,900 sq. ft. per residential unit) is used.

Residential High Density (RHD): No maximum density is specified for this zone. Density is often restricted by other standards such as parking requirements and height limits. An assumed density of 43.5 du / acre (average of 1,000 sq. ft. per residential unit) is used.

\*One particular parcel 25116.0053 located at 2911 W. Fort George Wright DR. is currently zoned for RHD, however we used a lower density assumption at 22.9du/acre due to a number of unknown property development variables on the property.

### Specific Plan Areas:

Within the Downtown and University District areas, the City has created sub-area plans and detailed housing studies with forecast housing needs and capacities. In these areas, specific assumptions are used based upon projected housing demand, as the zoned development capacity is much larger than the projected twenty year demand. Typically these areas allow for a mix of uses and very high-density housing.

#### **Downtown Plan and Housing Study:**

Two detailed Downtown housing studies have been conducted for Downtown. The Downtown Spokane Economic Analysis prepared by Keyser Marston Associates, Inc., in 2003 discussed the potential for residential development in this area. The 2000 and 2008 Downtown Plans estimated that there is enough land capacity in the Downtown area to support more than 4,000 residential units along with capacity to meet commercial needs for the next 20 years. The 2003 Downtown housing area study determined that the market for Downtown housing was continually increasing over time.

While the zoned development capacity within the Downtown is much higher than the forecast demand from the Downtown Plan and the demand potential outlined in the 2003 Downtown Housing Study, a forecast demand and assumed capacity of 2,000 housing units (the middle of the forecast range) is used for the next 20 years within this area.

#### **University District Housing Study:**

The zoned development capacity within the University District is higher than the forecast demand in the 2009 University District Housing Study and at this time, the forecast market demand is being used for the next 20 years within this area. The 2009 University District Housing Market Study states that there is demand for 1,740 housing units within the University District area.

### Population per dwelling unit

Dwelling units within Single-Family Residential Zones and Two-Family Residential Zones are calculated at 2.5 residents per household. All dwelling units in the Multi-Family Zones are calculated at 1.6 residents per household.

### ***Aerial Photography Review***

A final step in the analysis included a review of recent aerial photography to compare the results of the GIS analysis to the existing landscape and identify any major errors or anomalies. The review identified a number of anomalies relating to land determined to be vacant using just the Assessor's property use codes. The LQA was modified to exclude the identified parcels from lands available for development.

## 2015 Population Capacity

The 2015 population capacity for the City of Spokane is summarized in the table below. Maps included at the end of this report show the areas within the City with assumed development capacity consistent with the methodology outlined in this report. Already developed residential property that is considered underutilized by its zoned development capacity is not included in the following table, but is summarized in the next section.

### City of Spokane Population Capacity Summary

<b>Residential Zoned Parcels</b>	<b>SF DU</b>	<b>MF DU</b>	<b>SF Pop @2.5 PPH</b>	<b>MF Pop @1.6 PPH</b>	<b>Population</b>
Large Vacant Parcels	1514	1189	3,785	1,902	5,687
Partially Used	1607	678	4,018	1,085	5,102
Vacant Lots	2250	706	5,625	1,130	6,755
Mixed Use	0	1112	0	1,780	1,661
<b>Sub-Category Total</b>	<b>5,371</b>	<b>3,685</b>	<b>13,428</b>	<b>5,897</b>	<b>19,205</b>
<b>Vested Projects and Plats</b>	<b>SF DU</b>	<b>MF DU</b>	<b>SF Pop @2.5 PPH</b>	<b>MF Pop @1.6 PPH</b>	<b>Population</b>
	2,459	2,647	6,148	4,235	10,383
<b>Sub- Category and Plats</b>	<b>2,459</b>	<b>2,647</b>	<b>6,148</b>	<b>4,235</b>	<b>10,383</b>
<b>Specific Plan Areas</b>	<b>SF DU</b>	<b>MF DU</b>	<b>SF Pop @2.5 PPH</b>	<b>MF Pop @1.6 PPH</b>	<b>Population</b>
Downtown	0	2,000	0	3,200	3,200
U-District	260	1,480	416	2,368	2,784
<b>Sub- Category and Plats</b>	<b>260</b>	<b>3,480</b>	<b>416</b>	<b>5,568</b>	<b>5,984</b>
<b>Grand Total</b>	<b>8,090</b>	<b>9,812</b>	<b>19,991</b>	<b>15,700</b>	<b>35,572</b>

(SF = Single Family, MF = Multifamily, DU = Dwelling Units, Pop = Population, PPH = Persons per Household)

## Underutilized Land

Underutilized Land is classified as land that contains a single dwelling unit, duplex, triplex, or quadplex on a property that is zoned for more intense usage. The table below summarizes the underutilized acres and the number of each by zoning category. Although these underutilized land areas are *not* included in the overall Population Capacity Summary in the table above, they are listed here as possible areas where residential use could be intensified.

Single Unit Zoning	Single Unit Under Utilized Acres	Count of Single Unit Parcels	Multi Unit Zoning	Multi Unit Under Utilized Acres	Count of Multi Unit Parcels
CB-150	1.19	11	CB-150	0.51	3
CB-55	10.10	75	CB-55	3.82	28
CC1-DC	10.29	74	CC1-DC	3.29	21
CC1-EC	2.03	14	CC1-EC	0.31	2
CC1-NC	6.06	44	CC1-NC	1.87	15
CC2-DC	4.09	32	CC2-DC	2.05	15
CC2-EC	15.59	114	CC2-EC	2.68	19
CC4-DC	16.71	112	CC4-DC	3.12	20
CC4-EC	5.74	41	CC4-EC	1.68	11
CC4-NC	0.25	2	CC4-NC	0.69	5
DTG	0.32	4	DTS	0.05	1
GC-150	0.82	5	GC-150	1.63	10
GC-70	13.90	84	GC-70	1.86	11
NR-35	7.90	46	NR-35	1.06	5
O-35	24.06	147	O-35	6.23	40
O-55	0.10	1			
OR-150	1.50	13	OR-150	3.32	26
OR-35	1.23	8	OR-35	0.84	6
OR-55	5.36	43	OR-55	0.70	6
RHD-35	71.03	466	RHD-35	24.63	174
RHD-55	9.81	84	RHD-55	6.25	46
RHD-70	2.43	12	RHD-70	3.48	23
RMF	218.13	1660	RMF	90.51	505
<b>Grand Total</b>	<b>428.62</b>	<b>3092</b>	<b>Grand Total</b>	<b>160.59</b>	<b>992</b>

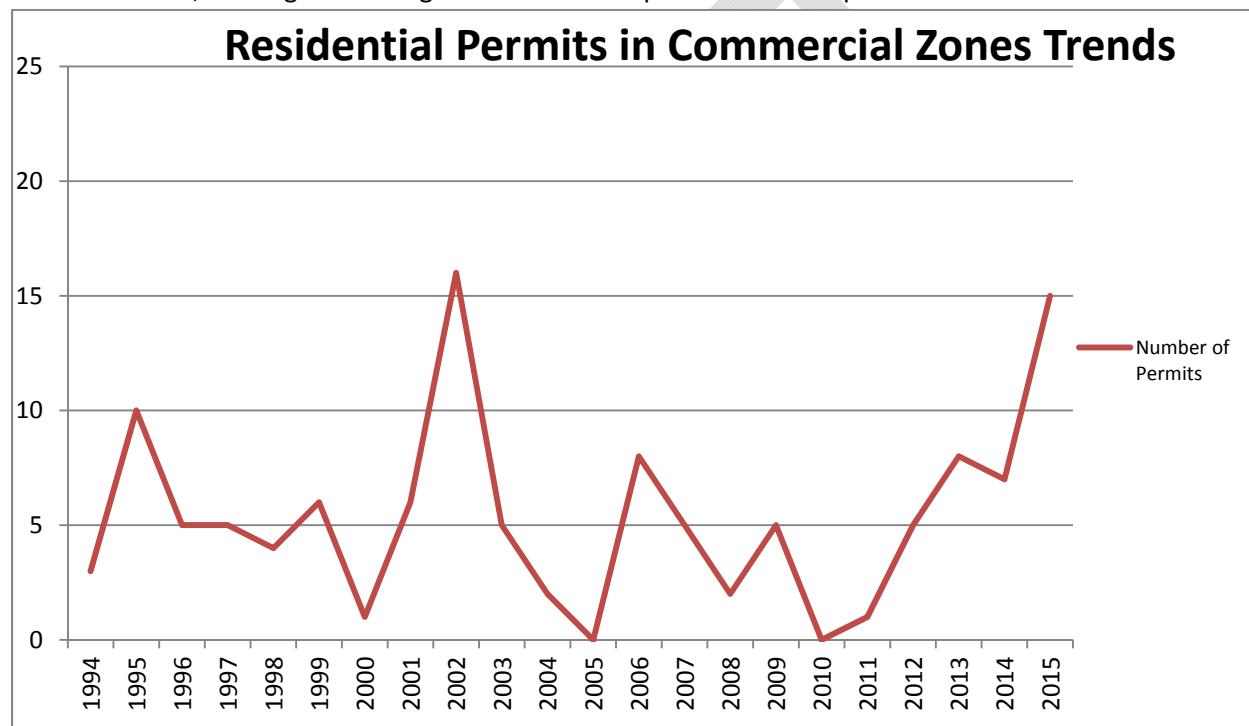
(Single Unit Underutilized Acres = single unit on a parcel zoned for a higher intensity usage.  
Multi Unit Underutilized Acres = two to four unit on a parcel zoned for a higher intensity usage.)



### ***Residential Permits in Commercial Zones Trends***

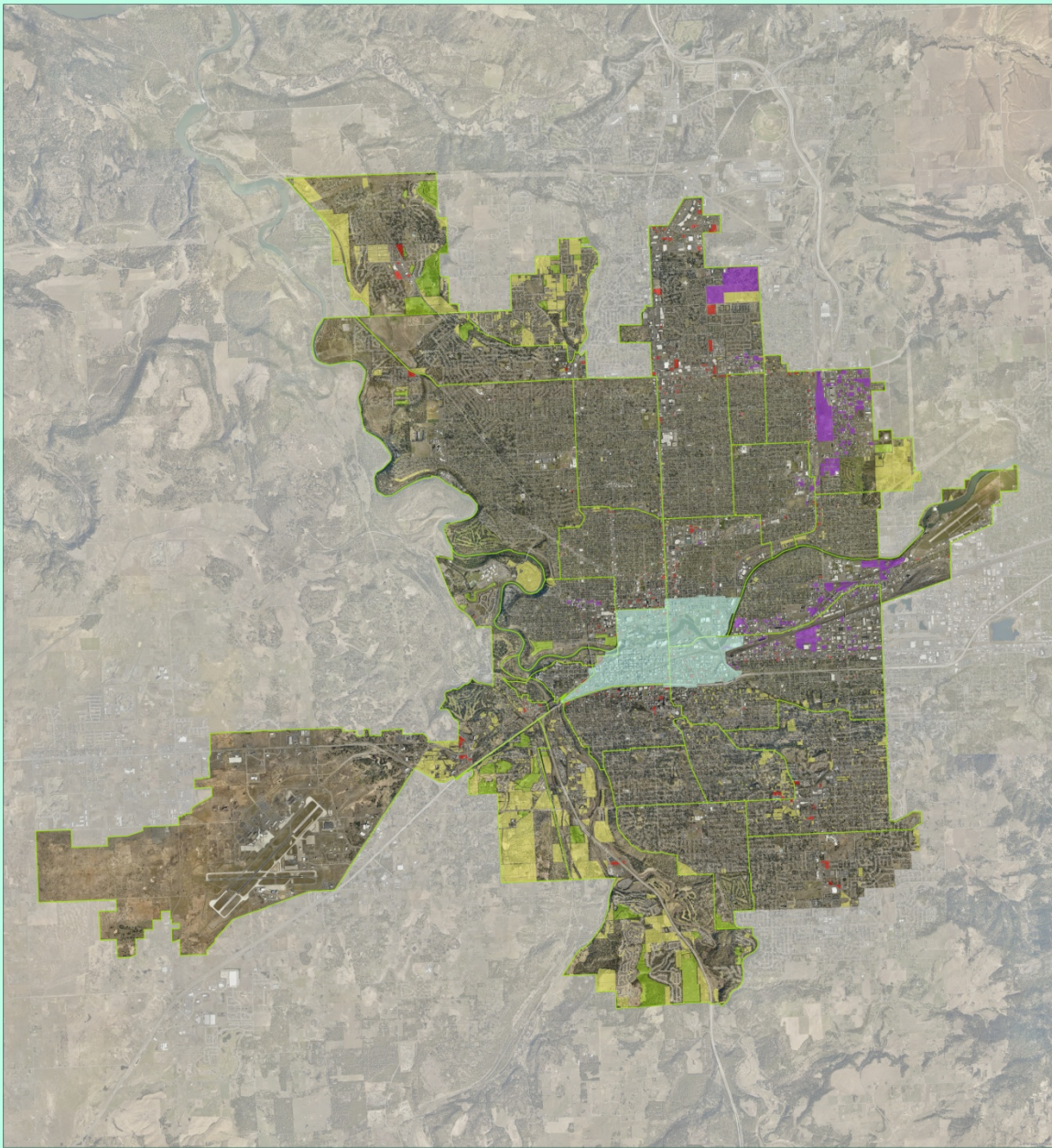
The data was collected from the City of Spokane's permits from 1993 to 2015. This data was geo-coded and queried to only include Residential Building permits (codes of 101-105) within commercial zones. By assessing the data by number of permits issued in each year several trends emerged. In 2002, a larger quantity of residential permits within commercial zones were issued, many of which were issued to Habitat for Humanity. In 2006, there was another increase above the average permits issued for apartments with five or more units within commercial zones. Since 2013, permits issued for residential development within Commercial zones have been steadily increasing above the 10 year average.

This analysis is simply an observation based on available building permit records and may contain errors within the data, although excluding errors was attempted as much as possible.



Code	Residential Building Permit Code Description
101	Single-Family House Detached
102	Single-Family House Attached
103	Apartment Building 2 Units (Duplex)
104	Apartment Building 3 and 4 Units
105	Apartment Building 5 or More Units

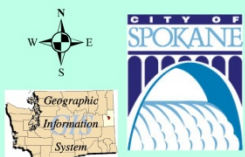
# Land Quantity Analysis



## Legend

- SpecificPlanArea
- Residential Capacity
- Vacant Commercial
- Vacant Commercial Parking
- Vacant Industrial
- Vested Development
- Neighborhood

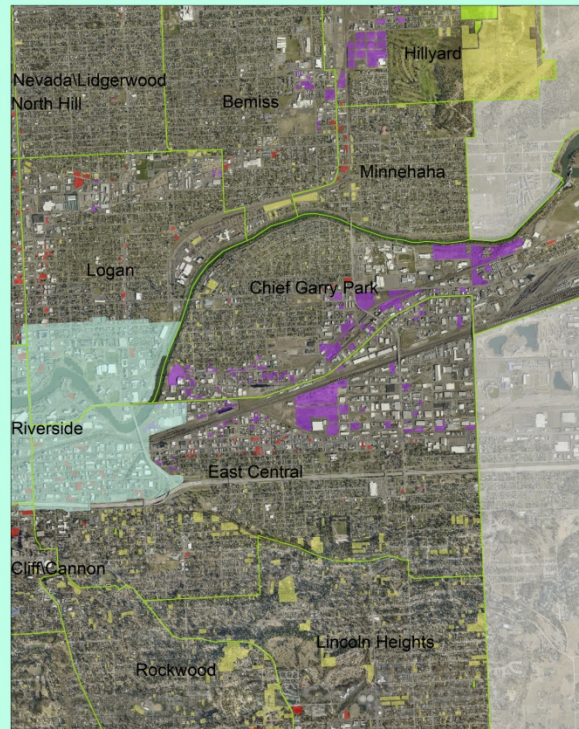
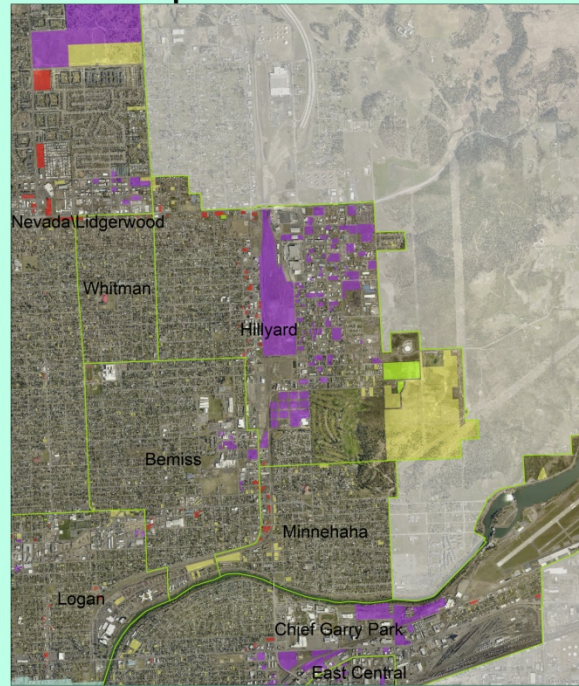
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Grand Total	8,090	9,812	19,991	15,700	35,572



THIS IS NOT A LEGAL DOCUMENT:  
The information shown in this map is compiled from various sources and is subject to constant revision. Information shown on this map should not be used to determine the location of facilities in relationship to property lines, section lines, streets, etc.



# Land Quantity Analysis Development Areas



**Legend**

Specific Plan Area	Vacant Commercial Parking
Residential Capacity	Vacant Industrial
Vacant Commercial	Vested Development

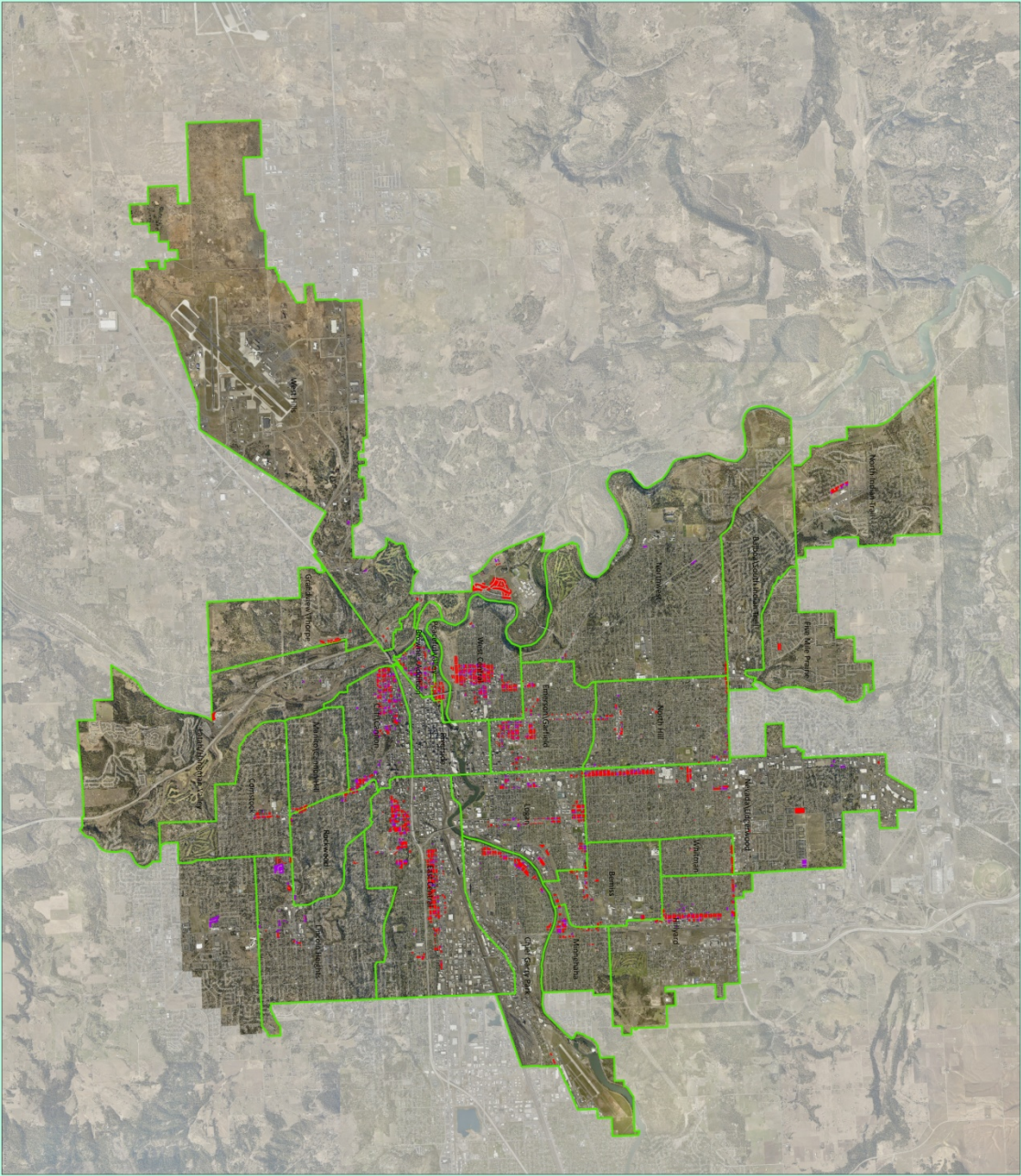


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Existing Use That is Less Than Zoned Capacity



**Legend**

- Two to Four Unit
- Single Unit
- Neighborhood Boundaries

The creation of this map was done using parcel data and assessor's data. By highlighting the parcels that contain single residential unit zoned for higher usage we can show areas where it could be possible to further increase density of residential housing units.

Zoning	Under Utilized Acres	Count of Parcels
CB-150	1.19	11
CB-55	10.10	75
CC1-DC	10.29	74
CC1-EC	2.03	14
CC1-NC	6.06	44
CC2-DC	4.09	32
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O-55	0.10	1
OR-150	1.50	13
OR-35	1.23	8
OR-55	5.36	43
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RHD-55	9.81	84
RHD-70	2.43	12
RHP	218.13	1669
Grand Total	428.62	3092

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## APPENDIX

Washington State Department of Commerce Urban Growth Area Guidebook

<http://www.commerce.wa.gov/Documents/GMS-UGA-Guidebook-Final-2012.pdf>

2010 Spokane LQA Report

<https://static.spokanecity.org/documents/business/resources/studies/other/city-of-spokane-lqa-report-aug-2010.pdf>

Residential Potential and Needs Analysis The University District, August 2009

<https://static.spokanecity.org/documents/business/resources/studies/other/city-of-spokane-lqa-report-aug-2010.pdf>

Downtown Residential Market Potential

<https://static.spokanecity.org/documents/business/resources/studies/housing/downtown-housing-study-2003.pdf>