

# Spokane County 2017 Comprehensive Plan Amendments

## Cumulative Impact Analysis



## Introduction

The Comprehensive Plan is a set of goals, policies, maps, illustrations and implementation strategies that state how the County should grow physically, socially, and economically. The Plan emphasizes innovative and flexible strategies to guide growth and development. One of the central themes of the Plan is the promotion of economic development that occurs in harmony with environmental protection and preservation of natural resources. The Plan recognizes the interests of the entire community and promotes cultural and ethnic diversity.

The Comprehensive Plan establishes a pattern of land uses to shape the future in desirable ways. Map designations include residential, commercial, industrial and mixed-use areas. Identifying and defining these land use categories ensures compatibility among uses, protection of property values, and efficient provision of infrastructure and services. The Plan's land use map also identifies urban growth area (UGA) boundaries. UGA's are intended to reduce sprawl and provide a clear separation between urban and rural areas.

As specified by the Growth Management Act and the Spokane County Comprehensive Plan, the Comprehensive Plan may only be amended once per year. Spokane County has amended the Plan each year since its adoption in 2001. For 2017, two amendment requests are being considered. The requests are proposals from individual applicants/property owners and are all located in the existing Urban Growth Area. The requests can be grouped as follows:

Files 17-CPA-1 & 17-CPA-2 are requests to change Comprehensive Plan land use designations with concurrent zone changes. Both requests are located within the North Metro UGA and total approximately 10.56 acres.

Cumulative impacts are considered and a summary of each application is provided. More detailed information, including copies of each application can be found on the Department of Building and Planning website at: <http://www.spokanecounty.org/585/Comprehensive-Plan-Update> For further information, please contact the Department of Building and Planning, please call 477-7223.

## Summary of Proposals

**17-CPA-01** proposes to convert approximately 3.34 total acres of Low Density Residential (LDR) to High Density Residential (HDR).

Development Factors:

The site consists of two parcels, in separate ownerships, each containing a single-family home.

**17-CPA-02** proposes to convert 7.22 acres from Low Density Residential (LDR) to 1.58 acres of Regional Commercial (RC) and 5.64 acres to Mixed-Use (MU).

Development Factors:

The applicant, Whitworth University, has entered into a Mitigated Determination of Nonsignificance (MDNS) addressing transportation and pedestrian infrastructure impacts. The site is currently developed with structures on every parcel. Some redevelopment of the site may be possible under the existing zoning with a best estimate being that an additional four single-family equivalent dwellings could be added. Whitworth has converted many of the single-family homes within the site's area to theme houses which are rented to university students. Many of these structures

exceed the standard number of persons for a single-family dwelling the County assigns when calculating density. For that reason, we will use the University's estimate on existing density. The Mixed-Use zoning category has, to date, not been used to its fullest potential and therefore the County does not have adequate data to establish a baseline for its development potential. Additionally, the proximity of the proposal to the campus of Whitworth presents a unique environment. Therefore, we will use the information provided by the University's in the Traffic Impact Analysis as the basis for development potential estimates, along with their supplemental comments addressing capacity of the proposed student housing units, which indicated that any newly constructed apartments would be two-bedroom units<sup>1</sup>.

### Cumulative Impacts

This analysis represents the Department of Building and Planning's best estimate on the impacts these specific proposals will have on the provision of facilities, services, and land use inventories.

<b>Effect on Land Use Mix County-Wide<sup>2</sup></b>				
Zone	Current Acreage	Add/Sub	As Proposed	% Change
Low Density Residential	12,719.32	-10.56	12,708.76	-0.08
High Density Residential	410.41	3.34	413.75	0.81
Regional Commercial	820.76	1.58	822.34	0.19
Mixed-Use	614.25	5.64	619.89	0.92

<b>Effect on Land Use Mix in the North Metro Urban Growth Area<sup>3</sup></b>				
Zone	Current Acreage	Add/Sub	As Proposed	% Change
Low Density Residential	4,556.99	-10.56	4,546.43	-0.23
High Density Residential	212.05	3.34	215.39	1.58
Regional Commercial	302.78	1.58	304.36	0.52
Mixed-Use	541.71	5.64	547.35	1.04

### Conclusions:

The proposed designation changes will have a minimal effect on the County-wide land use mix and a similar minimal effect within the North Metro UGA.

<sup>1</sup> Chris Eichorst, Director Facilities Services, Whitworth University email 5/2/18

<sup>2</sup> Spokane County GIS Department 2/20/18

<sup>3</sup> Spokane County GIS Department 2/20/18

**Table 1 - Law Enforcement - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential People Existing Category	Potential People Proposed Category	Change in Potential Population	Potential Increase in Service Demand Number of officers
17-CPA-01	Low Density Residential	High Density Residential	3.34	40 <sup>4</sup>	160 <sup>5</sup>	120	0.12
17-CPA-02	Low Density Residential	Mixed-Use	5.64	45	154	109	
		Regional Commercial	1.58	4	0	-4	
		Subtotals	7.22	49 <sup>6</sup>	154 <sup>7</sup>	105	0.11
			10.56	89	314	225	
<b>Cumulative Impact</b>							<b>0.23 Officers</b>

LOS - 1.01 officers per 1,000 people per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

Site size incorporates a 20% deduction for infrastructure

LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Single-family dwelling = 2.5 persons/dwelling unit, Multi-family dwelling = 2 persons/dwelling unit

Assumptions for 17-CPA-02

The site has structures on each parcel.

The school building on site is not suitable for conversion to housing as presently zoned

MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>8</sup> and supplemented by a statement from the University<sup>9</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.

Each unit can support two persons for a total of 154 persons.

The Traffic Impact Analysis states there will be 15,000 sf of retail

Regional Commercial zoning = 0 dwelling units/acre

Conclusion:

The 2017 Comprehensive Plan amendments, as proposed, would create a demand for an additional 0.23 officers in order to maintain the adopted LOS. In 2017, the County had 122<sup>10</sup> officers dedicated to serving the unincorporated area population of 144,903<sup>11</sup>. The 2017 LOS deficit was 24<sup>12</sup> officers. The 2016 Comprehensive Plan amendments added an additional 2.69 officers demand to make the total deficit 27. This year's proposals add a need for an additional 0.23 officers.

<sup>4</sup> 3.34 acres – 20%= 2.67 X 6 = 16 X 2.5 = 40

<sup>5</sup> 3.34 acres – 20%= 2.67 X 30 = 80 X 2 = 160

<sup>6</sup> Based upon Traffic Impact Analysis page 9 and e-mail from Whitworth Facilities Director dated 5-2-18

<sup>7</sup> Whitworth University 2017 CPA Traffic Impact Analysis, p1, Sunburst Engineering, January 2018

<sup>8</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>9</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

<sup>10</sup> Per Under Sheriff Jeff Tower 6-14-17

<sup>11</sup> BOC Resolution 16-553. 20-Year Population Forecast

<sup>12</sup> 144,903 persons/1,000 = 144.9 X 1.01 = 146.35 – 122 existing officers = 24.35

**Table 2 - Libraries - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential People Existing Category	Potential People Proposed Category	Change in Potential Population	Potential Increase in Service Demand sq. ft. Library space
17-CPA-01	Low Density Residential	High Density Residential	3.34	40 <sup>13</sup>	160 <sup>14</sup>	120	49.2
17-CPA-02	Low Density Residential	Mixed-Use	5.64	45	154	109	
		Regional Commercial	1.58	4	0	-4	
	Subtotals		7.22	49 <sup>15</sup>	154 <sup>16</sup>	105	43.1
			10.56	89	314	225	
<b>Cumulative Impact</b>							<b>92.3 Square ft.</b>

LOS - 0.41 square feet of library per capita, per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

Site size incorporates a 20% deduction for infrastructure

LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Single-family dwelling = 2.5 persons/dwelling unit, Multi-family dwelling = 2 persons/dwelling unit

Assumptions for 17-CPA-02

The site has structures on each parcel.

The school building on site is not suitable for conversion to housing as presently zoned

MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>17</sup> and supplemented by a statement from the University<sup>18</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.

Each unit can support two persons for a total of 154 persons.

The Traffic Impact Analysis states there will be 15,000 sf of retail

Regional Commercial zoning = 0 dwelling units/acre

Conclusion:

The 2017 Comprehensive Plan amendments, as proposed, would create a demand of an additional 92.3 square feet of library space in order to maintain the adopted Level of Service.

<sup>13</sup> 3.34 acres – 20%= 2.67 X 6 = 16 X 2.5 = 40

<sup>14</sup> 3.34 acres – 20%= 2.67 X 30 = 80 X 2 = 160

<sup>15</sup> Based upon Traffic Impact Analysis page 9 and e-mail from Whitworth Facilities Director dated 5-2-18

<sup>16</sup> Whitworth University 2017 CPA Traffic Impact Analysis, p1, Sunburst Engineering, January 2018

<sup>17</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>18</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

**Table 3 - Parks - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential People Existing Category	Potential People Proposed Category	Change in Potential Population	Potential Increase in Service Demand Number of acres
17-CPA-01	Low Density Residential	High Density Residential	3.34	40	160	120	0.17
17-CPA-02	Low Density Residential	Mixed-Use	5.64	45	154	109	
		Regional Commercial	1.58	4	0	-4	
	Subtotal		7.22	49 <sup>19</sup>	154 <sup>20</sup>	105	0.15
			10.56	89	314	225	
<b>Cumulative Impact</b>							<b>0.32 Acres</b>

LOS - The County must provide 1.4 acres of Community Parkland per 1,000 residents within the unincorporated Urban Growth Area (UGA) where a concentration of 7,000 or more residents are not located within three miles (using the existing road/street system) of an existing improved or unimproved County, municipal or other public park that provides or is planned to provide amenities similar to a Community Park (e.g. irrigated turf, play fields, etc.).

Assumptions for 17-CPA-01:

Site size incorporates a 20% deduction for infrastructure  
 LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre  
 Single-family dwelling = 2.5 persons/dwelling unit, Multi-family dwelling = 2 persons/dwelling unit

Assumptions for 17-CPA-02

The site has structures on each parcel.  
 The school building on site is not suitable for conversion to housing as presently zoned  
 MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>21</sup> and supplemented by a statement from the University<sup>22</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.  
 Each unit can support two persons for a total of 154 persons.  
 The Traffic Impact Analysis states there will be 15,000 sf of retail  
 Regional Commercial zoning = 0 dwelling units/acre

Conclusion:

The 2017 Comprehensive Plan amendments, as proposed, would create a demand of an additional 0.32 square feet of library space in order to maintain the adopted Level of Service.

<sup>19</sup> Based upon Traffic Impact Analysis p9 and e-mail from Whitworth Facilities Director dated 5-2-18

<sup>20</sup> Whitworth University 2017 CPA Traffic Impact Analysis, p1, Sunburst Engineering, January 2018

<sup>21</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>22</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

**Table 4 - Schools - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential Res. Units Existing Category	Potential Res. Units Proposed Category	Change in Potential Residential units	Potential Increase in Service Demand Number of students K-12
17-CPA-01	Low Density Residential	High Density Residential	3.34	16 <sup>23</sup>	80 <sup>24</sup>	64	32
17-CPA-02	Low Density Residential	Mixed-Use	5.64	15 <sup>25</sup>	77 <sup>26</sup>	62	3 <sup>27</sup>
		Regional Commercial	1.58	1 <sup>28</sup>	0	-1	-0.2
	Subtotals		7.22	16	77	61	2.8
<b>Cumulative Impact</b>							<b>34.8 Students</b>

LOS--To be determined by the individual school district's capital facilities plan, per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

0.5 students per residential unit  
 Site size incorporates a 20% deduction for infrastructure  
 LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Assumptions for 17-CPA-02

The site has structures on each parcel.  
 The school building on site is not suitable for conversion to housing as presently zoned  
 MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>29</sup> and supplemented by a statement from the University<sup>30</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.  
 Each unit can support two persons for a total of 154 persons.  
 The Traffic Impact Analysis states there will be 15,000 sf of retail  
 Regional Commercial zoning = 0 dwelling units/acre  
 0.00 K-12 students from senior housing  
 0.20 K-12 students per unit of student housing

Conclusion:

The 2017 Comprehensive Plan amendments, as proposed, would create an additional 34.8 students above the total likely possible under the current zoning designation. Both of the proposed Comprehensive Plan amendments are within the Mead School District.

<sup>23</sup> 3.34 acres – 20%= 2.67 X 6 = 16 units

<sup>24</sup> 3.34 acres – 20%= 2.67 X 30 = 80 units

<sup>25</sup> Whitworth University 2017 CPA Traffic Impact Analysis, page 4, Sunburst Engineering, January 2018

<sup>26</sup> 47 units of senior housing and 30 units of student housing

<sup>27</sup> 47 senior units = 0 students + (30 new units of student housing – 15 existing = 15) X 0.2= 3

<sup>28</sup> Assessors records indicate a 4-bedroom home on parcel 36181.0706

<sup>29</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>30</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

**Table 5 - Transportation - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential trips per day	Potential trips per day	Potential Increase in trips per day
				Existing Category	Proposed Category	
17-CPA-01	Low Density Residential	High Density Residential	3.34	160 <sup>31</sup>	533 <sup>32</sup>	373
17-CPA-02	Low Density Residential	Mixed-Use	5.64	185 <sup>33</sup>	224 <sup>34</sup>	39
		Regional Commercial	1.58	0 <sup>35</sup>	1,979 <sup>36</sup>	1,979
	Subtotals		7.22	185	2,203	2,018
<b>Cumulative Impact</b>						<b>2,391 Trips/Day</b>

LOS-- for operational analysis shall be as contained in the Spokane County Standards for Road and Sewer Construction. Maintain travel corridor time as established by Spokane Regional Transportation Council, per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

Trips per day: 10 per single family dwelling unit and 6.65 per multi-family dwelling unit  
 Site size incorporates a 20% deduction for infrastructure  
 LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Assumptions for 17-CPA-02

Trips per day: 10 per single-family dwelling unit and 6.5 per multi-family unit  
 The site has structures on each parcel.  
 The school building on site is not suitable for conversion to housing as presently zoned  
 MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>37</sup> and supplemented by a statement from the University<sup>38</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.  
 Each unit can support two persons for a total of 154 persons.  
 Hawthorne Hall will be remodeled to accommodate its current institution uses and student-oriented retail<sup>39</sup>  
 The Traffic Impact Analysis states there will be 15,000 sf of student-oriented retail  
 Regional Commercial zoning = 0 dwelling units/acre

Conclusion:

The 2017 Comprehensive Plan amendments, as proposed, would create a demand of an additional 2,391 vehicle trips per day.

<sup>31</sup> 3.34 acres - 20% = 2.67 X 6 units/acres = 16 X 10 trips per unit = 160

<sup>32</sup> 3.34 acres – 20% = 2.67 X 30 units/acres = 80 X 6.65 trips per unit = 533

<sup>33</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Table 5, p9, Sunburst Engineering, January 2018

<sup>34</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Table 2+Table 3, p8, Sunburst Engineering, January 2018

<sup>35</sup> Institutional Use with in Hawthorne Hall not counted because they will not change. Existing residential use trips for parcel 36181.0706 are depicted within the existing trips for the Mixed-Use category for simplification.

<sup>36</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Table 1, p7, Sunburst Engineering, January 2018

<sup>37</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>38</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

<sup>39</sup> Whitworth University 2017 CPA Traffic Impact Analysis, p4, Sunburst Engineering, January 2018



**Table 6 - Wastewater - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential Wastewater Existing Category (gallons/day)	Potential Wastewater Proposed Category (gallons/day)	Potential Increase in Wastewater (gallons/day)
17-CPA-01	Low Density Residential	High Density Residential	3.34	3,200 <sup>40</sup>	11,200 <sup>41</sup>	8,000
17-CPA-02	Low Density Residential	Mixed-Use	5.64	3,000 <sup>42</sup>	10,780 <sup>43</sup>	7,780
		Regional Commercial	1.58	491 <sup>44</sup>	1,580 <sup>45</sup>	1,089
	Subtotals		7.22	3,491	12,360	8,869
<b>Cumulative Impact</b>						<b>16,869 Gallons/Day</b>

LOS-- Public sewer required where densities exceed 2 equivalent residential units per acre, per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

Site size incorporates a 20% deduction for infrastructure

LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Wastewater produced per dwelling unit = 200 gal/day (gpd) single family, 140 gpd for multifamily unit<sup>46</sup>

Assumptions for 17-CPA-02

The site has structures on each parcel.

Regional Commercial zoning = 0 dwelling units/acre

The school building on site is not suitable for conversion to housing as presently zoned

MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>47</sup> and supplemented by a statement from the University<sup>48</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.

The Traffic Impact Analysis states Hawthorne Hall will be remodeled and existing institution uses will continue and there will be an additional 15,000 sf of student-oriented retail

Wastewater produced per dwelling unit = 200 gal/day (gpd) single family, 140 gpd for a multifamily unit<sup>49</sup>

Commercial/industrial wastewater = 1,000 gallons/acre/day

RC = 0 residential units/acre

Conclusion:

The proposed amendments could produce an additional 16,869 gpd of wastewater.

<sup>40</sup> 3.34 acres – 20%= 2.67 X 6 = 16 units X 200 gal/day = 3,200

<sup>41</sup> 3.34 acres – 20%= 2.67 X 6 = 80 units X 140 gal/day = 11,200

<sup>42</sup> 15 residential units X 200 gallons/day = 3,000

<sup>43</sup> 77 apartment units X 140 gallons/day = 10,780

<sup>44</sup> Based upon Environmental Services' estimate of metered sewage flow from Hawthorne Hall plus one residence

<sup>45</sup> 1.58 acres of Regional Commercial land X 1,000 gallons/acre = 1,580

<sup>46</sup> Spokane County Environmental Services 6-19-17

<sup>47</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>48</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18

<sup>49</sup> Spokane County Environmental Services 6-19-17

**Table 7 - Water Consumption - Urban Impacts**

File #	Existing Category	Proposed Category	Site Size in Acres	Potential Water Consumption Existing Category	Potential Water consumption Proposed Category	Potential Increase in Water Consumption (Gallons per day)
17-CPA-01	Low Density Residential	Regional Commercial	3.34	7,295	20,025	12,730
17-CPA-02	Low Density Residential	Mixed-Use	5.64	6,825 <sup>50</sup>	19,250 <sup>51</sup>	12,425
		Regional Commercial	1.58	1,515 <sup>52</sup>	1,580 <sup>53</sup>	65
	Subtotals		7.22	8,340	20,830	12,490
<b>Cumulative Impact</b>						<b>25,220 Gallons/ Day</b>

LOS--800 gallons per residential equivalent per day, per Comprehensive Plan Policy CF 1.1

Assumptions for 17-CPA-01:

Site size incorporates a 20% deduction for infrastructure

LDR = 6 units/acre, MDR = 15 units/acre, HDR = 30 units/acre

Consumption for single family residence = 455 gallons/day, multifamily residence = 250 gallons/day

Assumptions for 17-CPA-02

The site has structures on each parcel.

Regional Commercial zoning = 0 dwelling units/acre

The school building on site is not suitable for conversion to housing as presently zoned

MU residential capacity on the site is identified by Whitworth in the Traffic Impact Analysis<sup>54</sup> and supplemented by a statement from the University<sup>55</sup> as being 47 units of senior housing and 30 units of student housing totaling 77 units, each with two bedrooms.

The Traffic Impact Analysis states Hawthorne Hall will be remodeled and existing institution uses will continue and there will be an additional 15,000 sf of student-oriented retail

Consumption for single family residence = 455 gallons/day, multifamily residence = 250 gallons/day

Commercial/industrial water consumption = 1,000 gallons per acre/day

Institutional use water consumption = 1,000 gallons per acre/day

Conclusion:

The proposed amendments could produce a demand for an additional 25,220 gpd of water.

<sup>50</sup> 15 single-family dwelling units X 455 gal/day = 6,825

<sup>51</sup> 77 multi-family units X 250 gallons/day = 19,250

<sup>52</sup> One residential unit at 455 gallons + (1.06 acres X 1,000 gpd = 1,060) = 1,515

<sup>53</sup> 1.58 acres X 1,000 gallons/day = 1,580

<sup>54</sup> Whitworth University 2017 CPA Traffic Impact Analysis, Sunburst Engineering, January 2018

<sup>55</sup> Email from Christopher Eichorst, Director of Facility Services Whitworth University, 5-2-18