

CITY OF EPHRATA

Comprehensive Plan

June 2023



EPHRATA
Washington



SCJ ALLIANCE

Project Information

Project: City of Ephrata Comprehensive Plan

Prepared for: City of Ephrata
121 Alder St SW
Ephrata, WA 98823
509.754.4601
ephrata.org

Project Representative

Prepared by: SCJ Alliance
108 N Washington, Suite 300
Spokane, WA 99201
509.835.3770
scjalliance.com

Contact: Aren Murcar, AICP

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Introduction

The Ephrata Comprehensive Plan was prepared by the City of Ephrata in accordance with the Growth Management Act (GMA) of Washington State (RCW 36.70A), as amended. This plan represents the community's policies and plan for growth through 2044.

Purpose

Ephrata is updating its Comprehensive Plan to:

- ♦ Adhere to the most updated requirements of the Growth Management Act
- ♦ Establish a community vision for the next 20 years
- ♦ Establish a policy framework to guide city decision-making processes
- ♦ Identify community opportunities and provide direction to make them a reality
- ♦ Identify community issues and challenges and provide direction to address and/or overcome them
- ♦ Maintain consistency and relevance with regional and statewide planning goals and policies

Elements

The plan includes the five required elements of a Comprehensive Plan as established by GM:

- ♦ Land Use
- ♦ Transportation
- ♦ Utilities
- ♦ Housing
- ♦ Capital Facilities

The Capital Facilities and Utilities have been combined into one chapter. Additionally, the City has developed two additional elements: Parks and Recreation and Economic Development.

Public Engagement

Public engagement was an important piece of this plan update. Community priorities and preferences were identified during the public engagement process, and those results were used to guide the final priorities and direction of the Comprehensive Plan. Chapter 2 discusses the public engagement efforts in greater detail.

Coordination/Consistency

The City of Ephrata worked closely with Grant County to ensure this plan is consistent with the Grant County Comprehensive Plan and Grant County Countywide Planning Policies. Additionally, state and regional agencies were consulted to ensure the plan is consistent with regional plans, such as QuadCo's Regional Transportation Plan, and consistent with Washington State's transportation plans, environmental regulations, and growth management requirements.

The plan was found to be consistent with county, regional, and statewide plans and policies. The plan is also internally consistent, ensured by multiple rounds of quality control.



Baseline Report

The baseline report provides an analysis of existing conditions in Ephrata including demographics, a population projection, and a review of existing plans.



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Baseline Conditions Key Takeaways

Introduction

In order to make planning recommendations that will work for Ephrata, it is important to understand the baseline conditions of the City, including population, demographics, housing conditions, and existing policies.

This section provides an in-depth analysis of these aspects and establishes a population forecast for Ephrata in 2044. This target population forecast will be used throughout the plan as the number of people that Ephrata needs to plan for over the next twenty years.



Population Trends

The City of Ephrata has experienced steady growth over the past 20 years. The growth in Ephrata is consistent with the growth happening at both the Grant County and statewide levels.

Table 1. Historic Population (US Census)

Census Population	Ephrata		Grant County		State of WA	
	Count	Percent	Count	Percent	Count	Percent
1980	5,359		48,522		4,132,353	
1990	5,349	-0.2%	54,798	12.9%	4,866,663	17.8%
2000	6,808	27.3%	74,698	36.3%	5,894,143	21.1%
2010	7,664	12.6%	89,120	19.3%	6,724,540	14.1%
2020	8,477	10.6%	99,123	11.2%	7,706,310	14.6%

Source: OFM Decennial Census Counts of Population for the State, Counties, Cities and Towns 1890-2020

Table 2: Population Estimates in Ephrata

Year	Ephrata	
	Estimate	Percent
2010 ¹	7,664	
2011 ²	7,542	-1.6%
2012 ²	7,672	1.7%
2013 ²	7,794	1.6%
2014 ²	7,888	1.2%
2015 ²	7,948	0.8%
2016 ²	7,980	0.4%
2017 ²	7,956	-0.3%
2018 ²	8,050	1.2%
2019 ²	8,072	0.3%
2020 ³	8,477	5.0%
2021 ⁴	8,575	1.2%
2022 ⁴	8,620	0.5%

Source: OFM Databook based on ¹ 2010 Census data, ² American Community Survey estimates, ³ 2020 Census data, and ⁴ OFM April 1 annual population estimates.

Historic Population and Population Estimates in Ephrata

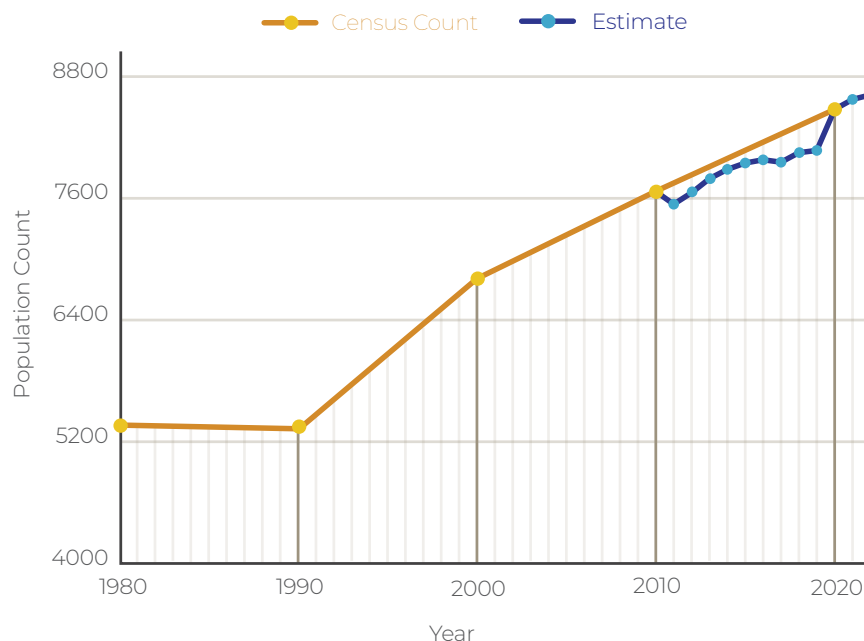


Figure 1: Population Trends



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Population Forecast

The 2018 Grant County Comprehensive Plan projected a population for Ephrata in 2038 of 10,719. These projections were based on the 2017 Washington State Office of Financial Management's (OFM's) countywide population projections. OFM publishes low, medium and high population projections for all counties in Washington every five years, and the most recent projections were released in 2022. This plan will utilize the new OFM projections to project a population for Ephrata out through 2044.

This process uses the same assumption that Grant County utilized in their 2018 Comprehensive Plan, namely, utilizing the OFM medium-level projection as the forecasted population. The 2022 OFM medium-level projection for Grant County for 2044 is 127,647. For the sake of this plan, until Grant County has refined its population projection based on the new OFM numbers, the population projection for Ephrata will utilize the assumption that Ephrata's population share of the countywide population will remain constant between 2022 and 2044 (8.47%). Under that assumption, the new population projection for Ephrata in 2044 is 10,809. This is only 90 more people than projected in 2018 for the year 2038. Therefore, the new population projection indicates a slower-than-anticipated population growth in recent years.

Ephrata will need to accommodate roughly 2,189 new residents by 2044 – a 25.4% increase from 2022. This is approximately equivalent to the growth rate that Ephrata experienced over the 2000 – 2020 period (24.5%).

Ephrata Population Projection

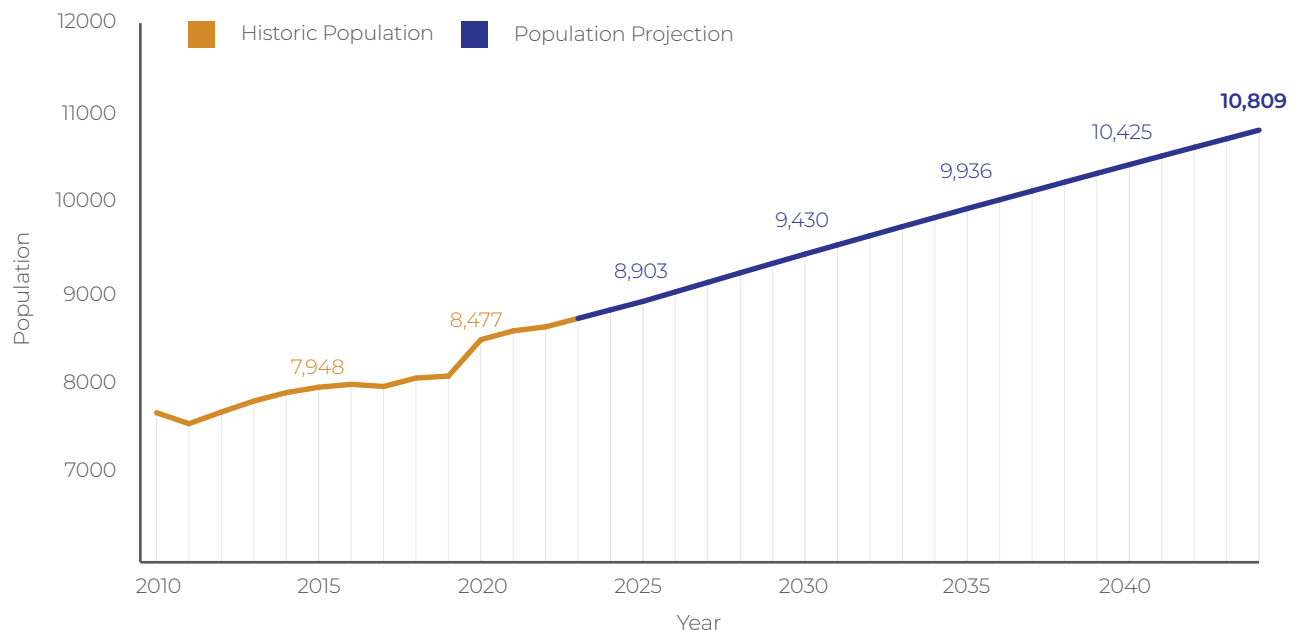


Figure 2: Population Projection



Demographics

Age & Gender

The City of Ephrata has a higher percentage of male residents than female residents. The 2020 American Community Survey (ACS) 5-year estimates show the age categories with the highest populations in Ephrata: 25-34 years (15.7%), 35-44 years (11.0%), 45-54 years (10.2%) and 5 -9 year (9.5%). The median age in Ephrata is 34.0. Approximately 31% of the population is under 18 and 15% is age 65 or older.

Table 3: Gender		
Gender	Estimate	Percent
Male	4,425	54.8%
Female	3,656	45.2%

Source: American Community Survey 2020 5-year estimates Table DP05

The population pyramid in Figure 3 shows age categories by gender.

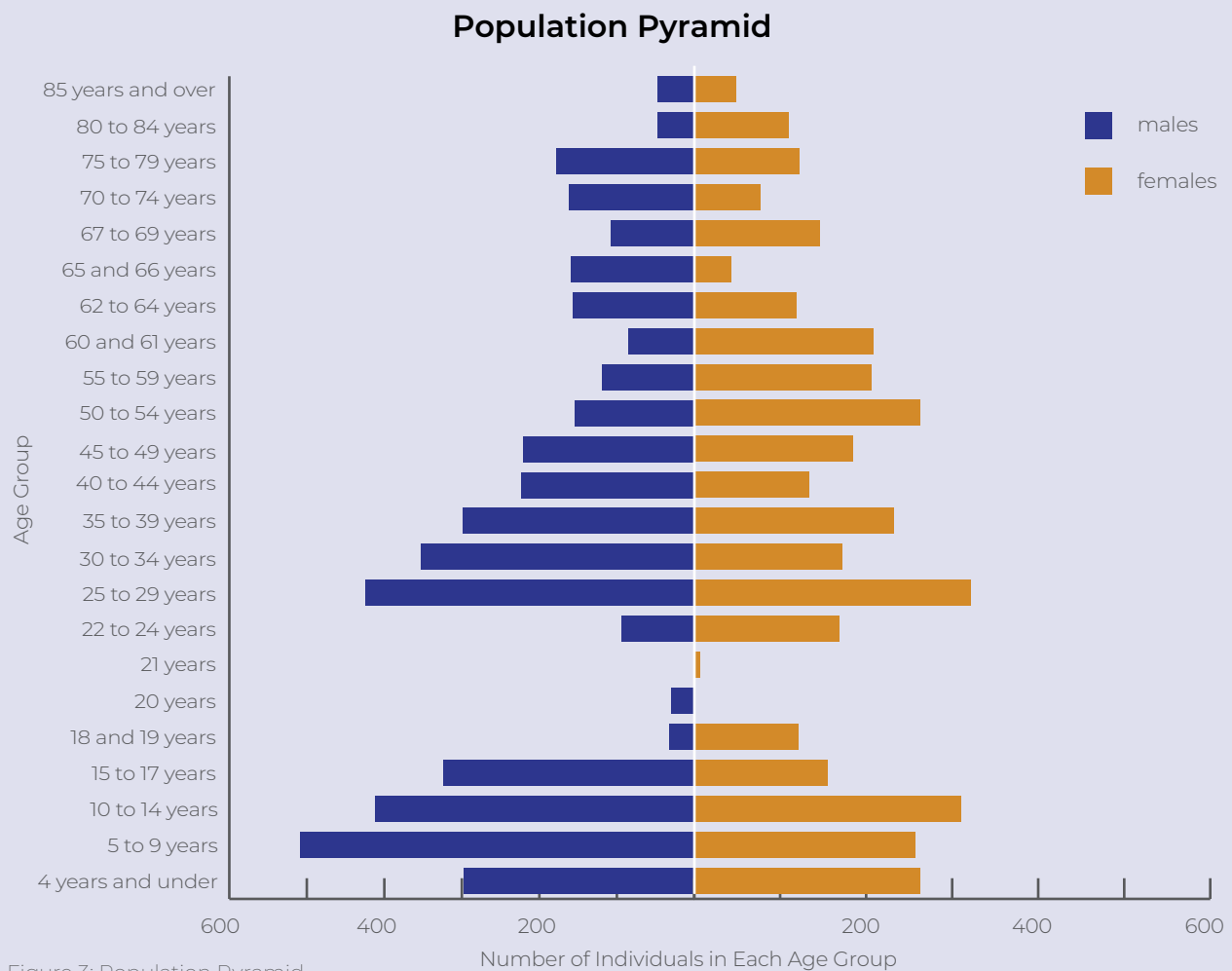


Table 4: Age Group		
Age	Estimate	Percent
Under 5 years	559	6.9%
5 to 9 years	765	9.5%
10 to 14 years	721	8.9%
15 to 19 years	630	7.8%
20 to 24 years	297	3.7%
25 to 34 years	1,268	15.7%
35 to 44 years	885	11.0%
45 to 54 years	821	10.2%
55 to 59 years	325	4.0%
60 to 64 years	567	7.0%
65 to 74 years	692	8.6%
75 to 84 years	456	5.6%
85 years and over	95	1.2%

Source: 2020 ACS 5-Year Estimates



Race & Ethnicity

More than 70% of the population in the City of Ephrata is White. About 10% are two or more races. Approximately 2% are American Indian and Alaska Native. Less than 1% of the population are Black or African American, or Asian. It is estimated that 0% are Native Hawaiian or Other Pacific Islander and approximately 15% are some other race.

Approximately 26% of the population is Hispanic or Latino.

Table 5: Race		
Race	Estimate	Percent
White alone	6,029	71.1%
Black or African American alone	60	0.7%
American Indian and Alaska Native alone	161	1.9%
Asian alone	79	0.9%
Native Hawaiian and Other Pacific Islander alone	0	0.0%
Some Other Race alone	1,285	15.2%
Population of two or more races	863	10.2%
Total	8,447	100.0%

Source: 2020 Decennial Census

Table 6: Ethnicity		
Ethnicity	Estimate	Percent
Hispanic or Latino	2,230	26.4%
Not Hispanic or Latino:	6,247	73.4%

Source: 2020 Decennial Census



Education

Approximately 30% of City residents have graduated high school and pursued no further education. Approximately one-third of the population of Ephrata holds a higher-education degree, and about one-fourth has acquired some college education without obtaining a degree. Approximately 8% of the population have not graduated from high school.

Employment

The employed population in Ephrata is estimated at 3,554, according to 2020 American Community Survey (ACS) 5-year estimates. The largest industry employment sectors in Ephrata include the following:

- ♦ Public Administration (13%)
- ♦ Educational Services (12.4%)
- ♦ Construction (10.4%)
- ♦ Health Care and Social Assistance (10%)
- ♦ Transportation and Warehousing and Utilities (8.9%)
- ♦ Retail Trade (7.8%)
- ♦ Administration & Support, Waste Management and Remediation (7.6%)
- ♦ Manufacturing (7.1%)

All other industries account for approximately 5% or fewer of the total jobs in Ephrata.

Table 7: Educational Attainment

	Estimate	Percent
Population 25 years and over	5,109	100%
Less than 9th grade	206	4.0%
9th to 12th grade, no diploma	177	3.5%
High school graduate (GED)	1,676	32.8%
Some college, no degree	1,395	27.3%
Associate's degree	629	12.3%
Bachelor's degree	758	14.8%
Graduate or professional degree	268	5.2%

Source: American Community Survey 2020 5-year estimates Table S1501

Table 8: Employment

Industry Sector	Estimate	Percent
Employed Population 16 years and older	3,554	100%
Public Administration	461	13.0%
Educational Services	439	12.4%
Construction	368	10.4%
Health Care and Social Assistance	356	10.0%
Transportation and Warehousing and Utilities	317	8.9%
Retail Trade	276	7.8%
Administration & Support, Waste Management and Remediation	271	7.6%
Manufacturing	252	7.1%
Agriculture, forestry, fishing and hunting, and mining	206	5.8%
Accommodation and Food Services	198	5.6%
Other Services (excluding Public Administration)	143	4.0%
Finance and Insurance	98	2.8%
Professional, Scientific, and Technical Services	65	1.8%
Information	43	1.2%
Wholesale Trade	34	1.0%
Real Estate and Rental and Leasing	27	0.8%
Management of Companies and Enterprises	0	0.0%
Arts, Entertainment, & Recreation	0	0.0%

Source: American Community Survey 2020 5-year estimates Table S2403



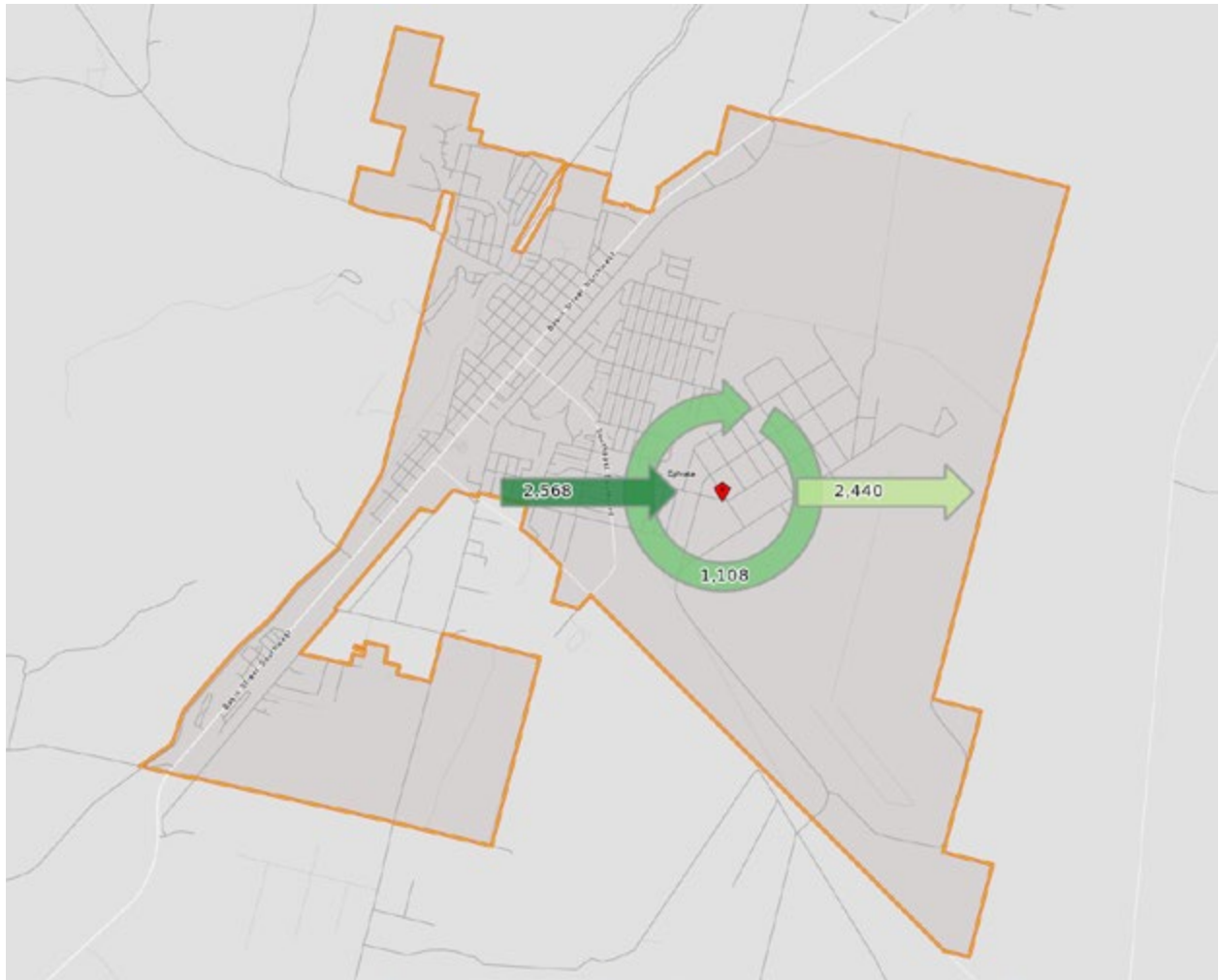


Figure 4: Inflow/Outflow of Employment in Ephrata

Figure 4 shows the US Census OnTheMap estimates for inflow and outflow of daily jobs in Ephrata. More people come to Ephrata for work than those who leave the city for work. This is consistent with Ephrata being the county seat and people from other parts of the county commuting to work in Ephrata.

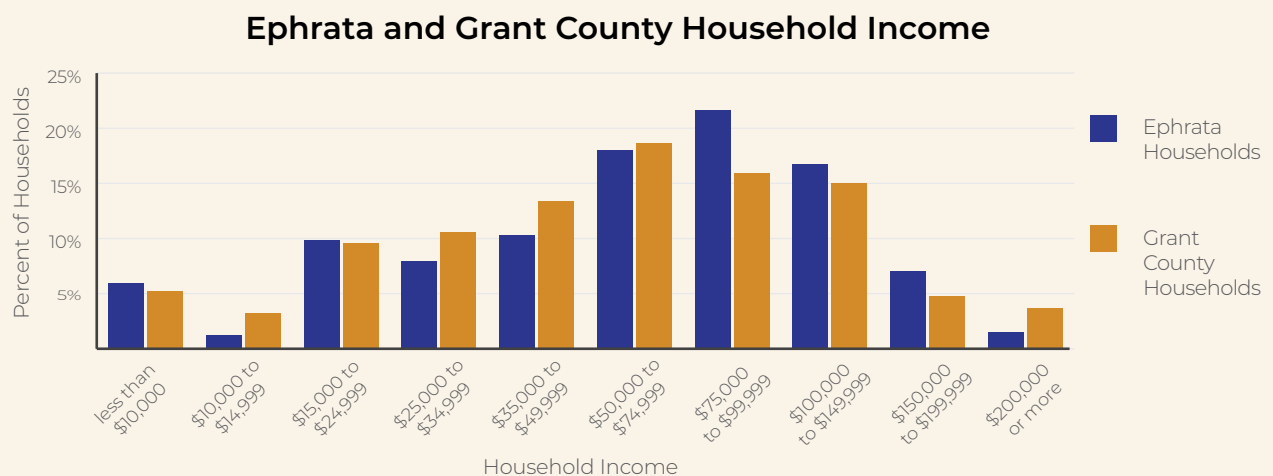


Figure 5: Ephrata and Grant County Household Income

Income

The median household income in Ephrata, per 2020 ACS estimates, was approximately \$71,269, compared with Grant County at \$59,165. Overall, income brackets are similar between Ephrata and the overall County. The main differences are slightly higher percentages in Ephrata for incomes over \$75,000, and Grant County having slightly higher percentages for incomes between \$25,000 and \$74,999.

Table 9: Household Income

Household Income	Ephrata Households	Grant County Households
Less than \$10,000	5.9%	5.2%
\$10,000 to \$14,999	1.2%	3.2%
\$15,000 to \$24,999	9.8%	9.6%
\$25,000 to \$34,999	7.9%	10.6%
\$35,000 to \$49,999	10.3%	13.4%
\$50,000 to \$74,999	18.0%	18.6%
\$75,000 to \$99,999	21.6%	15.9%
\$100,000 to \$149,999	16.7%	15.0%
\$150,000 to \$199,999	7.0%	4.8%
\$200,000 or more	1.5%	3.7%
Total Households	2,909	31,908
Median income (dollars)	\$71,269	\$59,165

Source: American Community Survey 2020 5-year estimates, Table S1901.



Housing Conditions

Housing Type

Table 10 shows how many of each housing unit type is located in Ephrata, with their respective percentages of the total housing in both Ephrata and Grant County. The majority of housing units in Ephrata are single-family units. Compared to Grant County, there are some significant differences. 77.4% of housing units in Ephrata are single-household units, while 58.6% of total housing units in Grant County are single-household units. This shows that Ephrata has a greater proportion of single-family options than its surroundings.

Table 10: Types of Housing Structures in Ephrata

Housing Type	Ephrata # of Units	Ephrata %	Grant County %
Total:	3,141	-	-
1, detached	2,286	72.8%	56.2%
1, attached	144	4.6%	2.4%
2	12	0.4%	3.0%
3 or 4	147	4.7%	4.1%
5 to 9	58	1.8%	1.7%
10 to 19	124	3.9%	2.4%
20 or more units	124	3.9%	4.0%
Mobile home	246	7.8%	26.1%
Boat, RV, van, etc.	0	0.0%	0.1%

Source: American Community Survey 2020 5-year estimates Table DP04

Housing Tenure

Ephrata has a vacancy rate of approximately 7%. Of the 93% that are occupied, 36% are rentals and 64% are occupied by the owner. This is consistent with the rates of owner-occupied housing and renter-occupied housing in Grant County as a whole.

Table 11: Housing Tenure

	Ephrata # of Units	Ephrata %	Grant County %
Owner-occupied	1,874	64.4%	64.6%
Renter-occupied	1,035	35.6%	35.4%

Source: American Community Survey 2020 5-year estimates Table DP04



Average Household Size

The average household size in Ephrata is 2.72 people. Table 12 provides a breakdown of the average number of people per type of household. This information is useful while considering what housing types might be best suited for people in Ephrata with differing life circumstances. While a single-family home might be most suitable for certain family households, multi-family homes might create a greater sense of community for households with one parent present, and smaller units may be better suited for non-family households, who have the lowest average household size. Household sizes are generally comparable, but slightly higher for Grant County as a whole.

Table 12: Average Household Size		
Household Type	Ephrata Average Household Size	Grant County Average Household Size
Total	2.72	3.00
Married-couple family household	3.22	3.64
Male householder, no spouse present, family household	3.15	3.63
Female household, no spouse present, family household	3.74	3.76
Nonfamily household	1.19	1.26

Source: American Community Survey 2020 5-year estimates, Table S1101.

Housing Age

There are 3,141 housing units in Ephrata. The median year these properties were built is 1957. Figure 6 shows that the vast majority of Ephrata's housing was built prior to 1959. After 1960, housing construction slowed, with a slight surge in the 1990's.

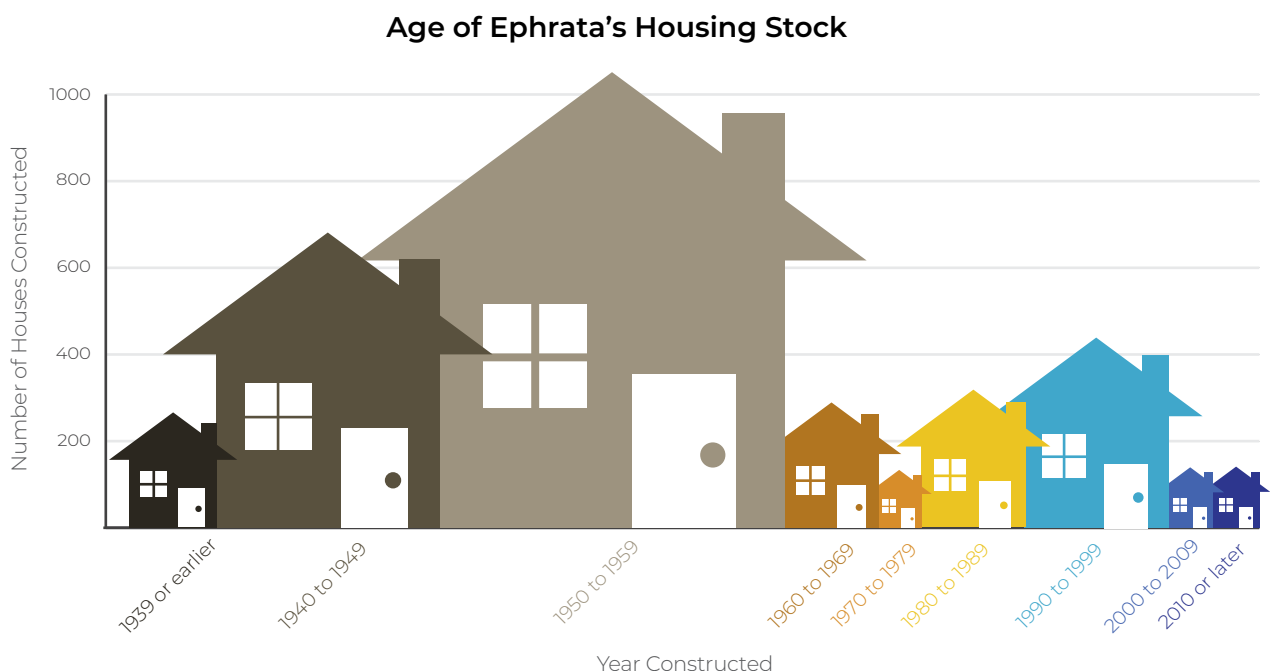


Figure 6: Age of Housing Stock

Home Price

The median value of the 1,874 owner-occupied units in Ephrata was \$169,000 in 2020. Table 13 shows the number of units in each price range, comparing each range to prices in Grant County. Ephrata has a higher proportion of middle-value units. At the county level, there are greater proportions of lower-value and higher-value units.

Table 13. Value of Owner-Occupied Units			
Value of Owner-Occupied Units	Ephrata # of Units	Ephrata %	Grant County %
Total:	1,874	-	-
Less than 50,000	102	5.4%	10.7%
\$50,000 to \$99,999	83	4.4%	8.7%
\$100,000 to \$149,999	497	26.5%	14.4%
\$150,000 to \$199,999	650	34.7%	19.4%
\$200,000 to \$299,999	432	23.1%	25.2%
\$300,000 to \$499,999	95	5.1%	16.0%
\$500,000 to \$999,999	15	0.8%	5.1%
\$1,000,000 or more	0	0.0%	0.6%

Source: American Community Survey 2020 5-year estimates, Table DP04.

Rental Costs

The median rent in Ephrata was \$825 per month in 2020, slightly more than Grant County's median rent of \$813.

Table 14. Rent Costs in Occupied Units			
Gross Rent	Ephrata # of Units	Ephrata %	Grant County %
Total occupied units paying rent:	1,027	-	-
Less than \$500	123	12.0%	12.3%
\$500 to \$999	653	63.6%	55.5%
\$1,000 to \$1,499	215	20.9%	27.1%
\$1,500 to \$1,999	20	1.9%	4.4%
\$2,000 to \$2,499	0	0.0%	0.6%
\$2,500 to \$2,999	0	0.0%	0.0%
\$3000 or more	16	1.6%	0.2%
Median Rent		\$825	\$813

Source: American Community Survey 2020 5-year estimates, Table DP04.



Existing Plans and Policies

Grant County Comprehensive Plan

The Grant County Comprehensive Plan provides relevant context for Ephrata and the greater area. It is useful to understand Ephrata's role in the county, especially as the County Seat. It is important that Ephrata plans jointly with the other municipalities within Grant County to maintain the balance of urban and rural character that Grant County communities are seeking.

The Plan projects Ephrata's population to be 10,719 in 2038, which accounts for 8.06% of Grant County's total growth. The plan's buildable lands analysis found that 433 acres of unincorporated land within Ephrata's UGA are considered buildable, offering enough land to build the plan's projected 866 units within Ephrata's Urban Growth Area (UGA).

QUADCO Regional Transportation Plan

The QUADCO Regional Transportation Plan, adopted in 2016, provides information for the larger region, including Adams, Grant, Kittitas, and Lincoln counties. This plan identifies transportation priorities for this region, and how Ephrata's goals may fit in the greater context.

In this plan, Ephrata's population is projected to be 11,161 by 2035, which is significantly higher than the Grant County Comprehensive Plan projects for 2038, but is within a similar range. There are two cities in QUADCO that have populations higher than 15,000, which are considered urban centers. There are five smaller urban areas, which have populations between 5,000 and 10,000, and Ephrata is one of these.

One of the non-motorized transportation goals in the plan is to develop a lake loop





trail that links the communities of Soap Lake and Ephrata. This project has been identified by the Friends of the Lower Grand Coulee, and is noted multiple times in the plan. The plan also mentions Ephrata's role in regional transportation as a frequent stop for Greyhound bus lines and the Ephrata Airport.

QUADCO Coordinated Public Transit – Human Services Transportation Plan

The QUADCO CPT-HSTP provides further information for transportation in Adams, Grant, Kittitas, and Lincoln counties. It differs from the QUADCO Regional Transportation Plan by taking an in-depth look specifically at the transportation needs of individuals with disabilities, older adults, youth, veterans, and people with low incomes. It provides strategies for meeting these needs, and prioritizes transportation services for funding and implementation.

One of the seven senior centers in Grant County is located in Ephrata. Seniors have

provided feedback about the need for transportation services in order to attend social activities and meals at the senior center – especially in the winter months. In a Human Service Transportation Survey, individuals with disabilities were asked where they needed to go and 40.9% said Ephrata. It is important to assist in the coordination of transportation goals so that people can get to Ephrata to visit friends and family, utilize services, and support local businesses.

Ephrata Parks Master Plan

The Ephrata Parks Plan was adopted in 2009 and provides an in-depth overview of Ephrata's existing parks, as well as the goals and cost estimates to improve each park. At the time of this plan adoption, the Master Parks Plan was in the process of being updated. The Parks Plan process collected community input and developed relevant goal and policies. The plan includes three proposed trail loops to connect Ephrata's parks, which would help Ephrata achieve its active transportation goals.





Public Engagement

This chapter describes the public engagement process and results that helped shape the final recommendations and direction of the Comprehensive Plan.

2



Ephrata Comprehensive Plan Survey

The City of Ephrata conducted a Comprehensive Plan Survey, encouraging residents to provide input on the city's future. There were a total of 1,037 responses.

Housing

The first question in the survey asked what people considered to be the top priorities for housing in Ephrata. **Supporting expansion and preservation of single-family neighborhoods ranked the highest (29% of selection)**. Two priorities ranked evenly: encouraging mixed-use development (26%) and supporting the development of affordable housing (26%). The lowest priority was supporting flexible development standards and relaxed zoning regulations to provide a variety of types of housing (19%). Overall, all four of these options are a priority to Ephrata residents.

Three percent of respondents wrote in other priorities for housing in Ephrata. Answers varied, but some of the priorities that were stated multiple times included focusing on single family housing, affordable housing, and building new parks so kids to have a place to play.

The next question asked which types of housing Ephrata needs most. The answer that 56.9% of people chose was **single family homes**. Figure 8 shows the percentages selected for each housing type. The next three highest ranking answers were senior housing, townhomes, and cottage housing. The options with the lowest selection rates were triplexes/fourplexes.

Top Housing Priorities in Ephrata

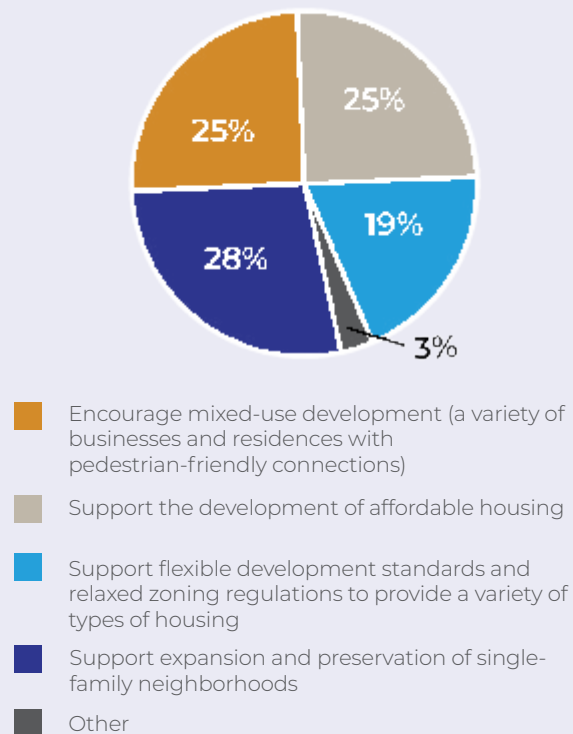


Figure 7. Top Housing Priorities in Ephrata, with respondents selecting up to two.



Housing Types Needed in Ephrata

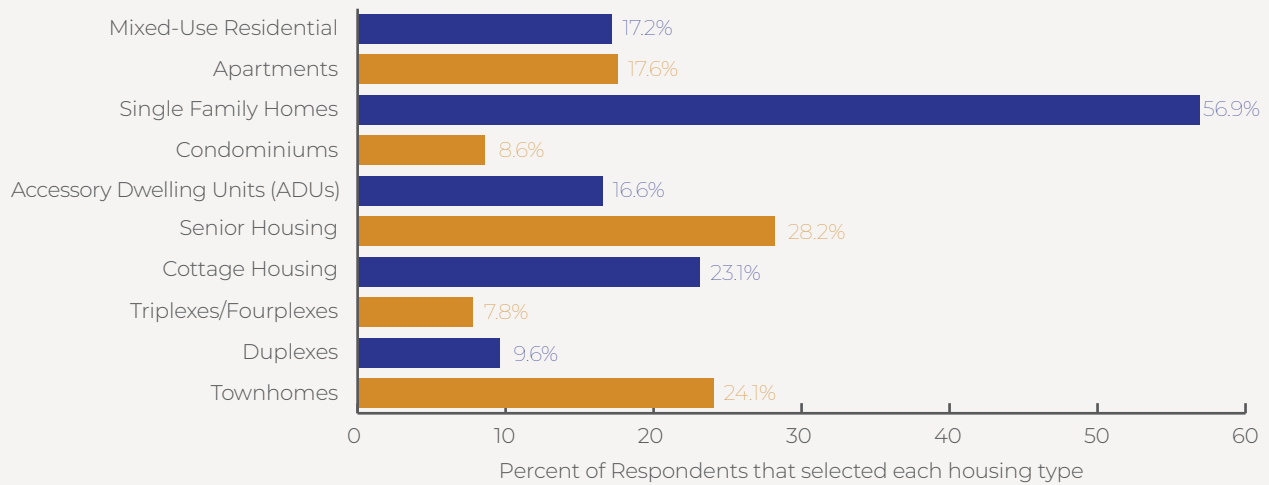


Figure 8. Housing types most needed in Ephrata, with respondents selecting up to three.

Transportation

To better understand Ephrata's transportation priorities, the survey asked respondents to select up to 3 priorities for transportation. The top two selections were **improving parking options and availability downtown** (43.1%) and **improving traffic flow and reducing wait times for people driving through town** (41.7%). These selections highlight that residents are seeking more efficient vehicle travel. The next highest priority was **improving school routes for kids walking and biking to school or school bus stops**. These top three priorities need to be planned alongside each other to balance efficient vehicle travel and safe walking and biking routes.

When asked how important improvements to the non-motorized/active transportation network are, 36% said "very important" and 32% said "important". In total, 68%, a large majority, believe improving the non-motorized network is important. 22% of people were neutral about this, and only 10% said it was not important. However, in the previous question, only 26.7% of people chose "increase non-motorized transportation circulation and networks" as one of their top three priorities.

How Important are Improvements to the Non-Motorized Transportation Network in Ephrata?

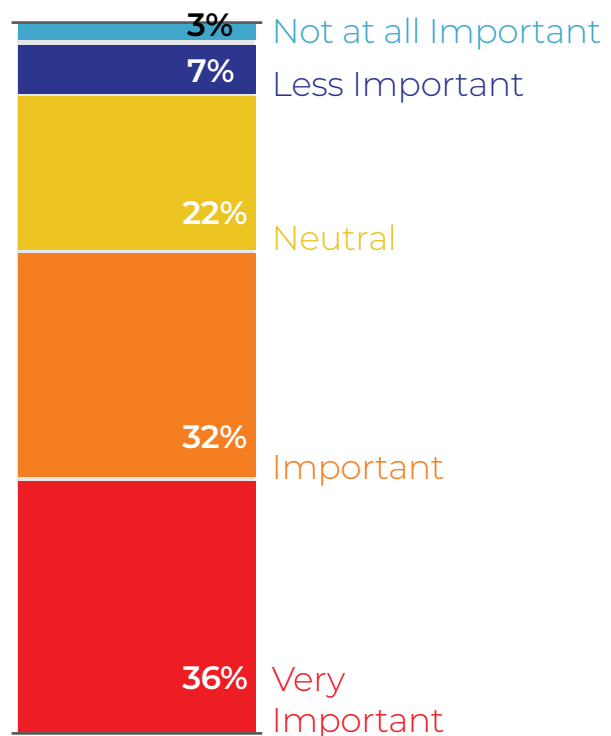


Figure 9. Non-motorized transportation network in Ephrata.



Economic Development

Respondents were asked to consider their top priorities for economic development in Ephrata. The highest priority, with 63.9%, was to **encourage new businesses to locate in Ephrata and create more local jobs**.

The next highest priorities were “focus on infill development and redevelopment of vacant properties” (51.9%) and “support existing businesses to ensure long-term sustainability of Ephrata’s culture” (51.2%). Figure 10 shows how many selections were made for each priority.

Another question asked how important it is to the local economy and culture that Ephrata is the Grant County Seat. 64.1% chose very important, 23.2% chose important, 9.9% were neutral, 1.5% chose less important, and 1.3% chose not important at all.

Respondents were asked to share their thoughts on Downtown Ephrata. **The most popular response was that “it’s not so much Downtown Ephrata that is important to the local economy, but rather ensuring the success of local industries and small businesses, regardless of location.”** That statement was selected by 46.9% of respondents. The statement that was selected the least (20%), was “it would be fine if Ephrata’s economic core migrated out of downtown to areas with new development.”

These two statements, and the rest of the options and their selection rates shown in Figure 11, show that there are mixed feelings about the future of Downtown Ephrata, indicating the need for further study.

Economic Development Priorities in Ephrata

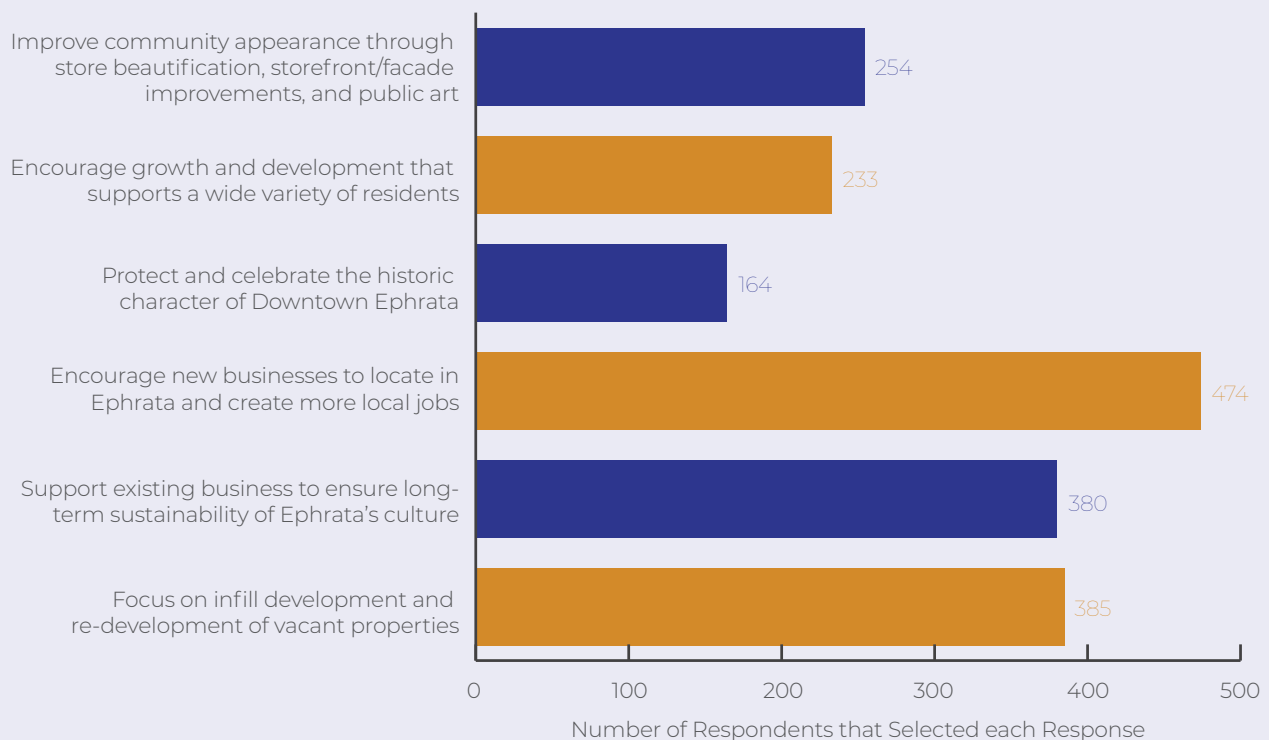


Figure 10. Top priorities for economic development in Ephrata, with respondents selecting up to three.



Thoughts on Downtown Ephrata

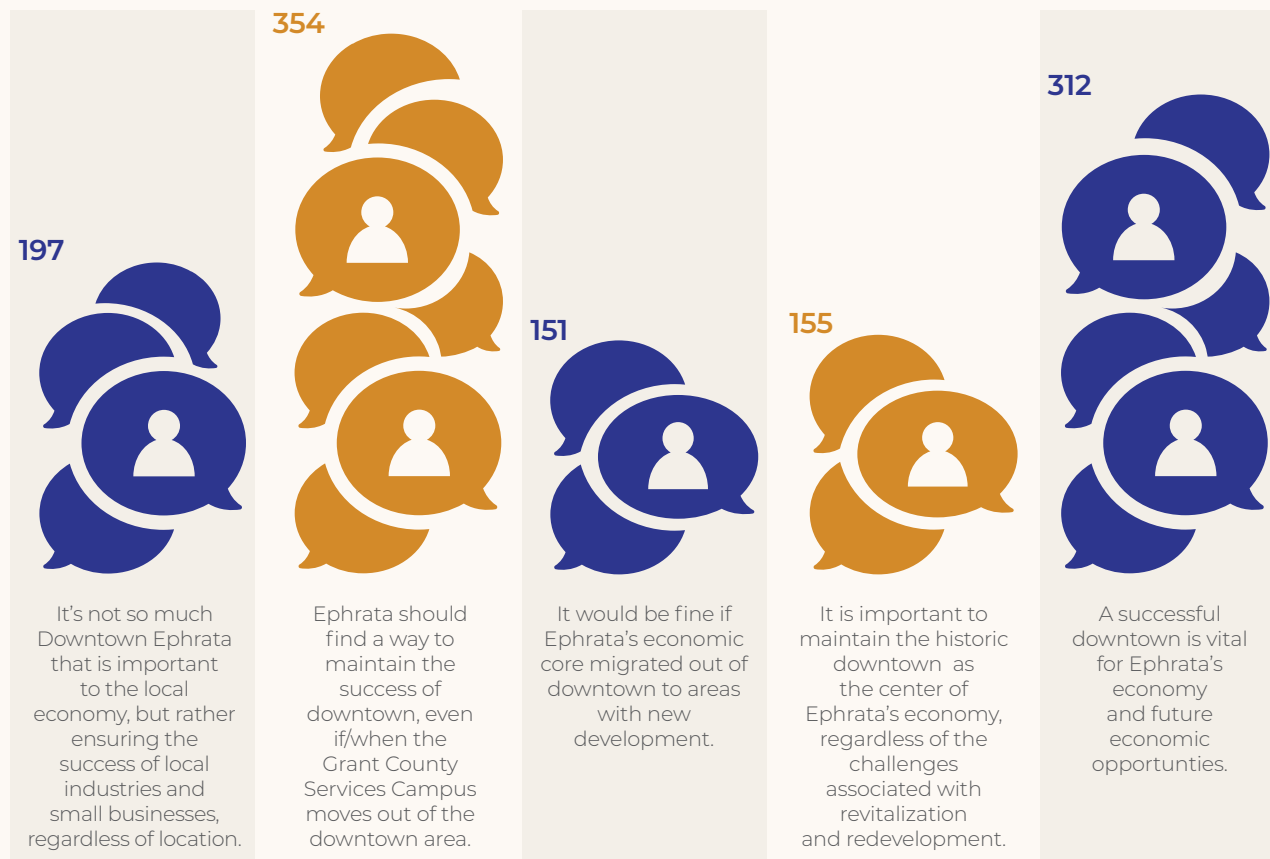


Figure 11. Specific selections to capture respondents thoughts on downtown Ephrata. There was no limit to how many options could be selected.

The survey asked respondents if their property or business has been impacted by the floodplain designation in Downtown Ephrata. 17.3% of respondents (129 people) said yes. **When asked to explain how they have been impacted, the overwhelming response was the high cost of flood insurance and the additional burden that it adds to doing business.**

Parks and Recreation

Respondents were asked to identify what they would consider to be the top priorities for parks and recreation. **The most popular answer (56.9%) was "update and modernize park amenities such as playgrounds, shelters, bathroom facilities, etc."** The next top selections were "expand

parks and recreation programs, such as sports clubs, youth and senior activities, etc." (42.7%) and "improve city parks safety and accessibility by ensuring safe walking and biking routes to parks, lighting, and ADA accessibility" (31.7%).

A majority of respondents identified top priorities that focused on improving and updating the existing parks and recreation opportunities in the city.

8% of respondents wrote in top priorities for parks and recreation. Most of these responses related to the need to improve and update the existing infrastructure. There were also several requests for new park locations and amenities. Figure 12 illustrates the survey results.



Top Priorities for Parks and Recreation

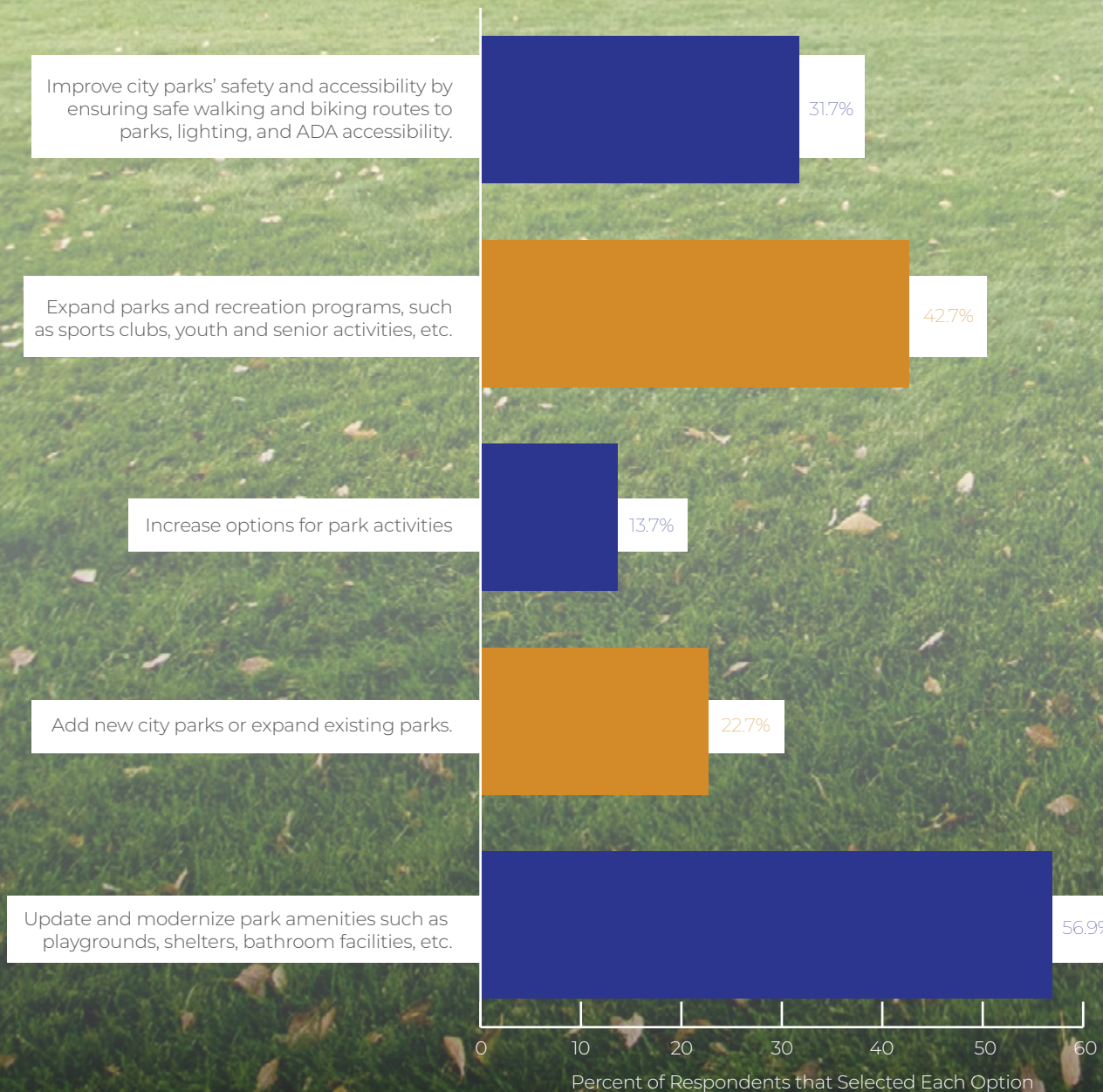


Figure 12. Top priorities for parks and recreation in Ephrata, with respondents selecting top 2.

Respondents were asked to select the park amenities they considered most important to add, improve or expand. The top two amenities that respondents selected were Upgraded Playgrounds (45.8%) and Recreational Trails (44.4%). The third highest selection was for Water Park/Splash Pad with 36.9%. The remaining amenities: All Access Playgrounds (ADA Accessible), Sports Courts, Soccer/Football Fields, Dog Parks, Disc Golf Courses, and Natural Areas and Interpretive Trails each received less than 30%. The vast majority of the write ins related to the addition of new facilities (such as baseball/softball fields, skate parks/bike park/trails and indoor pool/splash pad).

Public Facilities

Respondents were asked to consider top priorities for public facilities in Ephrata. The most popular selection was “Improve aging infrastructure and implement comprehensive capital planning of public utilities (water, sewer, power, natural gas, etc.)” (52.3%). The second highest priority was “invest in emergency and health services such as police, fire, and medical response” (39.7%). As shown in Figure 13, the remaining options were identified as relatively equal priorities, ranging between 25-30%.

Top Priorities for Public Facilities

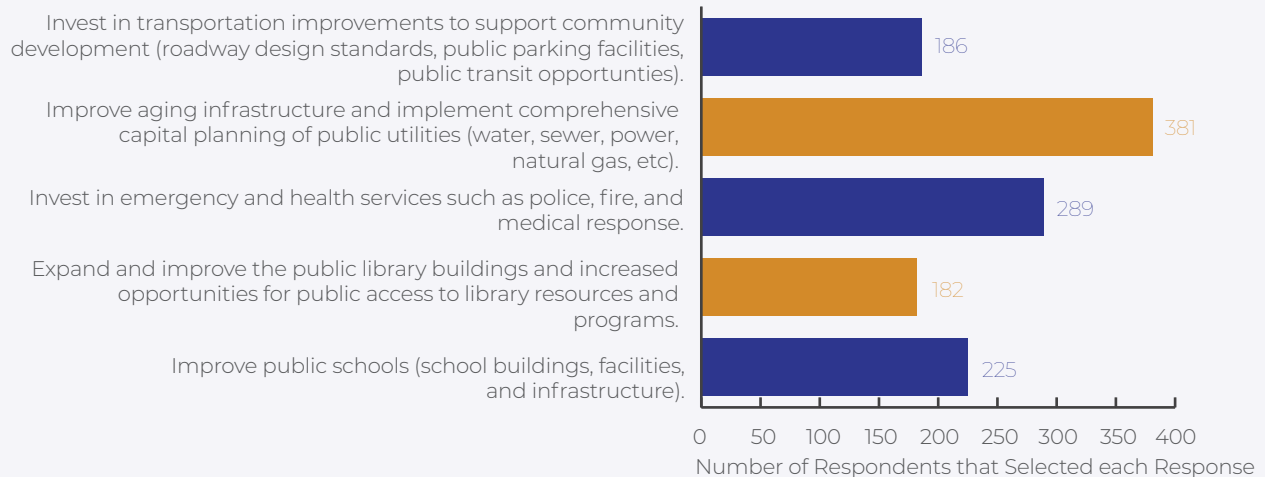


Figure 13. Top priorities for public Facilities in Ephrata, with respondents selecting top 2.

Respondent Demographics

Often, certain people within a community might be more likely to participate in public events or have the capacity to fill out an engagement survey. This might be because of their age, ability, access to technology, schedule availability, or language barriers. Ephrata’s planning process aimed to reach the broadest range of community members, making the survey available in web format, print, and in English and Spanish.

As seen in Figure 14, there were a variety of age groups who chose to participate in the survey. The age group that participated most was the 35-44 cohort. The age group heard from the least were those under 18.

Age of Survey Respondents

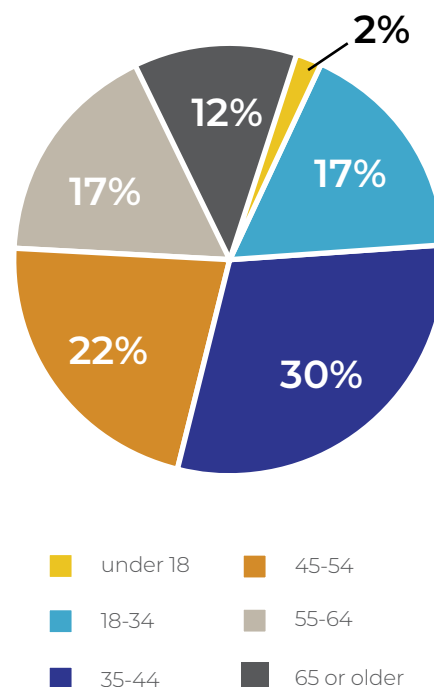


Figure 14. Age of Ephrata survey respondents.



Table 15 highlights that **89.8% of respondents identify as White**, which resembles the Census-reported demographics of 83.9% White. Hispanic or Latino respondents accounted for 7.6% of responses. 25.2% of Ephrata's population identifies as Hispanic or Latino. This highlights some of the barriers to wide-reaching public engagement, even when engagement materials are available in multiple languages, it can still be difficult to reach certain demographic groups.

Table 15. Race or Ethnicity of Survey Respondents		
Race/Ethnicity	Percent of Respondents	Count of Respondents
White	89.8%	618
Hispanic or Latino	7.6%	52
Asian	1.3%	9
Native American	1.3%	9
Black or African American	.9%	6
Native Hawaiian or Other Pacific Islander	.1%	1
Other	2.9%	20

82.9% of respondents said they own a house. 12.5% of respondents rent a house, an apartment, or a room. The final 3% of respondents said that they own property or rent a space for a non-permanent residence, such as an RV or trailer. A few people wrote that they live with family, and one person reported that they are currently homeless.

Figure 15 shows the relationship that respondents have to Ephrata, which is important to understand as context to the survey results.

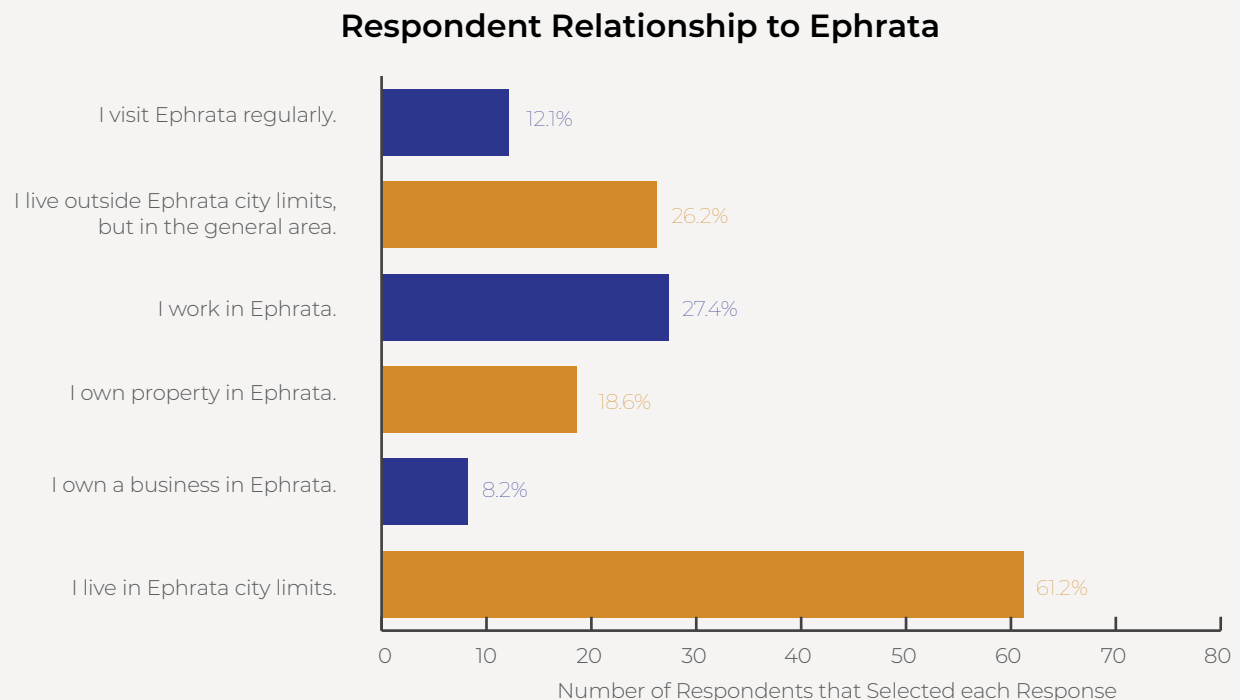


Figure 15. Survey respondents relationship to Ephrata, being able to select multiple answers.

Ephrata Engagement Open House

On Wednesday, December 7, 2022, the City of Ephrata hosted an Open House. Community members were invited to share their thoughts on Ephrata's future direction.

Approximately 44 people attended the event. The age cohort with the most attendees were those under 18. This was exciting since that age group is often hard to reach, though their vision for the future of their town is incredibly important. Figure 16 shows the breakdown of the ages of the attendees.

At the event, a variety of activity boards were available to provide community members with information and ways to provide input. One of the main engagement methods was the use of "butterfly" polls, where participants were presented with two opposing policy options and asked to select which one, if any, they preferred. Table 16 shows the activity board results, showing the number of stickers were placed on each policy. The yellow highlights emphasize which policy was preferred.



Age of Ephrata Open House Participants

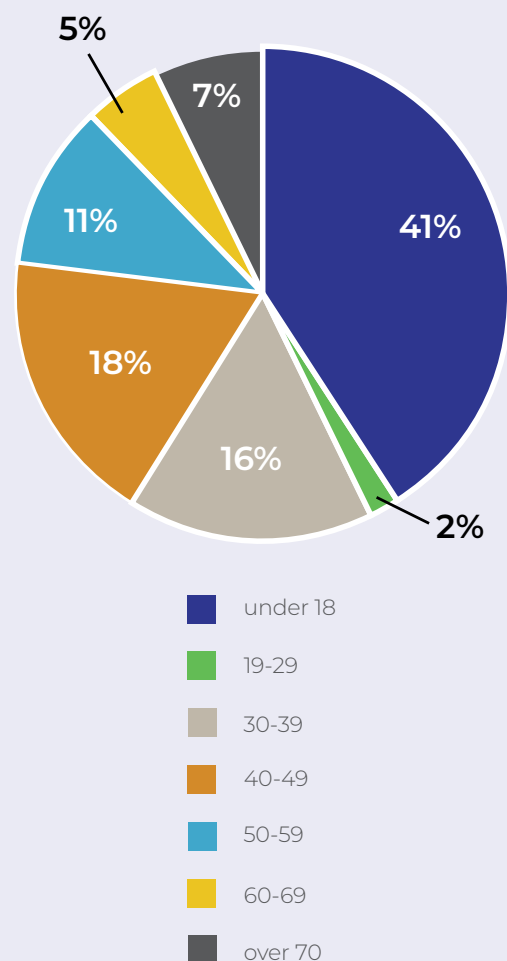


Figure 16. Age of Ephrata Open House Participants



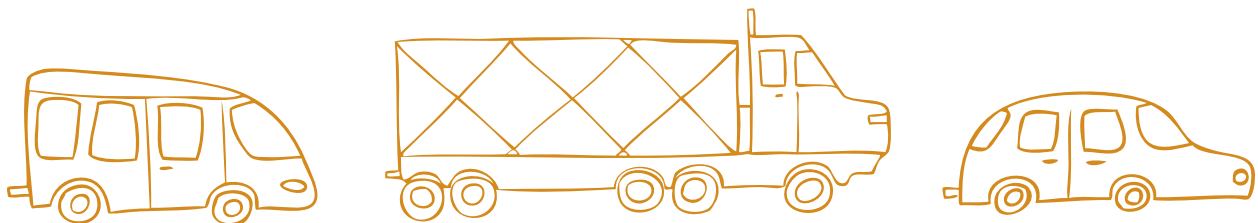
Table 16. Results from Policy “Butterfly” Poll Boards

	Policy A	Neutral	Policy B	
Housing and Land Use				
Encourage significant new commercial and industrial development to boost Ephrata's economy and growth.	10	2	0	Keep Ephrata as a quiet "bedroom community", focusing on amenities for those who live here, while maintaining steady, but not robust, economic growth.
Keep existing single-family neighborhoods as they are.	3	2	7	Provide a variety of housing types for all income levels and family sizes.
Focus on maintaining and redeveloping the existing housing stock within Ephrata.	5	4	1	Prioritize new housing development to help Ephrata grow.
Existing parks and recreation amenities should be well maintained and seek improvements.	4	2	6	Ephrata should acquire and develop new parks and recreation areas, expanding recreational opportunities.
Relax development standards to allow flexibility in development. (ex: fewer parking requirements, higher densities)	4	1	5	Maintain existing development standards to keep Ephrata's current neighborhood form.
Economic Development and Downtown				
Focus on maintaining and redeveloping the historic downtown, despite challenges with floodplain.	5	0	7	Identify a new area in Ephrata where substantial development could occur, creating a new business district.
Create a market environment that attracts new industry and growth to Ephrata.	5	0	5	Support existing businesses to ensure long-term sustainability of Ephrata's culture.
Focus on commercial and industrial development through infill development and redevelopment of vacant properties.	2	1	7	Prioritize new areas for commercial and industrial development to help Ephrata grow.
Invest in community appearance through street beautification, storefront/façade improvements, and public art.	6	0	5	Invest in making downtown a more convenient location to drive, park, and conduct business.
The City should provide resources and programs to help encourage new development (infrastructure, marketing, cost-sharing)	6	2	0	New development and future growth should pay for itself without significant help from public resources. (Infrastructure, marketing, cost-sharing)



Table 16. Cont. Results from Policy “Butterfly” Poll Boards

	Policy A	Neutral	Policy B	
Transportation and Capitol Facilities				
Prioritize safety for pedestrians and cyclists, creating a more walkable city.	5	3	5	Prioritize safe and efficient automobile travel throughout town.
Make sure Downtown keeps traffic flowing and has plenty of parking.	7	4	3	Aim to calm traffic in the Downtown area, expanding pedestrian areas and making the streets more walkable.
Improve and repurpose existing buildings, fill in existing developed areas with vacant or underutilized lots, and improve existing services and utilities.	4	3	5	Focus new development on open undeveloped property and create business clusters outside of downtown area, extending services & utilities to newly developed areas.
Focus on improvements to existing road conditions, street lighting, and pedestrian routes.	8	0	4	Encourage new roadway networks and pedestrian connections to support new development.
It is very easy and convenient to access public services (such as schools, government and utility services, or emergency and health services).	2	3	4	Improvements are needed to sufficiently access public and community services (such as schools, government and utility services, or emergency and health services).



Participants could select which housing types they think Ephrata needs. Figure 17 shows that townhomes were the most desired housing type, followed by cottage housing and senior housing.

RANKING OF PREFERRED HOUSING TYPES



Figure 17. Housing Types Board and Results.

There was also an open answer board that included the following comments on what participants want to see in Ephrata:

- ♦ A place to have winter games for youth. Indoor soccer we travel to Quincy to practice and support kids to be active in winter.
- ♦ Biking & hiking trails on Beezley Mountain.
- ♦ Opportunity to have an indoor soccer gym or place to play at for teens/kids.
- ♦ I want the city to put an indoor soccer gym to play in.
- ♦ More affordable housing!
- ♦ More businesses to help the City with struggling tax base.
- ♦ More parks and playgrounds around Ephrata for kids or anything fun for family to get out of their house and have fun together.
- ♦ Dog parks for our furry friends to get out and exercise and play.



- ◆ Convention and exhibit hall for trade/public events!
- ◆ Meeting/conference center for public use!
- ◆ Obtain more property and work with other agency's to create more hiking/biking trails on Beezley and create other opportunities such as frisbee golf.
- ◆ Bigger library.
- ◆ Repurpose JC Penney building for soccer gym.



Policy Framework

The following goals and policies provide guidance for the city and its decisions makers as the city grows and changes over the next 20 years.

3



EPHRATA
Washington



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Goals

Goals provide general directions based on the city's values and principles. They are intended to be broad and apply to a range of interpretations.

City of Ephrata's Goals:

1 Maintain Ephrata's historic downtown and character.

2 Encourage development of identified neighborhood centers in Ephrata by promoting moderate-density housing and mixed-use development.

3 Preserve single-family neighborhoods, while allowing infill development such as ADUs and duplexes to increase housing options.

4 Allow more flexibility for development of middle housing to increase availability and affordability of housing in Ephrata.

5 Ensure affordable, efficient, and reliable public services for Ephrata residents.

6 Prioritize development where utilities and infrastructure are available.

7 Improve traffic-flow and parking options for those traveling by automobile.

8 Prioritize Ephrata's active transportation network, creating safe walking and bicycling routes between homes, schools, parks, businesses, and public facilities.

9 Support new and existing local businesses in Ephrata's neighborhood centers.

10 Promote job creation through establishment of new businesses and fostering regional connections.

11 Improve park facilities and amenities, with intention to promote spaces for community members to gather.

12 Encourage land use patterns that protect critical areas and ensure safety of Ephrata residents.



Policies

The following policies provide specific direction on a range of topics relating to the above goals and the various elements of the comprehensive plan. Policies can apply to different elements of the comprehensive plan, and to reduce redundancy, the following table provides an indication of which elements relate to each policy statement. If the element/topic box is checked, then that corresponding policy is considered to be a policy of the plan element/topic indicated.

Table 17. Policies

#	Policy	Element/Topic						
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec
1	Protect publicly owned natural preserves, parks and recreation areas, significant cultural resources, and areas identified as critical wildlife habitat from urban development, except in cases of overriding public interest.	x	x					x
2	Promote the public health and safety by identifying and protecting all resource lands and critical areas in the City, including protection of groundwater used for public water supplies.	x	x					
3	Utilize site planning, setbacks, buffers, erosion control, and knowledge about soils, hydrology, fish and wildlife habitat to promote development that is compatible with the natural environment.	x	x					
4	Development proposals on properties with or within buffers of wetlands or steep and unstable slopes shall be critically reviewed for environmental impacts and approval may be made only when other reasonable alternatives cannot be found.	x	x					
5	Identify and designate critical areas and establish policies, ordinances, and standards for impact mitigation using the Best Available Science (BAS).	x	x					
6	Ensure critical areas and their buffers are protected by regularly updating the city's Critical Areas Ordinance.	x	x					
7	Ensure protection of properties located in the 100-year floodplain through compliance with FEMA design standards.	x	x					



Table 17. Policies

#	Policy	Element/Topic							
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec	Economic Dev.
8	Maintain and manage areas of potential flood hazards, including consideration of joint maintenance of the Dry Creek drainage channel with Grant County.	x	x						
9	Encourage pedestrian and bicycle connections between residential developments, neighborhood commercial centers, recreation areas, and to serve as an alternative to automobile use.	x		x	x	x		x	
10	Ensure new development considers level of service impacts for parks, fire protection, emergency response, transportation, and utilities.	x		x	x		x	x	
11	Ensure that utilities and services are provided concurrently, or in advance of, new or expanded development.	x		x	x		x		x
12	Ensure local policies are consistent with Grant County's Countywide Planning Policies	x		x	x		x		
13	Coordinate the siting of low income housing with present or future transportation facilities and services.	x		x	x				
14	Require public utilities to be extended to and through proposed new developments in support of existing code standards.	x		x			x		
15	Encourage infill development strategies such as locating more compact housing types in existing platted areas and vacant lots.	x		x			x		
16	In new residential developments require all new utilities to be installed underground and in cooperation with other compatible utilities.	x		x			x		
17	Encourage mixed use development in Downtown Ephrata and designated transition zones.	x		x					x
18	Support the development of hotel/motel facilities and support short-term rentals unless they start impacting housing availability.	x		x					x
19	Locate commercial, industrial, multifamily, and other uses that generate high levels of traffic in designated neighborhood centers and around intersections of principal or minor arterials.	x		x					
20	Establish provisions to allow for group homes, foster care facilities, emergency shelter, nursing home care, and supervised housing, while protecting the integrity of the established neighborhood.	x		x					
21	Preserve the characteristics of existing neighborhoods through maintenance incentives for the existing housing stock.	x		x					
22	Provide a sufficient amount of land zoned for current and projected residential needs including, but not limited to, assisted housing, housing for low-income households, group homes, and foster care facilities.	x		x					



Table 17. Policies

# Policy		Element/Topic							
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec	Economic Dev.
23	Remove unreasonable barriers to siting and operating housing for those with special needs, including, but not limited to emergency and transitional housing. In addition, periodically update the Ephrata Zoning Code and other development regulations to reflect new types of special needs housing.	x		x					
24	Promote use of density bonuses for the inclusion of low to moderate income units.	x		x					
25	Encourage middle housing types such as duplexes, triplexes, townhomes, cottage housing, and other appropriately-scaled multifamily housing types within city limits and the UGA.	x		x					
26	Ensure planning, land use, and zoning actions and regulations consider impacts on displacement and exclusion in housing, and actively work to mitigate these impacts on vulnerable populations.	x		x					
27	Support conservation of Beezley Hill as a regional recreation area for hikers, joggers, walkers and bicyclists.	x			x	x		x	
28	Arrange streets and pedestrian paths in residential neighborhoods to form a grid network, providing multiple choices as to path and mode.	x			x	x			
29	Participate in discussions and planning efforts with Grant County and other nearby municipalities to construct a regional shared use path for pedestrians and cyclists.	x			x	x			
30	Ensure consistency with locally adopted LOS standards.	x			x		x	x	
31	Coordinate land use and facility planning within the UGA to allow for eventual siting and construction of distribution lines within rights-of-way which are being dedicated or within roads which are being constructed or reconstructed.	x			x		x		
32	Protect the Ephrata Municipal Airport from adjacent incompatible uses and/or activities that could impact the present or future use of the airport as an essential public facility.	x			x				x
33	Promote land use patterns that support public transportation and ensure higher density development including transit-oriented features.	x			x				
34	When designing signalized intersections, consider acquiring the right-of-way for potential right turn lanes or roundabouts to meet the future demand.	x			x				
35	Coordinate with the Port of Ephrata on the Port Master Plan regarding the use of land near the airport.	x			x				
36	Adopt the Ephrata Airport Master Plan by reference as the guiding development tool for directing Port infrastructure.	x			x				



Table 17. Policies

#	Policy	Element/Topic						
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec
37	Provide city services and utilities to locations where zoning encourages development at densities which will support the cost of providing those utilities or services.	x					x	
38	Allow annexation of land where city services and utilities are readily available or where there is an approved plan to provide the necessary services.	x					x	
39	Coordinate with utility providers to plan and implement system upgrades or expansions to accommodate projected land use development patterns.	x					x	
40	Provide sufficient buffers between industrial uses and residential uses to ensure land use compatibility.	x						x
41	Prioritize Port development to support economic development and a variety of industry for Ephrata.	x						x
42	Ensure the City takes precautions to avoid unconstitutional takings by reviewing projects subject to the Washington State guidelines.	x						
43	Ensure all road construction projects meet or exceed the minimum requirements for storm water runoff.		x		x			
44	Ensure that all maintenance, repair, installation and replacement activities by utilities are consistent with the city's critical areas ordinance and to city standards.		x				x	
45	Require developments to provide their fair share or fee-in-lieu of public improvements such as open space, street improvements, and utility extensions, as needed to maintain adopted levels of service as a result of the development's impact.			x	x		x	x
46	Coordinate with Grant County Historical Society to identify and preserve historically significant property.			x				x
47	Promote home ownership education programs for low- and moderate-income households.			x				
48	Partner with neighborhood-based groups or other volunteer organizations to promote housing rehabilitation and community revitalization efforts.			x				
49	Provide incentives and develop partnerships with nonprofit and for profit developers to build permanent low and moderate income housing.			x				
50	Partner with regional agencies and organizations to identify, promote, and implement strategies to increase housing opportunities for people with special needs.			x				

Table 17. Policies

# Policy		Element/Topic							
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec	Economic Dev.
51	Require all new construction and mobile/manufactured homes sited within the city to comply with the international building code standards.			x					
52	Coordinate with Grant County Housing Authority and local social service agencies to assist residents with housing issues.			x					
53	Ensure housing development provides a balance of affordability ranges to meet the needs of all economic segments in Ephrata, as provided in the Housing Chapter.			x					
54	Allow for and regularly reassess impact fees or other mechanisms that apportion costs in relation to the level of impact from new development.				x	x	x		
55	Maintain existing roads to provide safe travel for all modes of transportation.				x	x			
56	In the event that funding to complete identified transportation improvements is not adequate to address those needs, investigate how additional funding will be raised or how land use assumptions will be reassessed to ensure that level of service standards are met.				x	x			
57	Look for opportunities to partner with regional transit agencies and neighboring jurisdictions in order to implement concurrency strategies, coordinate regional transportation and transit systems, and partner on funding opportunities from state, federal or other grant providers.				x	x			
58	Encourage active transportation and increased physical activity by developing a safe and connected network of biking and walking facilities throughout the City.				x	x			
59	Ensure consistency and compatibility with county, regional, and statewide transportation plans.				x	x			
60	Maintain needed traffic data such as traffic counts and accident data to support studies and planning and operational activities for the Department of Public Works.				x	x			
61	Require existing private roads to be improved to City standards before they will be accepted as City roads.				x		x		
62	Coordinate road construction and reconstruction activities with utility providers to eliminate unnecessary retrenching after roadwork is completed.				x		x		
63	Ensure reliable traffic flow and mobility on arterial roads, especially on regional through routes, while protecting local neighborhood roads from increased traffic volumes.				x				



Table 17. Policies

#	Policy	Element/Topic						
		Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec
64	Ensure compliance with truck routes and freight routes to protect roadways and neighborhoods from heavy truck traffic.				x			
65	Require new utility crossings in City streets to be pushed under the road instead of trenching across the road.						x	
66	Enforce maintenance standards to ensure safe and efficient functioning of the city's public utilities and services.						x	
67	Obtain additional water rights by requiring water rights to be transferred to the city as part of annexation approval.						x	
68	Maintain and regularly update criteria for the siting of essential public facilities and associated costs.						x	
69	The City shall reassess the Land Use Element if the City cannot provide funding to maintain the adopted levels of service for public facilities and utilities that it manages.	x					x	
70	Maintain an updated Parks & Recreation Plan, adopted by reference in the Comprehensive Plan.							x
71	Support a range of economic sectors to ensure Ephrata's economy remains stable and reliable.							x
72	Retain and enhance the character of the Downtown Ephrata.							x
73	Encourage public and private sector endeavors that will foster the expansion of the tourism industry.							x
74	Support Ephrata's identity as the Grant County Seat - retaining countywide employment and services that contribute to local economic development.							x



Land Use

The purpose of the land use element is to designate a plan for how Ephrata will accommodate future growth. This element provides a discussion on the following:

- ♦ existing land uses and zoning
- ♦ critical areas and their designations (how they impact land use)
- ♦ future land uses, including designation of a Future Land Use Map
- ♦ needs for the Urban Growth Area (UGA)
- ♦ results from the Land Quantity Analysis (LQA) – Note: The LQA was performed prior to the city's 2023 development regulations update, which re-worked the old zoning code.

The land use element utilizes assumptions for future growth based on current local and regional trends and anticipated development. The City recognizes that these projections can change at any time, and further analysis of land use will be conducted if the need is determined.



Zoning

Ephrata's Municipal Code Title 19 outlines the zoning code, and that title should be referred to for the most recent and detailed zoning regulations. Ephrata recognizes the following zoning designations as adopted in the City's code:

Table 18. Ephrata Zoning Classifications

Zone Classification	Abbreviation	Purposes
Residential Districts		
Low Density Residential	LDR	Provides for low-density residential development in neighborhoods already characterized by one and two-family dwellings and is not suited to more intense residential development.
Mixed Density Residential	MDR	Provides for moderate density residential uses in a mix of housing types and styles. This zone allows for mixed residential alternatives such as multifamily, townhomes, cottage housing, multiplex units, and mixed housing type uses.
Commercial Districts		
Central Business District	CBD	Downtown district with a mixture of uses including business, commercial, governmental, residential, and mixed use development. This zone is intended to support walkable, pedestrian-scale center for shopping, entertainment, events, dining, and culture.
General Commercial and Business Zone	C-1	This zone is intended to be used for a full range of retail sales and commercial services, serving both residents and visitors.
Industrial Districts		
Light Industrial	L-I	Intended to accommodate a variety of light industrial uses including but not limited to manufacturing, warehousing, distribution operations, processing, and fabricating, and to preserve land for such use.
Heavy Industrial	H-I	Intended to accommodate heavy industrial uses and to preserve land for such uses at locations that will permit less restrictive industrial performance standards and bulk regulations than are required in the L-I Zone, thereby providing greater flexibility to accommodate a variety of heavy industrial uses including but not limited to manufacturing, fabricating, processing, warehousing, distribution operations, and assembly.
Public Districts		
Public Facility	PF	Provides for areas for the variety of public uses which are required in a city such as parks, offices, community facilities, and schools. All publicly owned property is to be designated "Public Facility" unless otherwise zoned.
Airport Zone	AZ	This zone provides uses consistent with industrial, commercial, manufacturing and are consistent with development adjacent to an airport.



Overlay Zones

In addition to the zoning districts above, Ephrata also recognizes four overlay zoning districts, described below and shown in Figure 12, the Zoning Map.

Table 19. Ephrata Overlay Zones

Overlay Zone Classification	Abbreviation	Purposes
Mixed Use Transitional Overlay	MUT	<p>Node development for pockets of intense development in specific designated areas of town. The underlying zone will determine what overlay applies. These mixed use transitional zones are applicable in three different categories:</p> <ol style="list-style-type: none"> 1. Residential Mixed Use Transitional – an area of development where there is a mixture of residential uses, business and light commercial 2. Commercial Mixed Use Transitional – an area of development for commercial transition between adjacent land uses whether that is residential or industrial. These areas are envisioned to develop as a commercial transition of mixed uses. 3. Industrial Mixed Use Transitional – transition area between industrial and adjacent land uses such as commercial or residential. Development could include buffering regulations, transitions from commercial, light to heavy industrial uses.
Mobile Home Park Overlay	MH	<p>The Mobile Home Park Overlay zoning classification is intended to promote the retention of mobile home parks as a source of affordable detached single-family and senior housing. This classification is assigned to certain existing mobile home parks which contain rental pads, as opposed to fee simple owned lots, and as such are more susceptible to future redevelopment.</p>
Airport Overlay Zone	AOZ	<p>This zone is intended to protect the viability of the Ephrata Airport as a significant resource to the community by requiring compatible land uses and densities, reducing hazards to lives and properties, and ensuring a safe and secure flying environment, consistent with federal aviation regulations. This overlay zone follows the designations outlined in WSDOT's Airports and Compatible Land Use Guidebook, Appendix F.</p>



Table 20. Inventory of Existing Zones			
Zone	Zone Name	Acres	Percent
AZ	Airport	2284.00	34.14%
CBD	Central Business District	46.96	0.70%
C-1	General Commercial and Business Zone	368.13	5.50%
H-I	Heavy Industrial	724.72	10.83%
L-I	Light Industrial	644.71	9.64%
LDR	Low Density Residential	1563.76	23.38%
MDR	Mixed Density Residential	590.40	8.83%
PF	Public Facility	467.07	6.98%
	Total:	6689.76	100.00%

The size of Ephrata's current city limits is about 6,690 acres, or 10.45 square miles. As the city is currently zoned, about one-third of the land is zoned for residential uses (see Table 21). Another one-third is zoned for the airport and port-related uses. About one-fifth (20%) of the total land in city limits is designated for industrial uses, and about 6% is designated for commercial uses. 7% is designated for public facility uses.

Table 21. Acreage by Current Zone Category		
Zone Name	Acres	Percent
Residential	2154.16	32.20%
Commercial	415.09	6.20%
Industrial	1369.43	20.47%
Public	467.07	6.98%
Airport	2284.00	34.14%
Total:	6689.76	100.00%

Table 22. Inventory of Existing Zoning Overlays		
Zone	Zone Name	Acres
MUT	Mixed Use Transition Overlay	212.06
MH	Mobile Home Park Overlay	48.27
AOZ	Airport Overlay Zone	4015.15



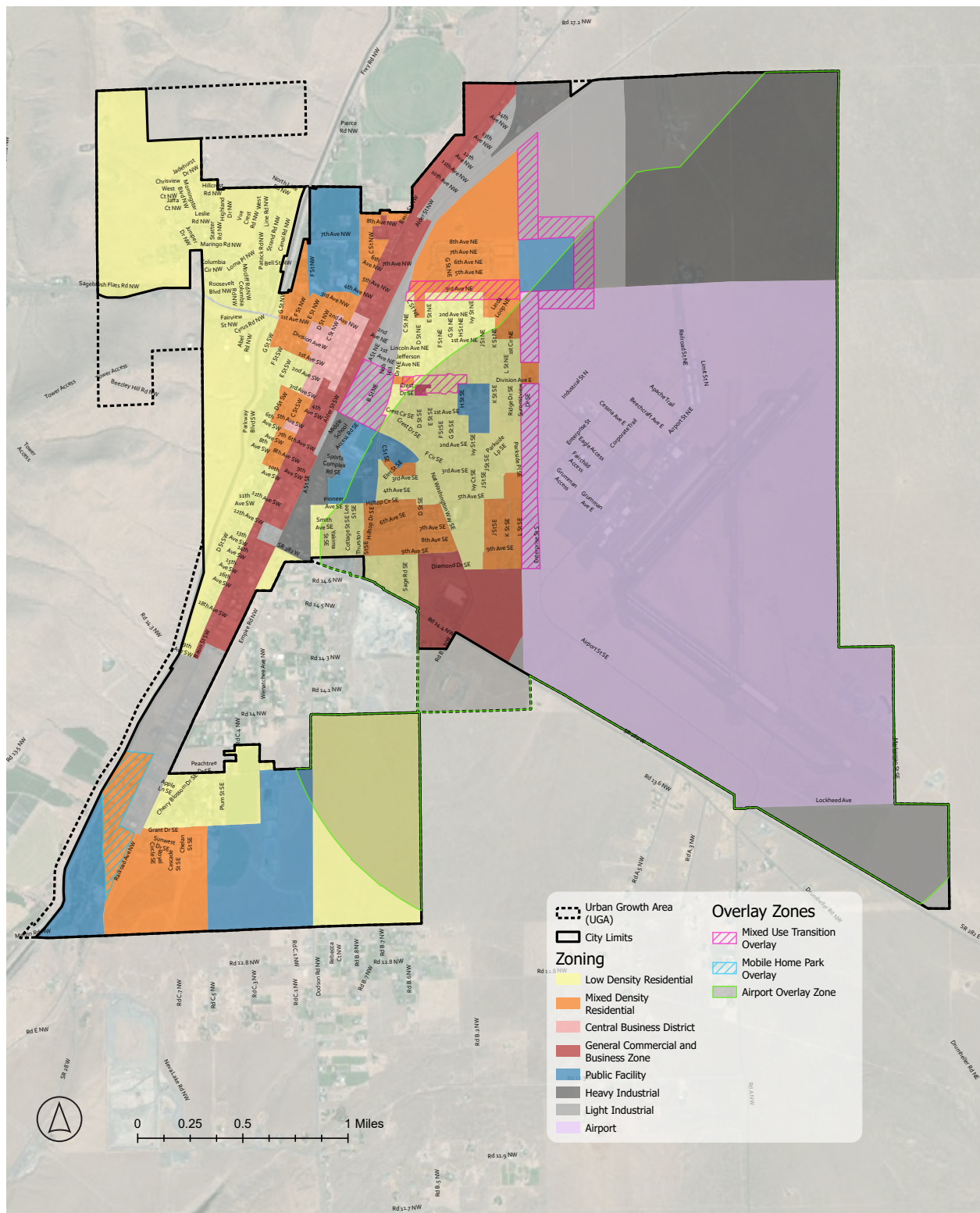


Figure 18. Zoning Map



Critical Areas

The state Growth Management Act (GMA) requires the adoption of development regulations that protect the functions and values of critical areas, including wetland, fish and wildlife habitat conservation areas, critical groundwater recharge areas, frequently flooded areas and geologically hazardous areas. The Ephrata Policy Framework (Chapter 3) provides policies relevant to the regulation of critical areas.

RCW 36.70A.172 requires local governments to include the best available science (BAS) in developing policies and development regulations to protect the functions and values of critical areas, and to give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.

The GMA requires all local governments to designate and protect resource lands, including agriculture lands and mineral resource lands. The City of Ephrata uses a combination of regulatory and non-regulatory approaches to protect the functions and values of critical areas.

Regulatory approaches include low-density zoning in significantly environmentally constrained areas, limits on total impervious surface and storm water control regulations.

It is the purpose of the Comprehensive Plan to protect the public, health, safety, and general welfare in areas associated with specific resource lands and critical areas. It is further intended to promote the conservation of resource lands and promote the enhancement and preservation of critical areas by avoiding or minimizing adverse environmental impacts from construction and development. This plan is intent upon implementing the goals and policies of GMA through the classification and designation of resource lands and critical areas and the development and implementation of regulations to conserve resource lands and protect critical areas in the public's interest and welfare. It is not the intent of this plan to deny a reasonable use of private property, but to assure that development on or near resource lands or critical areas is accomplished in a manner that is sensitive to the environmental and resources of the community.



Frequently Flooded Areas

Frequently flooded areas are areas that are subject to a one percent or greater chance of flooding in any given year as identified by the Federal Emergency Management Administration (FEMA).

→ Designation

The City of Ephrata designates frequently flooded areas as those identified as Special Flood Hazard Areas (SFHA) by the Flood Insurance Rate Map, as amended. The designated SFHA in Ephrata shown in Figure 19 covers a significant portion of the City, including all of downtown, the Grant County courthouse and offices, and many historic residential neighborhoods west of SR 28.

All development within the designated SFHA is subject to development procedures as outlined in Ephrata Municipal Code Chapter 19.11.

Discussion

The following discussion summarizes findings from the 1973 Dry Creek Flood Control Report by the Army Corps of Engineers:

Ephrata lies near the mouth of the Dry Creek drainage basin at the east end of the Beezley Hills. Dry Creek is the longest of a network of 10 major ravines draining the 27-square-mile basin within the Beezley Hills. In its 9-mile length the creek bed falls 1,400 feet from elevation 2,700 to 1,300 feet. The gradient is fairly uniform, averaging about 150 feet per mile. The Creek bed is about 20 feet wide with steep sides near its mouth at Ephrata.



Surface water runoff in the Dry Creek drainage basin takes place intermittently when a thunderstorm or rapid snow melt, combined with rainfall occurs. Often the water is absorbed into the hillside soil or stream beds. However, if the ground is frozen or wet, runoff in substantial quantities reaches the mouth of Dry Creek. Peak flow frequencies are estimated as follows:

Table 23. Dry Creek Peak Flow Frequencies	
Peak Flow (cfs)	Average Recurrence Interval (Years)
680	5
1,300	10
2,150	20
3,700	50
5,000	100

The most severe combination of weather and runoff conditions reasonably characteristic of the area, such as an intense thunderstorm centered over the drainage basin, could result in a peak flow of 15,000 cfs.

Flood waters are diverted at the mouth of the creek to the north by a corrugated metal arch culvert 10 feet high, 24 feet wide and 100 feet long. A steel sheet pile training wall, 250 feet long, turns the creek in the direction of the culvert. Creek waters are thence carried northward in a channel paralleling the adjacent West Irrigation Canal. About 3,500 feet north of 1st Avenue NW the channel turns eastward, releasing discharges into a ponding area north of Ephrata. The ponding area is 1.5 miles long and nearly one-half mile wide and has a capacity for storing about 1,800 acre-feet. A low embankment is intended to prevent the extension of ponding southward into Ephrata, but has a top elevation three feet below the maximum potential ponding elevation. Because of the fine materials used in construction, the embankment is subject to failure from erosion whenever flow exceeds 560 second-feet, which is approximately a 4-year flow.



The Federal Emergency Management Agency (FEMA) has defined areas showing the extent of the 100-year flood boundary in order to establish flood insurance rates and assist communities in efforts to promote sound flood plain management. Figure 19 depicts the area susceptible to flooding.

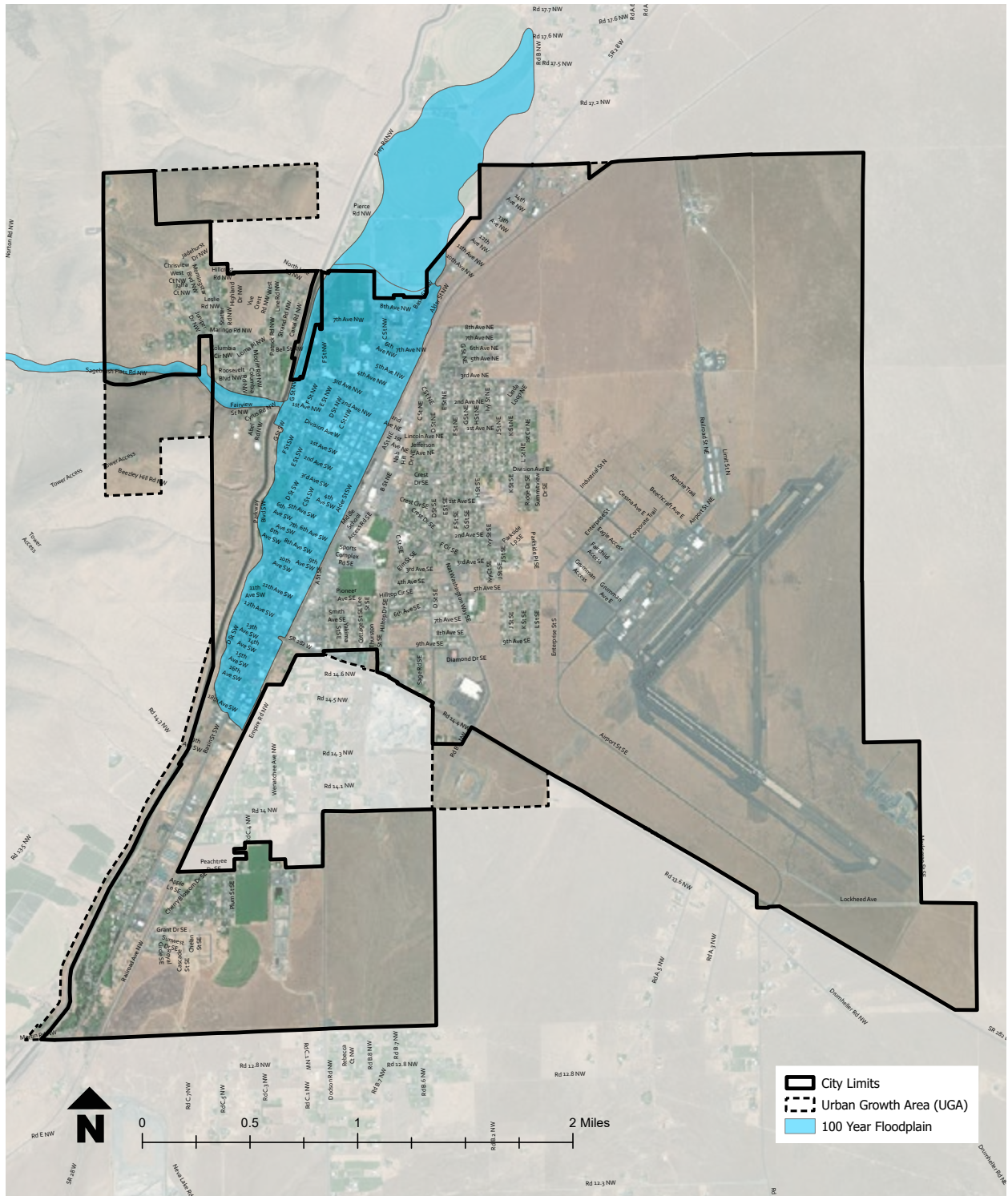


Figure 19. Frequently Flooded Areas (100-&Year FEMA Floodplain)

Fish and Wildlife Habitat Conservation Areas

Fish and wildlife habitat conservation areas are natural geographic areas that are important to the maintenance of designated fish and wildlife species in a wild state, ensuring isolated sub-populations are not created. Ephrata follows the guidelines outlined by Grant County for conservation of fish and wildlife habitat.

Priority habitats in Grant County include cliffs and bluffs, riparian areas, shrub-steppe habitat, and wetlands. These habitats serve a variety of functions for locally protected species and are largely affected by various anthropogenic activities including agricultural practices and development. A decline in these locally important habitats can also affect the species that rely on them.

SHRUB-STEPPE

Shrub-steppe upland habitat is the largest native land cover type in Ephrata and Grant County. The shrub-steppe habitat provides many ecosystem services including soil stabilization, wildfire moderation, and overall biodiversity. Shrub-steppe also

provides habitat to many species that are endemic to the region, such as sage grouse. Recommendations provided in the Grant County SMP Final Draft Shoreline, Inventory, Analysis, and Characterization Report for preserving shrub-steppe habitat include limiting development footprints including agricultural land cover changes, limiting road and utility corridors to avoid fragmenting habitat, restricting vegetation clearing, keeping domestic pets and livestock out of sensitive species habitat, limiting fencing to avoid barriers to native wildlife, and limiting irrigation canals through shrub-steppe habitat (Anchor QEA 2013).

Designation

Fish and wildlife habitat areas are identified by the Washington Department of Fish and Wildlife (WDFW) through the PHS on the Web interactive map¹. This map shows the locations of Priority Habitats and Species (PHS) of various risk categories. The City of Ephrata should refer to the PHS web map and WDFW guidance to make determinations about mitigation measures for development based on the PHS occurrence type, priority, and practices based on the best available science.



¹ <https://geodataservices.wdfw.wa.gov/hp/phs/>



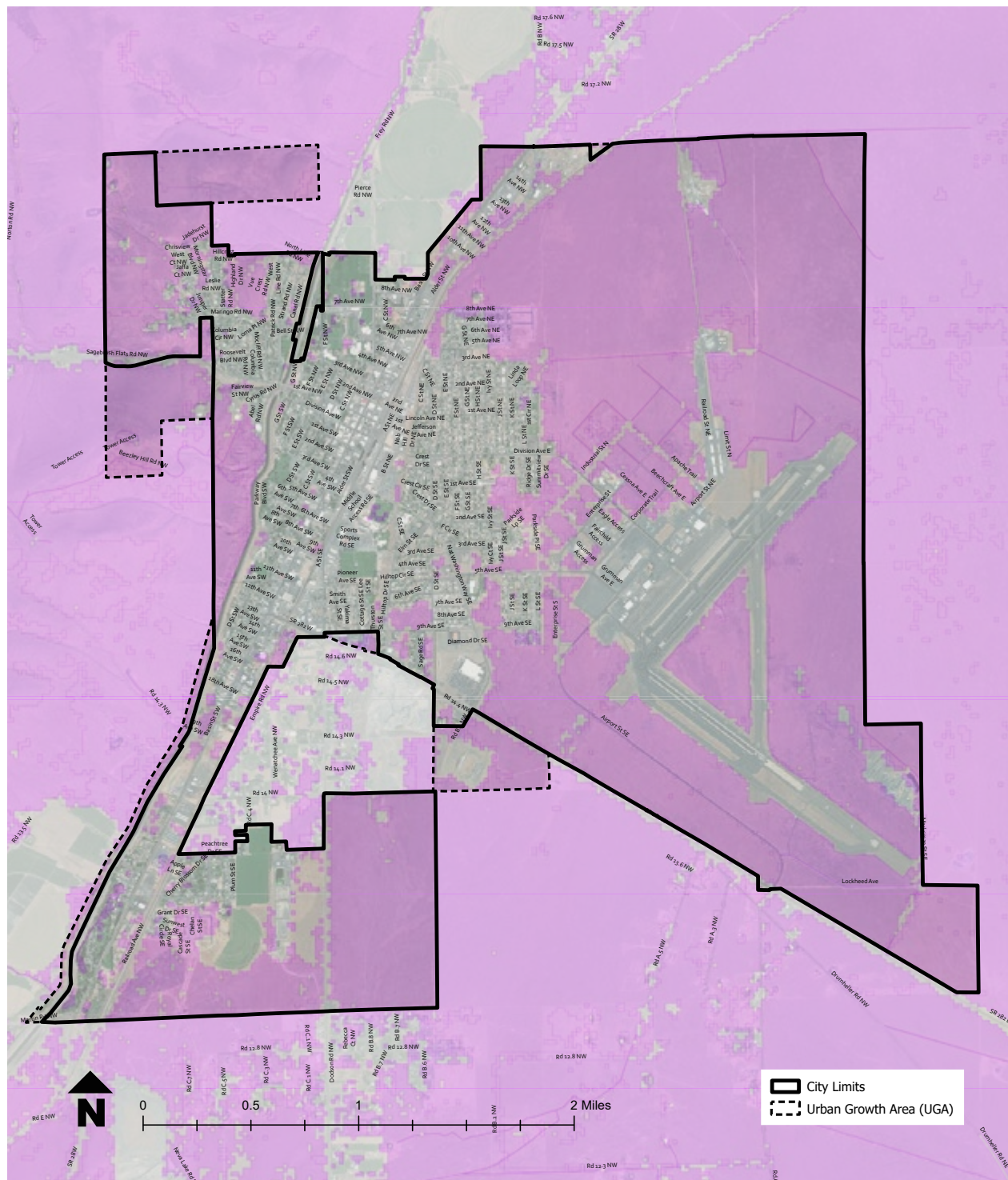


Figure 20. Fish and Wildlife Habitat Conservation Areas (Generalized PHS on the Web data)

Wetlands

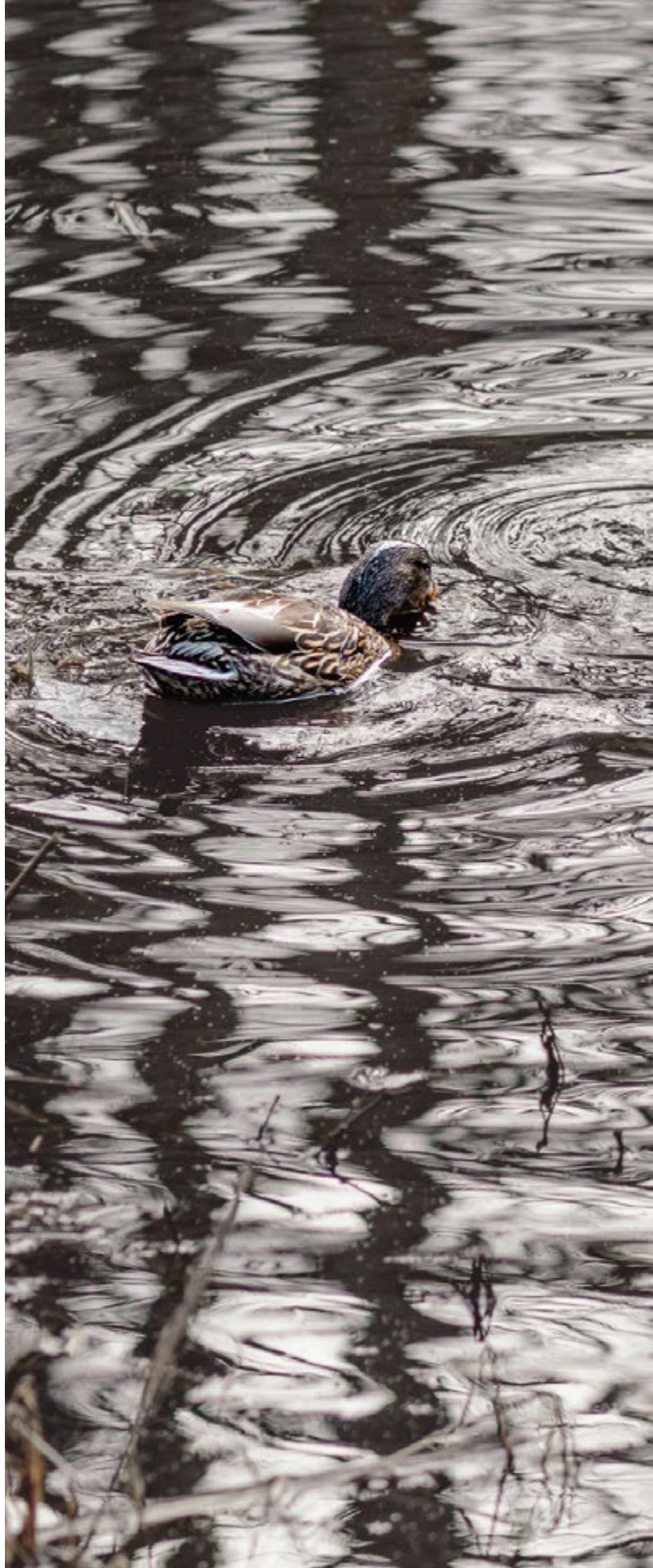
Wetlands are areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, grass-lined swales, canals, detention facilities, waste-water treatment facilities, farm ponds, and landscape amenities. However, wetlands may include those artificial wetland areas created to mitigate conversion of wetlands, if permitted by the City. (RCW 36.70A.030 (17)).

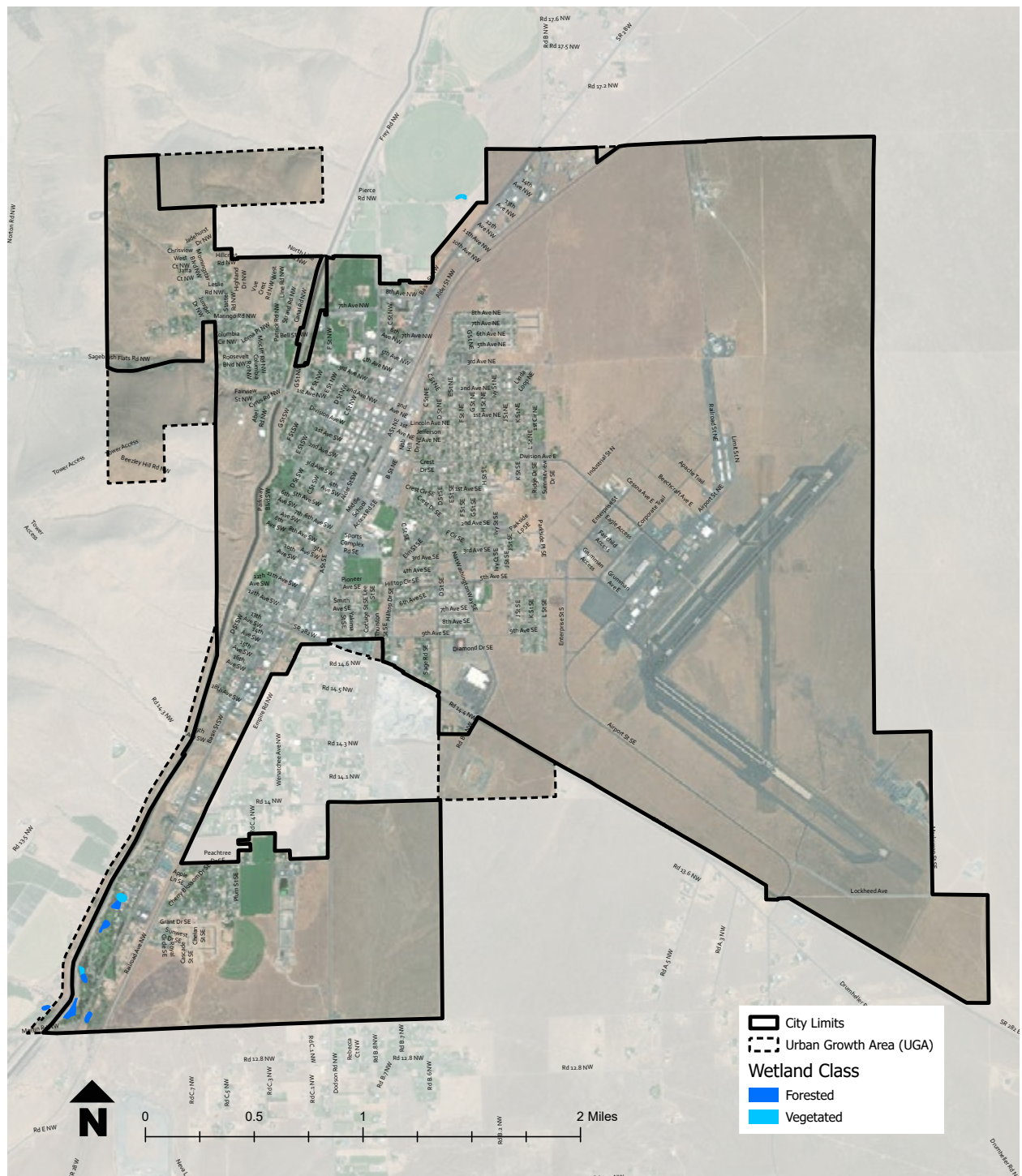
In previous local studies, **no areas in the City of Ephrata were found to meet the criteria for protected wetlands.** However, the City of Ephrata does contain some forested and vegetated wetlands within its city limits at the southwestern corner of town. The map in Figure 21 shows all wetlands by wetland class as identified by the Washington State DNR Forest Practices Wetlands GIS Layer, which is based on the National Wetlands Inventory (NWI). The City of Ephrata will continue to monitor these wetlands for protection and/or buffering needs, but no needs have been identified to date.



Designation

Wetlands will be rated according to the Wetlands Rating System for Eastern Washington developed by the Washington State Department of Ecology. Future studies and analyses of wetland protection needs in the City of Ephrata should refer to the most recent state guidelines.





Geologically Hazardous Areas

Geologically hazardous areas are those that are susceptible to erosion, sliding, earthquake, or other geologic events which pose a threat to the health, safety, and welfare of citizens when construction or incompatible uses are permitted in areas of significant hazard. These areas include steep slopes, landslide, erosion hazard, and seismic hazard areas. The siting of residential, commercial, or industrial development within these areas is a potential hazard. Development proposals within a designated geologically hazardous area must develop a geotechnical report.

→ Designation

In the City of Ephrata, Geologically Hazardous Areas are identified as hillsides of fifteen percent (15%) slope and steeper as identified in Figure 22, landslide or erosion hazard areas, and seismic hazard areas. No landslide or erosion hazard areas or seismic hazard areas have been identified, but if these areas are discovered through site surveys they will need to follow the guidance listed above for these critical areas.



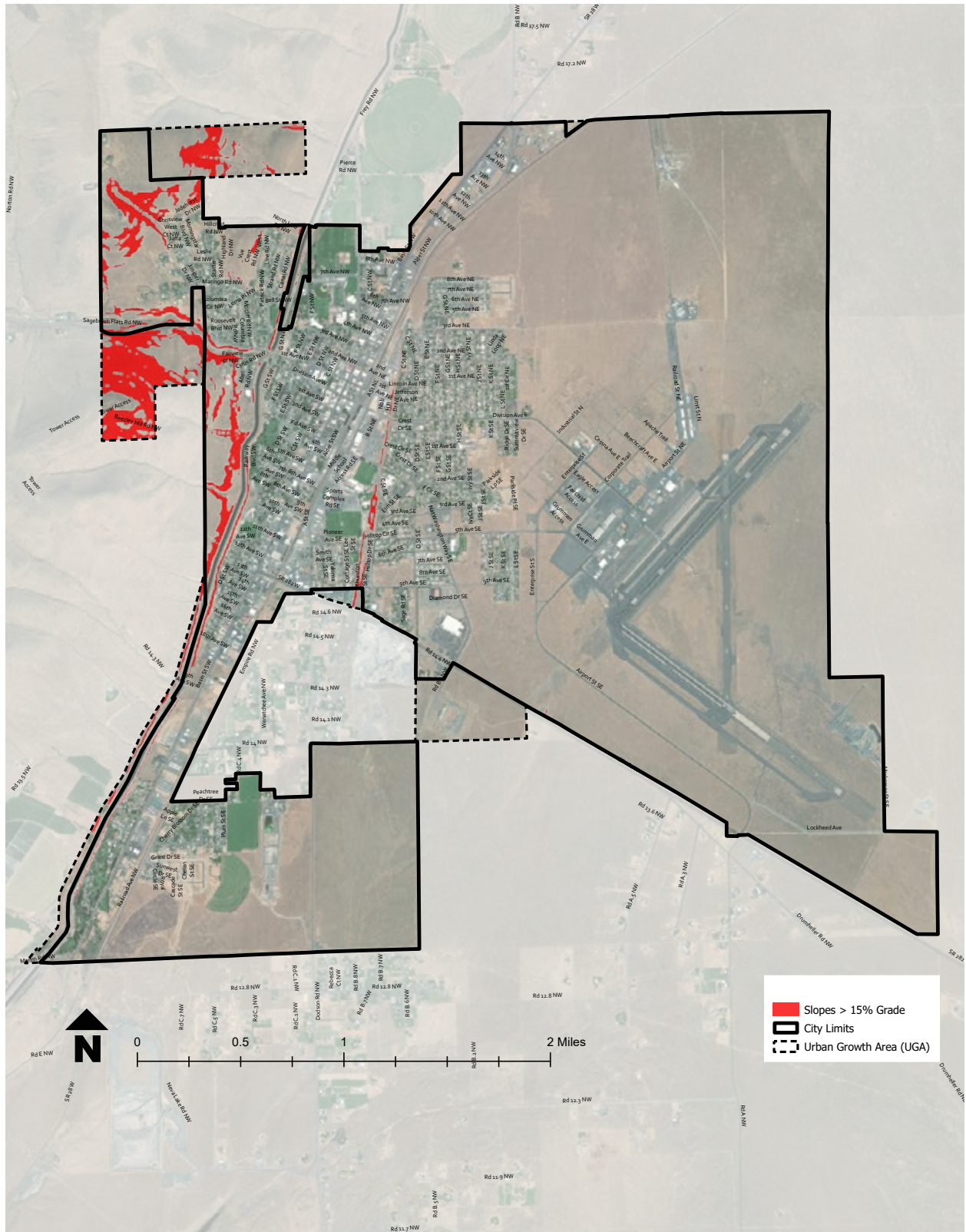


Figure 22. Designated Geologically Hazardous Areas

Aquifer Recharge Areas

Critical Aquifer Recharge Areas include, but are not limited to, areas where soils with rapid permeability pose a contamination risk to local groundwater sources. Discharge into the groundwater from development and land uses within the City of Ephrata shall not contribute contaminants nor facilitate degradation of aquifer recharge areas. Development approvals shall ensure that all best management practices are employed to avoid contributing pollutants into aquifer recharge areas.

Designation

The City of Ephrata designates aquifer recharge areas (see Figure 23) as those wellhead protection zones identified by the [Source Water Assessment Program \(SWAP\)](#). A wellhead protection area may have four or five zones. Each zone represents the length of time it would take a particle of water to travel from the zone boundary to the well. Aquifer protection in Ephrata should refer to the [Washington State Wellhead Protection Program Guidance Document](#)², and is more specifically managed by the City's Water System Plan, adopted by reference in this Comprehensive Plan.

The designated wellhead protection areas serve the following purposes:

- ♦ **The sanitary control area:** The area immediately around the wellhead.
- ♦ **Zone 1:** The 1-year horizontal time-of-travel boundary for groundwater. Zone 1 is managed to protect the drinking water supply from viral, microbial, and direct chemical contamination. Zone 1 includes a 6-month time-of-travel boundary.
- ♦ **Zone 2:** The 5-year time-of-travel boundary for groundwater. Zone 2 is managed to control potential chemical contaminants. All potential contaminant sources must be addressed with emphasis on pollution prevention and risk reduction. Zone 2 provides information local planners use to site future "high risk" and "medium risk" potential contaminant sources.

- ♦ **Zone 3:** 10-year time-of-travel boundary for groundwater. Zone 3 is the outer boundary of the wellhead protection area. In Zone 3, potential high- and medium-risk contaminant sources receive increased regulatory attention and technical assistance, with emphasis on pollution prevention and risk reduction. Buffer zone: an area sloping up from Zone 3, potentially including the entire zone of contribution. The buffer zone may include additional non-contiguous critical aquifer recharge areas requiring protection from contamination.



² <https://doh.wa.gov/sites/default/files/legacy/Documents/Pubs/331-018.pdf>

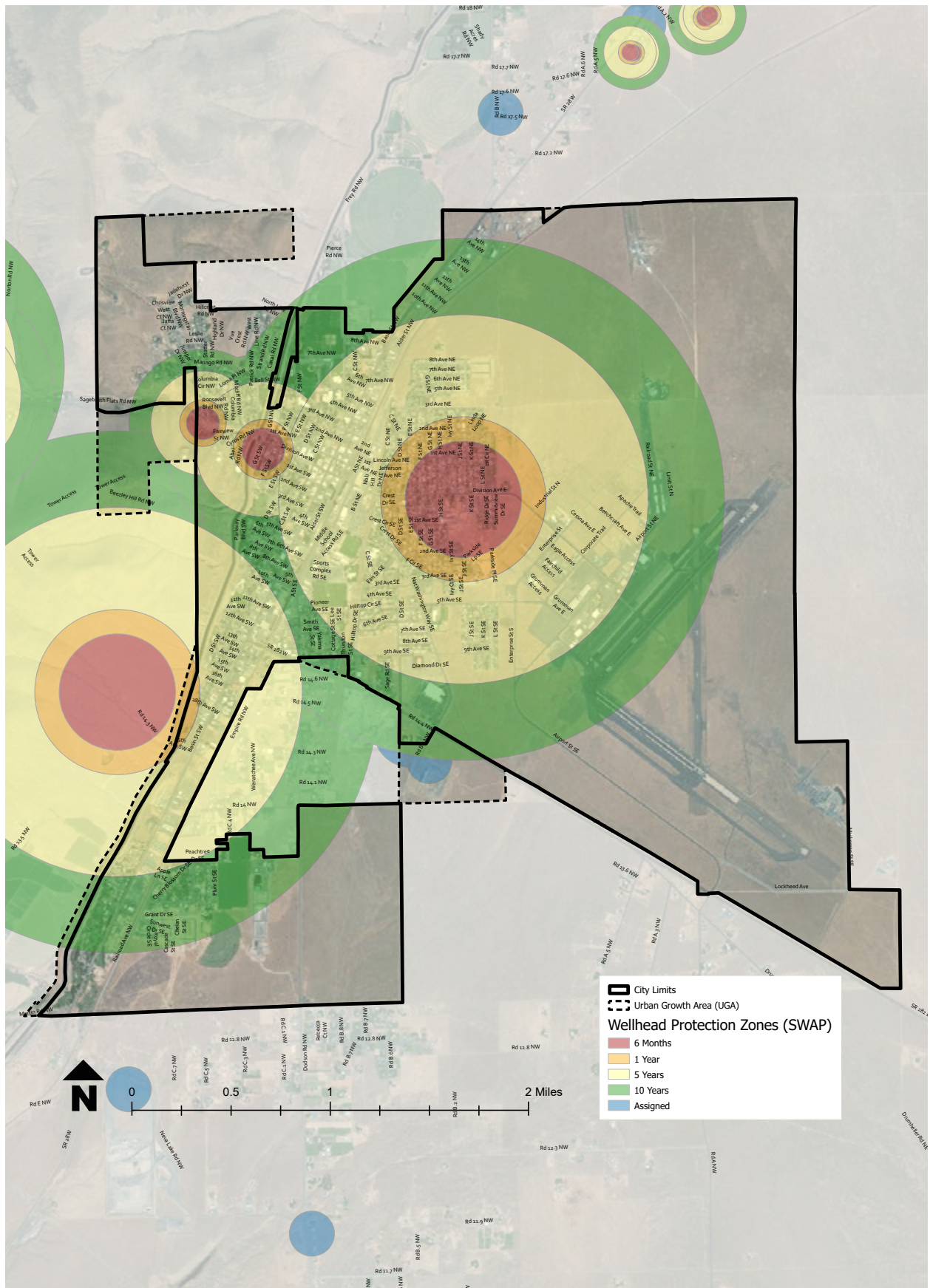


Figure 23. Aquifer Recharge Areas (Wellhead Protection Zones based on SWAP)

Shorelines

Per state law, the goals and policies of the shoreline master program (SMP) approved under [RCW 90.58](#) shall be considered an element of the comprehensive plan. Since the City of Ephrata does not have a currently adopted SMP, the goals and policies of the Grant County Shoreline Master Program will apply unless the City of Ephrata adopts a separate SMP at a future date. However, since Ephrata has no designated shorelines of statewide significance, the City has no plans and no identified need to adopt an SMP at this time.



Future Land Use

Land Use Types

Ephrata has designated the following future land use types to guide future development and land use decisions. Figure 24 shows these designations in the Future Land Use Map.

Single Family Residential

The Single Family Residential designation is intended to preserve and limit larger multifamily developments in low-density residential neighborhoods. These areas largely align with the Low Density Residential zoning, which allows for single family homes, duplexes, and some ADUs.

Mixed Residential

The Mixed Residential designation is intended to encourage more mid-level densities within the city's core neighborhoods. Many neighborhoods are expected to maintain their character, but the mixed residential designation provides potential for higher density housing development such as townhomes, condominiums, and mixed use buildings if the underlying zoning allows for it. The mixed residential designation provides additional flexibility for housing development as housing demand continues to rise and affordability continues to be a challenge in Ephrata.

Commercial

The Commercial designation is intended to provide general commercial uses along high-use corridors and centers. Commercial designation allows for development of office, retail, and dining establishments of various sizes and scales.

Industrial

The Industrial designation is intended to provide designated areas for light industrial and general industrial development. Ephrata aims to provide light industrial uses as a buffer zone between residential and general industrial uses, and this designation would allow for the possibility of increasing these light industrial buffers, especially on the east side of the city.

Public Facilities

The Public Facilities designation is intended to reserve land for public uses such as schools, parks, recreation, open space, libraries, cemeteries, and utilities.

Airport

The Airport designation is intended to preserve the runway, critical zones, and adjacent operations of the Ephrata Airport, ensuring continued use and protection of the airport.

Mixed Use Transition

The Mixed Use Transition designation is intended to identify areas of transitional land uses as to provide appropriate buffers between sometimes incompatibly land uses, or to provide flexibility in zoning designations within specific centers and corridors. These transitional designations, additionally defined in the zoning code, rely on the underlying zoning designations to determine which type of transitional uses are allowed and which development regulations apply. For example, in the industrial mixed use transition zone, the code calls for increased buffers around light industrial uses that are adjacent to residential or commercial uses.



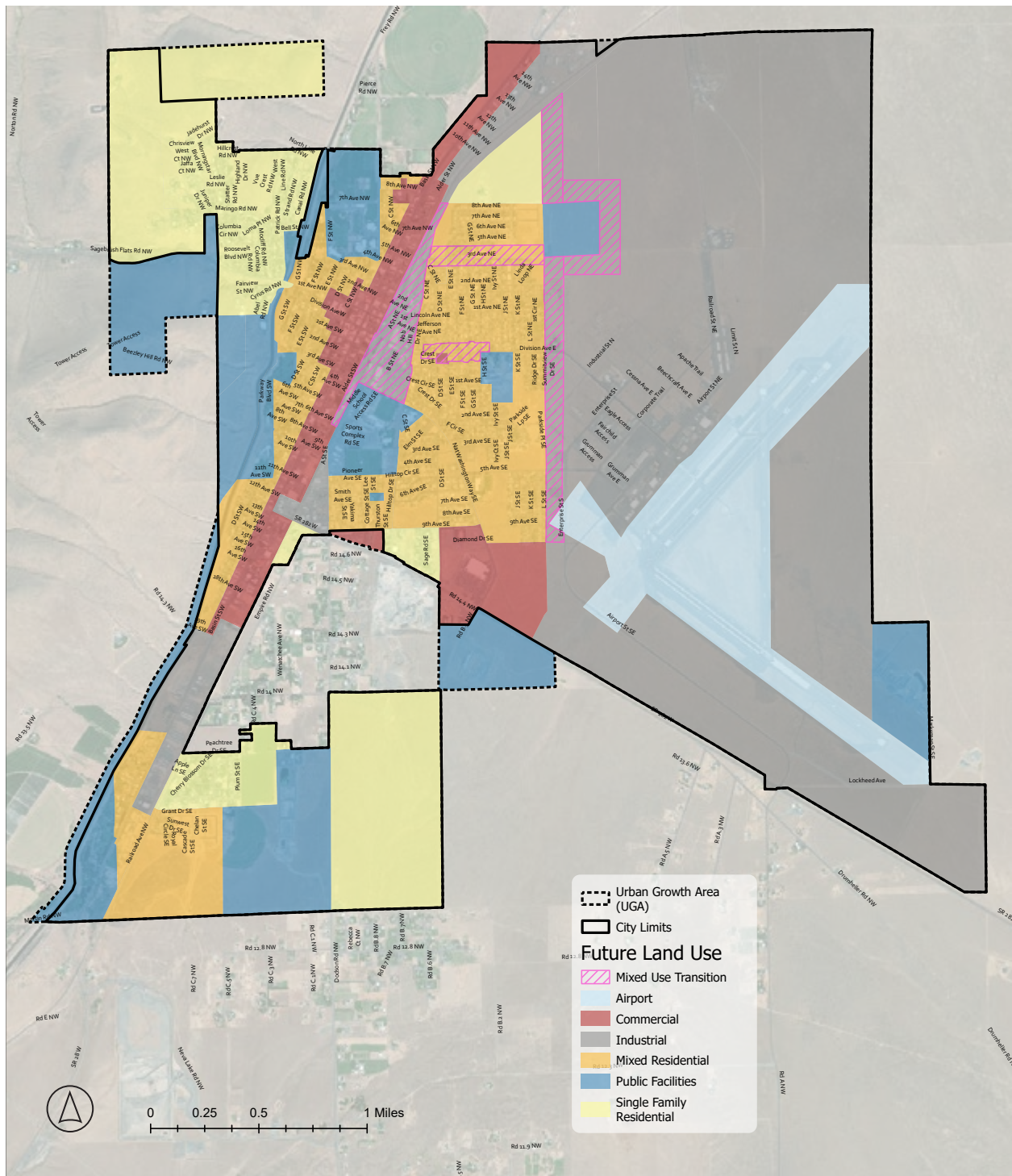


Figure 24. Future Land Use Map



Analysis of the Urban Growth Area

Recognizing the need to develop in areas where adequate public facilities and services exist, and to reduce the inappropriate conversion of undeveloped land into sprawling low-density development, the city will encourage growth first within the existing corporate limits, where public services may be extended in the immediate future. Growth will then be directed into the adjacent Urban Growth Area (UGA). Industrial growth will be encouraged within the corporate limits, especially at the Port of Ephrata, before expanding into the UGA.

A Land Quantity Analysis (LQA) was developed using the city's UGA to analyze how much buildable/redevelopable land was available for residential development and employment-related development within the City's UGA. The methodology is described further in Appendix B.

The City determined that there is a need to amend the UGA because much of the City's existing UGA consists of Beezley Hill and other hillside areas on the northwest side of town, providing very little buildable land. Even though Ephrata has plenty of land within its current boundaries to accommodate residential and employment growth, the City is proposing to amend its UGA to provide more appropriate land for future growth.

The proposed amendment to the UGA would reduce the amount of land in the UGA on Beezley Hill by 165.95 acres and adds 96.76 acres on the south side of SR 282 near the intersection of Nat Washington Way.

Beezley Hill will remain a recreational area because the Grant County zoning

designation is Urban Open Space Recreation, which the Grant County code defines "to maintain and preserve open, undeveloped areas that are not suitable for intensive development. Such areas may be available for public uses, such as parks or recreation."

This proposed amendment would create a net reduction in the amount of UGA by 69.19 acres. Overall, this would amend Ephrata's UGA from a total of 514 acres to a new total of 445 acres. However, Ephrata supports this move because of its demonstrated ability to accommodate projected growth within its current city limits, and the ability of the UGA to accommodate future public facilities and related growth. This replacement UGA area would be given the future land use designation of Public Facilities to provide a space for siting essential public facilities and related development, which was an identified need by both the City and by Grant County.

UGA Size, Patterns of development, Suitability and Infrastructure.

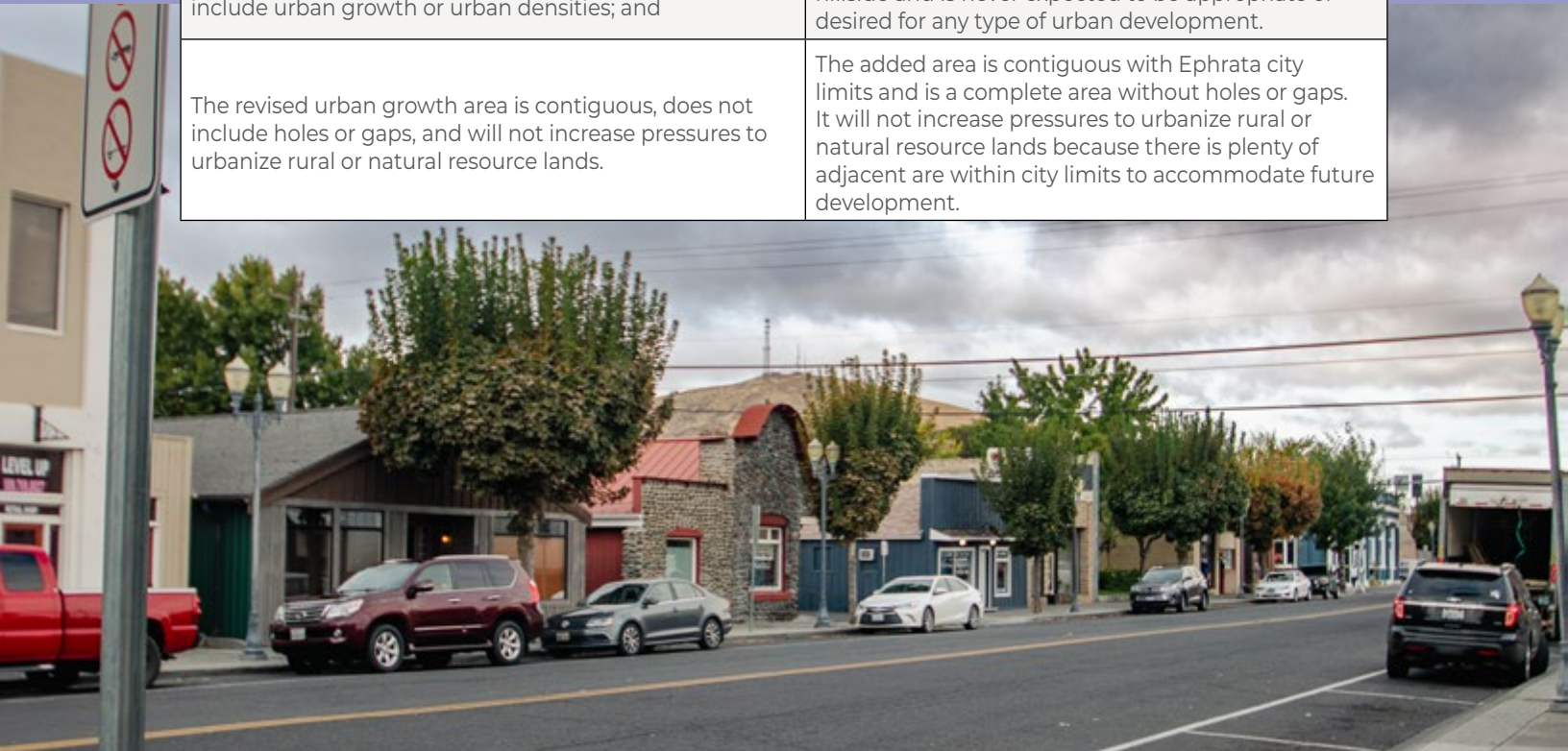
Per RCW 36.70A.130 (3), each county that designates urban growth areas under RCW 36.70A.110 shall review its designated urban growth area or areas, patterns of development occurring within the urban growth area or areas, and the densities permitted within both the incorporated and unincorporated portions of each urban growth area.

Under this section, urban growth areas may be revised to accommodate identified patterns of development and likely future development pressure for the succeeding 20-year period if the requirements outlined in Table 24 are met. The proposed UGA Amendment for the City of Ephrata, pictured in Figure 25, is analyzed for each criterion.



Table 24. Analysis of Ephrata's UGA Amendment

Criteria from RCW 36.70A.130 (3)(c)	Analysis of Ephrata's UGA Amendment
The revised urban growth area may not result in an increase in the total surface areas of the urban growth area or areas;	The proposed amendment does not increase the total area, rather it decreases the total area in the UGA.
The areas added to the urban growth area are not or have not been designated as agricultural, forest, or mineral resource lands of long-term commercial significance;	The areas added have not been designated as agricultural, forest, or mineral resources lands of long-term commercial significance.
Less than 15 percent of the areas added to the urban growth area are critical areas;	There are no identified critical areas of concern within the area added to the UGA. Development in the UGA will need to consider its impact on priority habitat and species such as shrub steppe, but the City of Ephrata and Grant County will ensure mitigation at the time of development.
The areas added to the urban growth areas are suitable for urban growth;	The area added is suitable for urban growth. The area is near a state highway, is adjacent to existing city limits, and is close to other nearby existing development.
The transportation element and capital facility plan element have identified the transportation facilities, and public facilities and services needed to serve the urban growth area and the funding to provide the transportation facilities and public facilities and services;	Yes, see Chapters 6 and 7.
The urban growth area is not larger than needed to accommodate the growth planned for the succeeding 20-year planning period and a reasonable land market supply factor;	The area is not intended to accommodate any population growth, instead accommodating essential public facilities and other identified needs relating to public facilities.
The areas removed from the urban growth area do not include urban growth or urban densities; and	The area removed from the UGA is a recreational hillside and is never expected to be appropriate or desired for any type of urban development.
The revised urban growth area is contiguous, does not include holes or gaps, and will not increase pressures to urbanize rural or natural resource lands.	The added area is contiguous with Ephrata city limits and is a complete area without holes or gaps. It will not increase pressures to urbanize rural or natural resource lands because there is plenty of adjacent area within city limits to accommodate future development.



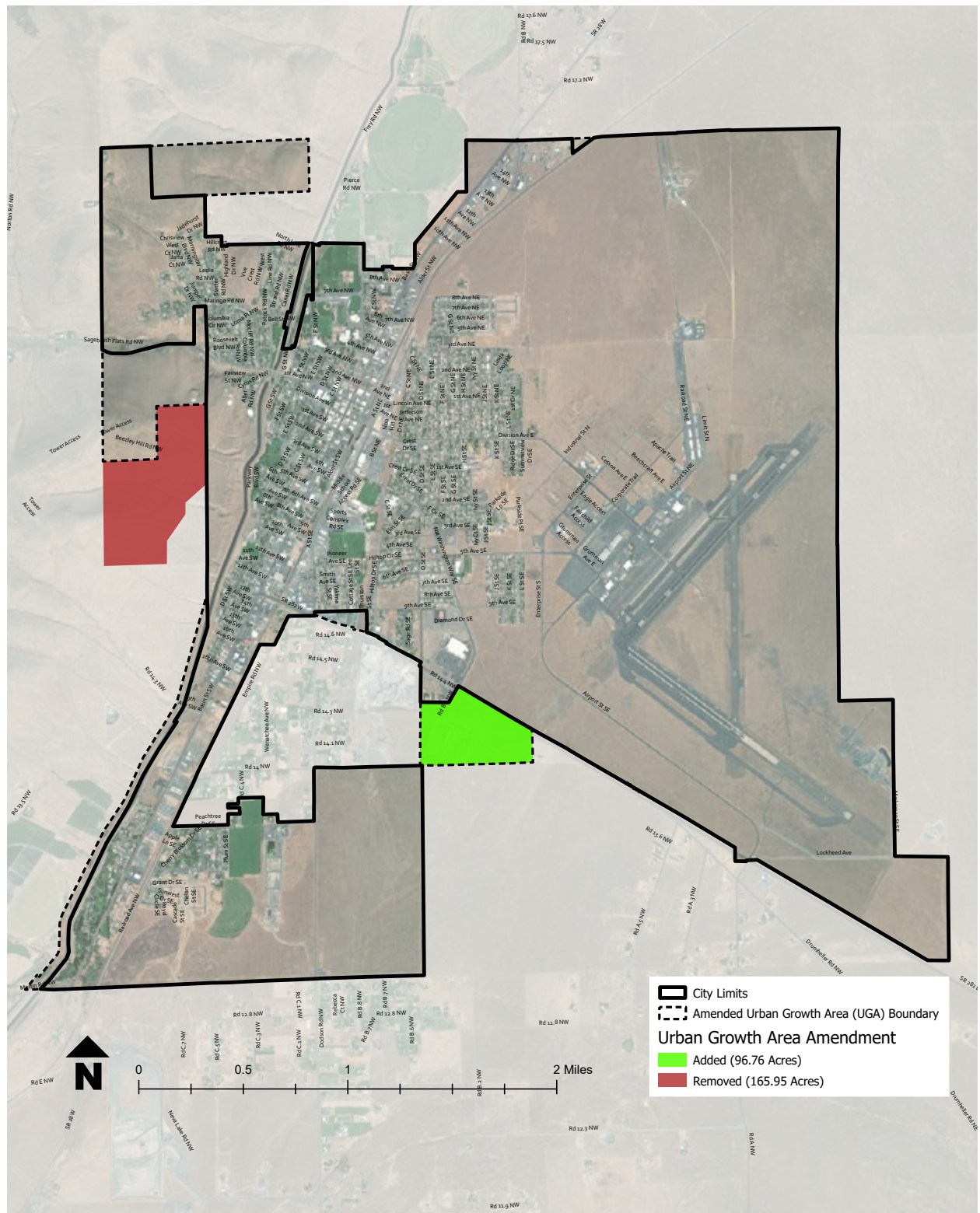


Table 25 shows the percentage of acres in each designated future land use type. Approximately 30% of future land use is designated for residential uses, 41% is designated for industrial uses, 15% for public uses, 9% for airport uses, and 6% for commercial uses.

Table 25. Inventory of Future Land Use		
Land Use Designation	Acres	Percent
Airport	642.69	9.01%
Commercial	414.80	5.82%
Industrial	2912.42	40.84%
Mixed Residential	1028.30	14.42%
Public Facilities	1036.95	14.54%
Single Family Residential	1095.61	15.36%
Total:	7130.78	100.00%

Figure 26 compares the current and future land use types by comparing the number of acres in the currently zoned areas (Figure 18) and the corresponding land use categories as designated in the future land use map (Figure 24). The main difference is the amount of land in the airport and industrial zones. This is because the future land use map re-designates much of the currently-zoned airport lands to Industrial. While these lands will remain under Port of Ephrata management, an Industrial designation is more accurate to represent the type of development that is anticipated in the area, while airport-specific uses will be designated immediately surrounding the airport.

Comparison of Current and Future Land Uses & Zoning Designations

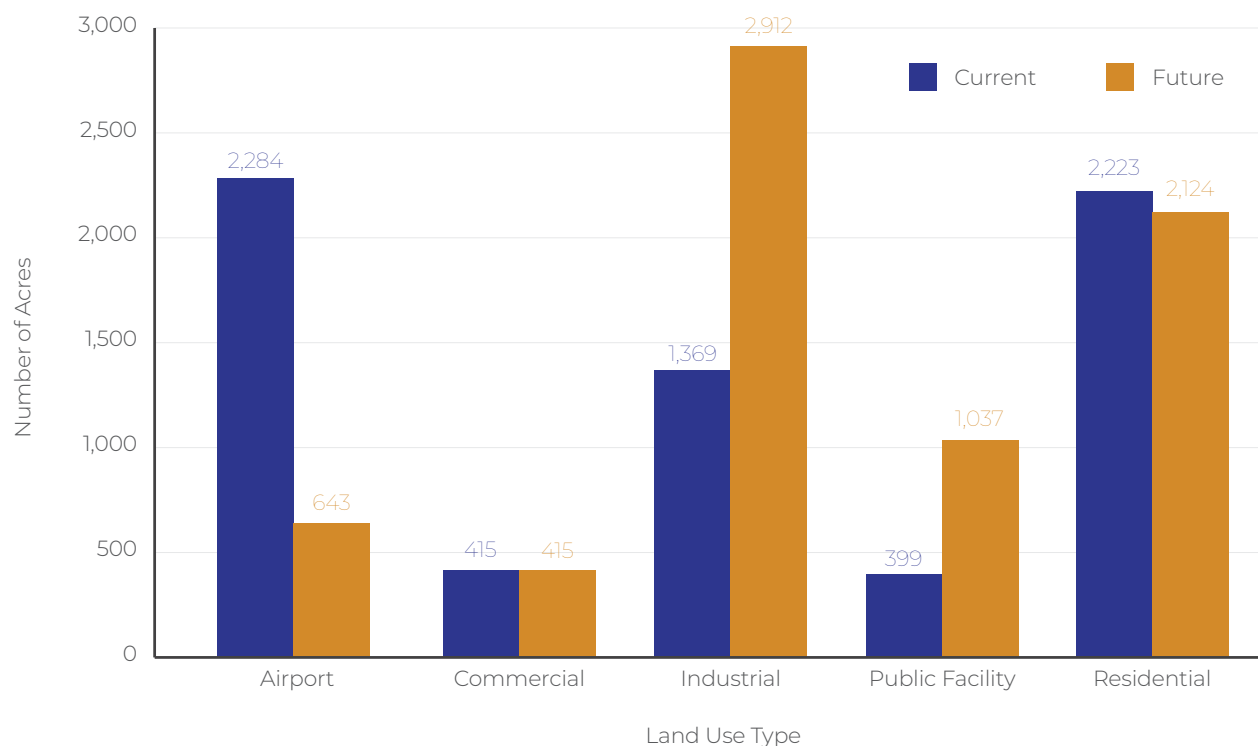


Figure 26. Comparison of Future Land Uses

Land Quality Analysis

As part of the comprehensive plan update, the City developed an updated Land Quantity Analysis (LQA), the full report of which can be found in Appendix B. The LQA found that there is plenty of land within city limits to accommodate this projected population for 2044. Below are some of the main findings from the LQA regarding Ephrata's ability to accommodate future growth within its city limits.

- ♦ The total buildable lands in Ephrata (2527.55 acres), accounts for approximately 37% of the total number of acres in its combined city limits and UGA (6862.22 acres).
- ♦ Even accounting for minor tweaks and estimates incorporated throughout this analysis, **there is still a significant amount of land for both residential and employment growth within the city limits of Ephrata.**
- ♦ Ephrata has approximately 660 acres of capacity for new residential development. Even at the old maximum density allowed in the LDR Zone (8 units per acre), that equates to approximately 5,280 new residential units. At Ephrata's average household size of 2.72, it has capacity for approximately 14,361 new residents. Therefore, **there is more than sufficient capacity to accommodate the projected population.**
- ♦ Ephrata has nearly 1,900 acres of buildable lands for employment uses (commercial or industrial). **This is more than sufficient for the projected economic growth in the city,** considering that there are currently fewer than 1,800 acres of combined area in the existing commercial and industrial zones, much of which is vacant or redevelopable.

Anticipated Growth

As stated in Chapter 1, the population projection for Ephrata places the 2038 population at 10,719 people (2,099 people more than in 2022) and the 2044 population at 10,809 people (2,189 more people than in 2022).

To anticipate future growth, the City made assumptions about how much future development might occur by 2044. In addition to providing a population projection (and subsequent housing projection), the analysis included a projection for how much land would develop as employment-based land. These assumptions are discussed below.

Population and Housing Growth

Figure 27 generally illustrates where anticipated growth in housing development will occur over the next 20 years. The overall density of housing is not expected to increase significantly, though some infill development is expected. Additionally, a greater rate of middle housing development is expected, which will increase housing density within the areas designated as Mixed Residential on the Future Land Use Map (Figure 24).

Population/Housing Growth Assumptions

Figure 27 uses the following data to assume approximately how many households will develop over the next 20 years:

- ♦ Total population growth, 2022-2044 = 2,189 people
- ♦ Avg Household size = 2.72 people per household
- ♦ Total new households, 2022-2044 = 805 households

These assumptions were developed for transportation needs forecasting, discussed further in Chapter 6.



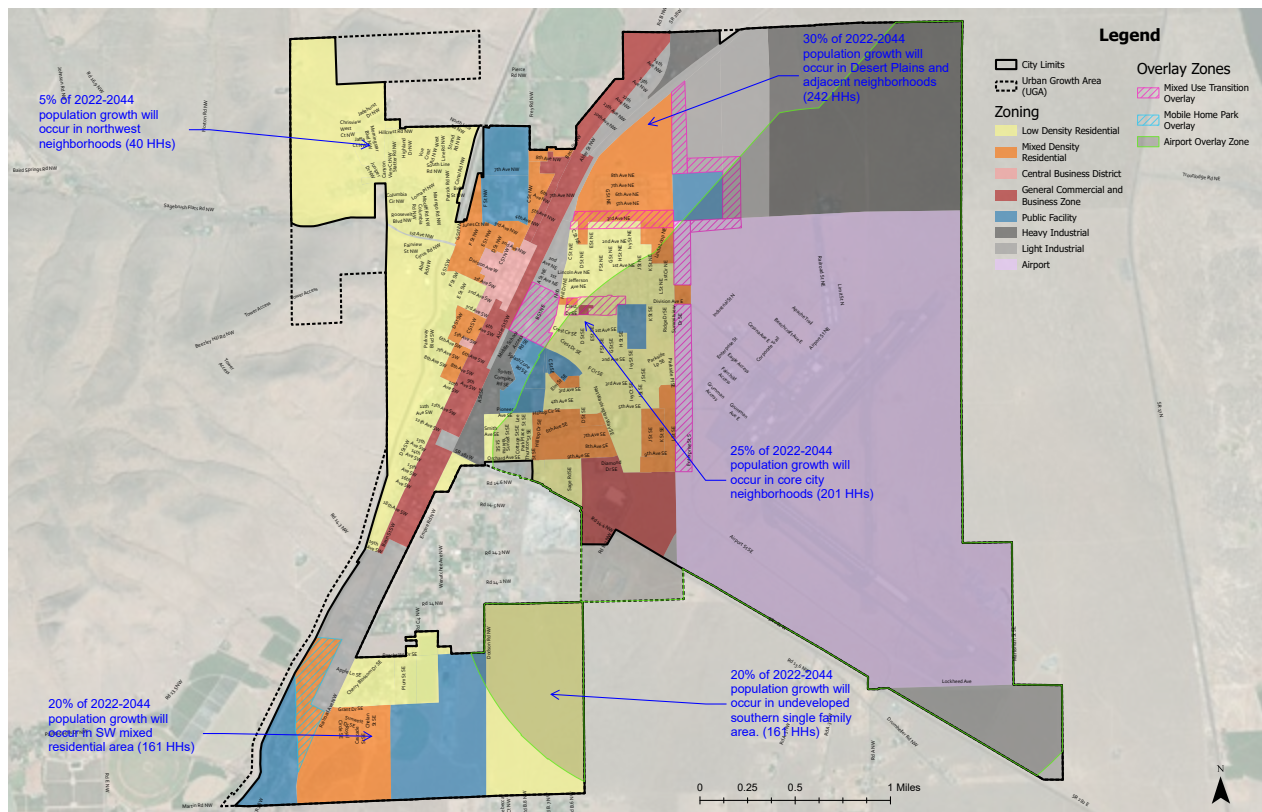


Figure 27. Population Growth Distribution Assumptions

Employment Growth

The City anticipates that most employment growth will occur in the following locations:

- Industrial development and associated employment is expected to continue to expand in the area around the port. Ephrata will coordinate with the Port of Ephrata to ensure this development benefits the general public and supports the health, safety, and welfare of the Ephrata community.
- Government-based employment is expected to make a shift from the current county campus in downtown Ephrata. Some county-based operations will likely remain in this location, but some are expected to move to new facilities near the jail site off of SR 282 and Rd B.3 NW.
- Commercial development (office and retail) and associated employment is expected to continue to grow at a steady rate along the SR 28 corridor and throughout Downtown Ephrata.
- The city should also anticipate

additional industrial development in the northeast part of town as infrastructure is extended to this area. As an industrial-zoned vacant area, it would be a major opportunity zone for future development once infrastructure and access are available.

- The city should anticipate future commercial growth near the corner of SR 282 and Nat Washington Way SE, as this area is zoned for General Commercial and is currently vacant. This area is directly across SR 282 from the new jail site, so future development of the jail site may spur interest in new commercial development across the highway.

Employment Growth Assumptions

Without further analysis of anticipated employment-based development, the City cannot project how much industrial and commercial land will develop by 2044, though it is assumed that commercial and industrial growth will continue to occur at a steady, but status-quo, pace, because

currently no significant changes are anticipated that will change this trajectory significantly. The results of the LQA point toward plenty of available land to develop commercial and industrial uses, so there are no concerns that there is, or will be in the next 20 years, insufficient land for employment-based uses at this time.

Public Facility Needs

The City of Ephrata identified the need for additional public facilities land. The Future Land Use map designates 1,037 acres of public facility lands (identified in Figure 28), which provide space for both current and future public needs including:

- ♦ Utility corridors
- ♦ Transportation corridors
- ♦ Landfills
- ♦ Sewage treatment
- ♦ Stormwater management
- ♦ Schools



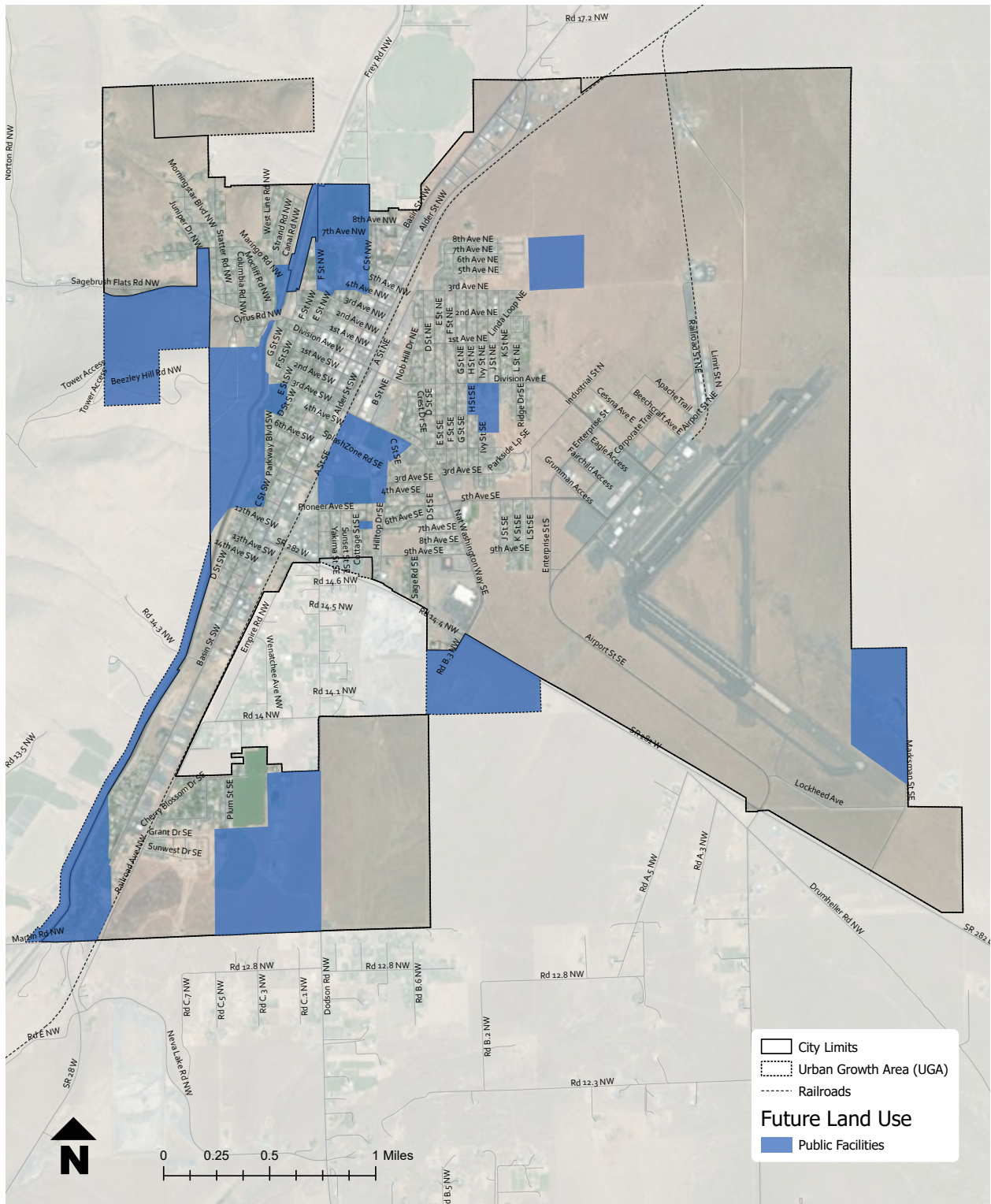


Figure 28. Public Facilities Lands

Open Space Needs

In addition to the public facilities listed above, Ephrata's public facility lands also designate areas for open space and recreation. Figure 29 shows Ephrata's parks and recreation areas, as well as the system of trails, bike lanes, and sidewalks that connect them. This active transportation network is discussed further in the Chapter 6.

Open space also serves a valuable purpose for preservation of critical areas and natural habitats. The critical area designations discussed in this chapter, and corresponding development code, will ensure that sufficient measures are taken in new development activities to preserve and connect habitats and critical areas.

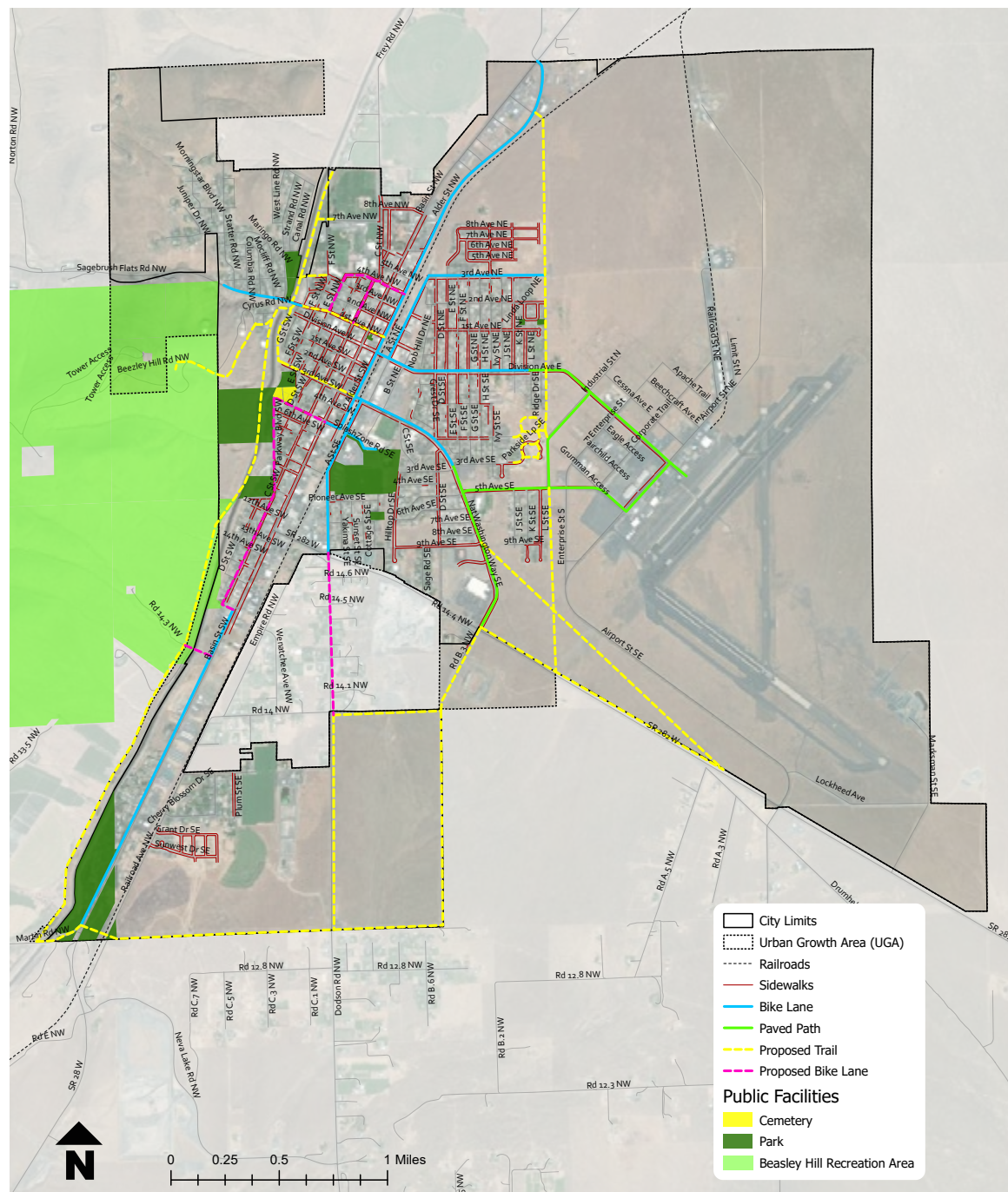


Figure 29. Open Space Corridors



Housing

The Housing Element addresses the current state and projected needs for housing in Ephrata.

5



EPHRATA
Washington



SCJ ALLIANCE

Existing Conditions

The baseline report discussed in Chapter 1 outlines many of the existing conditions for housing in the City of Ephrata. The main findings from the baseline report are listed in Table 26 below. Table 26 connects these findings to identified housing needs that will be addressed in this chapter.

Table 26. Ephrata Housing Existing Conditions & Needs

#	Baseline Report Findings	Identified Needs
1	<p>73% of Ephrata's housing units are detached single family homes. This is a higher rate of single-family homes than Grant County as a whole, which has only 56% detached single-family homes.</p> <p>The median age in Ephrata is 34 years old, which is similar to Grant County's median age of 33.9, but quite young when compared to Washington State's median age of 38.2.</p>	<p>Encourage more middle housing to increase housing options and supply.</p> <p>There is an additional need for family housing and housing that's affordable for younger, early-career professionals.</p>
2	<p>65% of households are owner-occupied, consistent with Grant County's numbers.</p>	<p>Maintain a balance between owner-occupied and renter-occupied housing. Aside from increasing middle housing, Ephrata can also encourage development of rental units, including ADU development.</p>
3	<p>The majority of Ephrata's 3,141 housing units were built before 1960, indicating that the housing stock is generally older.</p>	<p>Encourage maintenance of older neighborhoods and homes, which are generally more centrally located, and encourage new construction in strategic locations that are desirable (close to jobs, schools, transit, etc.) for new residents.</p>
4	<p>The median household income in Ephrata in 2021 was \$67,153, which is 8% higher than Grant County's median household income of \$62,227. Additionally, the median house price in 2021 was \$175,700 and the median rent was \$866, compared with the County's median house price of \$274,700 and median rent of \$991.</p>	<p>Ephrata is relatively affordable, though housing market data has changed even since 2021, and first-hand accounts indicate the need for additional focus on affordable housing.</p>
5	<p>Ephrata will need to accommodate roughly 2,189 new residents by 2044 – a 25.4% increase from 2022. This is approximately equivalent to the growth rate that Ephrata experienced over the 2000 – 2020 period (24.5%).</p>	<p>With an average household size of 2.72 people per household, 2,189 new residents will require approximately 805 new dwelling units by 2044. Ephrata should focus on accommodating this additional population through housing developments that do not result in the displacement of current residents.</p>



Residential Capacity

The LQA analyzed the amount of available land for new development, including land zoned specifically for residential purposes.

The LQA found that Ephrata has approximately 660 acres of capacity for new residential development. At the maximum density allowed in the LDR Zone (8 units per acre), that equates to approximately 5,280 new residential units. At Ephrata's average household size of 2.72, Ephrata has capacity for at least 14,361 new residents. The projected population will only need 805 new housing units by 2044.

Therefore, the LQA identified that **there is sufficient land for housing to meet the projected population**. The following section builds on the LQA findings to identify specific housing needs and how housing development could and should occur over the next 20 years.



Housing Needs

The identified needs in Table 26 are discussed below. The numbers in Table 26 correspond to the numbers of the following sections.

1. Encourage More Middle Housing

Ephrata identified the need to focus on development of more “middle housing”. Middle Housing (also called “Missing Middle Housing”) refers to homes that are on the building spectrum between single-family homes and large apartment buildings (see Figure 30 for examples). Middle Housing contributes to the diversity of housing options both in form and affordability, increasing the housing stock while catering to a variety of demographics including millennials and multigenerational households that are looking for smaller homes in walkable neighborhoods.



Figure 30. Missing Middle Housing Examples.

Source: missingmiddlehousing.com



By focusing on development of more middle housing, Ephrata will be able to supplement its high proportion of single-family homes with additional housing options for non-family households, single-parent households, senior citizens looking to downsize, younger populations, and low- and middle-income households.

Through the public outreach conducted in this planning process, Ephrata residents prioritized the need for senior housing, cottage housing, and townhomes, which all were preferred by more than 20% of the survey's 1,037 responses. There was also a significant response rate for mixed-use residential, apartments, and Accessory Dwelling Units (ADUs).

Zoning Changes

The 2023 revised zoning map for Ephrata aims to create more flexibility in Ephrata's residential zones, allowing for duplex development and ADU development in the Low Density Residential (LDR) Zone, and allowing a range of additional higher-density housing types in the Mixed Density Residential (MDR) Zone, including those preferred by the community (senior housing, cottage housing, and townhomes).

While the zoning map maintains some core single-family neighborhoods in Ephrata, the future land use map designates most of the central residential areas in the city as Mixed Residential, demonstrating that Ephrata is open to infill and re-development within its core neighborhoods, under the

proper circumstances and following the appropriate design guidelines to ensure consistency with neighborhood character.

The aim of the zoning code changes was to allow greater flexibility of housing types in order to more easily accommodate a range of housing including government-assisted housing, housing for moderate, low, very low, and extremely low-income households, manufactured housing, multifamily housing, group homes, foster care facilities, emergency housing, emergency shelters, and permanent supportive housing.

2. Encourage Rental Unit Development and ADUs

Ephrata saw a 36% increase in the median rent between 2016 and 2021 (ACS 5-Year Estimates Data). With rents rapidly increasing, Ephrata may want to consider strategies that will help increase the supply of rental properties and ADUs to help balance supply and demand.

Ephrata's code already allows for one ADU per dwelling unit out-right in all single-family residential zones. The code could go further, possibly relaxing certain design standards, to make sure ADUs are a more feasible option for more properties throughout the City. The City should develop a Housing Action Plan to explore these strategies further. In the meantime, the City can refer to the Department of Commerce's "Recommendations for Encouraging Accessory Dwelling Units" as a guide to shift its ADU policy.



3. Encourage Maintenance of Housing Stock and New Construction in Strategic Locations

The US Census OnTheMap Website shows that 2,568 people that are employed in Ephrata live outside of city limits, and 1,108 people are employed in and live in city limits (Figure 31). This data shows that Ephrata is an employment destination due to its status as the Grant County Seat.

As the city and the surrounding county grows, it is expected that the number of jobs within the city will also increase. As people get hired for jobs in Ephrata, it will be important that there are plentiful housing options for a range of new employees.

Therefore, it will be important to encourage new housing to develop in desirable locations such as those near major employment centers (like Grant County offices), schools, parks, and commercial centers. These areas are largely located within the core of the city near its most developed and historic neighborhoods. As the city grows, land use patterns will shift and expand, and as a result these desirable areas may also shift. However, the city also aims to avoid sprawling development, and has established policies in this comprehensive plan to concentrate new development closer to existing city services.

Ephrata's future land use map designates almost the entire core of the city's residential neighborhoods as "mixed residential" to provide for great flexibility in providing new housing types in close proximity to commercial areas, schools, parks, and employment centers. Ephrata should consider other studies and strategies that can help guide the city toward smart growth and away from sprawl.

4. Improve Affordability

In 2023, the Washington Department of Commerce released a Housing for All Planning Tool (HAPT) to help guide housing in Washington communities by providing a breakdown of housing needs by affordability category. Ephrata utilized the Grant County population forecast for 2044 provided by the Office of Financial Management's (OFM's) 2022 mid-level county population projections as the basis for the forecast. Ephrata assumed that its share of the county population would remain constant over the next 20 years at 8.47%.

Allocation Method A was used to generate the following breakdown of housing needs in Table 27. The 2022 Area Median Income (AMI) for non-metro areas in Washington State, according to the US Department of Housing and Urban Development (HUD) was \$79,600. The income range categories in Table 27 should be updated based on the most current data from HUD.

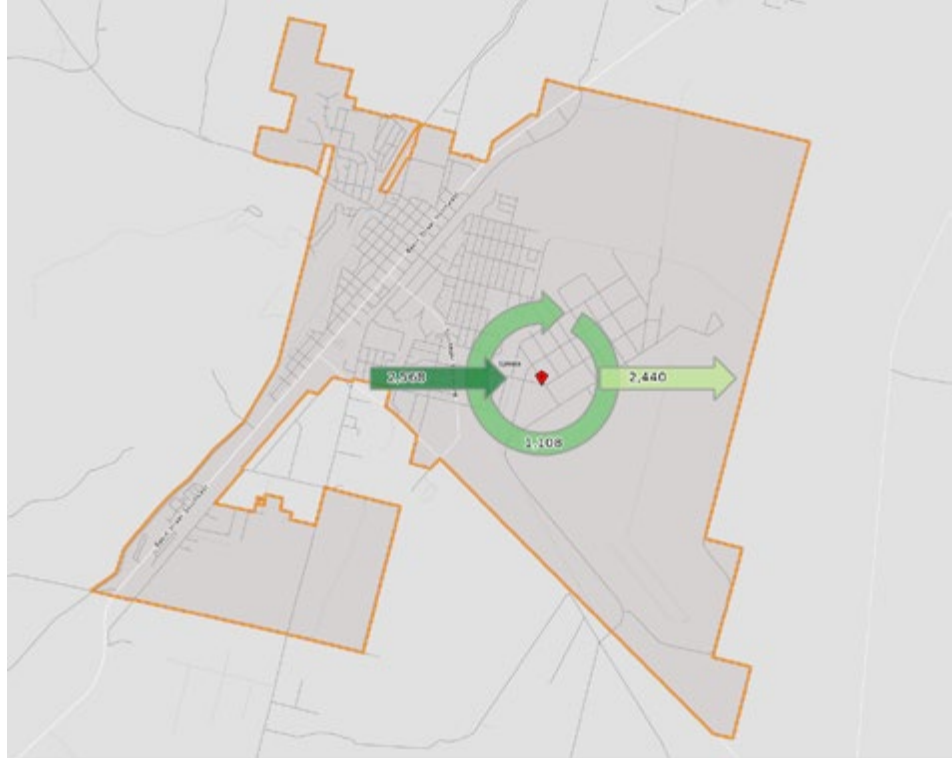


Figure 31. US Census OnTheMap Inflow/Outflow for Ephrata

Table 27. HAPT Allocation Method A

Permanent Housing Needs by Income Level (% of Area Median Income)									Emergency Housing Needs (Temporary)
	Total	0-30% Non-PSH	0-30% PSH	>30-50%	>50-80%	>80-100%	>100-120%	>120%	
Income Range (2022 AMI)	\$79,600	<\$23,880		\$23,880 - \$39,800	\$39,800 - \$63,680	\$63,680 - \$79,600	\$79,600 - \$95,520	>\$95,520	-
Estimated Housing Supply (2020)	3,342	242	0	859	1,521	383	87	249	0
Allocation Method A (2020-2044)	1,722	165	74	238	306	149	142	649	12

The HAPT analysis shows that Ephrata will need 1,722 new housing units by 2044. This differs drastically from the Comprehensive Plan's forecast of 805 new housing units (based on the population projection and average household size). To reconcile these differences, the percentage breakdown by income category of Commerce's HAPT results were applied to the Comp Plan's projection of housing units in Table 28. This provides a range of housing units that will be needed in Ephrata, by income category, by 2044.

About half (45.5%) of the projected new housing units needed over the next 20 years will need to be housing that is affordable for those with incomes below 80% AMI, meaning that Ephrata should aim to provide one affordable housing unit for every moderate- to high-income housing unit.

Table 28. Range of Additional Housing Units Needed by 2044

Housing Need Category	% of Need	Range (housing units)
PSH	4.3%	35 to 74
Below 80% AMI	41.2%	331 to 708
Above 80% AMI	54.6%	439 to 940
Emergency	-	6 to 12
Total (Non-Emergency)	100%	805 to 1722

5. Adopt Anti-Displacement Practices

The Social Vulnerability Index is a measure developed by the Center for Disease Control (CDC) that compiles US Census data to determine an overall social vulnerability of individual census tracts and counties. The CDC uses this information to identify which areas are most vulnerable to hazardous events such as natural disasters. However, the data it compiles also help signify areas that are more vulnerable to other risks, including those at risk of homelessness and displacement. The data it considers include:

- ♦ **Socioeconomic status** (below 150% poverty, unemployed, housing cost burden, no high school diploma, no health insurance)
- ♦ **Household characteristics** (aged 65 or older, aged 17 or younger, civilian with a disability, single-parent households, English language proficiency)
- ♦ **Racial and ethnic minority status** (Hispanic or Latino (of any race); Black and African American, Not Hispanic or Latino; American Indian and Alaska Native, Not Hispanic or Latino; Asian, Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino; Two or More Races,



Not Hispanic or Latino; Other Races,
Not Hispanic or Latino)

- ♦ **Housing type & transportation** (multi-unit structures, mobile homes, crowding, no vehicle, group quarters)

Nearly the entire City of Ephrata is inside one Census tract (53025010400), which has a Social Vulnerability ranking of 0.77 out of 1, which is a rating of “High” (see Figure 32). This means that there is a significant risk within the entire City of Ephrata for displacement and homelessness.

This emphasizes the need for the City to consider how efforts to increase the housing supply, provide affordable housing, and amend the zoning code will impact the current residents of Ephrata. The City should conduct a more fine-grained analysis to narrow down the most vulnerable parts of town (by Census Block Group or Block) and adopt measures that aim to protect current residents from potential displacement.

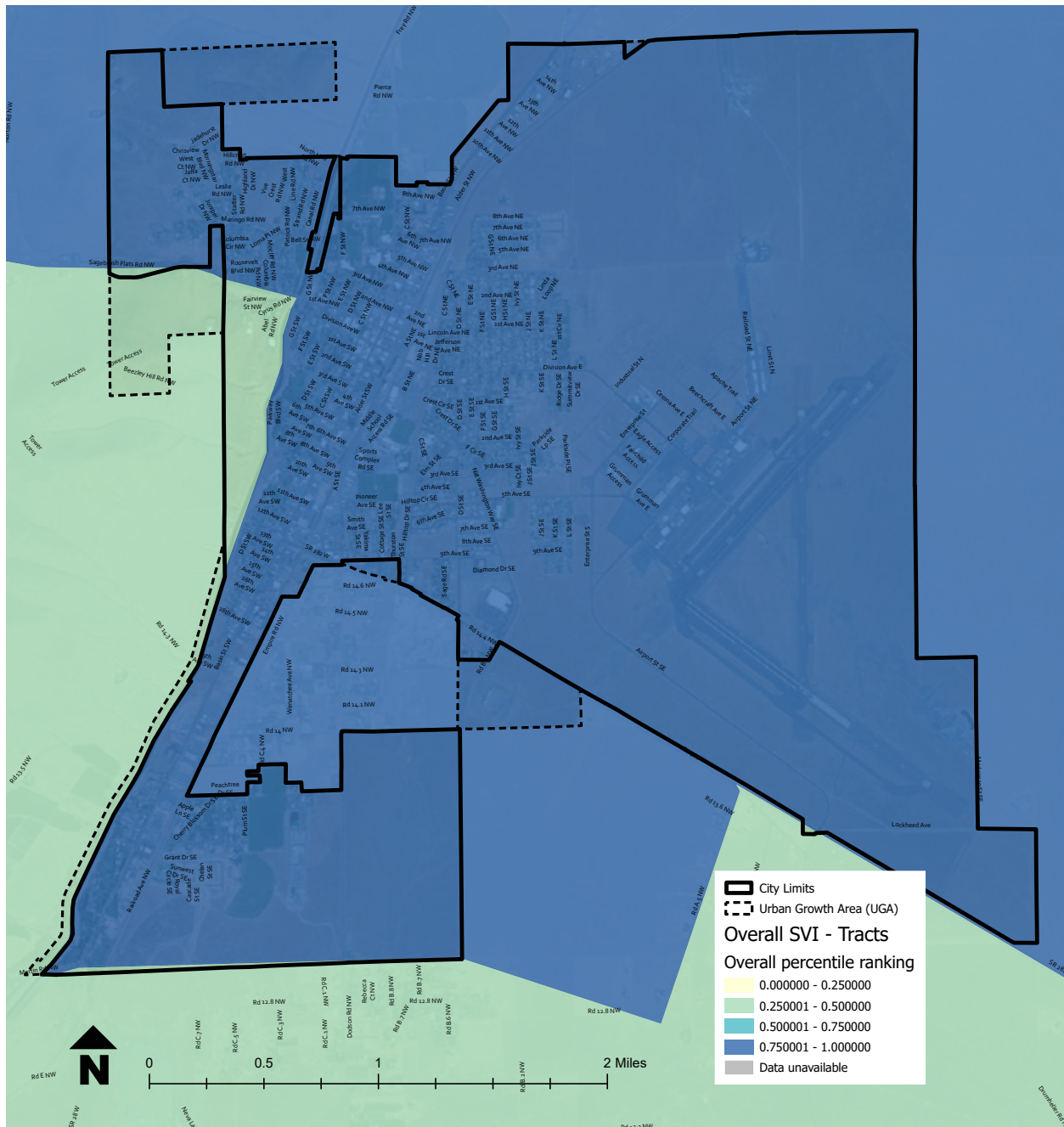


Figure 32. Social Vulnerability Index (SVI) Map of Ephrata



Transportation

The transportation chapter discusses the existing conditions of Ephrata's transportation systems, including the street network, active transportation network, freight network, and port systems. The chapter includes a traffic forecast and provides recommendations to ensure all modes of transportation are safe, efficient, and have capacity to serve Ephrata over the next 20 years.

6



Transportation in Ephrata

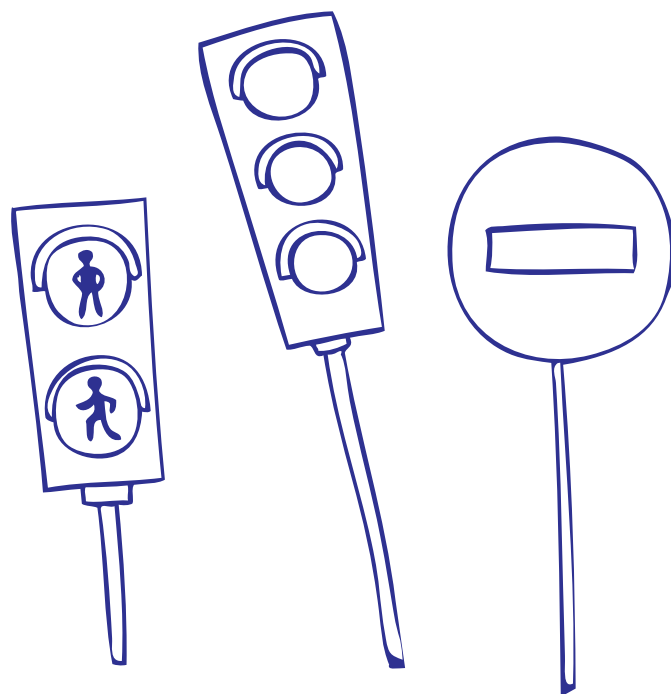
The City of Ephrata Transportation Plan (also referred to as the Transportation Element of the Comprehensive Plan) is based on materials included in the 2018 Transportation Element which have been updated largely to reflect recent land use and transportation planning efforts within the city and the region. The major outcomes of the Transportation Plan update include the following changes which have been incorporated into this chapter:

- ◆ Extends the planning horizon to 2044
- ◆ Identifies transportation needs based on expected land use patterns and community growth over the next 20 years
- ◆ Identifies the most valuable transportation system improvements that can be reasonably funded over the next 20 to 25 years.
- ◆ Identifies any changes needed to be responsive to the QuadCo Regional Transportation Plan (RTP)

It is anticipated that a more complete update to the Plan will be prepared within the next few years to accommodate an in-depth analysis and fully recognize the changing transportation system within the community. This plan largely focuses on assessing changes to the City's Street Network Plan and Active Transportation Plan including the development of a Complete Streets Policy, along with recommended improvements to address identified short- and long-term transportation needs. Minor changes are reflected in other plan elements including Goals and Policies, Public Transportation, Travel Demand Management, Freight Mobility and Aviation.

Purpose of the Transportation Plan

The purpose of the Transportation Plan is to address the motorized and non-motorized needs of the City of Ephrata and its surrounding Urban Growth Area (UGA) for the next 20 years. This plan has been developed in accordance with the County-Wide Planning Policies, and has been integrated with all other planning elements to ensure consistency throughout the Comprehensive Plan. The Transportation Plan specifically considers the location and condition of the existing traffic circulation system; the cause, scope, and nature of transportation problems; the projected transportation needs; and plans for addressing all transportation needs while maintaining established level of service (LOS) standards.



Street System Plan

The street system is the backbone of the transportation system in the City of Ephrata and its Urban Growth Area (UGA). Motor vehicle, bicycle, pedestrian, transit, and freight transportation all rely on the street system to varying degrees. Additionally, the street system provides access to Ephrata airport and existing rail facilities.

Streets and highways within Ephrata are owned and maintained by several jurisdictions including WSDOT, Grant County, and the City. Each jurisdiction is responsible for determining the road's functional classifications, defining its major design and multimodal features, approving construction and access permits, and maintaining the road in good operating condition. Coordination is required among the jurisdictions to ensure that the roads are planned, operated, maintained, and improved to safely meet public needs.

The Street System Plan for Ephrata is intended to document existing roadway characteristics, potential existing or future deficiencies and recommended improvements. Included in this section are the following:

- ♦ Identification of existing street classifications
- ♦ Characteristics of the existing street network including travel lanes and traffic control
- ♦ Existing and potential future traffic volumes on key facilities
- ♦ Evaluation of recent crash history to identify safety concerns
- ♦ Level of service standards and standards related to concurrency
- ♦ Synopsis of street system issues, problems, needs and deficiencies
- ♦ Street system recommendations for improvement, expansion, and enhancement

Street Classifications

The existing street system in Ephrata is composed of a series of roads that serve a variety of different destinations and functions. These classifications include:

Arterials

Arterial streets usually carry the heaviest traffic volumes within a community and most of it being traffic traveling through the urban area. As illustrated in Figure 33, the primary function of arterials is to move traffic at the expense of a higher level of land access. Often driveways are limited along arterial streets and intersections may be more widely spaced. Additionally, arterials may have more lanes than lower

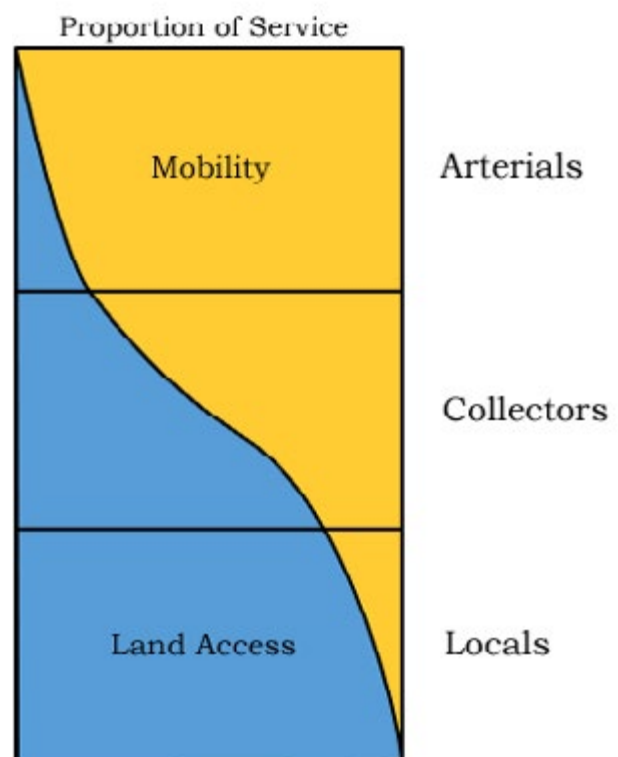


Figure 33. Relationship between Mobility and Land Access

order streets such as collectors or locals, and will most often have traffic control which encourages and facilitates the through movement of vehicles along the arterial. Ephrata includes two categories of arterials – principal arterials and minor arterials.

- ♦ **Principal Arterials** – examples of principal arterial streets within Ephrata include the state highways (SR 28, SR 282, and SR 283) as well as Nat Washington Way. These are the dominant streets within Ephrata whose primary function is to carry traffic through the community. They typically include a three-lane cross-section or two lanes with left channelization at key intersections. No on-street parking would typically be permitted along a minor arterial street and the facility would be designed to accommodate the movement of large vehicles. In Ephrata, a segment of SR 28 passes through the downtown portion of the community and, as such, on-street parking is permitted. In this area, the street has a dual function as both Principal Arterial and “Main Street” and is intended to serve as the commercial core of the community.
- ♦ **Minor Arterials** - Minor arterial streets also carry heavy traffic volumes, most of it traveling within the urban area, and they often connect Principal Arterials. Minor Arterials would differ from Principal Arterials in that they may have a narrower cross-section, often may not have separated turn lanes, and more frequently may permit on-street parking. Examples of minor arterial streets include C Street, Division Street, Alder Street, 1st Avenue NW and others.

Collectors

Collector streets link arterial and lower-order streets, serving both direct land access and traffic mobility functions. Driveways may be more frequent and traffic control is usually subordinate to arterial roads in that stop signs are placed on collectors to the advantage of traffic moving on arterials. Conversely, collector streets would provide the more important connection at intersections with local streets where stop signs would control

traffic access onto the collector from the local street. Examples of existing collector streets include A Street, D Street, H Street and F Street.

Local Streets

Local streets provide frequent access to adjacent property and connect to collectors to distribute traffic from neighborhoods to neighborhoods or between residential and commercial areas. Figure 34 presents the existing functionally classified road system in Ephrata with a focus on the arterial and collector streets systems. Local streets are not specifically indicated by color but are labeled.

Existing Roadway Network

The City of Ephrata and Urban Growth Area (UGA) are served by a comprehensive street system that is illustrated in Figure 34. Key elements of this street system are State Highways 28 and 282. As is typical of small communities, local development occurred where access to existing highway facilities was relatively easy. The City of Ephrata originally developed along Basin Street (State Route 28) and the Burlington Northern Railroad that runs through the center of the city in generally a north-south direction. State Route 28 connects to the City of Wenatchee which is located 55 miles west of Ephrata. State Route 28 is a heavily traveled tourist and recreation route through the City's Downtown area. This street also carries large volumes of local traffic that circulates along the concentrated commercial core of Ephrata.

As the community grew, extensive development occurred in the northeastern area of the City after the airport was constructed by the US Military for training bomber pilots during World War II. Division Street was constructed as a major arterial to access the Air Base. Development quickly occurred along this new street and other areas adjacent to the Air Base which survived the closure of the military facilities and decline of commercial airport activities.

The City of Ephrata and UGA is not divided by



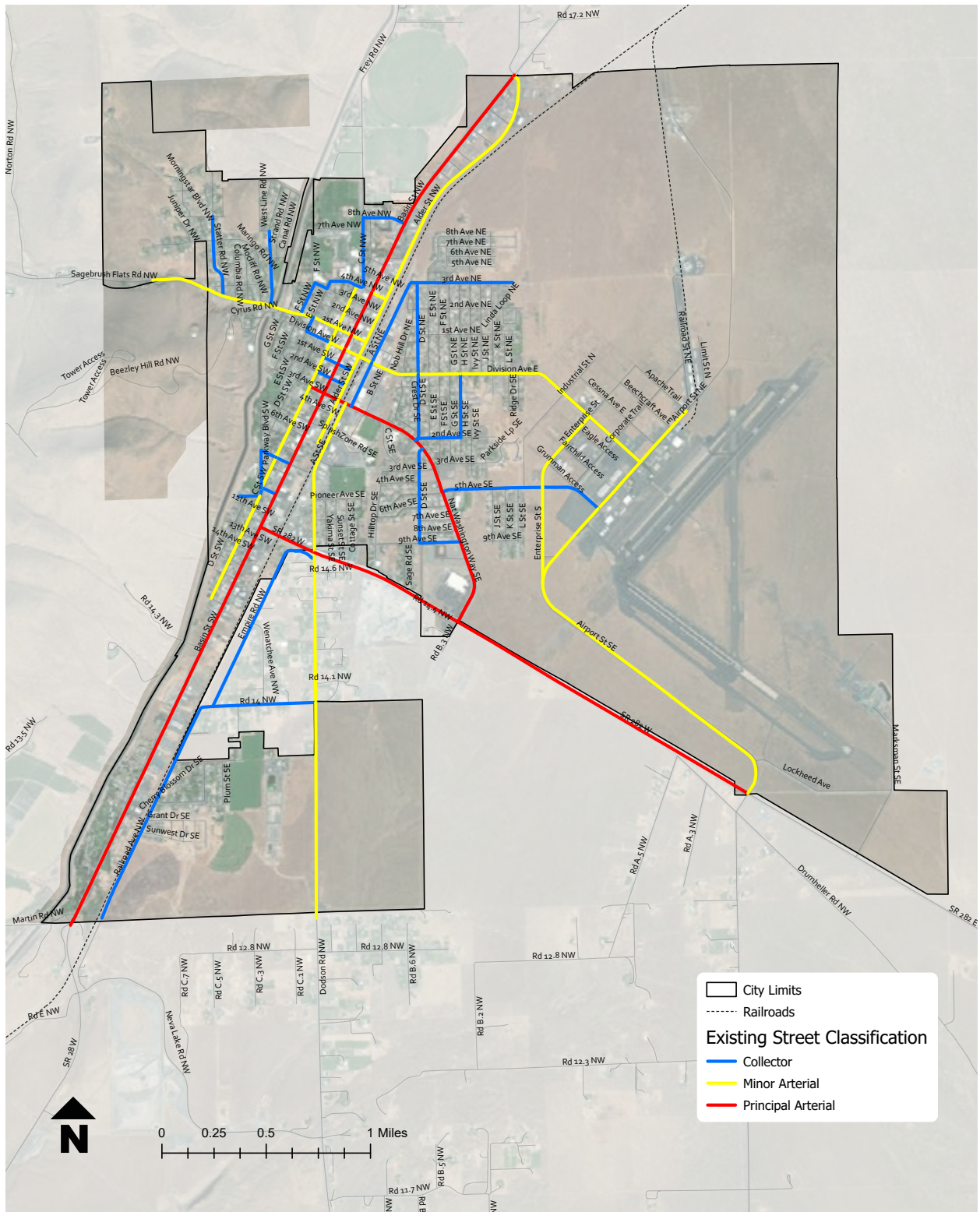


Figure 34. Existing Street Classifications & Network

a major east-west City Street, County Road, or State Highway. There are several east-west City Streets and County Roads that run basically half-way across the UGA, but none connecting for a complete route to carry traffic through the City and UGA. State Route 282 enters the southeastern section of Ephrata from the east and ends at Basin Street west of the overpass for the BNSF Railroad. State Route 283 provides access to Interstate 90 at the Town of George located 20 miles to the southwest. State Route 282 provides access to the region's major north-south highway, SR 17, four miles east of Ephrata. This provides a connection to the City of Moses Lake (16 mi) and I-90 (22 mi) to the southwest.

Sagebrush Flats Road comes into the northwest section of the City and transitions into 1st Avenue NW and enters the downtown area to an end at Alder Street adjacent to the railroad tracks. Division Street extends from the Airport Terminal on the east side of the City into the downtown area and ends at the main canal. 3rd Avenue SW/Nat Washington Way extends from the downtown area in a southeast direction to SR 282 on the outskirts of the City between existing development and the airport.

Washington State Department of Transportation is responsible for Highway 28 and 282 and coordinates with the city at intersections with city streets. Grant County and Ephrata work jointly to maintain roads within existing areas of developed Urban Growth Areas.

Existing Street Conditions

A general physical condition survey of the Ephrata and UGA street, road and highway system is shown in Figure 35. The street conditions have been rated simply as GOOD, FAIR, and POOR based upon physical appearance during a "windshield survey". This assessment does not include any detailed evaluation of the physical characteristics or construction quality of facilities. Additional planning should be undertaken to provide the needed information.

As of 2023, there were 50.61 miles of city

streets in Ephrata. Of this, 48.73 miles were paved and 31.64 miles were classified as being in "Good" condition as of December 2022. 14.76 miles were considered to be in "Fair" condition and 2.33 miles were considered "Poor". The remaining 1.88 miles were surfaced in gravel. 6.85 miles of these streets within city limits are state routes (SR 28 and SR 282).

In the past, the City of Ephrata has made major efforts towards maintaining the City Streets. A program was carried out for many years to seal cracks and seal coat the surface of all streets over a seven year cycle which resulted in good quality street facilities throughout the City. WSDOT has maintained and upgraded the state highway facilities and Grant County continues to maintain the county roads serving the Ephrata area.

During the past few years street funds were directed to other street projects and the City has not been able to keep up its annual city street maintenance program. This has resulted in serious deterioration of some streets that the City will not be able to remedy with the resumption of the regular maintenance program that was so successful in the past. In addition, new development is generating additional traffic on many streets which will result in more rapid deterioration if the streets are not repaired very soon.

Ephrata worked on a Street and Utility maintenance program that is intended to replace aging sewer and water lines throughout the City. As a side benefit to this utility service upgrade, the City will repair and or replace the existing street improvements as the underground facilities are upgraded.

The City is also working with the Port of Ephrata to purchase and maintain crack filling equipment for continued maintenance of all roads and airport facilities once the improvements are made.

A segment of any facility that is new, recently paved or the condition does not warrant inclusion in a maintenance project for the current 6- year (short-range) Street Improvement Program is rated as GOOD. However, this rating does not preclude the possible need to upgrade or improve a facility to accommodate higher traffic volumes or heavy truck traffic.



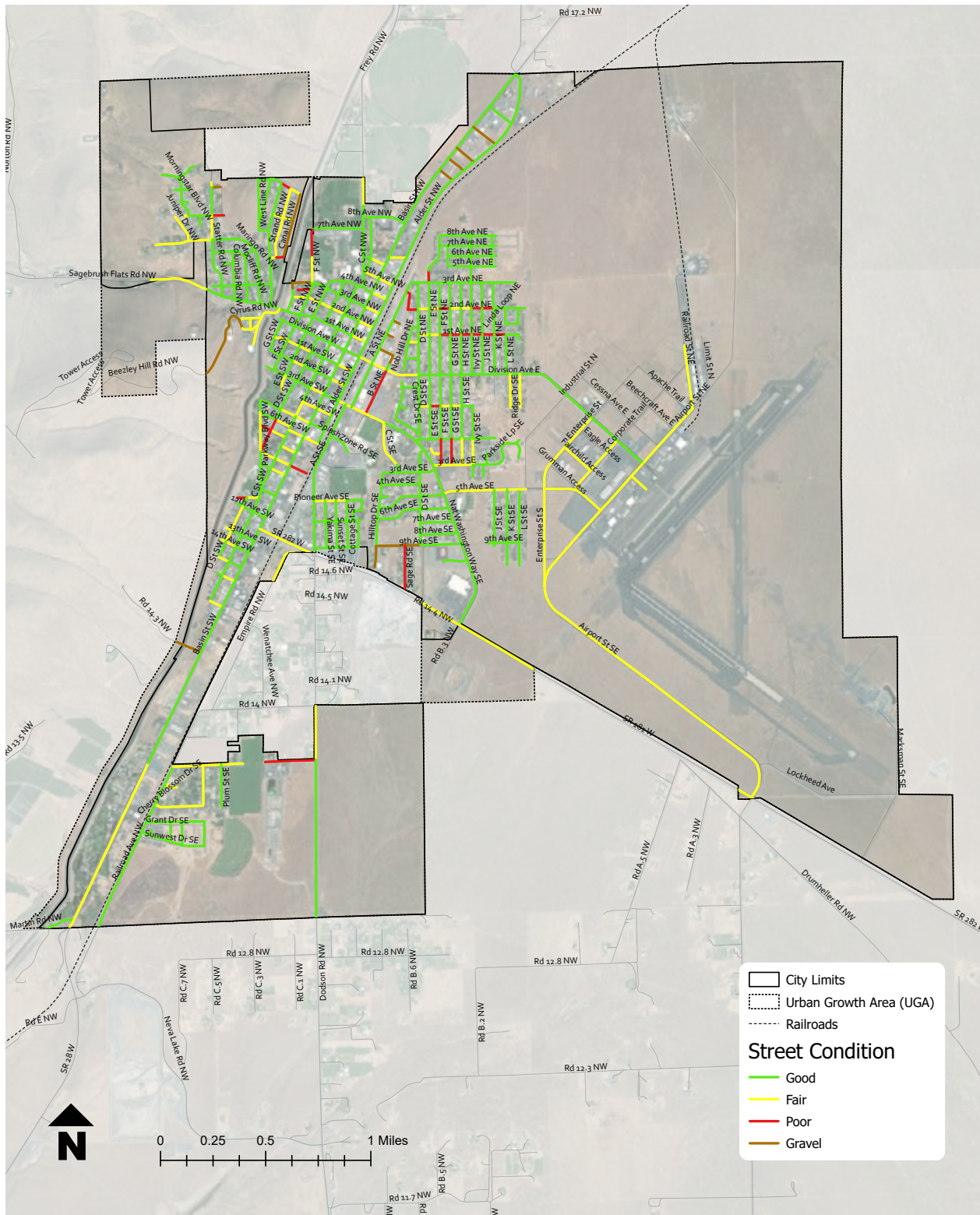


Figure 35. Existing Street Conditions

The segments of facilities where the pavement is beginning to deteriorate, but can be saved with minor repairs, filling cracks and seal coating the surface have been rated as FAIR In Figure 35.

Where a segment of any facility has deteriorated beyond saving with minor repairs and maintenance it is rated POOR. This classification indicates that the facility will require a major repair or resurfacing project to restore it to a safe/efficient traffic carrying facility. It should be noted that, as of 2018, the majority of the system rated as POOR was rapidly deteriorating and needed to be included in a maintenance project within the next year or two to avoid major repairs or a complete repaving project. There are only a few streets in this category that might hold up long enough to be include at the end of a "seven year" maintenance program. The costs of these projects are much higher than the City's normal maintenance budget can handle. However, planning should continue in order to develop realistic cost estimates and identify financial resources to pay for restoration of these street facilities.

Existing Bridges

The city is located in an arid area without permanent creeks or rivers requiring bridge crossings. The area drainage system does not have permanent flowing streams. The city's main water feature is the U.S. Bureau of Reclamation's large West Canal. This main irrigation canal runs north-south through the western part of the City and the UGA. The large bridge at the culvert/siphon crossing of the main canal is the only access to the northwestern section of the city, (Grandview Heights). A second bridge crossing the

canal is in the Southwest section of town. This bridge crosses outside the city limits to Ephrata Well #4 and to a few relatively undeveloped properties. The bridge replaced a one lane wooden bridge built at the time of the canal construction and is sufficient in size for normal city street traffic.

There is also a bridge on SR 282 that provides grade separation from the BNSF tracks 0.09 miles to the east of the roadway intersection with SR 28. This bridge was built in 1959 and is included in the National Bridge Inventory System. According to WSDOT records the bridge is generally in Fair condition.

Level of Service Standards and Concurrency

The Washington State Growth Management Act (GMA) requires the development of traffic operating performance metrics to evaluate current and expected future system performance and to identify when improvements are necessary. These performance metrics are known as Level of Service (LOS) Standards and are defined as presented in Table 29.

Level of service categories range from A to F and are correlated to the average delay experienced by a vehicle at an intersection. Typically operations at an intersection control operations and the level of delay experienced for a roadway segment although LOS can also be applied to roadways. LOS ranges from A with little or no delay to LOS F with extensive delay that is considered to be intersection failure.



Table 29. Level of Service Criteria for Intersections			
Level of Service	Signal-Controlled Average Control Delay (seconds/vehicle)	Stop-Controlled or Roundabout Average Control Delay (seconds/vehicle)	Description
A	≤ 10	≤ 10	Conditions of free unobstructed flow, no delays, and all signal phases sufficient in duration to clear all approaching vehicles.
B	> 10-20	> 10-15	Conditions of stable flow, very little delay, a few phases are unable to handle all approaching vehicles.
C	> 20-35	> 15-25	Conditions of stable flow, delays are low to moderate, full use of peak direction signal phases is experienced.
D	> 35-55	> 25-35	Conditions approaching unstable flow, delays are moderate to heavy, significant signal time deficiencies are experienced for short durations during the peak traffic period.
E	> 55-80	> 35-50	Conditions of unstable flow, delays are significant, signal phase timing is generally insufficient, congestion exists for extended duration throughout the peak period.
F	> 80	> 50	Conditions of forced flow, travel speeds are low and volumes are well above capacity. This condition is often caused when vehicles released by an upstream signal are unable to proceed because of back-ups from a downstream signal

Source: Highway Capacity Manual, 6th Edition

Level of Service Standards

To respond to the requirements of the Washington GMA, the City of Ephrata has identified Level of Service D as the minimum level of performance that is acceptable within the community. If intersection delay exceeds LOS D, then it is necessary for improvements to be identified and constructed that return operations to LOS D. These level of service standards are consistent with those identified by both Grant County for urban roads and QuadCo, the four county Regional Transportation Planning Organization to which Ephrata belongs. The QuadCo standards are identified in the Regional Transportation Plan and primarily govern roads of regional significance such as state highways. For Ephrata this includes SR 28 (Basin Street) and SR 282.

Concurrency

The level of service standards are used to implement the provisions of the City's concurrency ordinance. This ordinance is required by GMA and provides the guidance necessary to determine when the street system has sufficient capacity to accommodate both existing and future development at the desired performance level. As specified in the GMA, new development will be prohibited within the city unless transportation improvements or strategies to accommodate the traffic impacts of that development are made "concurrent" with the development. Concurrent is defined as such improvements or strategies being in place or financially committed within six years of the development's opening year.



Existing Traffic Volumes and Deficiencies

The state highway system carries high volumes of traffic to and through the Ephrata area. These highways provide connections to other communities in Grant County, such as Moses Lake and access to major state and national recreation facilities a short distance from the City at Sun Lakes, Banks Lake, Grand Coulee Dam and Lake Roosevelt. The areas with the highest traffic volumes in the city are on Basin Street where the street has three (3) lanes and traffic signals to manage this high volume of traffic.

Table 30 presents the daily traffic volume data provided by WSDOT for the state highways within the city. A detailed traffic count program was not undertaken for this Transportation Plan Update due to the time constraints affecting its preparation. The data in the table shows that substantive increases in traffic have been taking place along certain highway segments since 2011. Growth has been particularly noticeable along SR 282 east of SR 28 and on SR 28 in the vicinity of SR 282 as well as south of the city.

The data in Table 30 has been normalized to reflect 2022 daily traffic conditions based on trended growth from actual traffic counts and volumes estimated by WSDOT. By bringing the data to 2022, base year information is

consistent with the land use analysis prepared for the Comprehensive Plan.

Table 30 also includes an estimate of daily vehicle service volumes at LOS D for each roadway segment. This is not a roadway capacity estimate which is based on delay, but reflects the likely volume of traffic that could be accommodated at the desired level of service. These estimates are based on an analysis approach researched and developed by the Florida Department of Transportation and has been used for sketch level transportation planning for many years by jurisdictions across the United States. This data has been compared to daily roadway capacity values used by Grant County and published in their Transportation Plan for various rural two-lane roadway conditions around the County (but not in Ephrata) and is slightly higher.

It should be noted that the operational analysis included in Table 30 is preliminary and very generalized. It illustrates the expectation that, broadly speaking, all street segments evaluated in Ephrata are currently operating within LOS D parameters. This analysis would be substantially improved through the collection of peak hour turning movement counts that could have been evaluated using the procedures identified in the latest edition of the Highway Capacity Manual. Based on this analysis more definitive conclusions can be reached about current congestion problems and appropriate solutions.



Table 30. Daily Traffic Volumes and Analysis for State Highways

Highway/Segments	2011	2014	2017	2022	Estimated Service Volume ³	Over/Under LOS D Threshold
SR 28						
After Martin Road	7,290 ¹	7,867 ¹	8,986 ²	9,018 ²	18,900	Under
Before SR 282	10,162 ¹	11,075 ¹	12,699 ¹	11,251 ²	18,900	Under
After SR 282	11,154 ¹	12,106 ¹	12,654 ¹	11,825 ²	18,900	Under
After 1st Avenue NW	9,024	9,594 ¹	9,775 ¹	9,619 ²	18,900	Under
After 7th Avenue NW	6,825 ¹	6,906 ¹	7,377 ¹	7,596 ²	18,900	Under
SR 282						
After SR 28	7,990 ¹	8,357 ¹	8,732 ²	8,702 ²	18,900	Under
After Dodson Road	-	8,031 ¹	8,392 ¹	8,641 ²	18,900	Under
Before SR 17	6,350 ²	6,827 ¹	7,088 ¹	7,299 ²	18,900	Under

¹ WSDOT TCD Count² WSDOT TCD Estimated Count³ Service volumes at a specified level of service based on method and values developed by the Florida Department of Transportation. Data represents LOS D. Values above LOS D threshold represent expected roadway failure.

Recent turning movement counts for the intersection of SR 282 and Nat Washington Way were obtained from a Traffic Impact Study prepared for the Grant County Correctional complex to be situated adjacent to the intersection of SR 282 and Nat Washington Way. Counts were taken for four time periods including the 6 AM and 6 PM facility shift changes and the roadway system AM and PM peak hours. Coupled with expected jail traffic, this count data shows PM peak hour traffic levels along SR 282 of 850 two-way vehicles west of Nat Washington Way and 730 two-way vehicles east of Nat Washington Way. Analysis of PM peak hour intersection operations with the addition of the new jail indicate that

LOS E conditions would be experienced for the north and southbound left turning movements. This exceeds the LOS standard for an urban state highway of LOS D necessitating an intersection improvement. WSDOT is currently planning installation of a roundabout at this intersection and operations would improve to LOS A.

Crash History

Crash data for the past five years has been assembled from WSDOT and is summarized for the City of Ephrata in Table 31. This table focuses on identifying the total number of crashes occurring within the planning area by level of severity.

Table 31. Ephrata Crash Data by Severity (2017-2021)

Description	Fatal	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	Unknown	Total Crashes
Citywide Crashes	2 (0.4%)	7 (1.2%)	36 (6.3%)	74 (12.8%)	446 (77.4%)	11 (1.9%)	576

As indicated in Table 31, there were 576 recorded crashes in Ephrata over the most recent five-year period for which data is available (January 1, 2017 through December 31, 2021). This equates to about 115 crashes per year or an average of one every three days. Two fatalities occurred during the five year period which will be described below. Additionally, there were



seven serious injury crashes. Together, these two categories of crash severity represent the severe crash history of the City. In accordance with Washington States Target Zero approach to crash reduction, these are the types of crashes that are of greatest concern for a community.

Table 32 presents a more detailed summary of severe crashes in Ephrata along with the five-year crash history for vulnerable users which include primarily bicyclists and pedestrians. Vulnerable users are so named as they can experience catastrophic consequences from even relatively low

speed crashes that may not result in significant vehicle damage.

As shown in Table 32, nearly all of the severe and vulnerable user crashes occurred on or adjacent to SR 28 (Basin Street). Both of the fatalities involved pedestrians, one on C Street in the vicinity of 10th Avenue SW and the other on 11th Avenue SW at Basin Street. Out of the total of nine severe crashes two involved pedestrians (the fatalities) and two involved bicyclists (resulting in serious injuries). A total of 15 crashes involved vulnerable users. This represents a total of about 13 percent of all injury or fatal crashes in the City.

Table 32. Ephrata Severe Crashes and Vulnerable Users (2017-2021)

Location	Fatal Crashes	Serious Injury Crashes	Total Severe Crashes	Vulnerable Users	Description
C Street in vicinity of 10th Avenue SW	1	0	1	1	Vehicle going NB and hit pedestrian walking on street shoulder. No sidewalk in this location.
11th Avenue SW at Basin Street (SR 28)	1	0	1	1	Vehicle making SB left turn and hit pedestrian in intersection. Vicinity of Safeway.
SR 28 at MP 47.87	0	1	1	0	Driving under the influence of drugs
SR 28 at MP 47.88	0	1	1	0	Driving under the influence of alcohol
SR 28 at MP 47.92	0	1	1	0	Ditch
SR 28 at MP 47.94	0	1	1	0	Left turn
SR 28 at MP 47.94	0	1	1	1	Hit bicyclist
SR 28 at MP 47.94	0	1	1	1	Hit bicyclist
SR 28 at MP 47.94	0	1	1		Rear end
SR 28 at MP 47.58	0	0	0	1	Minor injury of pedestrian
SR 28 at MP 47.65	0	0	0	1	Minor injury of pedestrian
SR 28 at MP 47.65	0	0	0	1	Minor injury of pedestrian
SR 28 at MP 47.63	0	0	0	1	Minor injury of bicyclist
SR 28 at MP 47.79	0	0	0	1	Minor injury of bicyclist
SR 28 at MP 47.87	0	0	0	1	Minor injury of bicyclist
SR 28 at MP 47.46	0	0	0	1	Possible injury of pedestrian
SR 28 at MP 47.50	0	0	0	1	Possible injury of pedestrian
SR 28 at MP 47.56	0	0	0	1	Possible injury of pedestrian
SR 28 at MP 47.57	0	0	0	1	Possible injury of pedestrian
SR 28 at MP 47.36	0	0	0	1	Possible injury of bicyclist
Total:	2	7	9	15	

Note: MP means highway milepost.





The extent of crash history involving severe crashes is indicative of the need to further study and evaluate potential improvements that could address this problem. This could be accomplished through preparation of a Local Road Safety Plan (LRSP) for which the city could receive funding from WSDOT. Once projects are identified in a LRSP, the city could then seek competitive funding for improvements.

Traffic Forecasts

In addition to evaluating existing traffic performance and state and local facilities within the City, GMA also requires consideration of the traffic impacts related to community growth. As indicated in the evaluation of existing traffic conditions, the development of this plan occurred over a very short time horizon which did not allow for the collection of any significant level of traffic counts or operational analysis to identify specific system deficiencies. As existing traffic counts form the basis for future forecasts, the analysis presented in this discussion will need to be limited to locations where data is available or can reasonably be estimated.

The traffic volume forecasts presented and discussed in this section were prepared by relying on a combination of trend growth (based on past experience primarily with traffic moving through the community) and localized growth.

Trend Growth in Traffic

Building on the estimated 2022 daily traffic counts presented in Table 30, estimates were prepared of 2044 daily traffic volumes along SR 28 and SR 282 in the study area. These estimates were developed by identifying the annualized growth rates for each roadway link using count data and

annualized estimates available from WSDOT between 2008 and 2022. The annualized rates ranged from a high of over 1 percent per year to a low of little or no growth, depending on location. For purposes of this plan, an annualized background traffic growth rate of 0.093 percent per year was assumed. This rate is reflective of traffic growth near the north end of the community and is expected to most closely represent through traffic movement. Daily background traffic forecasts for 2044 are presented in Table 33.

Assumed Community Growth to Planning Horizon Year 2044

Analysis of the transportation system implications of community growth is based on the future land use map. In the aggregate, the land use assumptions include estimates of both population and employment growth within the city limits as follows:

- ♦ **Population growth:** total population growth is estimated at 25.4 percent over the planning period between 2022 and 2044. This equates to growth from the 2022 population estimate of 8,620 persons to a 2044 estimate of 10,809 persons. With an average household size of 2.72 persons, a total of 805 new households are expected. This was translated into dwelling types including an estimated 242 multifamily units and 563 single family units.
- ♦ **Employment growth:** the buildable lands analysis conducted for the area within the city limits identifies a total of 1,866 acres of commercial and industrial zoned land that would be available for development. It is anticipated that the growth of



employment and its associated land uses would be roughly comparable to the growth in population for the study area. It is not anticipated that Ephrata would see a substantive pattern of traffic growth related to trips coming from outside of the community (other than what has already been accounted for in the trend growth analysis discussed above).

A sketch planning approach was used to convert expected growth in community land use into future year traffic volumes on the state highways in Ephrata. This approach relied on two different sets of assumptions based on the expected growth in residential and employment-related development. This led to both a low and high range of projected 2044 daily traffic volumes in the city.

Low end traffic projections were based primarily on the more exacting forecasts of likely population and associated residential development within the community consistent with the Comprehensive Plan. To identify this traffic growth, a comparison was made of the existing and expected future number of residences and their associated daily trips using ITE single and multifamily trip generation rates. Based on this comparison an annualized growth rate of 0.954 percent was obtained for the community as a whole. The low end, residentially-based trips include commuter trips to the expected employment uses within the community that are typically made during the AM and PM peak hours. The low end forecasts for various segments of SR 28 and SR 282 in Ephrata are presented in Table 33.

High end traffic projections were based on the knowledge that, while some of the employment-based trips that could be expected with both existing and future development in the community would be accounted for in the residentially based trip analysis, there exists the potential for a substantial number on “non-home based” trips that could occur between the various employment land uses.



Table 33. 2044 Traffic Projections and Analysis for State Highways							
Highway/Segments	2022	Low End Growth to 2044 ²	High End Growth to 2044 ³	Estimate Service Volume at LOS D ⁴	Over/Under LOS D Threshold	Screenline Service Volume ⁵	Over/Under LOS D Threshold
SR 28							
After Martin Road	9,020 ¹	11,300	15,500	18,900	Under	18,900	Under
Before SR 282	11,250 ¹	14,100	19,300	18,900	Over	18,900	Under
After SR 282	11,825 ¹	14,800	20,300	18,900	Over	34,900	Under
After 1st Avenue NW	9,620 ¹	12,100	16,500	18,900	Under	34,900	Under
After 7th Avenue NW	7,595 ¹	9,500	13,000	18,900	Under	34,900	Under
SR 282							
After SR 28	8,700 ¹	10,900	14,900	18,900	Under	18,900	Under
After Dodson Road	8,640 ¹	10,800	14,800	18,900	Under	18,900	Under
Before SR 17	7,300 ¹	9,100	12,500	18,900	Under	18,900	Under

¹ WSDOT TCD Estimated Count. Numbers rounded to the nearest five.

² Based on an assumed background (through) annualized traffic growth rate of 0.093 percent and an estimate of traffic attributable largely to residentially based community growth. The latter assumes an annualized traffic volume growth rate of 0.954 percent. Numbers rounded to the nearest 100.

³ Based on the 0.093 percent annualized background traffic growth rate plus an annualized traffic volume growth rate of 2.422 percent which includes both residential (Home-based) and employment (Non-Home based) growth.

⁴ Service volumes at a specified level of service based on method and values developed by the Florida Department of Transportation. Data represents LOS D. Values above LOS D threshold represent expected roadway failure.

⁵ Screenline service volumes are based on the estimated ability of key parallel transportation routes to accommodate an aggregate of north/south traffic in the study area. The development of service volumes is based on two key elements – the state highways and the local street system as described in the body of the report.

Examples would be work-to-personal business, school-to-shop, shop-to-recreation, and other such trip combinations. Areawide travel demand models include both home-based and non-home based trips of which the former may be approximately 1/3 of total trips and the latter around 2/3rds. To account for these non-home based, the annualized growth rate developed for residentially based trips was increased to 2.422 percent. This growth rate includes both the 0.954 percent for residential trips (1/3 of the total) and 1.468 percent for non-home based trips (2/3 of the total). The high end growth rate is also presented in Table 33 for each highway segment. This approach assumes that traffic growth on the state highway would increase in a manner that is roughly proportional to its existing share trip-making in the community.

Future Traffic Deficiencies

Based on the daily volumes presented in Table 33, a comparison can be made between projected 2044 daily traffic volumes and the total volumes representing LOS D to determine if there is a potential for significant congestion during the planning period. As indicated in the table, it is expected that with the high end daily traffic projections SR 28 in the vicinity of SR 282 could experience significant congestion problems by 2044. However, this analysis does not recognize the effectiveness that potential local roadway improvements or additions might have on reducing congestion along the state highway. If the addition of a new north/south arterial between SR 28 at approximately 14th Avenue NW and 5th Avenue SE is included in the analysis, the potential diversion of local traffic between employment and residential areas on the east side of the city could substantially reduce the need



for improvements along the state highway. The effect of adding this new north/south roadway is shown by the increase in service volumes across both facilities (referred to as “screenline service volumes” in the table). With this added roadway capacity it is anticipated that there would likely be sufficient north/south roadway capacity to accommodate future daily traffic volume growth in the study area through the 2044 planning period.

System Issues

Other than with a review of crash history in Ephrata, the study area has been limited to SR 28 and SR 282 due to the lack of traffic data in other locations throughout the city. Key issue identified included:

- ◆ Crash history including crashes involving vulnerable users
- ◆ Future traffic operations on SR 28
- ◆ Problem location at SR 282 at Nat Washington Way expected by the 2025 PM peak hour with construction of a new County jail.

Safety

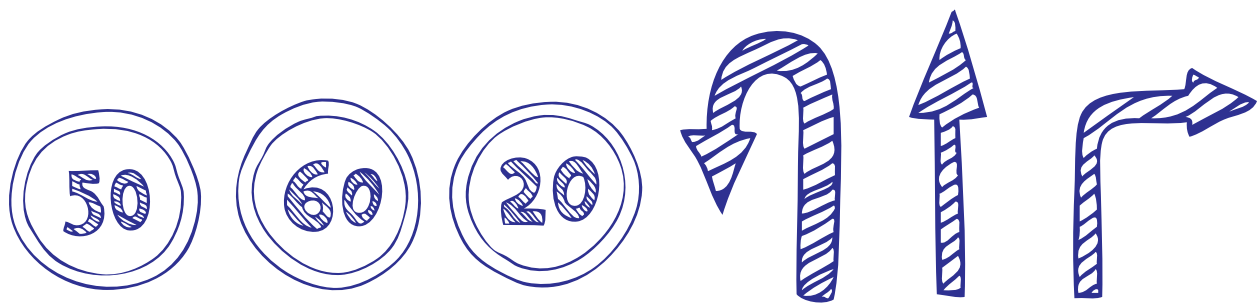
Of the 576 recorded crashes during 2017-2021, two were fatalities which involved pedestrians. Seven other serious injury crashes occurred, two of which involved bicyclists. A total of 15 crashes involved vulnerable road users (primarily pedestrians and bicyclists), representing a total of about 13 percent of all injury or fatal crashes in the city.

Future Traffic Operations

Few existing congestion problems were identified in the city based on the level of data available for analysis in this planning study. However, future traffic levels based on Comprehensive Plan land uses indicate that there may be significant congestion on SR 28, particularly in the vicinity of the intersection with SR 282. Development of a new north/south arterial road to serve the major growth areas of the community would significantly help to reduce the traffic impacts of growth on this state highway. More detailed traffic counts (including both hourly directional link volumes on local streets and peak hour turning movement counts at key intersections) would be necessary to explore future traffic operational issues in any greater detail.

Short-Term Traffic Operations

A new County jail has been proposed adjacent to the intersection of SR 282 and Nat Washington Road with opening set to occur in 2025. Based on traffic analysis of this development, traffic at this intersection is expected to operate at LOS E after completion of the jail, necessitating intersection improvements. As indicated in the Traffic Analysis prepared for the project, construction of a roundabout is currently under consideration by WSDOT at this location. Implementation of this improvement would result in LOS A operations.



System Recommendations

Recommended street system improvements focus on both physical improvements and policy or planning recommendations. These are described below.

Future Functional Classification of Streets

Changes from the City's existing standard cross-section for functionally classified streets are shown in Figure 36. This figure identifies potential future roads to serve the development expected within the community based on Comprehensive Plan land use designations. In particular, a new north/south minor arterial road is identified between a future connection to SR 28 at approximately 14th Avenue NW and 5th Avenue SE. From that point south the new road would connect to the currently designated minor arterial, Enterprise Street SE and Airport Road SE. A minor arterial connection is also recommended between the north/south arterial and Nat Washington Way approximately opposite the location of the existing Walmart completing a full and direct connection to SR 282. This connection would continue south into the future development area at the south end of the city.

The proposed north/south arterial would require a new crossing of the BNSF mainline railroad. At this time, it cannot be determined whether this would be an at-grade crossing or a grade-separation. Further planning studies are necessary to determine the ultimate alignment of this road, the nature of the railroad crossing and necessary intersection channelization and traffic control.

Other additions to the existing functionally classified street system in Ephrata include a collector road system to serve future industrial, residential and mixed use development in the northeastern portion of the city, and expected residential development at the south end of the city.

Improvement Projects

Table 34 summarizes a list of specific roadway system improvements that were previously identified in the City's Six Year Transportation Improvement Program and Capital Facilities Plan. Also included in the table is an acknowledgment of some of the added streets identified in Figure 36 including the new north/south minor arterial road and the necessary railroad crossing. The latter was identified in the Six Year Transportation Improvement Program as needed either at the north or south end of the city and assumes an at-grade connection. Both the new minor arterial and the railroad crossing are assumed to occur during the mid-term of the 22-year planning horizon but are dependent on the extent and timing of development activity. Other potential roadway facilities shown in Figure 36 have not been included in the list of improvement projects as timing for these improvements is dependent on land development which may not occur until late in the planning horizon.

Street Standards

The City of Ephrata has existing street standards that govern development of this system. However, in conjunction with development of an Active Transportation Plan as is proposed in the next chapter, these standards should be further refined to incorporate recommended street cross-sections by function that incorporate optimal and appropriate pedestrian and bicycle infrastructure.

Safety

The extent of crash history involving severe crashes is indicative of the need to further study and evaluate potential improvements that could address this problem. This could be accomplished through preparation of a Local Road Safety Plan (LRSP) for which the city could receive funding from WSDOT. Once projects are identified in a LRSP, the city could then seek competitive funding for improvements.



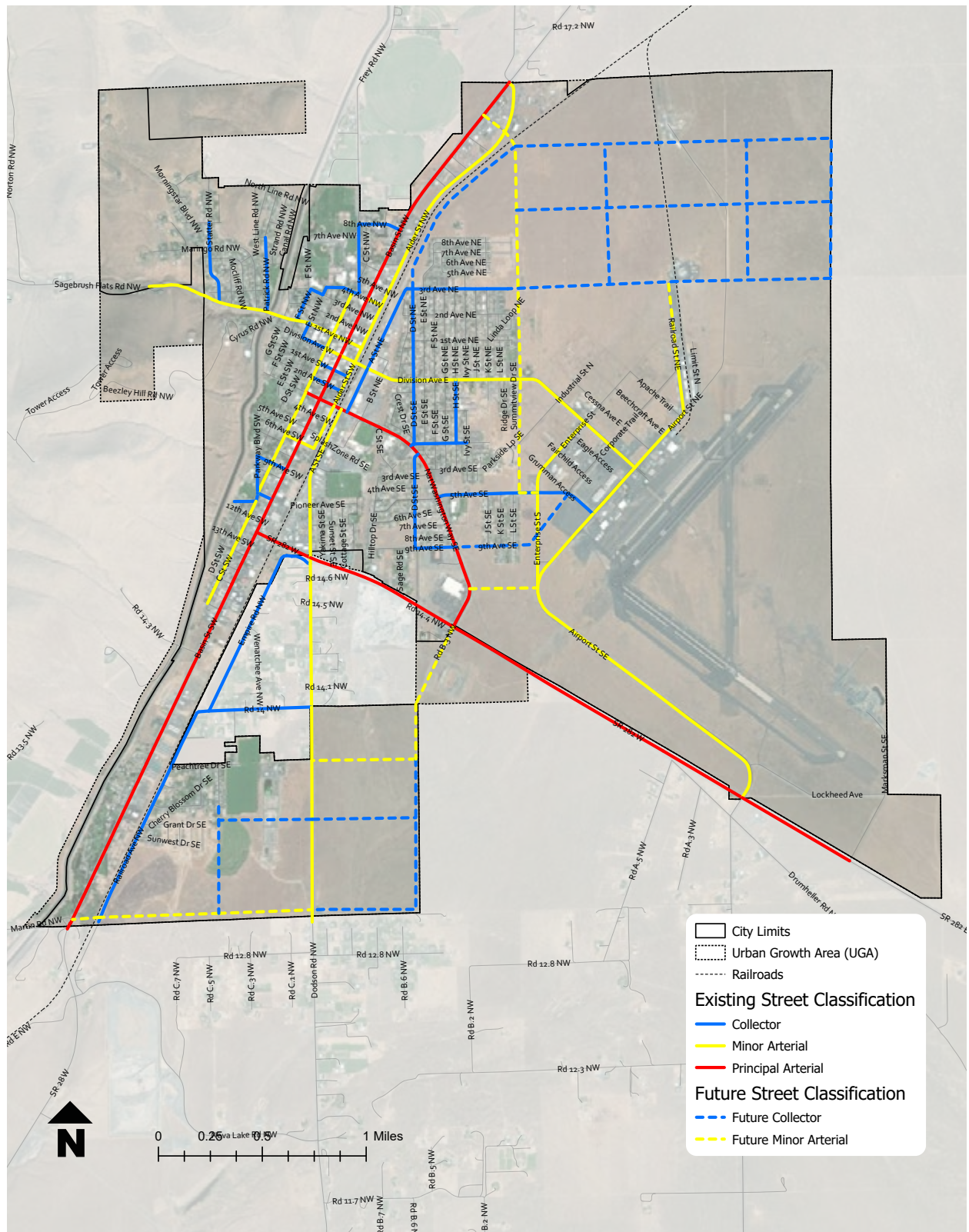


Figure 36. Recommended Functional Classification System

Table 34. Roadway System Improvements

Project Name	Project Limits	Description	Cost	Funding	Timing
Nat Washington Way	A Street SE to 2nd Avenue SE	Grind and overlay. Replace noncompliant curb ramps and curbing.	\$750,000	TIB APP/ Local	2024
Cherry Blossom Drive		Reconstruction	\$150,000	TBD	2024
Nat Washington Extension	SR 282 to Dodson Road	Build 4-lane urban roadway	\$2,000,000	PWFT/Others	2024
Dodson Road	Road 14th NW to South City Limits	Overlay	\$400,000	Grant County	2025
3rd Avenue	G Street NW to F Street NW	Reconstruction to urban standards	\$250,000	TBD	2025
Canal and Strand Road	Bell Road to Northline Road	Reconstruction, curbs & sidewalks	\$1,000,000	TBD/Others	2026
9th Street	D Street SE to Hilltop Drive	Reconstruction to urban standards	\$130,000	TBD/Others	2026
D Street	14th Avenue SW to 15th Avenue SW	Reconstruction to urban standards	\$100,000	TBD	2027
Railroad Avenue	Peach Tree Street to South City Limits	Reconstruction, curbs & sidewalks	\$500,000	TBD	2027/28
Alder Street	5th Avenue SW to SR 28	Traffic signalization	\$700,000	TIB	2029
New N/S Arterial	14th Avenue NW to 5th Avenue SE	Build new 3-lane arterial road	TBD	TBD	Mid-Term
Railroad Crossing	Either North End or South End of City	Build new at-grade railroad crossing	\$400,000	TBD	Mid-term
Corporate Street to Division Street		Improvements	\$500,000	EDC/SIP	2038
Nat Washington Way to Corporate		Improvements	\$500,000	TIB	2039
Peachtree Drive	City Property Line to Dodson Road	Complete Peach Tree Drive to city standards	\$500,000	TBD	Long-term

Source: Most project information obtained from City of Ephrata 2020 *Six Year Street Plan* and Draft 2023 *Capital Facilities Plan*.



Active Transportation System

This section documents the review and assessment of needs, deficiencies, and recommendations to guide improvement of the pedestrian and bicycle transportation systems within the Ephrata Urban Growth Area. These facilities, known collectively as active transportation, are important to the community as they provide a means of travel for those who cannot or do not wish to use an automobile for travel to work, school, shop, recreation, or a variety of other trip purposes that can readily be accomplished by relatively short trips. A comprehensive, well-connected, comfortable, and safe active transportation system can encourage both a reduction in vehicular travel and the potential for both saving money and improving community health.

Major bicycle and pedestrian facilities that have been identified and are discussed in this chapter include:

- ♦ The existing sidewalk system including facilities specifically identified as Safe Routes to School
- ♦ Existing bicycle lanes and related facilities including trails or separate off-road pathways

This chapter also includes a discussion of likely destinations for bicycle or walking trips, particularly in relation to available facilities, gaps in the connectivity of existing systems, and safety. Safety risks can be both perceived and actual and include narrow or non-existent facilities adjacent to higher volume/higher speed roadways and street crossings where the risk to a non-motorized traveler can be significant. A toolbox of potential strategies that can be applied to enhance the safety of active transportation within a community is also presented.

A specific and prioritized program of recommended improvements cannot be identified at this time due to time and budgetary constraints that affect the development of this Transportation Plan update. Rather, it is intended that the information in this chapter provide a background and motivation for further study during a focused active transportation planning effort that should follow adoption of this Update.

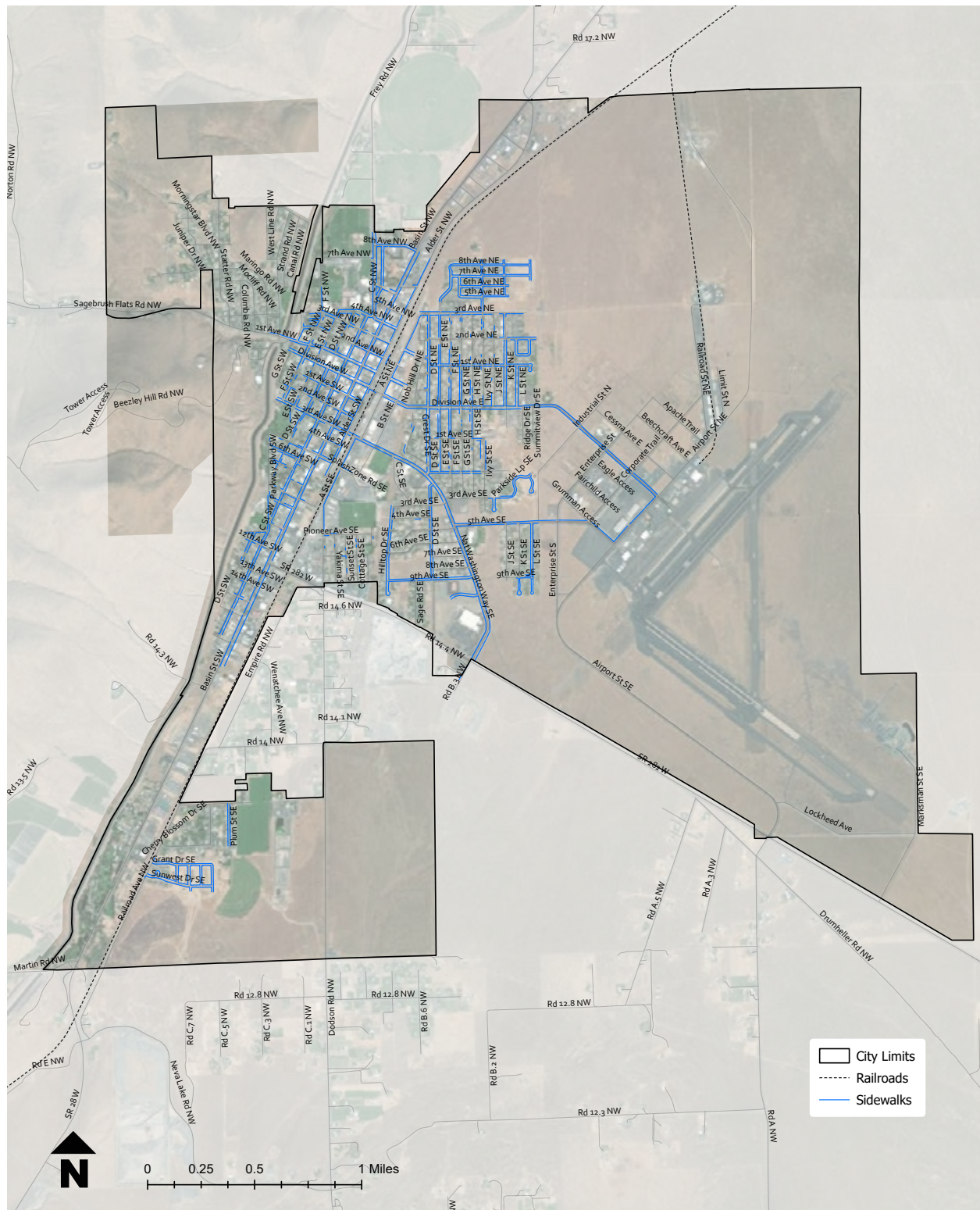
Existing Conditions

Information contained in this chapter was obtained largely from the existing conditions inventory available through the City's GIS data files, as well as information and guidance related to non-motorized travel from several relevant planning documents prepared by QuadCo and Grant County.

Existing Sidewalks

As noted in the QuadCo Regional Transportation Plan, sidewalks are the only type of facility for non-motorized travel within many of the communities in the four county area. Figure 37 illustrates the existing sidewalk system in Ephrata. This system has been built in conjunction with neighborhood and commercial property development, but more significantly, sidewalks have been included in recent improvement projects to many of the city's arterial streets including Alder Street, Division Street, Nat Washington Way, and others as they have been upgraded to urban standards. Additionally, in 2019 the city received a \$300,000 Complete Streets





Program grant to install curb ramps and sidewalks along various portions of C Street SW and 10th Avenue SW.

Review of the information contained in Figure 37 can be used to highlight deficiencies in the existing sidewalk system that can ultimately form the basis for a more comprehensive prioritized improvement program for these facilities. Key information includes:

- ♦ Gaps in system connectivity
- ♦ Lack of connections to portions of the community that include land uses that attract walking trips including commercial areas, schools, parks, trailheads, and other such uses.

As shown in Figure 37 there are many locations where gaps exist in the current sidewalk system. Particularly notable is the lack of sidewalks in the residential area that lies in the northwest corner of the city, north of Sagebrush Flats Road. There are also significant gaps in the residential neighborhoods to the north and south of Division Avenue and throughout most of the industrial areas near the Ephrata Airport, although shared use pathways are provided in several locations in this area. Walking access to/from the employment opportunities in this area is via Division Avenue and 5th Street but no other connectivity is provided. While much of the residential area on the west side of the city, west of Basin Street have sidewalks there are gaps in connectivity. Based on the crash data included in Table 32, a fatal crash occurred in this area on C Street just north of 10th Avenue where there was no sidewalk and the pedestrian was apparently walking in the street. This location is close to Parkway Elementary School and is on the walking route suggested by the school district for traveling to/from the school.

If the information in Figure 37 is compared to the key pedestrian destinations identified in Figure 38, it is also clear that there is a lack of sidewalk connectivity serving many of these locations. Some of these destinations include:

- ♦ The Ephrata High School and Grant Elementary School complex where there is a lack of sidewalks on both

F Street NW and 7th Avenue NW to service the sports facilities associated with these schools.

- ♦ The park to the south of the Ephrata Middle School.
- ♦ Lions Park on the west side of the city.
- ♦ Added pedestrian crossing enhancements to serve the Columbia Ridge Elementary school such as Rectangular Rapid Flashing Beacons and/or pedestrian refuges.
- ♦ Several of the east/west streets in the downtown core area adjacent to Basin Street lack sidewalks.
- ♦ Trailhead to the Beezley Hill Trail (which would be more relevant to mountain bikers than walkers)

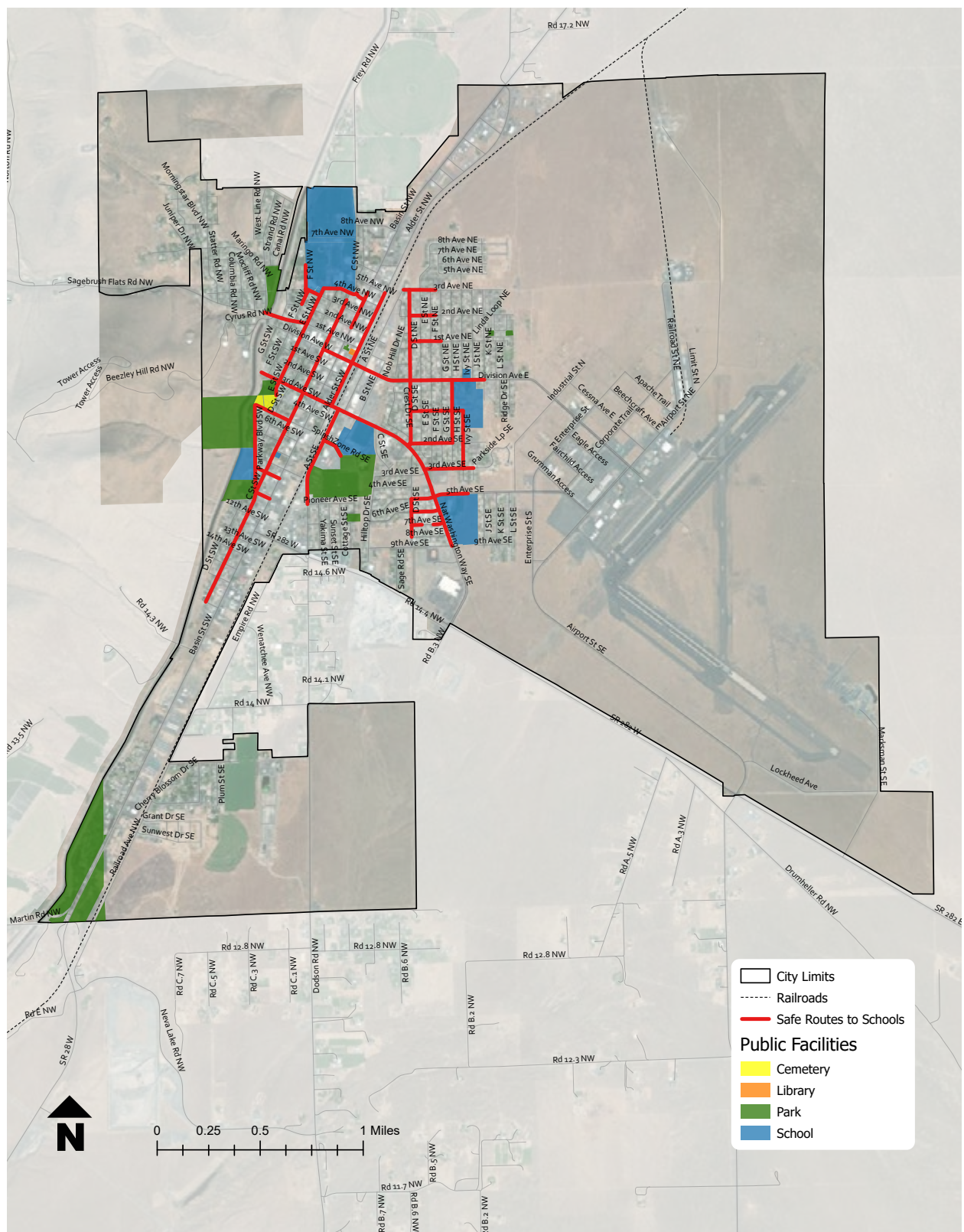
Safe Routes to Schools

Figure 38 illustrates the “Safe Routes to Schools” system that has been identified by the City and is being used as the basis for ongoing State grant applications to improve access and safety for school children in the community. Shown in red in the figure, these routes illustrate a relatively complete system, not all of which has been constructed.

Trails and Bicycle Facilities

Figure 39 presents the existing bicycle system in Ephrata, as well as the existing and proposed multi-use trail system. As noted in the 2018 Transportation Plan, Ephrata has worked hard to develop trails throughout the City. As the major arterials which include, in particular, portions of Division Street and Nat Washington Way have been upgraded to include both bicycle lanes and shared use pathways as part of the construction projects. A trail connecting several streets at the airport and the Beezley Hill Trail along the hills on the west side of town have increased the mileage of available trails immensely. The Beezley Hill Trail was funded by a grant from WSDOT’s Pedestrian and Bicycle Safety Program.





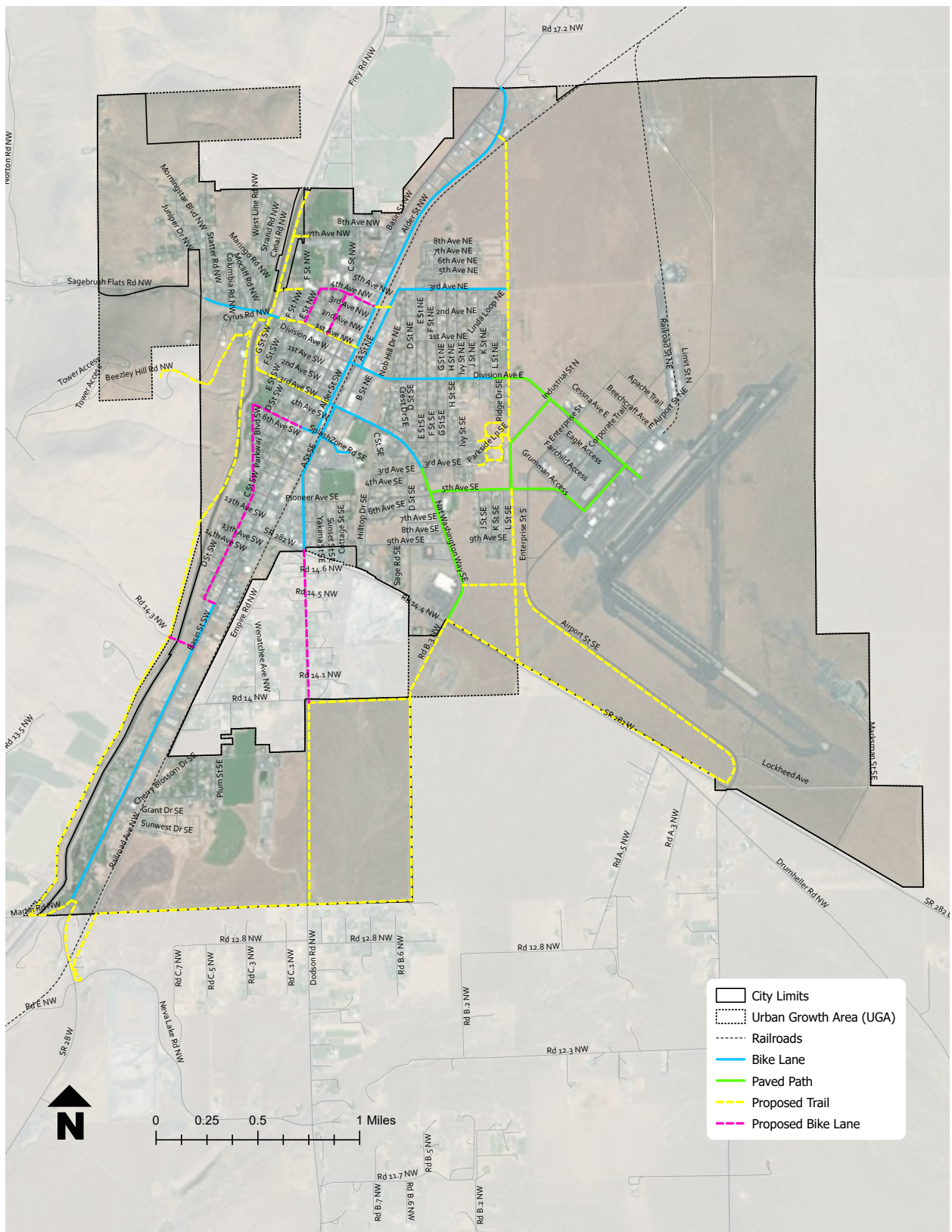


Figure 39. Existing Bicycle and Trail System

System Issues

Deficiencies

The evaluation of system deficiencies for the active transportation system focuses less on existing levels of service and more on basic connectivity including identification of gaps and access to key destinations such as schools. Based on the mapping and discussion above, the following key system deficiencies were observed.

Pedestrian System

As noted in the discussion of existing facilities, the city has an adequate sidewalk and pathway system. Gaps in that system can be identified in Figure 37. While the inner neighborhoods of the city have reasonable coverage, areas to the northwest, south and southeast often lack any sidewalks or have only limited coverage. In comparison with land uses that are particularly attractive to walkers or bicyclists as shown in Figure 38 including parks, the library, schools, as well as the commercial core of the community along Basin Street, the significance of some of the system gaps becomes more noticeable. Areas that should be considered as priorities for sidewalk improvements include:

- ◆ Some of the streets in the vicinity of Columbia Ridge Elementary School although the street frontage adjacent to the school is fully improved
- ◆ Streets in the vicinity of the Community Sports Complex including pool and ball fields
- ◆ Some of the streets in the vicinity of Parkway School, although the street adjacent to the school and leading to the school along 10th Avenue SW have recently been improved as part of a Safe Routes to School project.
- ◆ Many portions along Basin Street including the more intensely developed parts of the city. While sidewalks are provided along much of the state highway frontage there are noticeable gaps. One area between approximately 8th Avenue SW and 12th Avenue SW includes a school zone and has missing sidewalk



sections. The completeness of the sidewalk system along this facility impacts not only school and shopping access but also accessibility to the designated Grant Transit Authority bus stops.

- ♦ Many of the side streets that intersect Basin Street in the commercial core of the city do not have sidewalks. This impacts the safety and accessibility of pedestrians walking between nearby neighborhoods and the shopping, business and transit opportunities along this corridor.
- ♦ There are numerous crosswalks along Basin Street between 11th Avenue SW and 6th Avenue NW which provide accessibility from neighborhoods to shopping and other business along the commercial corridor. However, in many locations, these crosswalks are not appropriately or adequately signed. With the existing three-lane cross-section that includes wide shoulders, pedestrians are significantly exposed to 25 or 35 mph traffic including in school zones.

As noted in the Street System chapter, in the five years between 2017 and 2021, there have been a total of 15 crashes involving vulnerable users such as pedestrians and bicyclists. This represents a total of about 13 percent of all injury or fatal crashes in the City. Two fatalities have occurred during that time period, both of which involved pedestrians. An additional crash occurred in 2022 which also involved a fatal pedestrian collision. The importance of providing a safe space for vulnerable users as well as safe crossing locations cannot be overlooked. To that end, the City's current development standards require that sidewalks or

pathways be constructed adjacent to and serving all new property development.

Bicycle System

As noted above, the existing bicycle and pathway system in Ephrata is presented in Figure 39. As can be seen in the figure, the coverage of bicycle facilities in the community is much less than those available to serve pedestrians.

Bicycle facilities are currently in place largely along portions of Basin Street (south of about 14th Avenue SW), Alder Street, A Street (along the west side only), Division Avenue E (shared use pathway to the east and south of Summitview Drive SE), 3rd Avenue NE, Nat Washington Way (shared use pathway south of 3rd Avenue SE), and 1st Street NW (west of E Street NW). Paved pathways are provided along portions of Division Avenue and Nat Washington Way, as well as several streets within the airport industrial park. There are significant gaps in the bikeway system including:

- ♦ Basin Street north of 14th Avenue SW where on-street parking and/or a narrower cross-section predominates.
- ♦ Both sides of the street along A Street which would require restricting on-street parking for a limited area adjacent to residential development.
- ♦ Serving many of the active transportation trip attractors mentioned in the discussion of pedestrian facilities including several schools and parks.
- ♦ Providing effective north/south bicycle circulation on the east side of the city.



System Recommendations

Recommendations to enhance the existing active transportation system in Ephrata include the following:

- ◆ Continue requirement for installation of sidewalks and/or pathways in conjunction with all land development activity in the city.
- ◆ Consider adopting policy to incorporate bicycle facilities (lanes or pathway) in conjunction with all new or upgraded collector and arterial street projects.
- ◆ Pursue Safe Routes to School or other appropriate funding to continue building out the recommended safe routes that have been identified but not yet built in Figure 38.
- ◆ Develop an Active Transportation Plan to support implementation of complete streets policy in the city. This plan should build on and further explore:
 - The location and priority of retrofit sidewalk improvements in the city beyond those eligible for Safe Routes to School funding. Consider establishing priority pedestrian routes that offer connectivity to key destinations within the community.
 - The location and priority of future bike lanes and/or shared use paths and the identification of bike friendly streets through the establishment of such concepts as buffered bike lanes or bike boulevards where stop signs are minimized in support of maintaining momentum and access for bicyclists, while calming or controlling vehicular traffic.
 - Building on the trail plan identified in Figure 39, to provide connections between city bicycle and pedestrian routes and existing or planned recreational trails within or connecting to Ephrata.
 - Installation of bike supportive amenities such as parking and wayfinding signage.
 - Development of code language to implement a comprehensive complete streets program including development of design concepts for residential and collector/arterial streets and to identify a strategy for installing safe and effective street crossings.
 - Engage the public in the planning process through a revitalized Parks and Trails Committee or another venue.
 - Figure 40 presents a toolbox of potential strategies that could be considered in the plan and used to enhance the safety and effectiveness of activity transportation in Ephrata.
- ◆ Work cooperatively with Grant County and QuadCo to implement the proposed Soap Lake to Ephrata Trail. As noted in the Grant County Transportation Plan the idea for this trail came out of an effort by the Friends of the Lower Grand Coulee, a non-profit corporation formed to share the Lower Grand Coulee experience with the public through development of this regional trail. The northern terminus would be in Ephrata and it would involve a lake look using private easements, public roadways, and DNR canal service roadways.
- ◆ Build on the list of projects included in Table 35 at the end of this chapter. This table presents a summary of existing active transportation projects from the City's current Transportation Improvement Program and Capital Facilities Plan, and represents a starting point for developing a comprehensive program of active transportation improvements in Ephrata.



Pedestrian Treatments

Bicycle Treatments




















		Crossing Location				Lower-Speed Volume Street	Busier Street
		Inter- section	Mid- Block				
	Rapid Rectangular Flashing Beacon (RRFB)	✓	✓		Accessways – Provide walking or bicycle access between neighborhoods with large blocks to shorten travel distance	✓	
	Rapid Rectangular Flashing Beacon (RRFB)	✓	✓		Bike Lane	✓	✓
	Bulb Out with More Visible Ladder Crosswalks	✓	✓		Buffered Bike Lane – Provides greater physical separation from travel lane for bicyclist protection		✓
	Median Refuge		✓		Cycle Track – Bike lane that is separated from the travel or parking lane. Combines elements of a separated path and an on-street bike lane		✓
	Pedestrian Crossing Signal (HAWK)		✓		Raised Bike Lane – A elevated form of a cycle track that provides a clearly delineated space for bicyclists		✓
	ADA Pedestrian Crossing Treatment – Warning strips to alert vision impaired to street crossing and location of median refuge	✓	✓		Shared Use Bicycle Markings (Sharrows)	✓	
	Mid-Block Crossing in Urban Context – can be used to add streetscape enhancement in downtown area where a mid-block crossing would be appropriate.		✓		Shared Use Path	✓	✓
	Buffered Sidewalk – Provides a more comfortable walking environment for pedestrians where space is available. Particularly beneficial on higher volume streets				Intersection Treatment for Shared Use Path Separated from Street	✓	✓
	Mid-Block Crossing in Urban Context – can be used to add streetscape enhancement in downtown area where a mid-block crossing would be appropriate.				Bicycle Lane Treatment Approaching Roundabout	✓	
					Low-cost solution for adding bike parking in a busy area	✓	✓

Figure 40. Pedestrian and Bicycle Safety Treatments

Table 35. Active Transportation System Improvements						
ID No.	Project Name	Project Limits	Description	Cost	Funding	Timing
1	Beezley Hill Trail	1st Avenue NW to Road 14th NW Bridge	Build 10-foot wide shared use path for 1.7 miles	\$260,000	QuadCo/ Others	2025
2	Canal Pedestrian Bridge		Build pedestrian bridge	\$200,000	Metro Parks/ RCO Grant	2027
3	5th Avenue Sidewalk Widening		Widen sidewalks	\$600,000	TIB	2040

Source: City of Ephrata 2020 Six Year Street Plan and Draft 2023 Capital Facilities Plan.



Public Transportation/Travel Demand Management

Existing Conditions

Grant County Transit Authority

The Grant County Public Transportation Benefit Area (PTBA) was established in 1993 to assess the need for, and feasibility of, establishing a transit operation in Grant County. Known as the Grant Transit Authority (GTA), service started with a demonstration grant in 1995 and in 1996 voters passed a 2/10th of one percent tax increase to fund public transit services in Grant County.

GTA currently provides service to/from and within Ephrata with three fixed routes and a demand-responsive or Dial-a-Ride system. Service includes:

- ♦ Five days per week service (no weekends) fixed route service on three lines:
 - Route 20: Intercity service between Ephrata and Big Bend Community College in Moses Lake. Service is provided Monday through Friday from 6:30 am to 8:25 pm (beginning and ending in Moses Lake). Operates on 30-minute headways.
 - Route 21: Ephrata City Circulator. Service is provided Monday through Friday from 8:00 am to 7:25 pm (beginning and ending in the Ephrata Transportation Center located on S Division Street at W 5th Avenue in downtown Ephrata). Operates on variable headways ranging from 30 minutes midday and PM peak to generally hourly at other times.
 - Route 40: Intercity service between Moses Lake, Soap Lake, Ephrata, Quincy, and George. Service is provided Monday through Friday with a mix of local and express runs. The express runs are largely between Ephrata and the Park and Ride lot in George, or between Ephrata and Quincy. Operates on variable headways of typically over an hour.
- ♦ Deviated fixed routes including services for disabled individuals within ¾ mile corridor.
- ♦ Non-routed demand-response/paratransit services for qualified ADA eligible individuals. Known as DART, this service is open to the general public for those living in areas not served by regular fixed route buses. The service is designed to connect people living in outlying areas with the fixed route system including service in Ephrata. DART also connects with other transportation providers such as Amtrak, Northwest Trailways and People for People. All buses are ADA accessible and require a minimum of 48 hours advance notice to guarantee a ride on a specific day. DART typically offers one morning trip and one afternoon trip in the various route locations with the exception of the Ephrata to Grand Coulee Corridor which often offers a second additional afternoon trip.
- ♦ Vanpool program for concentrated passenger scenarios.
- ♦ Partners with WSDOT, People for People, Confluence Health, and others to support transportation from Moses Lake through Ephrata to medical services in Wenatchee.

GTA's fleet consists of 24 accessible coaches, 11 accessible cutaways, and 17 vanpool vans. All GTA buses are equipped with bike racks.



Special Needs Transportation

People for People Non-Profit

People for People (PFP) is a private non-profit organization providing transportation services in rural communities in Central Washington. Services provided include door-to-door service and fixed-route services.

- ◆ Door-to-door service is often called Paratransit or Special Needs transportation. PFP's door-to-door service is fare-free and available in Adams, Grant, Lincoln, and Yakima counties. It requires a reservation at least two business days ahead. The service is available for older adults (60+ years), low-income households, youth, persons with disabilities, and veterans. Common destinations are meal sites, health care, employment, social services, and community resources. This transportation service is dependent on the availability of funding. Individuals using this service may be asked to adjust their schedule so that several people can share the ride due to their limited resources.
- ◆ People For People's Community Connector fixed-route services are available to the general public and are fare free. They operate on a preset route and times, throughout the following counties: Adams, Benton, Chelan Douglas, Franklin, Grant, Lincoln, Yakima. Ephrata is served by Route 100 operates between Moses Lake and Wenatchee
- ◆ Non-emergency medical transport

Intercity Bus

Amtrak Thruways operates out of the rail station in Ephrata located at 90 Alder Street SW in the downtown area. One trip per day is operated in each direction with westbound leaving at 11:10 am and eastbound leaving at 7:45 am.

Intercity Passenger Rail

Amtrak Empire Builder provides daily long-distance rail service between Seattle, Washington and Chicago, Illinois with stops at Spokane, Ephrata, Wenatchee,

Leavenworth, Everett, and Edmonds. Services is available in Ephrata with two daily departures, eastbound at 4:40 pm and westbound at 4:22 am.

Transportation Demand Management (TDM)

Transportation Demand Management (TDM) techniques play an important part in Ephrata's inventory of transportation solutions. TDM is a term applied to a broad range of strategies that are primarily intended to reduce and reshape demand (use) of the transportation system. TDM demand-side strategies (as opposed to supply side strategies such as new lane construction) are intended to affect how, if, and when the transportation system is used. TDM strategies influence travel behavior by influencing the commuter's choice of mode, time, or route, in order to reduce the number of vehicles on the roads at congested times and to provide mobility options. Techniques which have an effect on the cost of the trip also work well to influence the mode choice.

TDM strategies employed within the City of Ephrata include:

- ◆ Ephrata Shuttle operated by Grant Transit Authority and both public and private non-profit bus services that connect Ephrata to surrounding communities
- ◆ Promoting public transit
- ◆ Utilizing the vanpool services offered by Grant Transit Authority
- ◆ Adding bike and pedestrian trails/paths on newly constructed arterials and placement of bike and pedestrian trails on rebuilt arterials
- ◆ Connecting bike trails to county trail systems when available
- ◆ Connecting bicycle and pedestrian access between businesses and residential areas to facilitate non-motorized mobility for residents;
- ◆ Encouraging pedestrian friendly design concepts in new construction through the City's residential design standards. TDM plays an important role in future land use development and ensuring the community continues to be a healthy environment for both families and commerce.





System Recommendations

Public Transit

Based on the Grant Transit Authority's Transit Development Plan and the 2018 Ephrata Transportation Plan, recommendations affecting Ephrata include:

- ◆ Continue operations of existing city circulator and intercity services.
- ◆ Look for opportunities to partner with regional transit agencies and neighboring jurisdictions in order to improve funding opportunities from state, federal or other grant providers.
- ◆ Continue to participate in the Grant County Transit Authority projects to provide public transportation services for City and UGA residents.
- ◆ Continue support for paratransit service provided by GTA and/or others such as People for People.

The Grant County Transportation Plan recommends that local agencies: Improve mobility for population segments dependent on public transit. Provide viable alternatives to Single Occupancy Vehicle (SOV) travel.

Transportation Demand Management

Based on direction provided in the Ephrata 2018 Transportation Plan and Grant County's Countywide Planning Policies, recommendations affecting Ephrata include:

- ◆ Continue to explore alternatives for travel demand management.
- ◆ Encourage major employers, activity centers, and others to establish programs for ridesharing and other transportation demand management (TDM) systems.



Freight Mobility

Existing Conditions

The discussion of freight mobility focuses on both trucks and truck routes and the freight rail system. The truck route system is largely based on the state highways serving Ephrata, as well as those local streets that serve commercial or industrially designated properties including those operated by the Port of Ephrata. The railroad system is based on the Burlington Northern Santa Fe Railroad (BNSF) mainline which passes through the community and provides access to Port of Ephrata industrial properties.

Railroad

The QuadCo Regional Transportation Plan (RTP) speaks to the importance of freight rail to the agriculturally based communities of Central Washington including Ephrata. As noted in the RTP “Rail transportation promotes commerce, provides modal choices, complements, and in many instances improves the service of other transportation modes. For instance, a single freight train can replace several hundred trucks, benefitting the region by reduced wear and tear on local roadways and highways, improved transportation safety, and reduced air pollution.”

The Burlington Northern Santa Fe (BNSF) Railroad runs east/west through Ephrata providing direct freight and passenger access to points between Chicago and Seattle and includes a siding to service the Port of Ephrata.

The QuadCo RTP also notes that the BNSF rail line is currently at capacity, operating an average of 26 trains per day (ATPD) out of a capacity of 24 ATPD.

Trucks

The truck routing system serving Ephrata is largely based on the State Highways that serve the community including SR

28 (Basin Avenue), SR 282 and SR 283, in addition to Sagebrush Flats Road due to its connectivity to the north and west of Ephrata. These facilities are identified in Figure 41. Several local streets are also important to the movement of freight through and within the community including Division Avenue, Nat Washington Way, 5th Avenue, Corporate Street and Airport Street, all of which provide access to the Port of Ephrata industrial properties and the Ephrata Airport. These roads are not currently designated as Ephrata truck routes.

SR 28 has been designated by WSDOT as a Category T-3 highway indicating that it currently carries between 300,000 and 4 million gross tonnage of freight per year. The QuadCo RTP indicates that SR 28 between Adams Road (west of Ephrata) and SR 17 (east of Ephrata) carried 2,520,000 gross tons of freight in 2013 in about 640 trucks per day. Approximately 11 percent of the total daily traffic on this portion of the highway were trucks.

SR 282 is also a Category T-3 highway that was estimated to carry 1,980,000 gross tons of freight in 2013 between SR 28 and SR 17. Daily truck traffic was estimated at 550 vehicles, or 8 percent of total daily traffic.





Figure 41. Truck Routes

SR 283 to the south of Ephrata is another Category T-3 highway that was estimated to carry 2,380,000 gross tons of freight in 2013 between SR 28 and SR 281. Daily truck traffic was estimated at 460 vehicles, or 21 percent of total daily traffic.

System Issues

While all state highways in Ephrata are considered to be truck routes, the city has not identified specific local streets or roads as truck routes. The City's 2018 Transportation Plan recommended that a truck route system be established to ensure that roadways would be adequately designed and maintained to accommodate heavy vehicles and that through truck traffic on neighborhood streets could be minimized or controlled.

System Recommendations

Based on information included in the 2018 Transportation Plan and Grant Countywide Planning Policies, recommendations affecting Ephrata include:

- ◆ The city will develop and enforce a Truck Route Ordinance where needed and maintain appropriate signage for the truck route to ensure compliance.
- ◆ Adopt a truck route map for city streets.
- ◆ Establish a commercial freight route to insure the mobility of goods and services, as well as of people, and to improve the reliability of freight mobility.
- ◆ Wherever possible, preserve existing and reserve abandoned rail lines in accordance with the Washington State Rail Transportation Plan.



Aviation

Existing Conditions

The Port of Ephrata (Grant County Port District #9) owns and operates a public access general aviation airport located in the southeastern portion of the City of Ephrata. This airport was built in the 1940s by the U.S. Army Air Corps for training bomber pilots during World War II. The airport is included in the National Plan of Integrated Airport Systems (NPAIS) and is identified as providing public access, general aviation operations primarily for recreational users.

The airport is the base for the Seattle Glider Club which, along with other clubs, hosts events there. The airport has one main runway which is 5,500 feet long and 75 feet wide, and one crosswind runway that is 3,843 feet long and 60 feet wide. The airport also has a glider runway that is 3,467 feet long and 150 feet wide. Powered aircraft parking is located on the ramp south of Taxiway A2 and glider parking is north of A2. Airport services include a self-serve fueling station 24 hours per day. A pilot lounge and courtesy car are available in the downstairs portion of the airport offices.



Ephrata Municipal Airport

System Recommendations

Based on the 2018 Transportation Plan, it is recommended that:

- ◆ The City continue to work jointly with the Port of Ephrata to purchase and maintain crack filling equipment for continued maintenance of all roads and airport facilities.



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Capital Facilities and Utilities

This chapter outlines the City's public and private utility systems as well as the major public facilities located in Ephrata.

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Introduction

The City of Ephrata provides infrastructure and services for drinking water, wastewater, stormwater, fire and police services, library, transportation, parks, recreations and open space, and municipal services.

This chapter describes city-owned facilities and identifies important facilities owned and operated by other government agencies and private utility purveyors. City-owned facilities include domestic water, wastewater, stormwater, police department, fire department, and the public library. Other facilities and utilities include public schools, Emergency Medical Services (EMS), electricity and fiber optics, and telecommunications. These non-city-owned facilities are not discussed in detail in this chapter, but Table 36 at the end of this chapter summarizes how these facilities operate and further resources.

The City of Ephrata governs and manages the water and wastewater capital facility systems through dedicated functional plans and programs. These plans contain detailed inventories of existing facilities and infrastructure, as well as descriptions of planned improvements. The City's annual review and approval process is used to update the 6-year Capital Facilities Program (CFP) which programs project elements identified in the respective plans.

Population Projection and Level of Service

Identifying the future capital facility needs requires estimating future population growth. These population projections are compared against the projected future needs of the level of service standard for each facility type where a functional plan or program is available. These projections in the City's functional plans and programs differ from the population projection used in this plan, although, the projected needs for capital facilities and utilities are expected to be very similar across all projections.



Water

The City will utilize the City of Ephrata Water Systems Plan (Engineering Report) as the functional or programmatic plan for annual review and updates processes.

The City of Ephrata owns and operates its Group-A public domestic water system meeting WAC 246-290. The ownership is municipal with a City Council decision-making process. The City Administrator runs the day-to-day operations of the City water system, and the Public Works Director works in conjunction with the City Administrator, Mayor and City Council to determine a course of action and method of funding. The City's Comprehensive Water System Plan Update was prepared by a third-party engineering consultant and adopted by the City Council in 2021. This is referred to as the "water functional plan" or "water program". The current water functional plan develops the framework for the City's water service through 2039 and is updated periodically by the City.

The City obtains its ground water supply from the Quincy Ground Water Subarea, which consists of two management units: a shallow unit (<200 feet deep into basalt) and a deeper unit (>200 feet deep). Build out of the City's domestic water system is required to meet WAC 173-134A Quincy Ground Water Subarea Management Policy. The City is located in a Critical Water Supply Service Area (CWSSA) and Grant County has completed a Coordinated Water System Plan that was last updated in 1999. This plan includes recommended review procedures, fire flow requirements, minimum design standards, and service areas for public water systems in the Critical Water Supply Area. The City's development standards

and fire flow standards meet or exceed the standards as set forth in the Coordinated Water System Plan. The City currently has water rights for an instantaneous withdrawal of 6,830 gpm, and has an annual withdrawal limited at 3,375 acre-feet.

The City of Ephrata also owns and operates a Reclaimed Water facility that has the potential capacity of generating 600 acre-feet per year. The coordinated Water System Plan sets the City's service area as its Urban Growth Area (UGA), which was 7,220 acres at the time the Water System Plan was developed (it does not account for the changes in the UGA in this Comprehensive Plan). The City implements programmatic elements (water system report updates), goals, and policies within the Comprehensive Plan to ensure concurrency with water supply and use requirements.

Inventory

The domestic potable water system for the City currently consists of seven wells. The system is configured to transfer water from one zone to another in order to get the benefit of the total supply available. The City's active wells have a combined total pumping capacity of 5,544 gallons per minute (gpm), which is equivalent to 7.98 million gallons a day (mgd). The City has four storage reservoirs (5,300,000 gallons of capacity, controlled and managed using remote telemetry), approximately 60 miles of water distribution lines, one booster pump station, and a booster pump/PRV station.



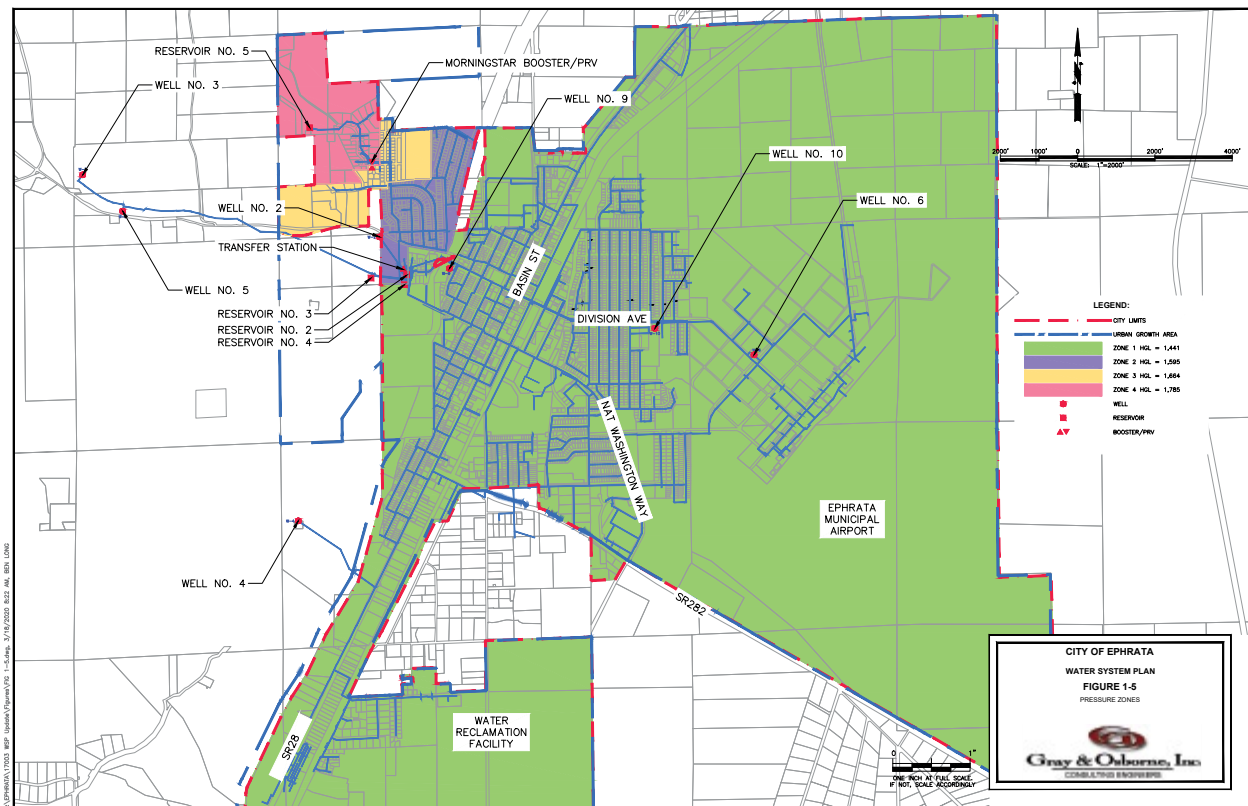


Figure 42. Ephrata Water System Plan Map

Water System Planning

The Public Works Director consults the City's most recent planning documents to determine the number of connections the system can serve and uses these documents to guide planning efforts for short-term project phasing. The Public Works Director coordinates with the City Engineer when large capital projects are necessary, when the City is pursuing funding, if the developer/development requires above average fire flow, or if Levels of Service are impacted.

Water Leakage

Section 8 of WAC 246-290 requires municipal water suppliers with 500 or more connections to meet the State Distribution System Leakage (DSL) Standard of no more than 10-percent, averaged over the previous three years. As described in the Water Systems Report, the City of Ephrata's DSL has not exceeded 3.8% in the last 10 years, which is well below the 10% maximum.

Population Projection and Level of Service

The Water System Plan uses population projects to determine the number Equivalent Residential Units (ERUs) that will need water service and the projected capacity of the system. Together, these demonstrate the projected level-of-service, which helps guide planning efforts for infrastructure improvements. The Water System Plan was last updated in 2021 and uses population projections that are higher than the projection in this plan. However, this is favorable for the capability of the City to provide adequate water service since the only deficiency identified in the engineering report was adequate standby storage for Zone 1. The need for storage is identified in Chapter 8 of the City's capital facilities program. This deficiency in standby storage does not compromise meeting established LOS. The City will evaluate further steps with the annual capital facilities program update and updates to the Water System Plan.

Sewer

The City will utilize the Ephrata Wastewater Systems Plan (Engineering Report) as the functional or programmatic plan for annual review and updates processes.

The City of Ephrata regulates wastewater/sewer services. The City's sewer ordinance provides requirements for connections to sewer system, permits for sewer installation by developers, rates for sewer service, septic tank effluent disposal, payment of accounts, and service policies outside city limits.

The City has its own designated sewer service area (See Figure 43). All wastewater is treated at the Ephrata Water Reclamation Treatment Facility (WRTF). The facility is permitted through a Washington State Department of Ecology Class A Reclaimed Water Facility Permit. The facility is currently permitted under a 2018 General Sewer Plan and Wastewater Facility Plan, Permit No. ST0008031. The permitting and management of reclaimed water has crossover significance to the water system plan.

Along with treatment of wastewater for water quality, reclaimed wastewater treatment facilities are also required to implement a biosolids management plan and obtain the proper permitting for classification of biosolids as "Class B"

or "Class A" biosolids. The city is currently permitted to manage Class B biosolids. The City implements comprehensive wastewater management for both reclaimed water and biosolids management through its annual review of the wastewater system plan and the approval process of the City's 6-year Capital Facilities Plan.

Service Area and Inventory

The City of Ephrata's current sewer service area includes approximately 6,897 acres within its corporate limits and UGA. The City's service boundary coincides with its water service boundary and is primarily a conventional gravity sewer system. The collection system consists of an estimated 42 miles of mainline gravity sewers and approximately 9,066 linear feet of force mains with four lift stations. The gravity system flows to the water reclamation treatment facility, groundwater monitoring wells, and infiltration basins. There are no adjacent water/sewer systems to the Ephrata system.



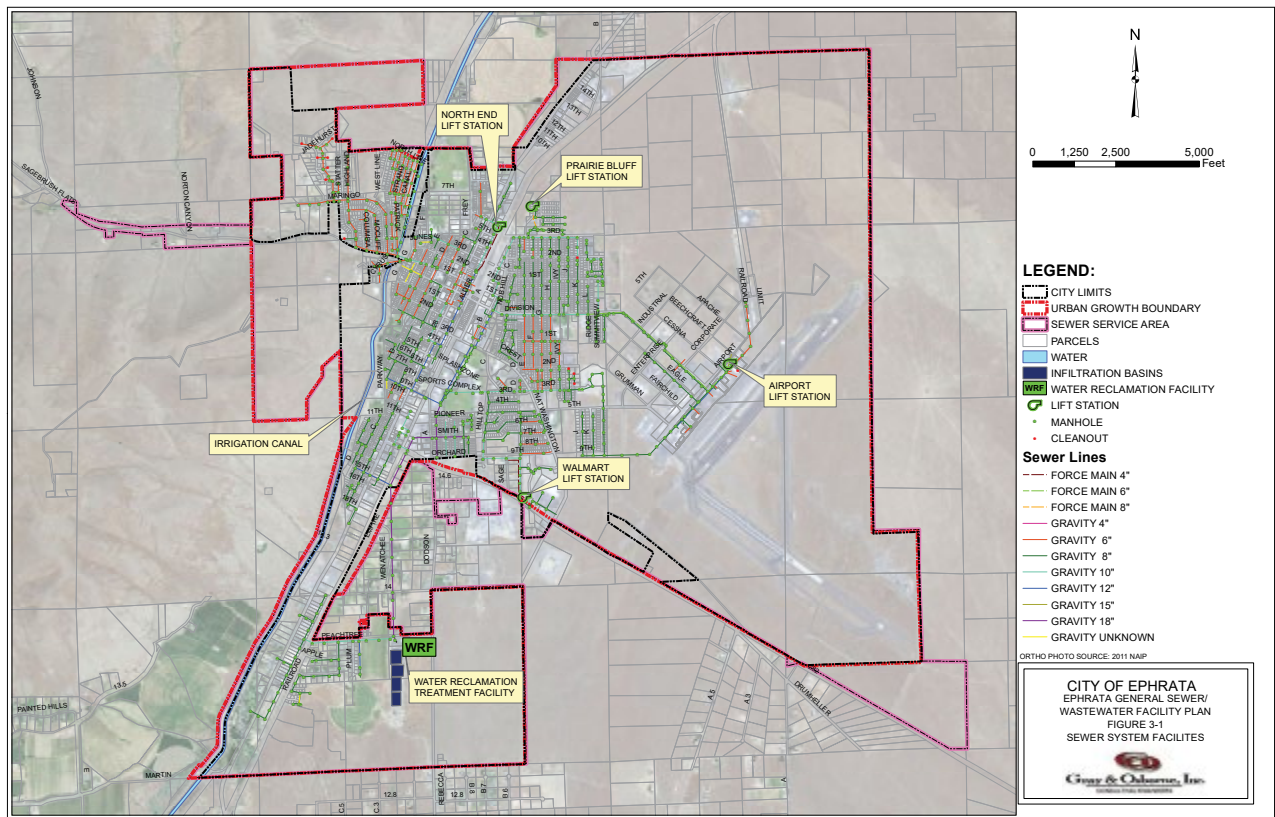


Figure 43. Wastewater System Map

Wastewater Reclaimed Treatment Facility

The previous permits had a maximum day flow of 1.96 mgd. This is the same value shown in the original, approved engineering report and design documents for peak hour flow. The 2034 recommended maximum for daily flow criterion was estimated using the ratio between the projected 2034 maximum day flow (101 mgd) and the 2034 maximum monthly flow (0.89 mgd). This results in a ratio of 1.13 and a recommended maximum day flow of 1.27 mgd. The existing WRTF is generally in good condition, however, there are a number of significant issues that impact how the City will plan for future improvements. The Wastewater System report describes several discrepancies in the original design criteria and how the system performs today, compounded with additional capacity demand fatigue on the system will create concerns if the system is not maintained following the engineered recommendation and the integration of capital improvements within the City's 6-year Capital Facilities

Plan. In addition, the system is designed to utilize reclaimed water and supply existing or future developed areas with reclaimed water. The 2034 estimated flow projects for the Wastewater Reclaimed Treatment System was reduced by 30 percent from current levels. As the City of Ephrata implements comprehensive planning efforts, it will be important to consider the water system, wastewater system, and reclaimed water system concurrently to reduce dependency on domestic water demand, gain efficiency in wastewater treatment, and utilize reclaimed water as an alternative to domestic potable water on non-potable uses and/or irrigation.

Reclaimed Water System

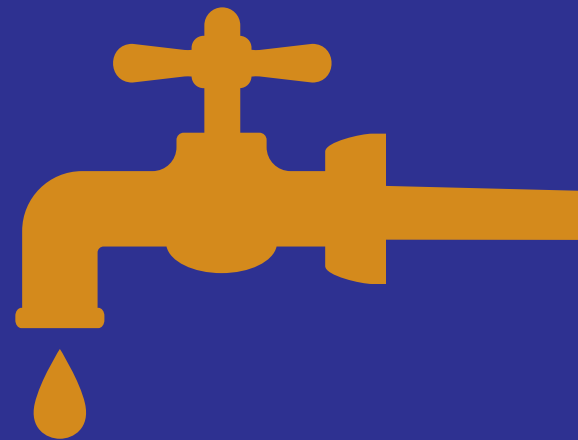
The reclaimed (non-potable) water system provides water for various process equipment and general plant/landscaping/crop uses including washdown and landscape irrigation. The plant reclaimed water system is necessary to operate critical treatment processes, and is therefore is a critical component of the Wastewater Reclaimed Treatment Facility (WRTF).

Currently, reclaimed water can also be distributed through the truck fill hydrant at the reclaimed water dispensing station. The required capacity of the reclaimed water system is directly correlated to the use of reclaimed water at the WRTF and the distribution of reclaimed water through the dispensing station. As neither of these uses has changed substantially since the WRTF was constructed, the necessary capacity of the reclaimed water system has not changed. If the City pursues additional uses for reclaimed water in the future, the new demands must be compared to the existing usage and the capacity of the reclaimed water system. If the demand for reclaimed water is significantly increased, improvements to the reclaimed water system may be necessary.

Treated wastewater not used as reclaimed water is either discharged through spray fields or managed through infiltration basins. The total area of the basins is 9.3 acres. The native soils used to construct the infiltration basins consist of sand and gravel flood deposits and are underlain by alluvial deposits. A groundwater mounding analysis of the infiltration basins indicated that the optimum manner for operating the infiltration basins is to operate two non-adjacent basins at one time to minimize groundwater mounding beneath.

The infiltration basins and infiltration basin diversion box are in good structural condition and should be sufficient for the 20-year planning period.

The City of Ephrata Wastewater Systems Plan is dependent on estimates and projections of the City's Water System Plan.



Other Utilities and Facilities

Stormwater

Ephrata's stormwater management systems have the capacity to retain the runoff from a 25-year, 24-hour storm at peak discharge rates on-site. Development will be regulated to ensure that its post-development run-off to city systems does not exceed the predevelopment discharge volume and/or rate.

For future stormwater management, including development requirements for on-site retention, flow control, and water quality, Ephrata will follow the Washington State Department of Ecology's stormwater guidance manuals, which provide stormwater permit implementation and management guidance.

Electrical System

Ephrata's electrical power provider is the Grant County Public Utility District #2 (GCPUD). The PUD is a public utility district that provides services separate from the City. Maintenance and improvements are managed and paid for by the Utility and funded through customer billing from the Utility. City lights are owned and maintained by the PUD unless private services are requested by developers which are then the responsibility of the development. All capital facility improvements of the electrical system are borne from the PUD and the City does not have any expectation or plan to provide additional capital improvements for electric service.

Solid Waste

A private company Consolidated Disposal Services, Inc. provides subscriber service both

inside and outside the city limits. The firm disposes its refuse at the regional landfill south of Ephrata. The City does not plan any separate capital facilities for solid waste disposal. Consolidated Disposal Services, Inc. also provides services outside city limits. CDSI's main office is located in Ephrata on SR 28 near the southern city limits.

Natural Gas

No natural gas distribution or transmission lines exist in the planning area. This city has no plans for capital improvements for natural gas.

Telephone Service

Telephone service is provided and maintained by CenturyLink Communications. Infrastructure is owned and maintained by and at the cost of CenturyLink Communications both inside the city and in the UGA. Telephone service infrastructure is typically collocated with the existing electrical system through franchise agreements with the City and the Grant County Public Utility District.

Cable Television

Northland Cable has a franchise agreement with Ephrata to provide service within city limits. All areas within the city and the urban growth area are able to access cable service. This city has no plans for capital improvements for cable television services. Cable infrastructure is typically collocated with the existing electrical system through franchise agreements between the City and the Grant County Public Utility District.



Other Public Services

School District

Ephrata is served by Ephrata School District 165. The existing enrollment for the district is 2,825 students (2022-2023 school year). The district has 156 classroom teachers, and the graduation rate in 2022 was 87%. The school district is currently evaluating alternatives to increase the capacity of the district's facilities.

The Ephrata School District consists of six school facilities:

- ♦ Ephrata High School
- ♦ Ephrata Middle School
- ♦ Parkway Intermediate School
- ♦ Columbia Ridge Elementary School
- ♦ Grant Elementary School
- ♦ Tiger Cub Preschool

District 165 and its schools are using the school improvement process to increase student achievement. Each school has a leadership team that analyzes data, sets goals, and implements a plan that reflects the needs of their students. These [School Improvement Plans](#) are herein adopted by reference.

Library

Located on Alder Street near 1st Ave NW, the Ephrata Public Library is part of the North Central Washington Regional Library System. As a regional library, materials are available from other nearby branches and by mail. Library services are provided regardless of location within or outside the city's UGA.



Emergency Services

Ambulance Service

Ambulance transport services are provided by Moses Lake Fire Department.

Police Protection

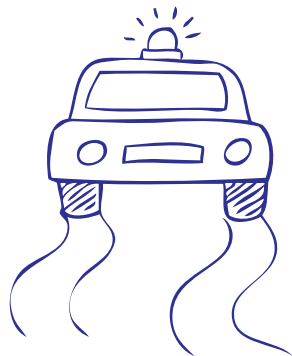
The police department is staffed by commissioned officers including field officers, sergeants, detectives, INET detectives, captains, the police chief, utility officers, and support clerks.

The department is equipped with fifteen vehicles as well as the basic equipment needed to perform its patrol and investigative functions.

Response time is 3-5 minutes within the city, and up to seven minutes on the outskirts of the city. Response time to the Port of Ephrata can also be up to seven minutes.

Health Services

Columbia Basin Hospital, a Critical Access hospital, currently has 58 total beds, of which 32 are Assisted Living beds. The hospital has 24-hour trauma care (Level 5). The hospital is staffed by medical doctors, mid-level practitioners, and also has visiting clinic specialists for cardiology, rehabilitation, surgery, eye, ear, nose and throat, and urology.



Fire

The Minimum Fire Flow shall be determined by the local fire authority or WAC 246-293 for systems within a Critical Water Supply Service Area (CWSSA). The Ephrata Fire Department provides an array of community risk reduction and emergency services and is currently staffed by two full-time uniformed employees (Fire Chief, Deputy Fire Chief), a full-time non-uniformed administrative assistant, and 27 volunteers. The Ephrata Fire Department periodically evaluates its Standard of Coverage, and the last update was completed in 2021. This rating system determines a class of rating system from 1 to 10. The study evaluates the receiving and handling of fire alarms, the fire department, and the water supply.

Fire Insurance Rating

The City has adopted the International Fire Code (IFC) for determining fire flows. The IFC states “the minimum fire flow requirement for a one-family and two-family dwelling units having a fire flow calculation area which does not exceed 3,600 square feet shall be 1,000 gallons per minute.” The City’s Deputy Fire Chief has determined that the maximum fire flow demand for the water system is 6,500 gpm for 4 hours. The Ephrata Fire Department was evaluated by the Washington Survey and Rating Bureau in 2021, which has a rating system from 1 to 10. Ephrata is rated a public protection Class 5 for insurance rating purposes.



Summary Table

Table 36. Capital Facilities and Utilities Summary

Service	Owner	Facility Use	Level of Service Standard	City Programmatic Element / Functional Plan	Program Renewal / Lifecycle
Domestic Water	City	Infrastructure for drinking water reservoir, pumping and distribution	<p>Provide water meeting all requirements of Federal Safe Drinking Water Act and Washington State Department of Health to all customers desiring service within the City's water service area.</p> <ul style="list-style-type: none"> Residential units require a minimum fire flow availability of 1,000 gallons per minute (gpm) for a 1 hour duration Hydrants located with no more than 600 feet of separation Minimum pressure of 30 psi 	City of Ephrata Water System Plan Gray & Osborn November 2021	Current Approved - 2021 Renewal cycle - 5 years
Wastewater	City	Reclaimed Wastewater Treatment Plant for water quality improvements, and facilities to convey, store, and distribute reclaimed wastewater	Provide a collection system capable of conveying all wastewater discharges from residential, commercial, and industrial customers within city limits and the UGA.	City of Ephrata General Sewer/ Wastewater Facility Plan Gray & Osborn December 2018	Current Approved - 2018 Renewal Cycle - 5 years
Stormwater	City	Infrastructure to collect, treat, convey, store and manage stormwater	Establish and enforce development requirements for on-site retention, flow control, and water quality.	Adopt Washington State Department of Ecology Stormwater Manual & Standards	N/A
Solid Waste	Grant County	Facilities to collect and dispose of residential, commercial and industrial waste	Weekly curbside refuse collection	Managed by the Grant County Solid Waste Service contract with Basin Disposal	N/A



Table 36. Capital Facilities and Utilities Summary

Service	Owner	Facility Use	Level of Service Standard	City Programmatic Element / Functional Plan	Program Renewal / Lifecycle
Fire District	City	Fire Stations and emergency service facilities	Washington Survey and Rating Bureau Class 5	6-year capital facility plan Water System Plan (fire flow) Minimum fire flow shall be determined by the local fire authority of WAC 246-293 for systems within a critical water supply service area (CWSSA)	Annual review and approval of 6-year CFP 5-year renewal of Water System Plan
Emergency Medical Services (EMS)	Private	Emergency buildings and emergency service facilities	Basic Life Support at 5 minutes, 90% of the time.	N/A	N/A
Police	City	Police Station/Headquarters	Not Available	6-year Capital Facilities Plan	Annual review and approval of 6-year CFP
Parks, Recreation and Open Space	City	Parks and community recreation facilities	8 acres per 1,000 population	Parks and Recreation Plan & 6-year Capital Facilities Plan	Annual review and approval of 6-year CFP
Electricity	Grant County PUD	Electrical Infrastructure for meeting community needs	N/A	N/A	N/A
Fiber Optics	Grant County PUD	Internet, television, telephone	N/A	N/A	N/A
Telecommunications (wired/cellular)	Private	Internet, television, telephone	Adequate provision to serve market demand.	N/A	N/A
Library	North Central Washington (NCW) Libraries	Ephrata Public Library	Not Available	NCW Facility Improvement Plan	N/A
Schools	Ephrata School District 165	Six public schools located in Ephrata	Not Available	School Improvement Plans	N/A
Municipal Services	City	City Hall	N/A	6-year Capital Facilities Plan	Annual review and approval of 6-year CFP
County Services	Grant County	Courthouse	N/A	Grant County Capital Facilities Plan	Annual review and approval of 6-year CFP



Economic Development

Economic development is not a required element of a GMA-compliant Comprehensive Plan, but Ephrata chooses to include this chapter to improve the local economy through diversification and integration with the regional economy.

Generating economic activity in Ephrata will increase employment opportunities, expand the tax base, increase disposable incomes, and provide additional tax revenues. Increased development will also have the potential to cause adverse impacts on the community, such as traffic congestion, increased demands for housing, and additional demands on the water supply and sewer services. Therefore, it is crucial for the town to develop an economic strategy that facilitates improvements and maintenance of capital facilities, transportation needs, and coordinates land use and housing policies with the economic development policies.

The Policy Framework in Chapter 3 identifies Economic Development Policies that will guide Ephrata toward a successful and diverse economy.

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Economic Development Considerations

Grant County Employment

Ephrata is the Grant County Seat and houses the County's main offices including the Courthouse and the Jail. As the County Seat, Ephrata benefits from a steady employment base through public administration and government jobs. Grant County employees commute from within Ephrata and from the surrounding communities to their jobs in the City, which benefits other local businesses, especially in the Downtown Core, as these employees frequent downtown shops and restaurants before or after work, or on their lunch or coffee breaks.

Ephrata citizens pride themselves on being the Grant County Seat, and therefore maintaining this job base and its supplemental economic activity are essential to Ephrata's identity and its future.

Port of Ephrata

The Port of Ephrata manages land within city limits, offering opportunities for commercial development near the highway. Their property provides access to a Burlington Northern Rail Spur for accessible freight transportation. Additionally, the Port currently has approximately 200 acres of property suitable for industrial development with easy



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access to affordable utilities and internet.

It is essential that the City continues to support the Port of Ephrata to attract jobs and economic growth. The City will work with the Port to ensure that land use decisions and economic growth are coordinated with this Comprehensive Plan and the City's vision for the future.

Historic Downtown

Ephrata's historic downtown is the City's economic center. Downtown Ephrata has a historic charm with old brick buildings lining the sidewalks, public art on display, pocket plazas and seating areas, and a number of small local businesses including cafes, restaurants, boutiques, and other retail shops. Basin Street/State Route 28 passes directly through Downtown Ephrata, making it a convenient place for both locals, visitors, and through-travelers to stop, dine, or shop.

The City supports the success of Downtown Ephrata through this plan's Policy Framework in Chapter 3. The City aims to conduct a Downtown Revitalization Plan as an implementation item of the Comprehensive Plan. The Ephrata Downtown Revitalization Plan will look into the following strategies to support continued economic success in Downtown Ephrata:

- Funding assistance for building upkeep, façade improvements, and business support
- A downtown parking study to improve parking efficiency
- Capturing economic activity associated with through-traffic, including RVs and trucks
- Diversifying the customer base of Downtown Ephrata
- Ensuring downtown redevelopment and success works within FEMA Floodplain restrictions but also is not prevented by Floodplain restrictions and costs



Parks and Recreation

Parks and Recreation is not a required element of a GMA-compliant Comprehensive Plan, but Ephrata chooses to include this chapter to improve the local recreation opportunities through establishing policies and direction for the city's parks, recreation, and open space programs.

The City of Ephrata believes that Parks and Recreation are a key element in providing the highest quality of life possible for the citizens of our community. The Ephrata Parks and Recreation Department maintains a number of parks, facilities, and programs throughout the City to ensure the community has access to plentiful recreation opportunities.

The City of Ephrata 2023 Parks and Recreation Plan provides a detailed inventory, analysis, and direction for the City of Ephrata's parks over the next five years. This plan, and its subsequent updates, will be considered the Parks and Recreation component of the Ephrata Comprehensive Plan, and shall be adopted by reference. The most recent Parks and Recreation Plan should be referenced to find updated inventories, goals, policies, and action items that will support the continued success of Ephrata's Parks.

The Policy Framework in Chapter 3 of this plan identifies a number of Parks and Recreation policies that shall guide future updates to the Parks and Recreation plan updates.

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Appendix A: Implementation Action Plan

#	Implementation Action	Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec	Economic Dev.	Lead	Timeline	Effort	Cost	Partners	Priority
1	Update the City's Critical Areas Ordinance with a specific focus on floodplain and flood hazard strategies.	x	x							City	Short	Medium	Medium	FEMA	High
2	Establish a Multifamily Tax Exemption (MFTE) Program to incentivize development of affordable multifamily housing.	x		x					x	City	Medium	Low	Low	Department of Commerce	Low
3	Identify residential areas that are vulnerable to the risk of displacement and adopt regulations to protect and preserve affordable housing in those areas.	x		x						City	Medium	Medium	Low	Grant County	Low
4	Conduct a downtown parking study to analyze parking needs and recommend solutions.	x			x				x	City	Medium	Medium	Medium	Downtown Businesses	Low
5	Research opportunities (property, funding, etc.) for the development of an indoor recreation complex.	x					x	x	x	City	Medium	Medium	Medium/High	Grant County	Medium
6	Establish standards for the siting of essential public facilities within city limits and its UGA	x					x			City	Short	Low	Low	Grant County	Medium
7	Partner with the Port of Ephrata to develop an industrial subarea plan for the industrial land surrounding the airport.	x							x	Port of Ephrata	Short	Medium	Medium	Port of Ephrata	Medium
8	Develop a Housing Action Plan to ensure provision of affordable and accessible housing.			x						City	Short	Medium	Low	Department of Commerce, Grant County	Medium
9	Identify and track grant opportunities to help establish housing renovation, rehabilitation, or weatherization programs to help maintain the housing stock.			x						City	Medium	Medium	Low	Grant County Housing Authority	Low
10	Identify and track grant opportunities to help with transportation and capital facilities improvements.				x	x	x			City	Medium/Long	High	Medium	WSDOT, Grant County	High
11	Conduct a citywide traffic study to analyze transportation needs and prioritize projects, including the possibility of a new north-south arterial.				x	x				City	Medium	Medium	Medium	Grant County/WSDOT	Low



#	Implementation Action	Land Use	Critical Areas	Housing	Transportation	Active Transportation	Cap. Fac./Util.	Parks & Rec	Economic Dev.	Lead	Timeline	Effort	Cost	Partners	Priority
12	Advocate and plan for a new railroad crossing within city limits.				x	x				City	Long	High	High	Grant County, WSDOT, BNSF	High
13	Develop an Active Transportation Plan to identify priority bike, pedestrian, and trail projects and ways to implement them.				x	x				City	Medium	Medium	Medium	WSDOT, Ephrata School District	Low
14	Fill in sidewalk gaps and/or upgraded sidewalks in poor condition on designated safe routes to schools.				x	x				City	Short	Medium	High	Ephrata School District	Medium
15	Prioritize and implement the Ephrata Parks and Recreation Plan							x		City	Short	Medium	Medium		High
16	Develop a downtown revitalization plan and/or a Main Street Program								x	City	Short	Low	Low	Downtown Businesses	Medium
17	Pursue funding for and develop a Façade improvement program and other programs to assist small businesses downtown.								x	City/ Chamber of Commerce/ Downtown Businesses	Short	Medium	Medium	Downtown Businesses	Low
18	Partner with the Chamber of Commerce and Grant County tourism groups to implement a marketing campaign for Ephrata, helping attract visitors and new residents to the city.								x	Chamber of Commerce	Medium	Medium	Medium	Ephrata Chamber of Commerce	Low
19	Seek economic development assistance from the Grant County Economic Development Council (EDC), the State Department of Commerce, and other entities in the economic development arena.								x	City	Short	Low	Low	Grant County Economic Development Council/ WA Dept of Commerce	Low
20	Coordinate with the Ephrata School District and Big Bend Community College to determine the feasibility of developing a performing arts center.								x	Ephrata School District	Long	High	High	Ephrata School District/ Big Bend Community College	Low



Appendix B: Land Quantity Analysis Report

Introduction

This land quantity analysis (land capacity analysis) aims to provide insight into the quantity of the City of Ephrata's land within its current city limits and UGA that is developable (buildable). Additionally, the analysis aims to identify how much land is developable for different types of land uses such as residential, commercial, and industrial. The purpose of this exercise is to determine whether the City has sufficient land in its current city limits and UGA to accommodate the projected growth over the next 20 years or so.

Process

The land capacity analysis was conducted by looking at a set of criteria pertaining to individual parcels within the city and the UGA. Using the Department of Commerce's buildable lands guidelines, the City's critical areas designations, and best practices regarding redevelopment potential, a series of thresholds were established to either rule out land for future development, or count it as available or partially available for new development.

Through spatial analysis in ArcGIS Pro, the various criteria were placed into queries and a series of maps were generated for the different land use types that were available to analyze. The acreage of all parcels within each category were then summed up and divided by their zoning classification. These specific categories can provide guidance as to which parts of the city have different development restrictions pertaining to a range of challenges such as wetlands, steep slopes, aquifer recharge areas, or floodplains.

Lastly, land use types were consolidated into broader categories for residential uses and employment uses (commercial and industrial) and a generalized reduction factor was applied to each category to account for other unknowns such as public right-of-way needs, capital facilities needs, and other market factors. This led to a final total land acres within the City of Ephrata and its UGA available for development to accommodate growth.

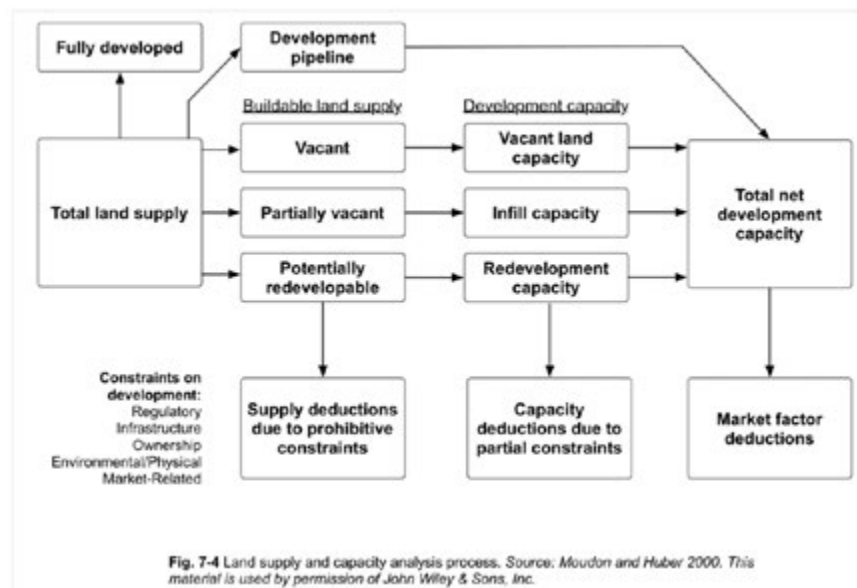


Fig. 7-4 Land supply and capacity analysis process. Source: Moudon and Huber 2000. This material is used by permission of John Wiley & Sons, Inc.

Figure 1: Conceptual Framework for Buildable Land Inventory and Capacity Analysis

Population Projection

The 2022 Office of Financial Management (OFM) Population Projections designate a medium-series population value of 127,647 to Grant County for the year 2044.

In 2022, Ephrata held about 8.47% of the total population of Grant County. This plan will assume that Ephrata will continue to hold the same population share of Grant County for the next 20 years. Under this assumption, Ephrata will have a population of **10,809 people in the year 2044**.

Compared to the Grant County Comp Plan 2038 projections, which assigned a 2038 population to Ephrata of 10,719, this new projection is only 90 additional people.

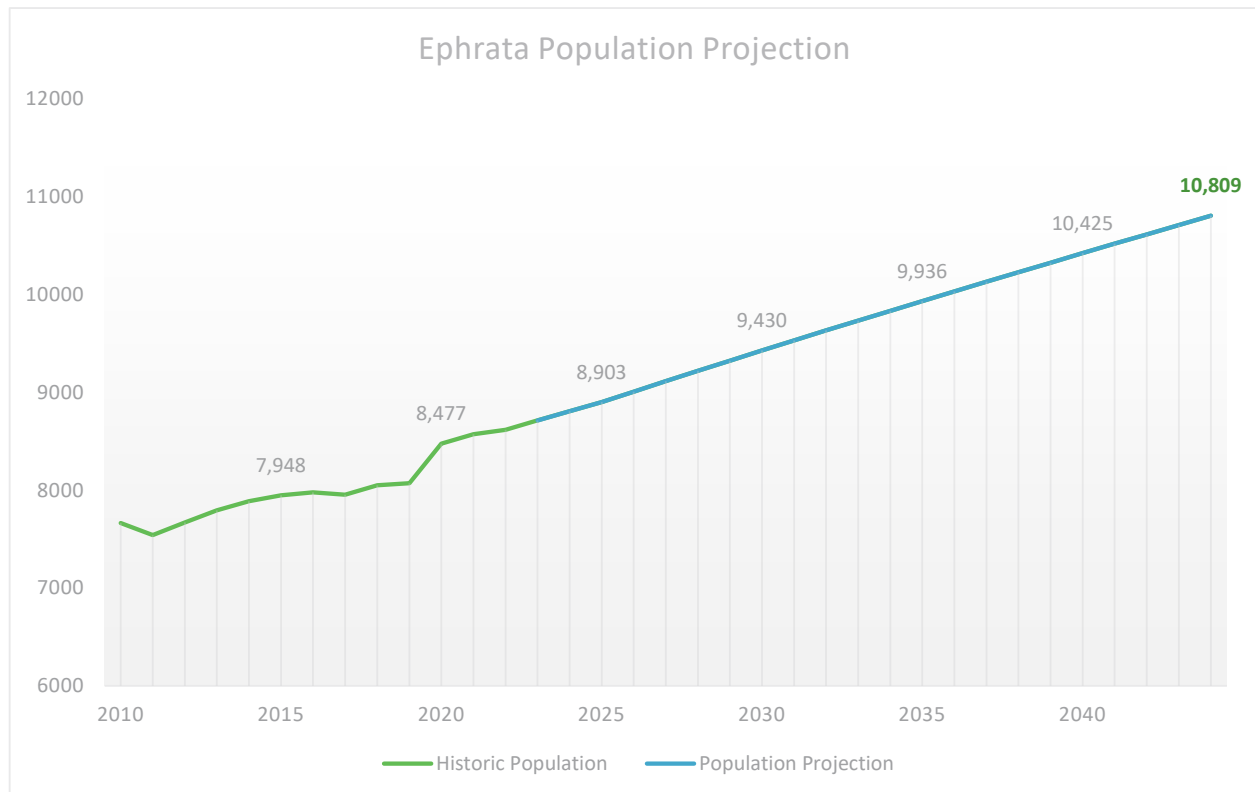


Figure 2: Ephrata Population Projection



Criteria Thresholds

Table 1 outlines the various criteria to determine whether a parcel is developable or redevelopable. The table outlines how each criteria was calculated and the significance of each on development potential.

Table 1: Land Quantity Analysis Criteria Thresholds

Criteria	Threshold Description	Calculation/Logic	Notes
Vacant or Developed	Where total assessed value equals the assessed land value, there are no developments on the parcel.	(Total assessed value > Assessed land value) = Developed (Total assessed value = Assessed land value) = Vacant	-
Presence of Wetlands and/or water	Parcels with greater than 50% of their area covered by wetlands and/or water are not developable	Wetlands >50% of parcel area = Undevelopable	Wetlands include all water bodies for this analysis (including canals) Very minimal presence of wetlands in Ephrata
Presence of steep slopes	Parcels where more than 50% of the parcel area has steep slopes (a slope of 15% or higher) are undevelopable	Steep slopes > 50% of parcel area = Undevelopable	Not much concern for these areas except on the west side of the City and UGA
Presence of floodplain	Parcels that overlap with the floodplain have development challenges	Parcel Overlap (Intersect) with floodplain has development challenges (Floodplain = Yes, Partial) = challenges	A major challenge, but not prohibitive. Extra costs for flood insurance, and stricter development regulations.
Presence of Aquifer Recharge Areas	Parcels that overlap with the 1-year wellhead protection buffer will need to consider aquifer protection	Parcel Overlap (Intersect) with SWAP 1-Year needs to consider aquifer protection (SWAP 1-Year = Yes, Partial, No)	Prohibitive to heavy industrial, but not much else.
Likelihood of redevelopment	Redevelopment Ratio = Assessed Land Value/Total Assessed Value	"Redev Ratio" of 0.5 or greater = Redevelopable	Closer to 1 = less likely to redevelop This is a measure of how much value parcels have developed on them currently. The higher value, the less likely to redevelop.
Non-taxable land	Non-taxable land is generally considered undevelopable for residential or employment purposes because the land is either owned by the government or by another non-taxable entity such as a church.	If a parcel is tax exempt, it is considered undevelopable.	-

Criteria by Land Type

Table 2 outlines the 10 different land types included in this analysis and the logic statement used for each criterion to create a query in ArcGIS Pro that identified each specific land type.

Table 2: Ephrata Land Quantity Analysis Type Criteria

Land Type		Vacant or Developed	Presence of Wetlands (Prohibitive)	Presence of steep slopes (Prohibitive)	Presence of floodplain (Challenge but not prohibitive)	Presence of Aquifer Recharge Areas (Challenge but not prohibitive)	Likelihood of redevelopment	Non-taxable land
Vacant Land Types	Vacant & Undevelopable	Total value equals land value	Wetlands >50% of parcel area	<u>AND/OR</u> Steep slopes > 50% of parcel area	N/A	N/A	N/A	<u>OR</u> IsExempt = YES
	Vacant & Developable	Total value equals land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: No	Overlap with SWAP 1 Year: No	N/A	IsExempt = No
	Vacant & Developable with Floodplain Challenges	Total value equals land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: Yes, Partial	Overlap with SWAP 1 Year: No	N/A	IsExempt = No
	Vacant & Developable with Aquifer Protection Needs	Total value equals land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: No	Overlap with SWAP 1 Year: Yes, Partial	N/A	IsExempt = No
	Vacant & Developable with Floodplain Challenges AND Aquifer Protection Needs	Total value equals land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: Yes, Partial	Overlap with SWAP 1 Year: Yes, Partial	N/A	IsExempt = No
Developed Land Types	Developed & Redevelopable	Total value does not equal land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: No	Overlap with SWAP 1 Year: No	RedevRatio 0.5 or higher	IsExempt = No
	Developed & Redevelopable with Floodplain Challenges	Total value does not equal land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: Yes, Partial	Overlap with SWAP 1 Year: No	RedevRatio 0.5 or higher	IsExempt = No
	Developed & Redevelopable with Aquifer Protection Needs	Total value does not equal land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: No	Overlap with SWAP 1 Year: Yes, Partial	RedevRatio 0.5 or higher	IsExempt = No
	Developed & Unlikely to Redevelop	Total value does not equal land value	N/A	N/A	N/A	N/A	RedevRatio lower than 0.5	<u>OR</u> IsExempt = YES



Land Type		Vacant or Developed	Presence of Wetlands (Prohibitive)	Presence of steep slopes (Prohibitive)	Presence of floodplain (Challenge but not prohibitive)	Presence of Aquifer Recharge Areas (Challenge but not prohibitive)	Likelihood of redevelopment	Non-taxable land
	Developed & Redevelopable with Floodplain Challenges AND Aquifer Protection Needs	Total value does not equal land value	Wetlands <50% of parcel area	<u>AND</u> Steep slopes <50% of parcel area	Overlap with Floodplain: Yes, Partial	Overlap with SWAP 1 Year: Yes, Partial	RedevRation 0.5 or higher	IsExempt = No



Acres by Land Type and Zone

Table 3 shows the number of acres in each land type category and within each designated zone.

The AcrGIS Pro analysis required some minor tweaking of the zoning shapefiles in order to designate one zone to each parcel. According to the city's zoning map, a number of parcels within the City are split zoned and a few parcels did not show a zoning designation (thus the "no zone" category). The table also shows the number of acres in each land type category within the UGA.

Table 3: Land Quantity Type by Zone

Map #	Land Type	Parcels	Total Acres	Rural Residential	R1	R2	R3	R4	C1	C2	C3	Open Space	Industrial 1	Industrial 2	Airport Industrial 1	Airport Industrial 2	Airport Commercial	Airport Enterprise	Airport Unclassified	No Zone	UGA
		#											Acres								
1	Vacant & Undevelopable	130	714.00	1.93	84.08	3.12	0.00	16.03	0.98	9.53	0.00	3.57	214.23	9.61	2.45	0.00	0.00	129.98	0.00	0.00	238.49
2	Vacant & Developable	363	2041.58	490.82	100.06	104.80	0.28	133.16	0.00	92.28	0.00	0.00	197.94	772.89	0.00	0.00	0.00	0.66	27.54	0.00	121.15
3	Vacant & Developable with Floodplain Challenges	152	105.53	33.31	1.69	5.90	0.00	0.00	1.63	41.17	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.53	19.22
4	Vacant & Developable with Aquifer Protection Needs	64	63.53	0.00	30.60	10.81	0.00	0.00	0.00	0.00	0.61	0.00	17.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.59
5	Vacant & Developable with Floodplain Challenges AND Aquifer Protection Needs	15	7.38	0.00	2.65	4.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	Developed & Redevelopable	67	138.19	6.95	11.36	0.29	0.78	13.42	0.00	5.27	0.00	0.00	25.87	74.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Developed & Redevelopable with Floodplain Challenges	37	24.17	0.00	0.31	1.95	0.00	0.00	0.92	18.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	0.46
8	Developed & Redevelopable with Aquifer Protection Needs	4	0.57	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	Developed & Unlikely to Redevelop	2981	3763.56	167.22	573.47	130.20	18.00	64.43	25.42	113.59	0.60	14.07	67.79	97.66	16.80	1.32	6.04	2355.19	0.00	4.06	107.70
10	Developed & Redevelopable with Floodplain Challenges AND Aquifer Protection Needs	2	3.72	0.00	3.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total	3815	6862.22	700.24	808.51	261.80	19.06	227.05	28.95	280.79	1.21	17.63	525.82	954.40	19.25	1.32	6.04	2485.83	27.54	6.16	490.61

Land Reduction Factors

Land reduction factors must be taken into account for developable and redevelopable lands. Reduction factors account for public right-of-way for streets and sidewalks, future public facilities like schools and fire stations, additional critical area considerations, and also takes into account landowners who are unwilling to sell or change their property even as land use patterns change. These reduction factors vary from city to city, but there are general trends statewide that point to general ranges. The Department of Commerce provides the following guidelines for reduction factors on different types of land.

Department of Commerce Buildable Lands Guidelines¹ for Market Factors:

- Unincorporated UGA Residential Land: 10% to 15% for vacant land, 25% to 30% for under-utilized land;
- Unincorporated UGA Employment Land: 10% to 20% for vacant land, 25% to 50% for under-utilized land;
- Incorporated Residential Land: 0% to 50% for vacant land, 0% to 50% for under-utilized land; and
- Incorporated Employment Land: 0% to 20% for vacant land, 0% to 40% for under-utilized land.

Net Buildable Acres

In order to summarize the buildable lands in Ephrata, the zoning types were grouped together so that:

- All residential zones (Rural Residential and R-1 through R-4) counted as “Residential”
- All Commercial (C-1 through C-3), all Industrial (I-1 & I-2), and all Airport lands counted as “Employment”
- Public Facilities were removed from the buildable lands (for the same reasons listed previously that non-taxable lands are considered undevelopable)
- Incorporated City and UGA lands were treated separately

Developable and Redevelopable categories from Table 3 were then summed up into the following categories.

- Incorporated Residential Land, Vacant
- Incorporated Residential Land, Underutilized
- Incorporated Employment Land, Vacant
- Incorporated Employment Land, Underutilized
- Unincorporated, Vacant
- Unincorporated, Underutilized

Underutilized lands were defined to be any category that was “developed” and also at least partially “redevelopable”.



The following reduction factors were applied to each land type based on the DOC mid-point ranges.

Table 4: Land Type Reduction Factors

Land Type	Reduction %
Incorporated Residential Land, Vacant	25%
Incorporated Residential Land Underutilized	35%
Incorporated Employment Land, Vacant	10%
Incorporated Employment Land, Underutilized	20%
Unincorporated, Vacant	15%
Unincorporated, Underutilized	30%

These reduction factors resulted in the following total net acres of buildable lands in Ephrata:

Table 5: Net Buildable Acres by Land Type

Buildable Lands	Net Buildable Acres
Incorporated Residential Land, Vacant	606.44
Incorporated Residential Land, Underutilized	53.50
Incorporated Employment Land, Vacant	1352.56
Incorporated Employment Land, Underutilized	514.31
Unincorporated, Vacant	0.41
Unincorporated, Underutilized	0.32
Total	2527.55

Conclusion

The total buildable lands in Ephrata (2527.55 acres), accounts for approximately 37% of the total number of acres in its combined city limits and UGA (6862.22 acres). Even accounting for minor tweaks and estimates incorporated throughout this analysis, there is still a significant amount of land for both residential and employment growth with the city limits of Ephrata.

Ephrata has approximately 660 acres of capacity for new residential development. Even at the maximum density allowed in the R-1 Zone (7 units per acre), that equates to approximately 4,620 new residential units. At Ephrata's average household size of 2.72, Ephrata has capacity for approximately 12,500 new residents. Therefore, there is more than sufficient capacity to accommodate the projected population.

Additionally, Ephrata has nearly 1,900 acres of buildable lands for employment uses (commercial or industrial). This is more than sufficient for the projected economic growth in the city, considering that there are currently fewer than 1,800 acres of combined area in the existing commercial and industrial zones, much of which is vacant or redevelopable.

On the other hand, there is very little buildable land in the City's current UGA. Much of Ephrata's UGA is on a hillside (much of it incorporating Beasley Hill), and other small areas of the UGA are on developed or public land. Even though Ephrata has plentiful land within its current boundaries to accommodate growth, the placement of its UGA should be reconsidered so as to provide more valuable land that could contribute to future growth.



Maps

The following series of maps identify the eleven different land types analyzed in this report and highlights their locations within the City and its UGA.

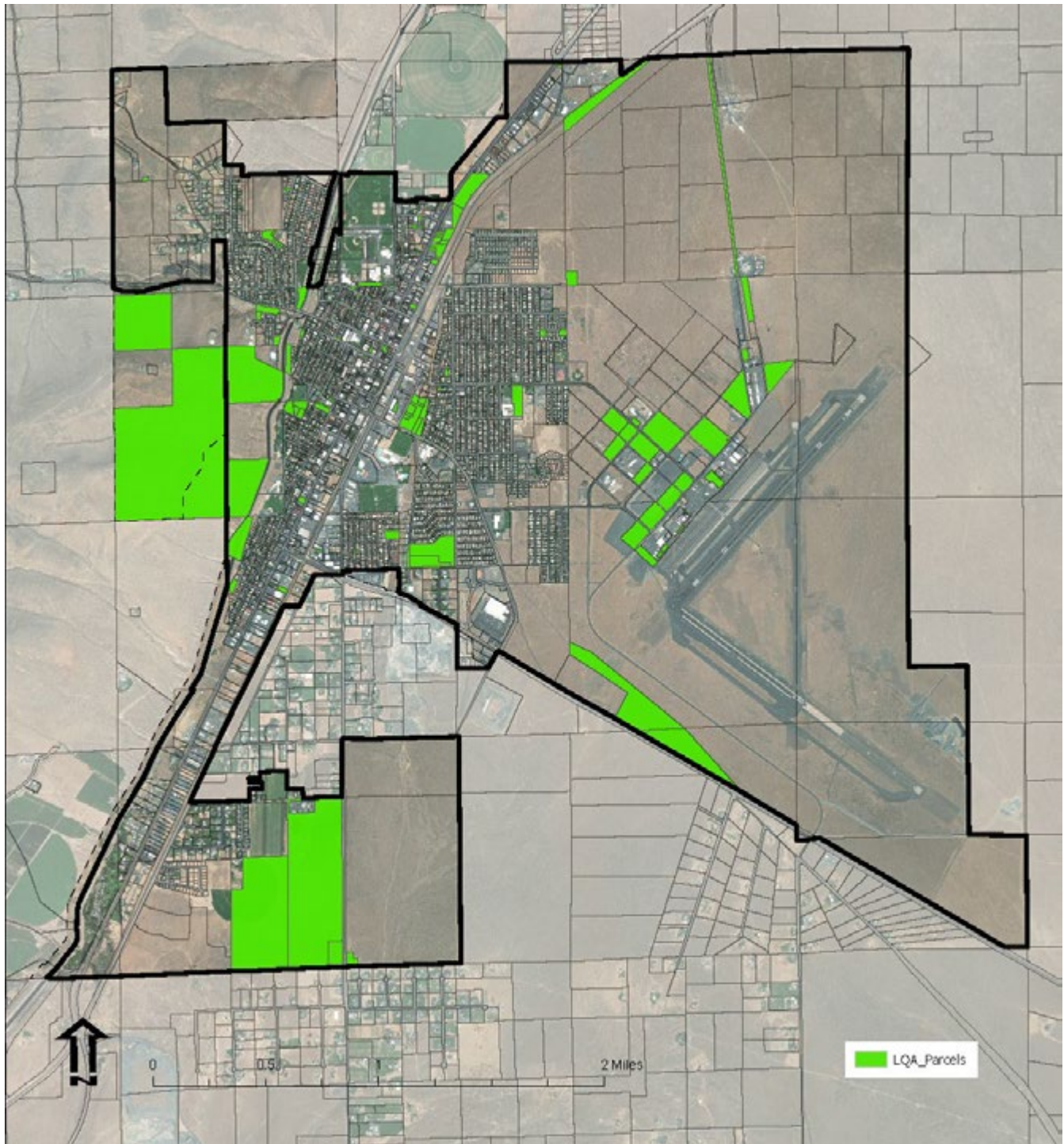


Figure 3: Land Type 1: Vacant and Undevelopable

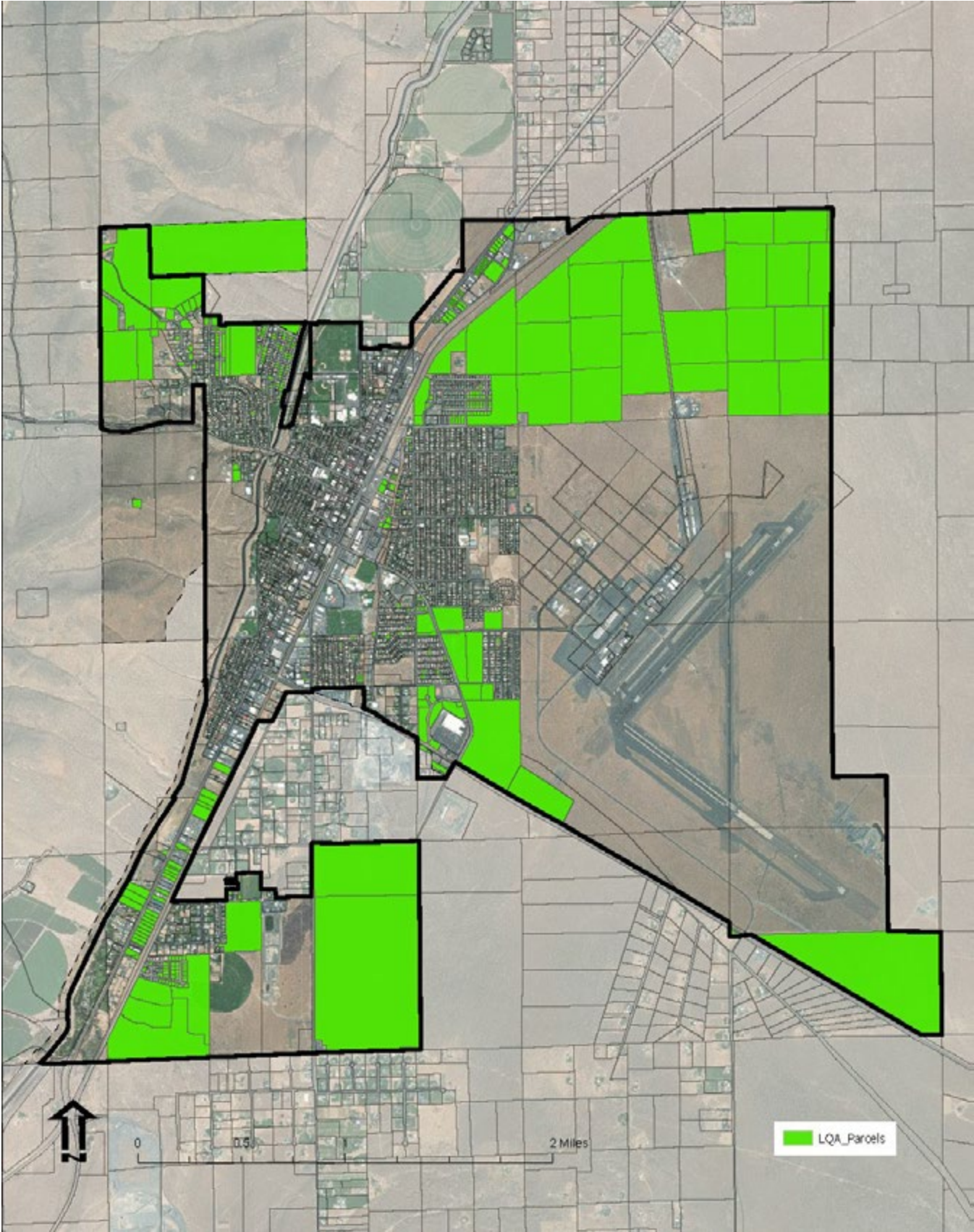


Figure 4: Land Type 2: Vacant and Developable

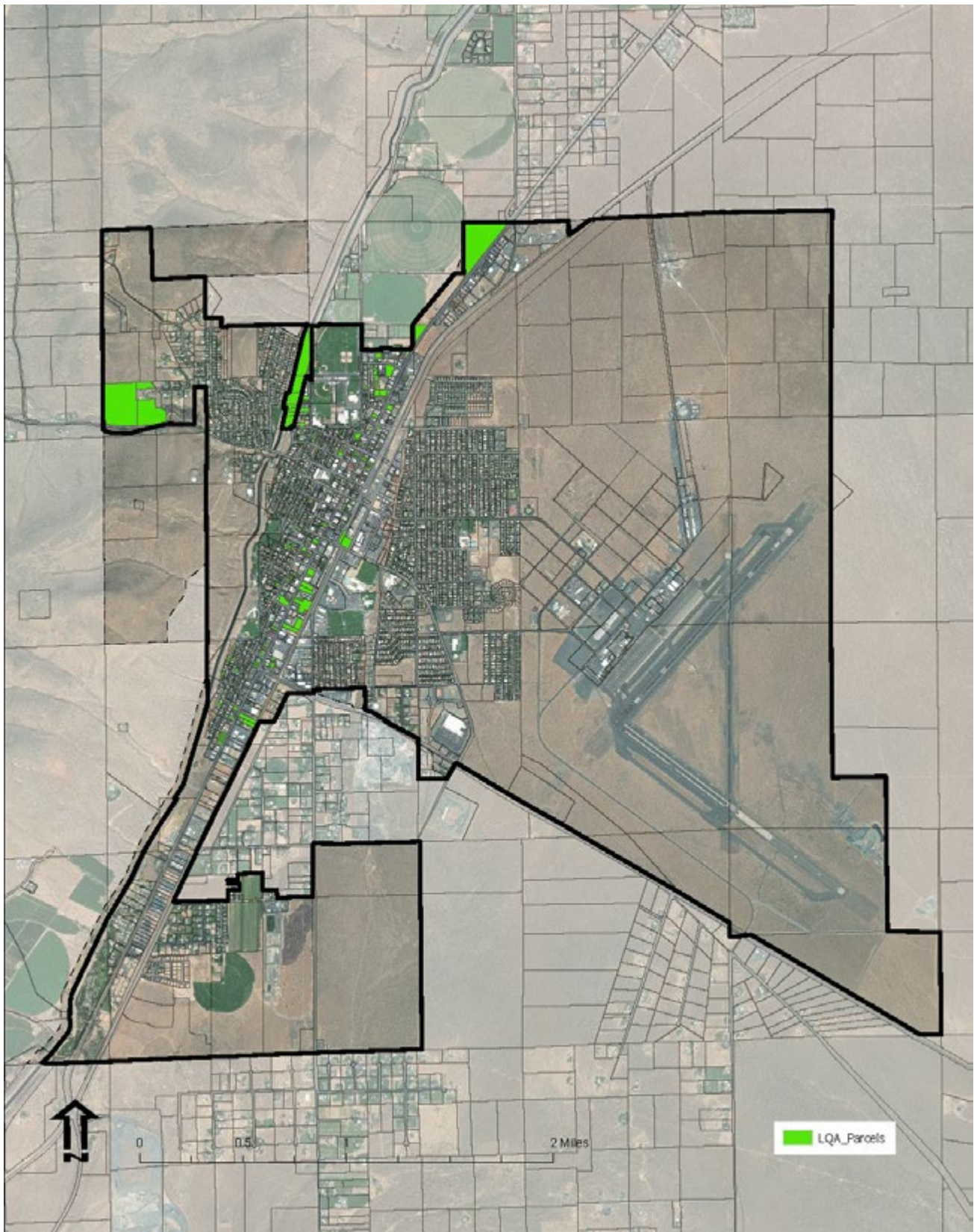


Figure 5: Land Type 3: Vacant and Developable with Floodplain Challenges

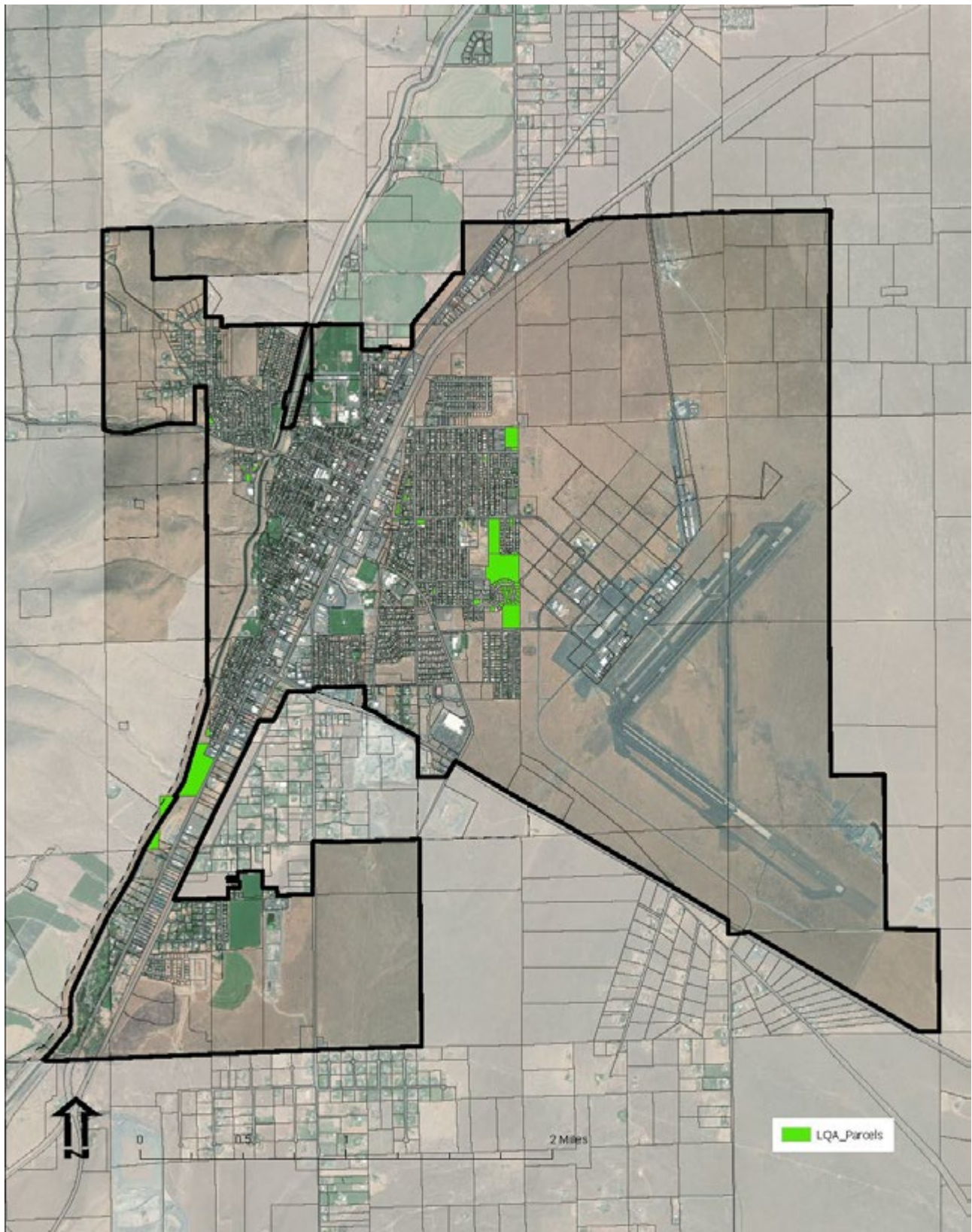


Figure 6: Land Type 4: Vacant & Developable with Aquifer Protection Needs

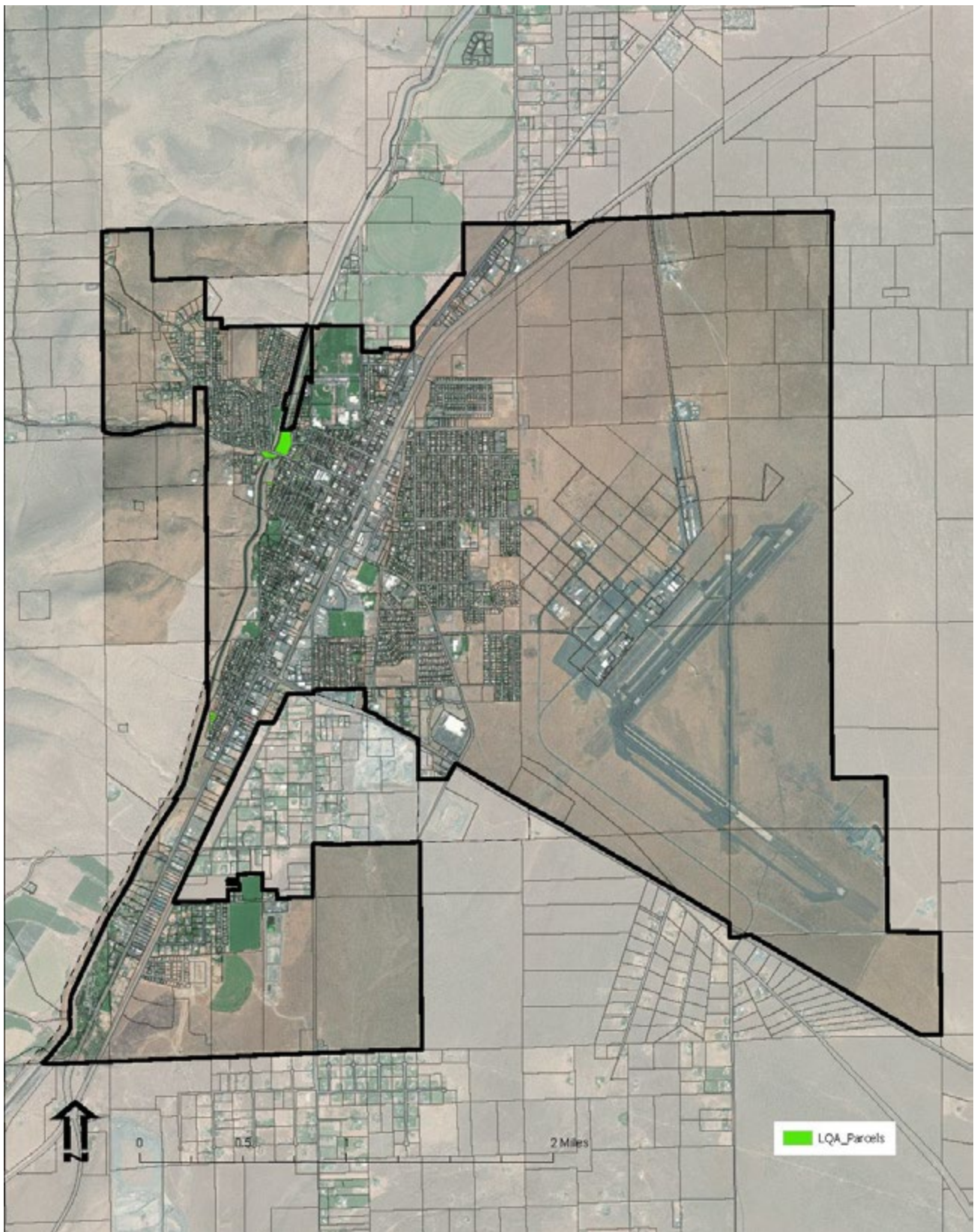


Figure 7: Land Type 5: Vacant & Developable with Floodplain Challenges AND Aquifer Protection Needs

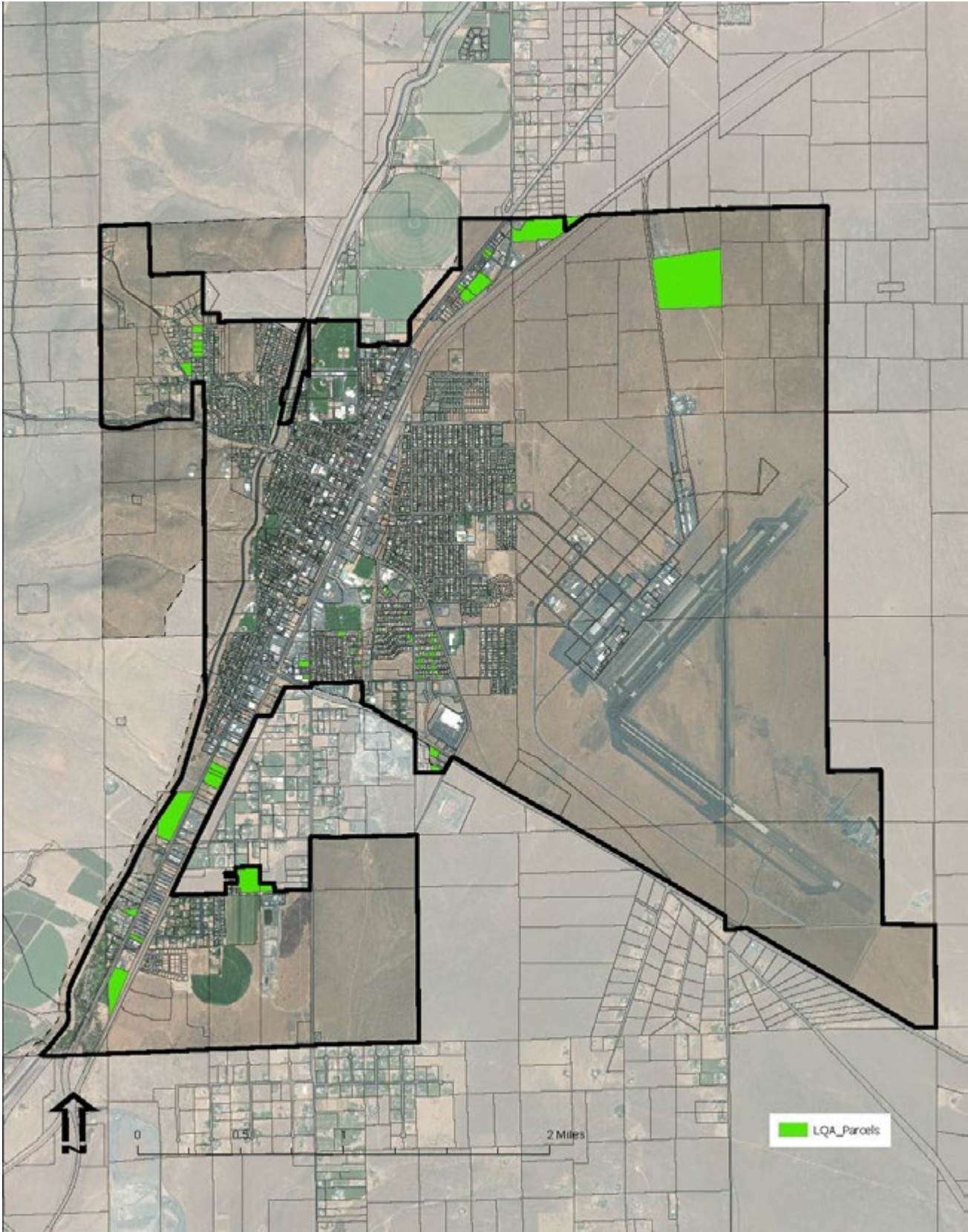


Figure 8: Land Type 6: Developed and Redevelopable

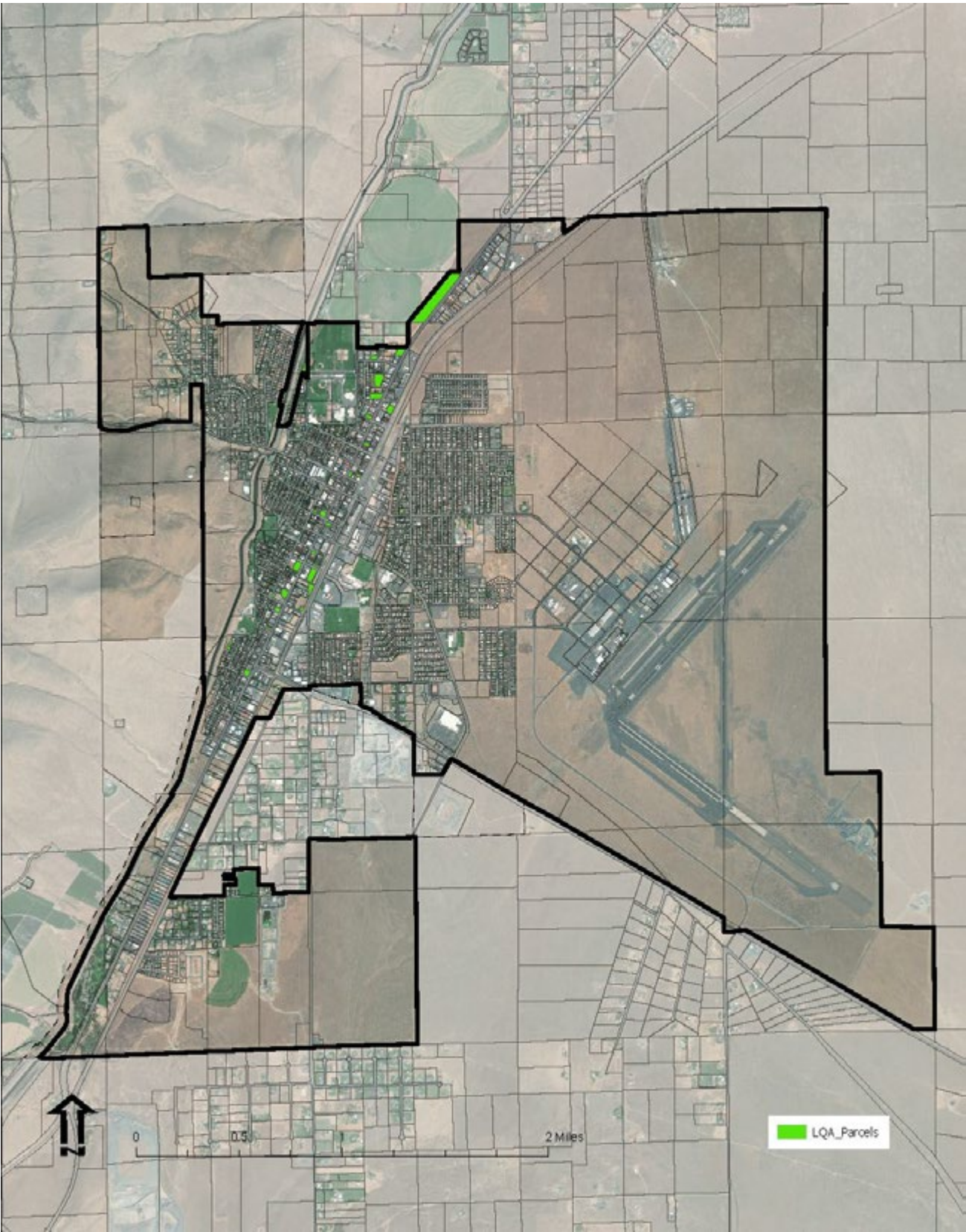


Figure 9: Land Type 7: Developed & Redevelopable with Floodplain Challenges

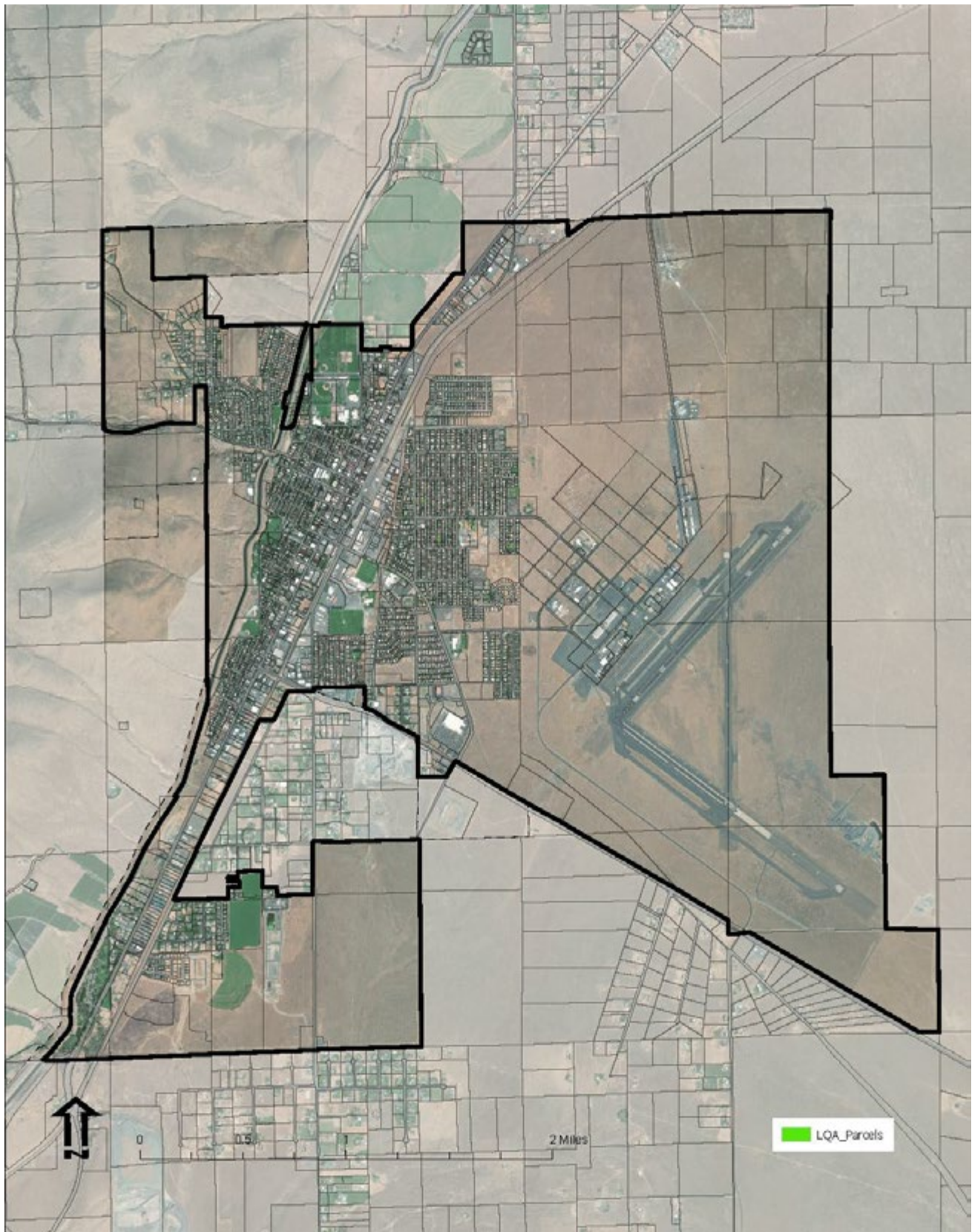


Figure 10: Land Type 8: Developed & Redevelopable with Aquifer Protection Needs

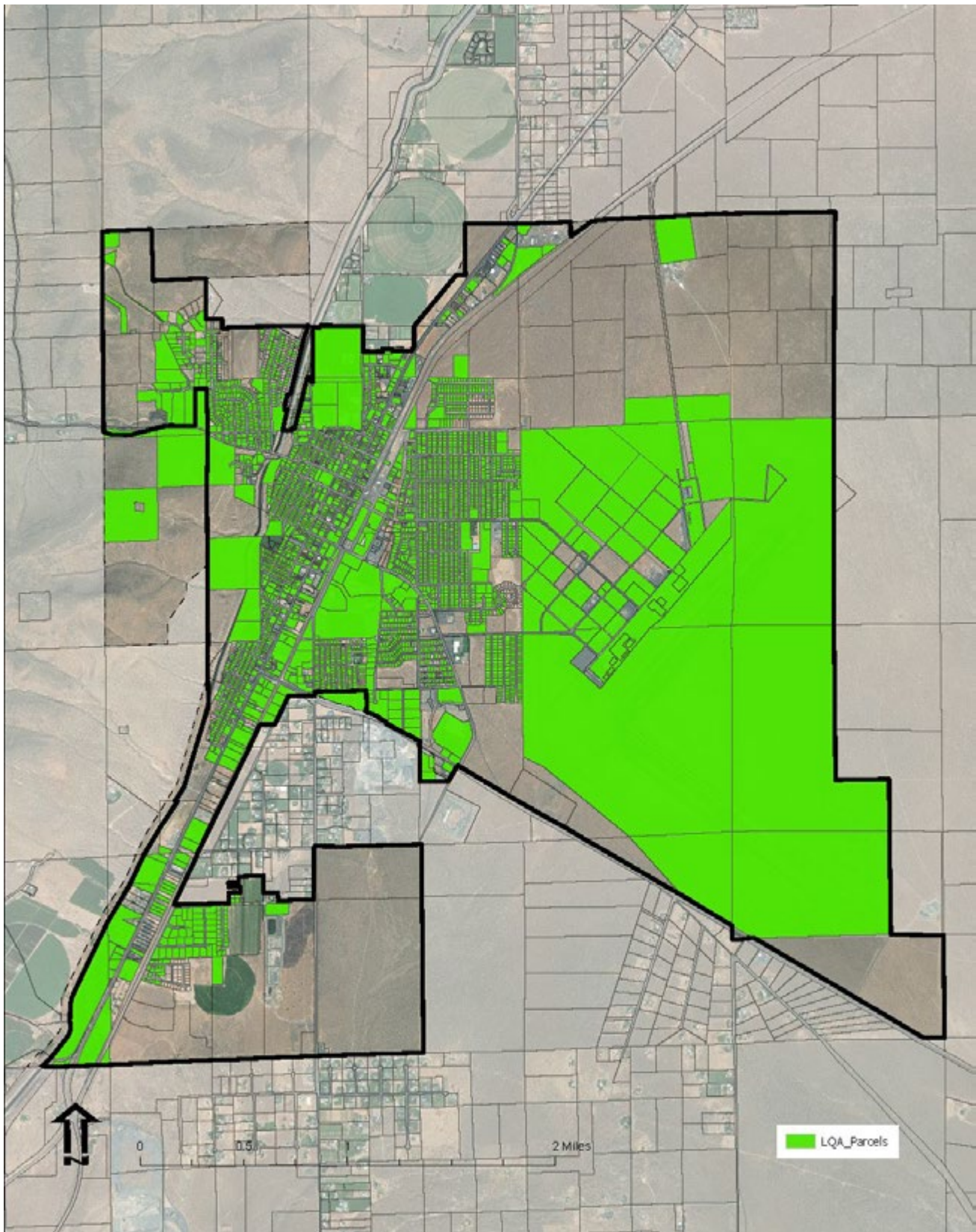


Figure 11: Land Type 9: Developed and Unlikely to Redevelop

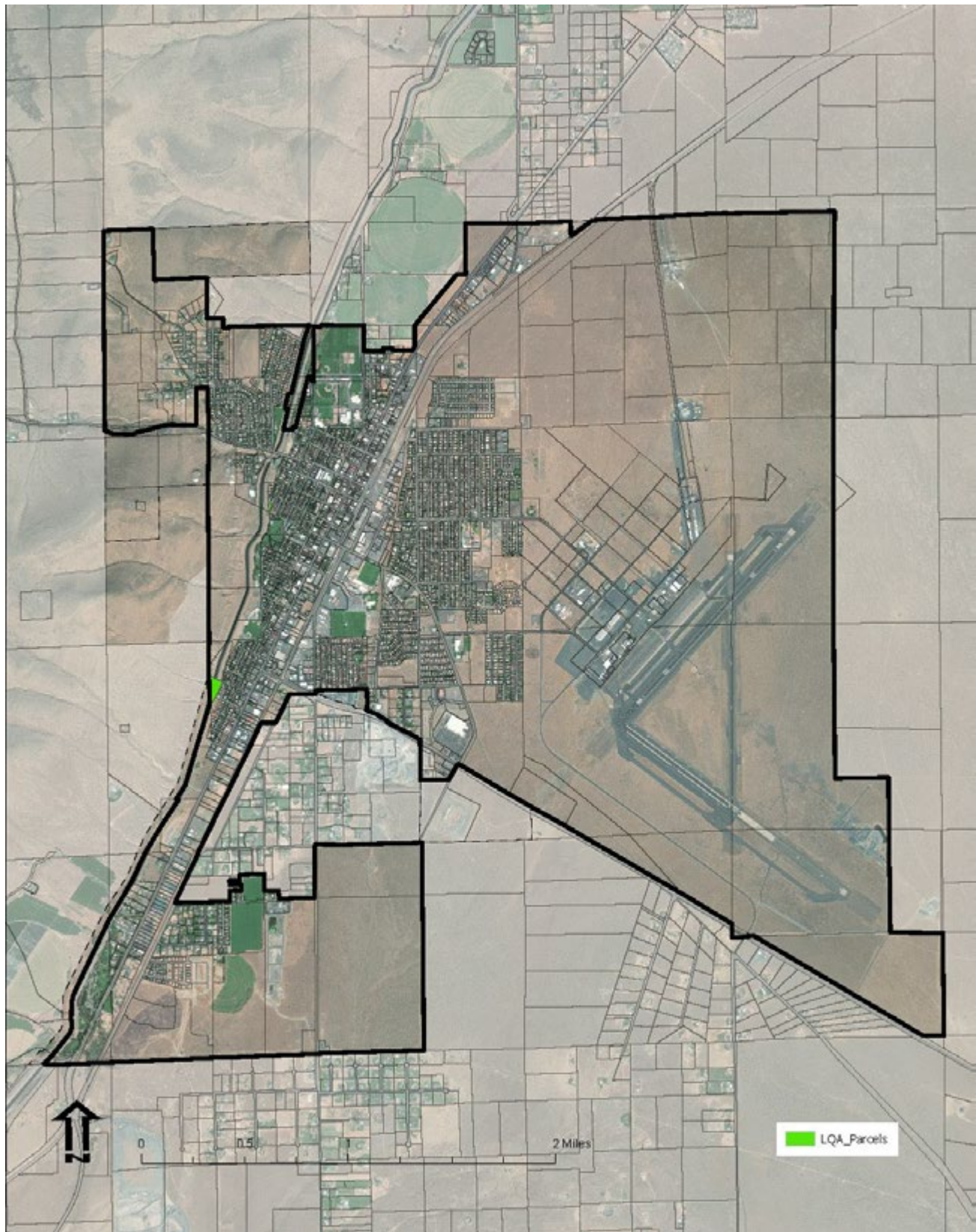


Figure 12: Land Type 10: Developed & Redevelopable with Floodplain Challenges AND Aquifer Protection Needs

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