

Puyallup Comprehensive Plan Draft Environmental Impact Statement

Prepared for
City of Puyallup



July 2024

ParametriX

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Puyallup Comprehensive Plan Draft Environmental Impact Statement

Prepared for

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Seattle, Washington. July 2024.



Date: July 19, 2024

Subject: Draft Environmental Impact Statement (DEIS)
2024 City of Puyallup Comprehensive Plan Update

Dear Reader,

The City of Puyallup is proposing to review and update its Comprehensive Plan, consistent with the Washington State Growth Management Act (GMA), Revised Code of Washington (RCW) Chapter 36.70A. The updated plan will address requirements of the GMA, Puget Sound Regional Council (PSRC) VISION 2050 (Multicounty Planning Policies), and Pierce County Countywide Planning Policies (CPPs).

The proposed major update of the Comprehensive Plan, known as Puyallup 2044, will set the vision for the city for the next 20 years. The changes are anticipated to be adopted by December 2024. The major topics to be considered include population and job growth, transportation, environment and sustainability, housing and land use, and equity.

In addition to the policy amendments to the Comprehensive Plan, the City proposes to review the implementing development regulations and propose modifications consistent with the policy changes. The City has prepared an integrated Draft Comprehensive Plan and Draft Environmental Impact Statement (DEIS). WAC 197-11-210 et seq. authorizes counties and cities planning under GMA to integrate the requirements of State Environmental Policy Act (SEPA) and GMA.

Three growth alternatives are examined in the Draft EIS that would inform the policies and implementing development regulations:

- Alternative 1 (No Action): the land use map would receive no updates and growth would continue under the city's current allowances.
- Alternative 2 (Focused Growth): Residential and employment growth would be concentrated in the city's Regional Growth Centers (Downtown and South Hill). The intensity would increase significantly compared to recently built examples, middle housing would be allowed in all residential areas per state law, and mixed-use focus areas would be identified for additional growth along major commercial corridors and intersections with intensity significantly greater than existing conditions.
- Alternative 3 (Distributed Growth): Includes the same focused growth in Regional Growth Centers and the mixed-use focus areas as Alternative 2, but with intensities being somewhat greater than existing. In addition, there would be an increased focus on job growth in specified employment areas near the hospital and east of SR512 near E Main and E Pioneer. This alternative also includes neighborhood commercial nodes which

would be new areas for small-scale commercial/mixed-use development dispersed throughout the city, and a wider range of middle housing types would be encouraged in residential neighborhoods to allow more housing choices.

For each alternative, the Draft EIS addresses air quality and greenhouse gases; water resources; fish, wildlife, and vegetation; land use; population, employment, and housing; transportation; parks and recreation; public services; utilities; and cultural resources. The Draft EIS compares the alternatives and provides mitigation measures for identified impacts.

The key issues facing decision makers include:

- Creation of a growth concept that will:
 - Provide increased housing supply, diversity and affordability for the Puyallup community, including opportunities for homeownership.
 - Accommodate the city's anticipated population and employment.
 - Be supported by city infrastructure.
- Identification of public infrastructure (i.e., transportation and public utilities) investments to accommodate and enable the planned future growth of the city.
- Approval of a Comprehensive Plan including goals and policies that meet Puyallup's vision for the future and meets state and regional requirements.
- Approval of development regulations that implement the Comprehensive Plan goals and land use plan, while integrating best available science to protect critical areas.

Affected agencies, tribes, and members of the public are invited to comment on this Draft EIS. Please see the Draft EIS Fact Sheet for the comment period and how to submit your comments. A Final EIS will be prepared following the comment period and will include responses to comments.

If you have questions, please contact Kendall Wals, Senior Planner, (253) 841-5462, kwals@puyallupwa.gov. For more information, please visit the project website at <https://bit.ly/Puyallup2044>.

Sincerely,



Meredith Neal

Development & Permitting Services Director
Puyallup SEPA Responsible Official

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A Transportation Analysis Support Documentation

Acronyms and Abbreviations

2022 Rate Study	2022 Comprehensive Water, Sewer, and Stormwater Rate Study, City of Puyallup
µg/m ³	micrograms per cubic meter
AADT	annual average daily traffic
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADD	Average day demand
ADU	accessory dwelling unit
AMI	area median income
ARO	agriculture, recreation, and open space
BLTS	bicycle level of traffic stress
BOD	biochemical oxygen demand
BP	before present
CAA	1970 Clean Air Act
CAGR	Compound annual growth rate
CAO	Critical Areas Ordinance
CARA	Critical Aquifer Recharge Areas
CB	Community Business
CBD	Central Business District zoning designations
CCX	community commercial mixed use
CG	general commercial
CIP	capital improvement projects
CLG	certified local government
CMX	community mixed use
CO	carbon monoxide
CPFR	Central Pierce Fire & Rescue
CPP	countywide planning policies
CWA	Clean Water Act

Acronyms and Abbreviations (continued)

DAHP	Washington Department of Archaeology and Historic Preservation
DNR	Washington State Department of Natural Resources
DOH	Department of Health
DRHPB	Design Review and Historic Preservation Board
Ecology	Washington State Department of Ecology
EHD	Environmental Health Disparities
EPA	U.S. Environmental Protection Agency
ERU	Equivalent Residential Units
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FLU	Future Land Use
FMWC	Fruitland Mutual Water Company
GHG	greenhouse gas
GMA	Washington Growth Management Act
HCM	Highway Capacity Manual
HUD	Housing and Urban Development
HVAC	heating, ventilation, and cooling
IFC	International Fire Code
IPaC	Information for Planning and Consultation
IRP	Integrated Resource Plan
ISP	Internet service provider
LID	low-impact development
LMX	limited mixed-use
LNG	Liquified natural gas
LOS	level of service
LQ	Location quotient
LTS	Level of traffic stress
LUB	Land Use Baseline

Acronyms and Abbreviations (continued)

LUT	Land Use Targets
MBTA	Migratory Bird Treaty Act
MDD	Maximum day demand
MED	medical facility
MPP	Multicounty Planning Policies
MT	Metric tons
MTCO ₂ e	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
NHC	Northwest Hydraulic Consultants
NHL	National Historic Landmarks
NHPA	National Historic Preservation Act
NHPI	Native Hawaiian and Pacific Islander
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRHP	National Register of Historic Places
NRPA	National Recreation and Parks Association
NWI	National Wetland Inventory
O ₃	ozone
PF	Public Facilities
PHF	Peak hour factor
PHS	Priority Habitats and Species
PIT	Point-in-Time
PLTS	Pedestrian Level of Traffic Stress
PM	particulate matter

Acronyms and Abbreviations (continued)

PM ₁₀	particulate matter less than or equal to 10 microns in aerodynamic diameter
PM _{2.5}	particulate matter that is less than or equal to 2.5 microns in aerodynamic diameter
PMC	Puyallup Municipal Code
PPD	Puyallup Police Department
PRHP	City of Puyallup Register of Historic Places
PROS	parks, recreation, and open space
PSCAA	Puget Sound Clean Air Agency
PSE	Puget Sound Energy
PSRC	Puget Sound Regional Council
RCO	Recreation and Conservation Office
RCW	Revised Code of Washington
RGC	regional growth center
RMX	River Road Mixed-Use
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SDWA	Safe Drinking Water Act
SEPA	Washington State Environmental Policy Act
SMA	Shoreline Management Act
SMP	shoreline master programs
SO ₂	sulfur dioxide
SPMCS	South Pierce Multimodal Connectivity Study
SR	state route
SVOC	semivolatile organic compound
SWIFD	Statewide Washington Integrated Fish Distribution
TCDS	traffic count database system
TIP	transportation improvement plan
TMDL	total maximum daily load

Acronyms and Abbreviations (continued)

TSS	total suspended solids
UCX	urban central mixed use
UGA	urban growth area
USFWS	U.S. Fish and Wildlife Service
VMT	vehicle miles traveled
VOC	volatile organic compound
VWD	Valley Water District
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WHR	Washington Heritage Register
WISAARD	Washington Information System for Architectural and Archaeological Records Data
WSDOT	Washington State Department of Transportation
WSP	water system plan
WUTC	Washington Utilities and Transportation Commission
WWTP	wastewater treatment plant

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Fact Sheet

Project Title

City of Puyallup 2024 Comprehensive Plan Update

Nature and Location of Proposed Action and Alternatives

The City of Puyallup is proposing to review and update its Comprehensive Plan consistent with the GMA, Revised Code of Washington (RCW) Chapter 36.70A. The proposed major update of the Comprehensive Plan, known as Puyallup 2044, will set the vision for the city for the next 20 years. The changes must be adopted by December 2024. Major components of the Comprehensive Plan include:

- **Goals and Policies**, which are broad statements of the community's long-term desires, values, and preferred future directions related to the physical development of the city.
- **Maps**, which depict the community's desired future development pattern and how the city will accommodate growth.
- **Capital Projects**, which describe significant public facilities needed to support future development depicted on the map and described in the goals and policies.

The Comprehensive Plan update includes the City of Puyallup and its surrounding urban growth area.

Location

Puyallup, Washington

Proponent and Lead Agency

City of Puyallup

Responsible SEPA Official

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Development & Permitting Services Director
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Contact Person

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Required Approvals

All Comprehensive Plan amendments and implementing regulations require a 60-day review by the State of Washington Department of Commerce and other state agencies. The Puget Sound Regional Council (PSRC) will also conduct a comprehensive plan review and transportation certification review for consistency with VISION 2050.

The Puyallup Planning Commission will review the draft Comprehensive Plan update and all related plan and regulatory updates. The Planning Commission's recommendations will be forwarded to the City Council who will deliberate and determine approval for adoption of the proposed amendments.

Authors and Principal Contributors

This Draft EIS has been prepared under the direction of City of Puyallup staff. Authors and contributors to the Draft EIS include:

Parametrix, Inc.: Air Quality and Greenhouse Gases; Water Resources; Fish, Wildlife, and Vegetation; Parks and Recreation; Public Services; Utilities; and Cultural Resources

MIG, Inc.: Land Use; Population, Employment, and Housing

Fehr & Peers, Inc.: Transportation

Date of Draft EIS Issuance

July 19, 2024

Comment Deadline for Draft EIS

August 19, 2024

Commenting on the Draft EIS

Comments may be submitted through several methods, noted below:

Mail: Michelle Hannah
Administrative Assistant
333 S Meridian
Puyallup, WA 98371

Email: Please send comments to the SEPA Responsible Official at Puyallup2044@puyallupwa.gov.

Public Meeting:

A public meeting will be held to share information about the comprehensive plan update and obtain input from the community. Participants will be able to provide comments on the Draft EIS.

Date: August 14, 2024

Time: 6:30 p.m.

Location: Puyallup City Hall, Council Chambers, 5th Floor, 333 S Meridian, Puyallup, WA

Tentative Date of Final Action

The City of Puyallup anticipates adopting the 2024 Comprehensive Plan update in December, 2024.

Type and Timing of Subsequent Environmental Review

Subsequent project-level review will be completed, as needed, for project actions occurring under the 2024 County Comprehensive Plan update.

Related Documents and Supporting Information

Previous studies, background information, and supporting documentation for Puyallup's 2024 Comprehensive Plan update can be found at the following address: <https://bit.ly/Puyallup2044>.

Draft EIS Availability

This Draft EIS is available for review on the City of Puyallup's website at <https://bit.ly/Puyallup2044> and at the following locations:

- Development and Permitting Services Center located at 333 S Meridian, Puyallup, WA 98371, during business hours of 9:00 a.m. to 3:00 p.m.
- Puyallup Public Library located at 324 S Meridian, Puyallup, WA 98371, during normal business hours.
- Paper copies of the document are available for purchase (see Lead Agency Contact above).

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Executive Summary

Proposed Action

The City of Puyallup is proposing to review and update its Comprehensive Plan consistent with the GMA, Revised Code of Washington (RCW) Chapter 36.70A. The proposed major update of the Comprehensive Plan, known as Puyallup 2044, will set the vision for the city for the next 20 years. The changes must be adopted by December 2024.

Major components of the Comprehensive Plan include the following:

- **Goals and policies**, which are broad statements of the community's long-term desires, values, and preferred future directions related to the physical development of the city.
- **Maps**, which depict the community's desired future development pattern and how the city will accommodate growth.
- **Capital projects**, which describe significant public facilities needed to support future development depicted on the maps and described in the goals and policies.

Proposal Objectives

The objective of the Comprehensive Plan update is to accommodate Puyallup's adopted housing and employment growth targets for 2044 as adopted by Pierce County in 2022 and 2023 and accepted by the City of Puyallup. The Comprehensive Plan update includes a number of goals and policies concerning housing, the economy, the environment, transportation, and capital facilities to prepare the city for growth and development over the next 20-year planning period.

Summary Description of the Alternatives

For the purposes of this Draft EIS, the City of Puyallup evaluated three growth alternatives: a No Action scenario (Alternative 1) and two Action alternatives. As Washington State requires jurisdictions to plan for housing and employment growth that meet targets by 2044, the land use alternatives are intended to test different growth scenarios that meet the designated growth targets for Puyallup, which includes targets to add 7,482 housing units within the city limits and 14,715 jobs by 2044.

The alternatives also assume a broad range of land uses including existing land use classifications identified in the City's Future Land Use map. The alternatives also include new land use classifications to incorporate a broader range of housing and development types including multifamily residential and mixed-use development with various numbers of floors, middle housing (i.e., duplexes, triplexes, fourplexes, and townhomes), and a variety of other development types that address community input that desires more walkable development and access to services.

Development assumptions for each alternative are summarized in Table ES-1 and Table ES-2.¹

¹ Housing and employment capacity for each alternative in the summary tables have been rounded to the nearest 10.

Table ES-1. Housing Capacity by Alternative

Focus Area	Alternative 1 Housing Units	Alternative 2 Housing Units	Alternative 3 Housing Units
Total	6,690	13,420	14,210
2044 Target Housing Unit Growth	7,482	7,482	7,482
Anticipated Deficit or Surplus	-792	+5,938	+6,728

Table ES-2. Employment Capacity by Alternative

Focus Area	Alternative 1 Jobs	Alternative 2 Jobs	Alternative 3 Jobs
Total	8,880	17,020	18,520
2044 Target Job Growth	14,715	14,715	14,715
Anticipated Deficit or Surplus	-5,838	+2,305	+3,805

Alternative 1: No Action

The No Action Alternative assumes that no change would occur to the existing 2015 Future Land Use Map or Comprehensive Plan policies relating to development within the Puyallup city limits. This alternative would maintain the City's existing land use designations without modifications, which means growth would occur within existing land use regulations and policies.

Under the No Action Alternative, Puyallup would have capacity for approximately 7,680 housing units, with an estimated 6,690 units within the city limits (Table ES-1). Since 2020, an estimated 570 housing units have been constructed, reducing the total number of housing units needed to meet City targets by 2044 from 7,482 to approximately 6,910 units. If development occurs as assumed under the No Action Alternative, the City would not meet its 2020–2044 target for housing units within the city limits with a projected deficit of approximately 790 housing units.

The No Action Alternative includes a total employment capacity estimate of 9,950 jobs, with capacity for approximately 8,880 jobs within the city limits (Table ES-2). Since 2020, approximately 750 jobs have been created, reducing the total number of jobs still needed by 2044 to approximately 13,970 jobs. Assuming similar growth patterns and no land use or other policy changes, Puyallup would not meet its jobs target, with a projected deficit of approximately 5,840 jobs.

The No Action Alternative would also not meet other new planning requirements related to affordable housing across income bands, providing a range of housing types, allowing middle housing, multimodal level of service requirements, or new Critical Areas requirements related to best available science.

Alternative 2: Focused Growth

Alternative 2 assumes more housing and jobs and a greater diversity of housing types than the No Action Alternative by concentrating growth in certain areas of the city.

As shown in Figure ES-1 and Figure ES-2, Alternative 2 would concentrate residential and employment growth in Puyallup's designated regional growth centers (the Downtown RGC and the South Hill RGC). It would also focus growth along major commercial corridors such as River Road and South Meridian and at the intersection of E Pioneer and Shaw Road.

Alternative 2 focuses growth in the Puyallup RGCs through mixed-use and residential development. Other corridors and focus areas are assumed to be a mix of uses including detached residential, commercial, and mixed-use development.

Alternative 2 also assumes that middle housing would be constructed in existing residential areas on both vacant and developed land based on implementation of the recent state legislation that requires cities allow middle housing in single-family areas (House Bill 1110, 2023).² Alternative 2 assumes that 10% of vacant and underutilized land identified in the Buildable Lands Inventory would be developed as middle housing and 3% of currently developed parcels would be redeveloped as middle housing (even if they are not identified as vacant or underutilized in the Buildable Lands Inventory). The percentages are based on analyses cited in the *User Guide for Middle Housing Model Ordinance*, which was prepared for the Washington Department of Commerce.³

Alternative 2 would add capacity for an additional 13,420 housing units within the city limits (Table ES-1), which is approximately double the capacity of the No Action Alternative and the 2020–2044 growth target. Alternative 2 assumes an employment capacity of approximately 17,020 jobs within the city limits (Table ES-2), which is nearly twice as many jobs as the No Action Alternative and 2,300 more jobs than the 2020–2044 employment target.

² HB 1110. <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/House/1110-S2.SL.pdf?q=20230828214038>

³ User Guide for Middle Housing Model Ordinance.
<https://deptofcommerce.app.box.com/s/dip01jnz8i0o2eeuy9v8n39kcm1uc4mk>

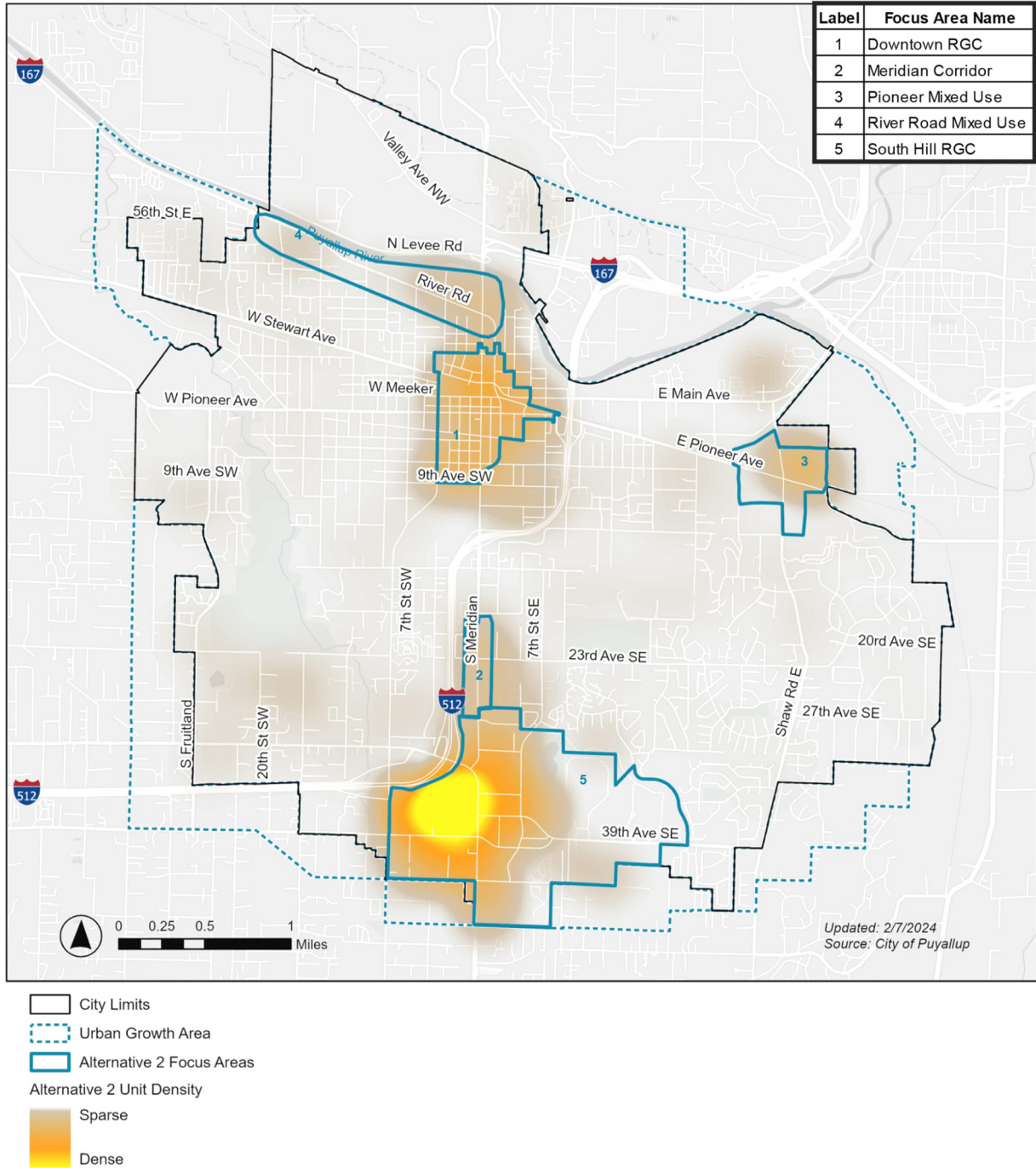


Figure ES-1. Alternative 2 Housing Unit Distribution

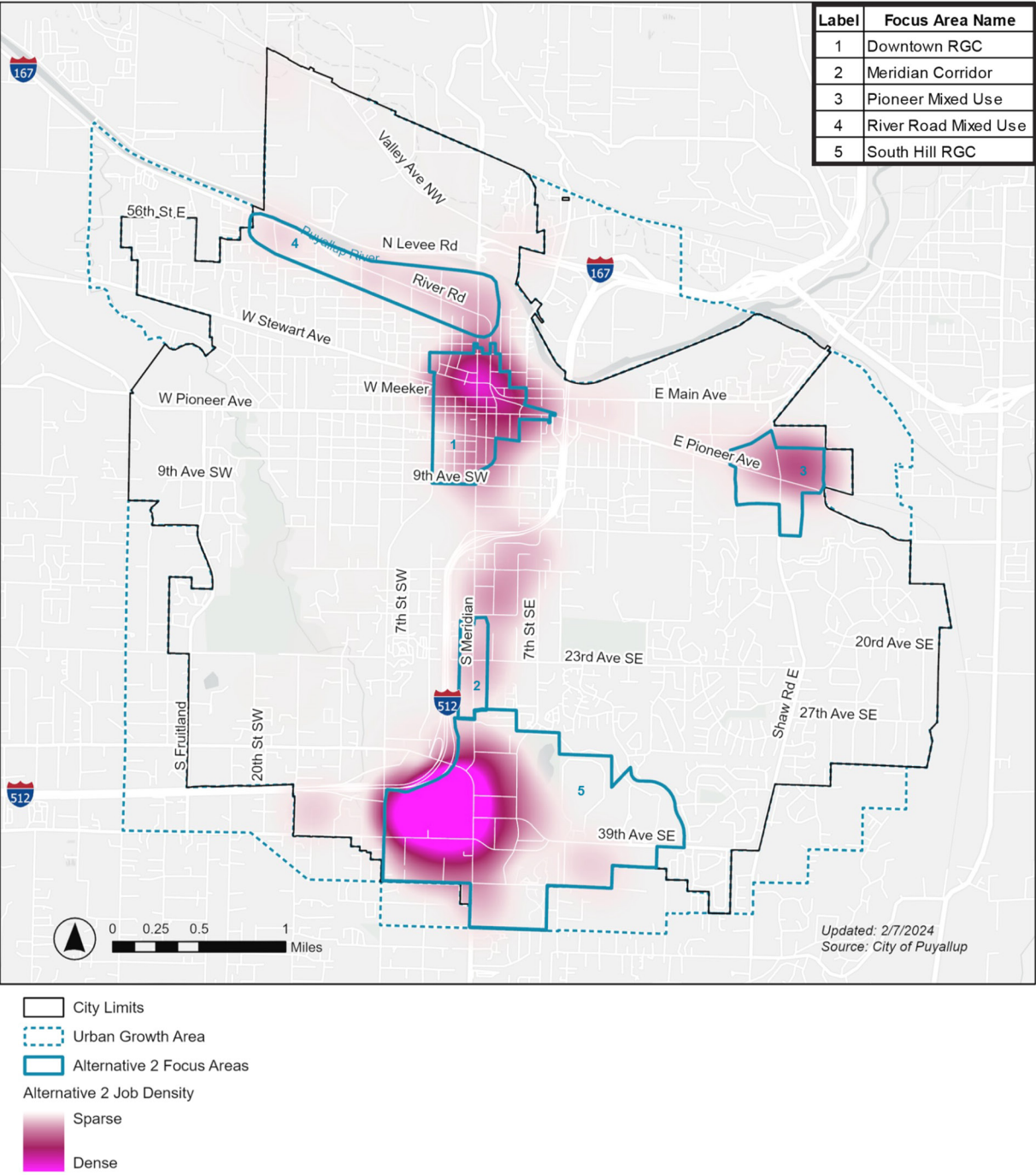


Figure ES-2. Alternative 2 Jobs Density

Alternative 3: Distributed Growth

Alternative 3 would allow more housing and jobs and a greater diversity of housing types than the No Action Alternative and Alternative 2 by focusing growth among a wider range of areas in the city.

As shown in Figure ES-3 and Figure ES-4, Alternative 3 would target new jobs and housing growth at key locations throughout the city at important intersections and along transportation corridors, while assuming somewhat less-intense growth within the RGCs and other focus areas of Alternative 2.

This alternative generally assumes more low- to medium-density residential and mixed-use across a wider range of focus areas. The South Hill and Downtown RGCs still assume the most housing and employment, although at a smaller percentage of the overall capacity compared to Alternative 2. Both of these RGCs contain most of the assumed high-density residential and mixed-use capacity, along with some higher-density residential and mixed-use assumptions in the Fairground and Medical Mixed Use focus areas. The Medical Mixed-Use focus area also includes capacity for medical office development, which assumes a relatively high jobs density compared to other land use types. The River Road and South River Employment focus areas contain most of the general commercial and employment capacity. The remaining focus areas include a mix of neighborhood commercial and low to medium mixed-use and residential capacity assumptions, which are intended to be more compatible with existing neighborhood scales of development.

Alternative 3 also allows a wider range of middle housing types within residential areas to encourage more housing choices in these neighborhoods. This translates to more assumed middle housing development than assumed for Alternative 2. Alternative 3 assumes that 15% of vacant or underutilized land identified in the Buildable Lands Inventory would be developed as middle housing, and 5% of currently developed parcels would be redeveloped as middle housing.

Alternative 3 would add capacity for approximately 14,210 housing units (Table ES-1) within the city limits, which is over twice the capacity of the No Action Alternative, approximately 6,730 more units than the 2020–2044 growth target, and approximately 800 more units than Alternative 2.

Alternative 3 assumes up to approximately 18,520 new jobs within the city limits (Table ES-2), which is more than double the jobs capacity for the No Action Alternative, approximately 1,500 more jobs than Alternative 2, and approximately 3,810 more jobs than the 2020–2044 employment target.

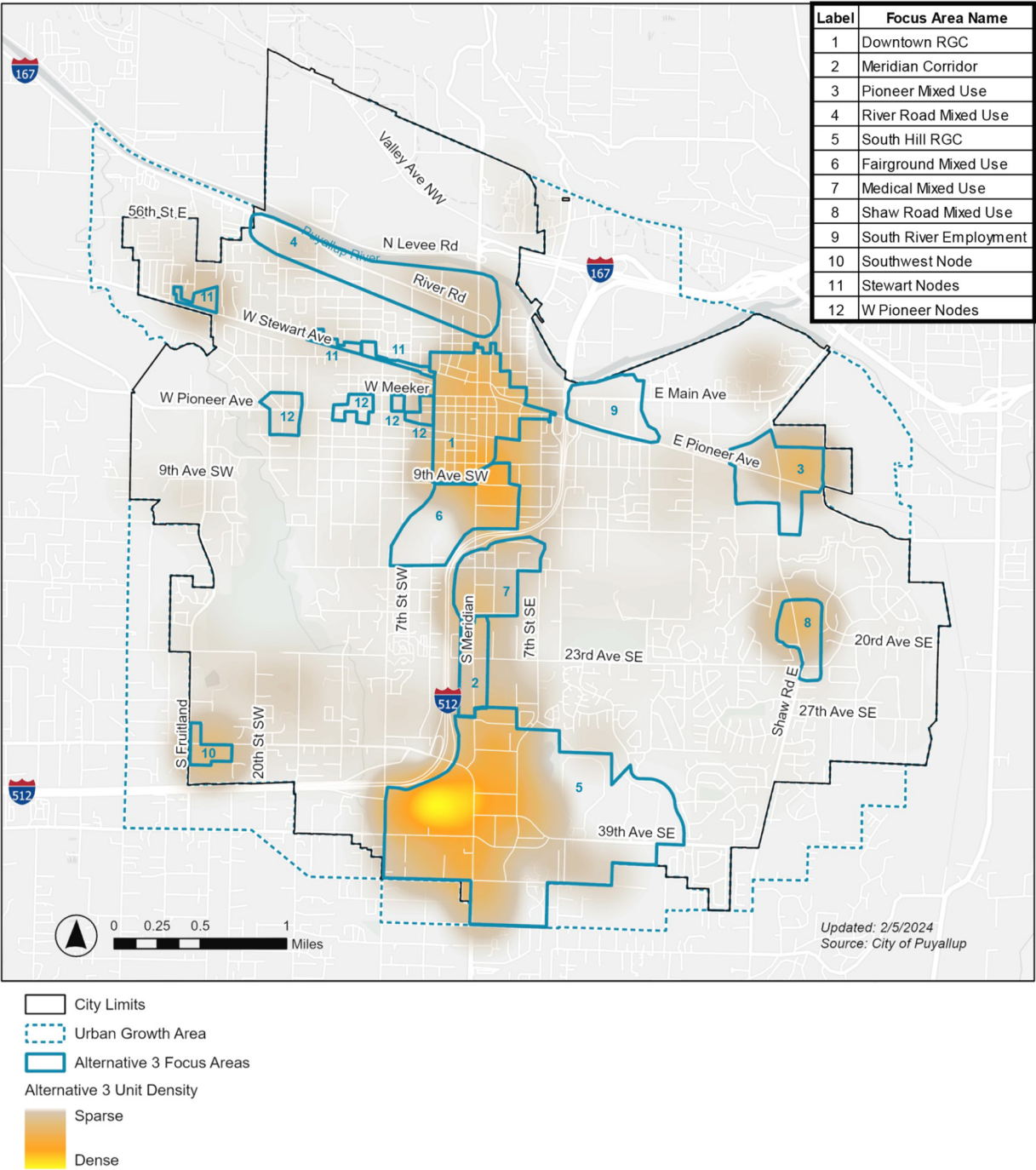


Figure ES-3. Alternative 3 Housing Unit Distribution

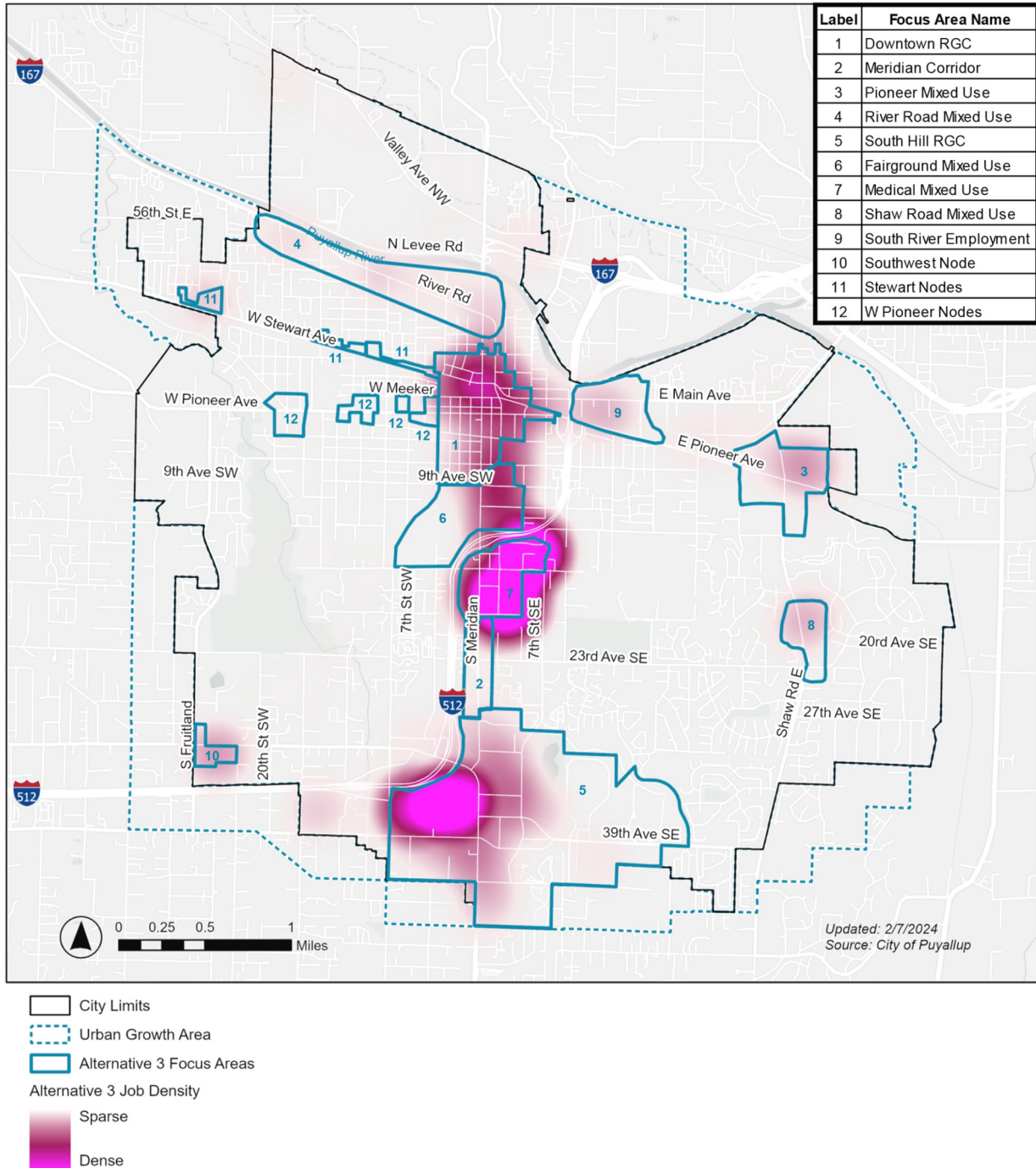


Figure ES-4. Alternative 3 Jobs Distribution

Table ES-3. Summary of Potential Impacts

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Air Quality			
- Future growth and development would take place under all of the alternatives and would generate emissions that would temporarily affect air quality. Alternative 1 is anticipated to result in the least amount of emissions. - Increases in vehicle miles traveled (VMT) and development of the built environment would be expected to cause greenhouse gas (GHG) emissions to increase. Among the three alternatives, Alternative 1 would result in the smallest long-term (i.e., 2024 to 2044) increase in peak period VMT, at 45,800 additional VMT. Alternative 1 would result in an overall long-term reduction in VMT per capita, from 4.3 to 3.7. Alternative 1 would result in less than significant impacts to air quality.	- Similar to Alternative 1, but Alternative 2 would have greater air toxics emissions as a result of growth and development. - Alternative 2 would result in an estimated long-term increase of 70,400 peak period VMT. VMT per capita would be reduced to 3.5. GHG emissions from Alternative 2 are expected to be greater than those under Alternative 1. Alternative 2 would result in less than significant impacts to air quality.	- Similar to Alternative 2, but Alternative 3 would have greater air toxics emissions as a result of growth and development. - Among the alternatives, Alternative 3 would result in the greatest estimated long-term increase of 75,600 peak period VMT. VMT per capita would be the same as Alternative 2. GHG emissions from Alternative 3 are expected to be greater than those under Alternatives 1 and 2. Alternative 3 would result in less than significant impacts to air quality.	- Avoidance and minimization measures for construction activities under all alternatives would include implementation of construction-phase best management practices. - Compliance with federal and state regulations phasing out internal combustion engines would help transition to cleaner, less polluting heavy-duty internal combustion engines. - Implementation of existing and future regulations, plans, and policies aimed at reducing emissions of air toxics and GHGs is expected to reduce emissions in the long term, which would outweigh the adverse impacts.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Water Resources			
▪ New developments could lead to environmental impacts such as increased erosion, sediment runoff, and potential contamination from construction spills. ▪ Increased impervious surfaces from future developments could disrupt natural water filtration and recharge processes, leading to increased stormwater runoff and potential pollution. ▪ Development would be required to abide by existing regulations, policies, and programs to protect and improve water quality. ▪ Alternative 1 would result in less than significant impacts to water resources.	▪ Similar, but greater impact than under Alternative 1. Future growth would be greater than that under Alternative 1 and would occur across multiple watersheds and areas that drain directly to the Puyallup River. ▪ As under Alternative 1, developments would comply with existing water quality requirements. ▪ Updates to the City's Critical Areas Ordinance (CAO) would have the potential to improve water quality through creation of larger stream buffers. ▪ Alternative 2 would result in less than significant impacts to water resources.	▪ Similar, but greater impact than under Alternative 1 or 2. ▪ Alternative 3 would facilitate greater growth and development including additional development in the Deer Creek and Clarks Creek watersheds. ▪ Development would have the greatest amount of potential to impact wetlands and convert rural and agricultural land to urban-scale uses, and it would result in the greatest increase in impervious surface among all alternatives. ▪ As under Alternative 1, developments would comply with existing water quality requirements. ▪ As under Alternative 2, updates to the City's CAO would have the potential to improve water quality health through creation of larger stream buffers. ▪ Alternative 3 would result in less than significant impacts to water resources.	▪ Avoidance, minimization, and mitigation measures would be required by existing regulations for future development projects that are proposed following the adoption of any of the alternatives. ▪ Project proponents would be required to perform detailed site-specific analyses of the impacts resulting from projects that are developed during the future implementation phase(s) of any of the alternatives. ▪ Projects would need to demonstrate the incorporation of required avoidance, minimization, or mitigation measures when the associated project plans and permit applications are submitted for City review and processing.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Fish, Wildlife, and Vegetation			
- Population and employment growth would continue. Development could create noise impacts and disturb terrestrial wildlife, disturb vegetation, and propagate the spread of nonnative and invasive plant and animal species. - Concentrated growth areas would encompass approximately 347 acres of habitat resources. Development activities, particularly of vacant or in low-density areas, could result in the fragmentation of wildlife habitat and the reduction of habitat connectivity, biodiversity, quality, and function. - Increases in impervious surface could degrade aquatic habitats by altering water flows, introducing pollutants, and increasing water temperatures. - No updates would be made to the Comprehensive Plan Environmental Element or the City's existing CAO. Existing city, state, and federal regulations would help moderate potential adverse effects to fish, wildlife, and vegetation. Alternative 1 would result in less than significant impacts to fish, wildlife, and vegetation.	- Greater levels of growth and development would create a greater potential for impacts to fish, wildlife, and vegetation than with Alternative 1. - Concentrated growth areas would encompass approximately 522 acres of habitat resources. However, because growth would be focused in areas that are currently developed, there would be limited potential for increasing impervious surfaces and impacts to currently available high-quality habitat, as well as limited fragmentation and loss of habitat connectivity. - Higher-density development would be allowed in areas near E Pioneer and Shaw Road where development densities are currently low and where agricultural land, lower-density residential development, and forested areas would be converted to urban-scale, higher-density development. - Updates to the City's CAO would have the potential to increase stream protection through the creation of larger stream buffers. This would serve to further minimize potential impacts to floodplains and riparian vegetation as well as stormwater impacts. Alternative 2 would result in less than significant impacts to fish, wildlife, and vegetation.	- Would facilitate the creation of more dispersed nodes of mixed-use and commercial development throughout the city. This would result in greater impacts to wildlife and vegetation than with Alternative 1 or 2. - Concentrated growth areas would encompass approximately 614 acres, the greatest total acreage among the alternatives. Dispersed growth could result in more habitat fragmentation and greater space between habitat areas. - Updates to the City's CAO would have the potential to increase stream protection through the creation of larger stream buffers. This would serve to further minimize potential impacts to floodplains and riparian vegetation, as well as stormwater impacts. Alternative 3 would result in less than significant impacts to fish, wildlife, and vegetation.	- Impacts to fish, wildlife, and vegetation from new development would be minimized by complying with existing federal, state, and local laws and regulations that protect those resources and restrict development in environmentally sensitive areas. - Project proponents would be required to perform detailed site-specific analyses of the impacts resulting from projects that are developed during the future implementation phase(s) of any of the alternatives. - Projects would need to demonstrate the incorporation of required avoidance, minimization, or mitigation measures when the associated project plans and permit applications are submitted for City review and processing.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Land Use			
GMA, Vision 2050, Countywide Planning Policies, and Land Use - Retains the City’s current Comprehensive Plan. - Would not provide adequate land use capacity to meet housing or job growth targets within city limits, as required by the GMA, which would conflict with the requirement for Puyallup to accommodate growth projections. Would result in a deficit of approximately 570 housing units and 5,840 jobs. - Would not update the Comprehensive Plan and City Land Use maps and policies for consistency with VISION 2050, the Multicounty Planning Policies, or the 2021 Countywide Planning Policies related to land use and the reduction of development impacts on the environment. Alternative 1 would result in a significant impact as a result of failing to meet growth targets and complying with the GMA.	GMA, Vision 2050, Countywide Planning Policies, and Land Use - Would exceed 2044 citywide housing targets by approximately 5,940 units and would exceed jobs targets by approximately 2,300 jobs. Compared to Alternative 1, Alternative 2 would have the potential to accommodate approximately 6,730 more housing units and 8,140 more jobs. - Would update the Comprehensive Plan and City Land Use maps and policies to be consistent with the GMA, Vision 2050, Multicounty Planning Policies, and Countywide Planning Policies. Alternative 2 would result in a less than significant impact.	GMA, Vision 2050, Countywide Planning Policies, and Land Use - Would exceed 2044 citywide housing targets by approximately 6,730 units and would exceed jobs targets by approximately 3,810 jobs. Compared to Alternative 1, Alternative 3 would have the potential to accommodate approximately 7,520 more housing units and 9,640 more jobs. - Would update the Comprehensive Plan and City Land Use maps and policies to be consistent with the GMA, Vision 2050, Multicounty Planning Policies, and Countywide Planning Policies. Alternative 3 would result in a less than significant impact.	GMA, Vision 2050, Countywide Planning Policies, and Land Use Updating the Comprehensive Plan consistent with the updated GMA, VISION 2050, Multicounty Planning Policies, and Pierce County Countywide Planning Policies would avoid these impacts under Alternative 2 or 3.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Other Land Use Plans and Regulations - Would not update the City's CAO based on best available science as required by the GMA every 10 years and would continue to apply the currently adopted CAO to new development or redevelopment that could impact critical areas. Alternative 1 has the potential to have a significant impact by failing to update Puyallup's CAO.	Other Land Use Plans and Regulations - Would update the City's CAO to incorporate best available science and further strengthen existing policies designed to mitigate impacts to critical areas. Alternative 2 would result in a less than significant impact.	Other Land Use Plans and Regulations - As under Alternative 2, would update the City's CAO to incorporate best available science and further strengthen existing policies designed to mitigate impacts to critical areas. Alternative 3 would result in a less than significant impact.	Land Use Compatibility Same as above.
Land Use Compatibility - Existing land use regulations would continue to be applied to avoid or minimize conflicts or compatibility issues. Alternative 1 would result in less than significant impacts to land use compatibility.	Land Use Compatibility - Employment and residential growth would be anticipated to occur at a greater intensity in areas that are already designated for this type of land use. - Areas that anticipate new mixed-use development are already zoned for commercial or mixed-use development. - The application of a mixed-use designation along S Meridian would be accompanied by development standards in Puyallup Municipal Code (PMC) Title 20 regulating the use, height, bulk, and scale of new development, similar to the City's existing mixed-use designations. Alternative 2 would result in a less than significant impact.	Land Use Compatibility - Impacts would be similar to those described for Alternative 2, although the extent of development would be wider under Alternative 3. Alternative 3 would result in a less than significant impact.	Land Use Compatibility Same as above.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Population, Employment, and Housing			
Growth Targets and Affordability Requirements - Housing units capacity: 6,690 - Jobs capacity: 8,880 - While growth would occur under Alternative 1, it would not meet the 2044 housing growth target of 7,482 new units and would not meet GMA or statewide requirements for affordable housing at all economic levels. - Alternative 1 would not provide adequate capacity to meet the adopted emergency housing target of at least 458 shelter beds; current zoning regulations would continue to apply. Puyallup has a current land capacity for 150 emergency shelter beds. Alternative 1 would have a significant impact on housing targets and affordability and shelter and housing capacity for people at risk of or experiencing homelessness.	Growth Targets and Affordability Requirement - Housing units capacity: 13,420 - Jobs capacity: 17,020 - Assumes more housing and jobs and a greater diversity of housing types than Alternative 1 by concentrating growth in certain areas of the city. Could result in greater density than under Alternative 1 or 3. - Exceeds housing growth targets set by Pierce County by approximately 5,940 housing units. - The Housing Element of the Comprehensive Plan would be updated consistent with recent changes to state law, and the City would address the emergency housing needs as determined by the Department of Commerce as a development code project that would be scheduled to occur following adoption of the Comprehensive Plan. With mitigation, Alternative 2 would have a less than significant impact on housing targets and affordability, and shelter and housing capacity for people at risk of or experiencing homelessness.	Growth Targets and Affordability Requirement - Housing units capacity: 14,210 - Jobs capacity: 18,520 - Allows more housing and jobs and a greater diversity of housing types than Alternative 1 or 2 by focusing growth among a wider range of areas in the city. - Exceeds housing growth targets set by Pierce County by approximately 6,730 units and more than doubles the capacity of Alternative 1. - Provides approximately 800 more units than Alternative 2. Multifamily housing and mixed-use development would occur at a greater intensity in RGCs, though to a lesser degree than in Alternative 2. - Would update the Housing Element of the Comprehensive Plan and address emergency housing needs similar to Alternative 2. With mitigation, Alternative 3 would have a less than significant impact on housing targets and affordability, and shelter and housing capacity for people at risk of or experiencing homelessness.	Growth Targets and Affordability Requirement - Modify zoning provisions or rezone areas to allow higher densities and more diverse housing types. - Update housing policies and PMC to expand options for constructing stand-alone multifamily housing in mixed-use areas, add new or updated incentives and programs to encourage more intensive employment growth, and amend restrictions that limit the siting of emergency shelters and spacing.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Employment Targets - Alternative 1 would not meet employment targets for 2044, with a deficit of more than 5,800 jobs. Alternative 1 would have a significant impact on employment growth.	Employment Targets - Alternative 2 meets and exceeds employment targets for 2044 by approximately 2,300 jobs and provides nearly double the employment capacity of Alternative 1. With implementation of additional mitigation measures and supportive policies, Alternative 2 would have a less than significant impact on employment growth.	Employment Targets - Alternative 3 meets and exceeds employment targets for 2044 by approximately 3,810 jobs and provides more than double the employment capacity compared to Alternative 1 and exceeds the Alternative 2 employment capacity by approximately 1,500 jobs. With implementation of additional mitigation measures and supportive policies, Alternative 3 would have a less than significant impact on employment growth.	Employment Targets Add new or updated policies, incentives, and other programs to encourage more intensive employment growth needed to meet employment targets.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Housing Supply, Diversity, and Affordability - While housing supply would increase under Alternative 1, this alternative would have the least capacity for new housing among the alternatives. - Policies in both the Land Use Element and Housing Element of the current Puyallup Comprehensive Plan lay out a general housing policy framework that is still relevant for increasing the supply, diversity, and affordability of housing. However, some policies have been identified by the City of Puyallup staff as having the potential to promote exclusion in housing. While Alternative 1 would increase the overall housing supply, without additional strategies directed toward affordability and housing diversity, Alternative 1 would have the potential to have a significant adverse impact on housing supply, diversity, and affordability.	Housing Supply, Diversity, and Affordability - Alternative 2 would provide a greater supply of housing for all income levels and meet the needs of a wider range of household sizes, compositions, and preferences than Alternative 1. - Alternative 2 would also expand housing opportunities in mixed-use areas including the RGCs and would include additional anti-displacement policies and strategies for low-income or marginalized communities. With implementation of additional mitigation measures, along with existing regional and local programs and policies, the potential impacts to housing supply, diversity, and affordability under Alternative 2 would be less than significant.	Housing Supply, Diversity, and Affordability - As under Alternative 2, Alternative 3 would provide greater supply of housing for all income levels but with a wider range of middle housing types and additional units on single-family lots than under Alternative 2. With implementation of additional mitigation measures, along with existing regional and local programs and policies, the potential impacts to housing supply, diversity, and affordability under Alternative 3 would be less than significant.	Housing Supply, Diversity, and Affordability - Amend the PMC to allow duplexes and triplexes in new areas, streamline cottage housing standards and approvals, and identify and remove barriers to housing production. - Adopt tactics that allow for more development of middle housing options. - Continue to expand the multifamily tax exemption program in Puyallup. - Realign capital investments to prioritize investments that support development and investment in underserved areas and in areas that have not met expectations for redevelopment. - Adopt policies that expand opportunities for affordable homeownership and increase access to homeownership for historically marginalized communities. - Add a new housing policy supporting the use of development agreements or community benefit agreements between developers and either the City of Puyallup or a community-based organization. - Adopt policies to preserve existing naturally occurring affordable housing.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Residential and Commercial Displacement - Inconsistent with new requirements, Alternative 1 would not include additional policies that mitigate displacement risk or remediate past or present harms for low-income or marginalized communities. - Alternative 1 could have the potential to displace existing businesses due to new growth, though this is less likely than under Alternative 2 or 3. Alternative 1 could result in a significant adverse impact on residential displacement risk, though a less than significant impact on commercial displacement is anticipated.	Residential and Commercial Displacement - Potential displacement is likely higher under Alternative 2 than under Alternative 1 because of increased overall capacity for growth and expanded housing densities and typologies, as well as increased employment growth in some parts of the city. - Alternative 2 would enable development within South Hill and Downtown at greater intensities than under Alternative 1. With implementation of additional mitigation measures, along with existing regional and local programs and regulations, the potential impacts to displacement under Alternative 2 would be less than significant.	Residential and Commercial Displacement - Impacts would be similar to Alternative 2; however, there would be less growth along main commercial corridors and major intersections. With implementation of additional mitigation measures, along with existing regional and local programs and regulations, the potential impacts to displacement under Alternative 3 would be less than significant.	Residential and Commercial Displacement - Modify and add housing policies to preserve affordable housing, address development of rentals and homeownership opportunities, and provide support for tenants. - Prioritize displacement mitigation efforts on manufactured home parks. - Integrate anti-displacement strategies and community planning with capital facility system planning, climate adaptation investments, and other efforts to reduce displacement risk. - Implement tools and programs to help stabilize and grow small businesses that are vulnerable to displacement. Create regular monitoring and evaluation systems that would help the City and residents revisit these strategies and programs to identify which ones are most effective and adjust accordingly to redistribute resources to programs that are the most efficient.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Transportation			
- Alternative 1 would exceed level of service (LOS) standards at 11 intersections in 2044. - Transit operations would continue to be underutilized under Alternative 1, while increased population and employment density could support higher levels of walking and bicycling. All planned transit, pedestrian, and bicycle improvements are expected to be constructed by 2044 as part of Alternative 1, resulting in no significant impacts on these modes; however, impacts to the LOS at 11 intersections are expected to result in a significant impact on traffic.	- Alternative 2 would exceed LOS standards at 13 intersections in 2044. - Impacts to transit, pedestrian, and bicycle travel under Alternative 2 would be similar to those described for Alternative 1. All planned transit, pedestrian and bicycle improvements are expected to be constructed by 2044 as part of Alternative 2, and with mitigation, impacts to the LOS at the 13 intersections would result in a less than significant impact on traffic.	- Alternative 3 would exceed LOS standards at 13 intersections in 2044. - Impacts to transit, pedestrian, and bicycle travel under Alternative 3 would be similar to those described for Alternative 1. All planned transit, pedestrian, and bicycle improvements are expected to be constructed by 2044 as part of Alternative 3, and with mitigation, impacts to the LOS at the 13 intersections would result in a less than significant impact on traffic	Measures to minimize and mitigate impacts to traffic include roadway and intersection improvements at affected intersections, such as but not limited to the following: - New signals or roundabouts - Signal optimization and improvements - New turn pockets - LOS standard updates - New turning and receiving lanes - Lane configuration updates

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Parks and Recreation			
Puyallup parks and recreation facilities would serve an estimated 16,993 more people under Alternative 1. Under Alternative 1, there would be the following deficits: ▪ 184.6 acres of park land ▪ 7 parks ▪ 1 community garden ▪ 8 playgrounds Without an increase in the amount of park land, number of parks, number of community gardens, and number of playgrounds, LOS benchmarks for these facilities would not be met under Alternative 1, resulting in a significant impact. In addition, future growth outside of existing park service areas would result in a significant impact.	Puyallup parks and recreation facilities would serve an estimated 34,087 more people under Alternative 2. Under Alternative 2, there would be the following deficits: ▪ 348.6 acres of park land ▪ 16 parks ▪ 1 community garden ▪ 5 picnic tables ▪ 0.8 miles of park trails ▪ 17 playgrounds ▪ 1 skatepark/pump track Focused development of new households and jobs in some areas currently outside of the existing parks service area would increase the number of residents and employees who are not served by a neighborhood or community park within close proximity. Without an increase in the amount of park and recreational facilities listed above, LOS benchmarks for these facilities would not be met under Alternative 2, resulting in a significant impact. Without the development of new neighborhood and community parks in underserved areas of the city, future growth outside of existing park service areas in the Pioneer Mixed-Use, South Hill RGC, Meridian Corridor, and River Road Mixed-Use focus areas would result in a significant impact.	Puyallup parks and recreation facilities would serve an estimated 36,093 more people under Alternative 3. Under Alternative 3, there would be the following deficits: ▪ 367.6 acres of park land ▪ 17 parks ▪ 1 community garden ▪ 9 picnic tables ▪ 0.8 miles of park trails ▪ 18 playgrounds ▪ 1 skatepark/pump track As under Alternative 2, development would be outside existing neighborhood parks service areas. Alternative 3 conditions anticipate greater levels of development in these areas than under Alternative 2. Without an increase in the amount of park and recreational facilities listed above, LOS benchmarks for these facilities would not be met under Alternative 3, resulting in a significant impact. Without the development of new neighborhood and community parks in underserved areas of the city, future growth outside of existing park service areas in the Pioneer Mixed-Use, Southwest Node, South Hill RGC, Meridian Corridor, Medical Mixed-Use, Fairground Mixed-Use, South River Employment, and River Road Mixed-Use focus areas would result in a significant impact.	▪ Updates to the Parks, Recreation, and Open Space Element of the Puyallup Comprehensive Plan include goals and policies to identify and plan for future parks and recreation needs created by anticipated growth and development. ▪ The City will continue implementation and periodic assessment of Puyallup's existing park growth impact fee.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Public Services			
▪ Growth under Alternative 1 would increase the demand for public services including fire and emergency medical services, police, schools, and hospital services. ▪ The Puyallup School District is currently exceeding its capacity and is not anticipated to have sufficient capacity within its existing or currently planned facilities to serve the potential population increases under Alternative 1. ▪ A less than significant impact is anticipated for fire and emergency medical, police, and hospital services. However, without a substantial increase in new or expanded schools, the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact under Alternative 1.	▪ Impacts would be similar to Alternative 1, but Alternative 2 would add more housing and employment, which would result in greater demand for public services. ▪ Impacts would be similar to Alternative 1, but Alternative 2 would add approximately 3,366 more students to the population, which would further exacerbate the insufficient capacity at Puyallup schools. ▪ A less than significant impact is anticipated for fire and emergency medical, police, and hospital services. However, without a substantial increase in new or expanded schools, the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact under Alternative 2.	▪ Impacts would be similar to Alternative 2, but Alternative 3 would add more housing and employment, which would result in greater demand for public services. ▪ Alternative 3 would add approximately 3,761, more students than under Alternative 1, and 395 more students than under Alternative 2, which would further exacerbate the insufficient capacity at Puyallup schools. ▪ A less than significant impact is anticipated for fire and emergency medical, police, and hospital services. However, without a substantial increase in new or expanded schools, the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact under Alternative 3.	▪ Continue to update and analyze Central Pierce Fire & Rescue incident and response data yearly to evaluate staffing and facilities' needs. ▪ Continue to construct new buildings in compliance with the 2021 International Fire Code. ▪ Continue to update and analyze Puyallup Police Department incident and response data yearly to evaluate staffing and facilities' needs. ▪ Construct the new Puyallup Police Department precinct. ▪ Approve the Good Samaritan MultiCare Master Plan to expand hospital capacity. ▪ Work with the Puyallup School District to update its Capital Facilities Plan to minimize impacts to capacity at Puyallup schools as a result of growth under the Comprehensive Plan.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Utilities			
Water Systems - As a result of growth, Alternative 1 would place increased demand on water systems that serve the City of Puyallup. The increased growth and development of Alternative 1 would result in a significant impact on the City of Puyallup and the Fruitland Mutual Water Company (FMWC) water systems. The increased growth of Alternative 1 would result in a less than significant impact on the Valley Water District and Valley Water System.	Water Systems - As a result of growth, Alternative 2 would place a greater increased demand on water systems that serve the City of Puyallup than under Alternative 1. The additional water demand from the anticipated growth from Alternative 2 would result in a significant impact to the City of Puyallup and FMWC water systems, the Valley Water District, and the Valley Water System.	Water Systems - As a result of growth, Alternative 3 would place a greater increased demand on water systems that serve the City of Puyallup than under Alternative 1 or 2. The additional water demand from the anticipated growth from Alternative 3 would result in a significant impact to the City of Puyallup and FMWC water systems, and the Valley Water District and Valley Water System.	Water Systems - Implement Capital Improvement Plan recommendations of the 2019 City of Puyallup Water System Plan. - Identify additional improvements in the 2019 City of Puyallup Water System Plan Capital Improvement Plan recommendations. - Implement an aggressive water conservation program. - Fund more public education and outreach to water conservation programs.
Sewer System - The City anticipates there would be capacity to meet the future demands on the City of Puyallup sewer system, assuming the future expansion of the treatment plant. The impacts of growth and development of Alternative 1 would result in a less than significant impact to the City of Puyallup sewer system.	Sewer System - Alternative 2 would place a greater increased demand on sewer systems in the City of Puyallup than under Alternative 1. The growth and development from Alternative 2 would result in a significant impact to the City of Puyallup sewer system.	Sewer System - Alternative 3 would place a greater increased demand on sewer systems in the City of Puyallup than under Alternative 1 or 2. The growth and development from Alternative 3 would result in a significant impact to the City of Puyallup sewer system.	Sewer System Implement Capital Improvement recommendations of the 2016 Comprehensive Sewer Plan and identify additional improvements.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Storm Drainage System - Under Alternative 1, impervious surfaces would increase due to continued development and growth primarily in the RGCs. The amount of vegetation would decrease due to development, increasing runoff. Growth and development anticipated in Alternative 1 would result in a significant impact on the City of Puyallup's storm drainage system.	Storm Drainage System - Alternative 2 would create more impervious surfaces and place a greater increased demand on the storm drainage systems in the City of Puyallup than under Alternative 1. Additional growth and development under Alternative 2 would result in a significant impact to the City's storm drainage system.	Storm Drainage System - Alternative 3 would create more impervious surfaces and place a greater increased demand on the storm drainage systems in the City of Puyallup than under Alternative 1 or 2. Additional growth and development under Alternative 3 would result in a significant impact to the City's storm drainage system.	Storm Drainage System - Update the 2012 Comprehensive Storm Drainage Plan with hydrologic modeling. - Implement stronger code and design incentives for LID. - Fund more public education on water quality for residents and businesses.
Natural Gas, Electricity, and Telecommunication - There would be increased demand for electricity and natural gas, placing additional demand on the Puget Sound Energy (PSE) infrastructure. It is expected that PSE would continue to provide utility services on demand and would upgrade distribution equipment as demand required. Telecommunication demand would increase, and Lumen is expected to upgrade infrastructure as demand or technology requires. Growth and development anticipated in Alternative 1 would result in a less than significant impact on the PSE electrical and natural gas distribution systems and the Lumen telecommunications network.	Natural Gas, Electricity, and Telecommunication - Alternative 2 would have a similar but greater impact than under Alternative 1. - Alternative 2 would implement new GHG emission-reduction policies, including policies to expand access to electric vehicle charging infrastructure. This would place more demand on the power utility infrastructure. - Higher-capacity distribution could be required for RGCs and mixed-use focus areas due to the high concentration of population and employment. Growth and development anticipated in Alternative 2 would result in a less than significant impact on the PSE electrical and natural gas distribution systems and the Lumen telecommunications network.	Natural Gas, Electricity, and Telecommunication - Alternative 3 would have a similar but greater impact than under Alternative 1 or 2. Growth and development anticipated in Alternative 3 would result in a less than significant impact on the PSE electrical and natural gas distribution systems and the Lumen telecommunications network.	Natural Gas, Electricity, and Telecommunications - Provide annual updated population, employment, and development projections to PSE. - Coordinate and cooperate with other jurisdictions to implement multijurisdictional electric utility facility additions and improvements. - Fund more public education and outreach to promote renewable energy technologies.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Solid Waste - Increases in population and development under Alternative 1 would result in increased demand for solid waste services, placing additional demand on solid waste services. - Growth and development anticipated in Alternative 1 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.	Solid Waste - Alternative 2 would place a greater increased demand on solid waste services in the City of Puyallup than under Alternative 1. - Growth and development anticipated in Alternative 2 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.	Solid Waste - Alternative 3 would place a greater increased demand on solid waste services in the City of Puyallup than under Alternative 1 or 2. - Growth and development anticipated in Alternative 3 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.	Solid Waste Follow the Pierce County Solid and Hazardous Waste Management Plan of mitigation through education and outreach.

Alternative 1	Alternative 2	Alternative 3	Avoidance, Minimization, and Mitigation Strategies
Cultural Resources			
- New development throughout the city of Puyallup is likely to continue under current trends, and no specific development is anticipated which would result in the demolition of historic built environment resources or which would result in the disturbance of archaeological resources. Alternative 1 would result in less than significant impacts to cultural resources.	- The potential for impacts under this alternative on the 12 National Register of Historic Places (NRHP)-, Washington Heritage Register (WHR)-, or Puyallup Register of Historic Places (PRHP)-listed historic built environment resources in the Downtown RGC and each of the NRHP-eligible historic built environment resources located in the Downtown and South Hill RGCs would be greater than under Alternative 1. - Two identified archaeological resources are located in an Alternative 2 focus area; however, both have been determined as not eligible for listing in the NRHP. One archaeological resource that has not been evaluated for listing in the NRHP is partially located within an Alternative 2 focus area. Alternative 2 would result in less than significant impacts to cultural resources.	- Impacts would be similar to those under Alternative 2 but are assumed to be fewer as growth would be over a greater range of areas under Alternative 3. - The potential for impacts to NRHP-, WHR-, or PRHP-listed historic built environment resources would be lower than under Alternative 2. - The potential for impacts to the one PRHP-listed historic built environment resource in the South River employment area and the two NRHP-eligible resources located in the Medical Mixed-Use focus area would be greater than under Alternative 2. - The potential for archaeological resources impacts is similar to Alternative 2. Alternative 3 would result in less than significant impacts to cultural resources.	- Continue implementation of the City of Puyallup Historic Preservation Plan (2016), Design Review and Historic Preservation Board review process, and implementation of design guidelines. - Update the building permitting process to more fully consider impacts to cultural resources including archaeological sites and historic built environment resources. - Update the City's demolition permit application process and/or building code to encourage construction salvage. - Conduct architectural and cultural resource surveys in previously unsurveyed or under-surveyed areas within the Alternative 2 focus areas and Alternative 3 focus areas. - Update the WISAARD inventory of Pierce County Assessor-Treasurer data to capture current historic-age built environment resources not previously included in 2011 dataset. - Prepare historic context statements for themes identified in the City of Puyallup Historic Preservation Plan.

WISSARD = Washington Information System for Architectural and Archeological Records Data

1. Introduction

1.1 Proposal

The Puyallup Comprehensive Plan is the long-term vision and plan for managing the built and natural environment in the city of Puyallup. It includes policy direction for community development, housing, economic development, environmentally sensitive areas, public services, annexation, and related issues. The City's Comprehensive Plan was developed under the provisions of the State of Washington's Growth Management Act (GMA) and was initially adopted in September 1994. The Comprehensive Plan also addresses the revitalization of Puyallup's historic downtown.

The City of Puyallup is proposing to review and update its Comprehensive Plan consistent with the GMA, Revised Code of Washington (RCW) Chapter 36.70A. The proposed major update of the Comprehensive Plan, known as Puyallup 2044, will set the vision for the city for the next 20 years. The changes must be adopted by December 2024.

Major components of the Comprehensive Plan include:

- **Goals and Policies**, which are broad statements of the community's long-term desires, values, and preferred future directions related to the physical development of the city.
- **Maps**, which depict the community's desired future development pattern and how the city will accommodate growth.
- **Capital Projects**, which describe significant public facilities needed to support future development depicted on the map and described in the goals and policies.

Chapter 2 of this document describes the planning context in which Puyallup 2044 is being developed, the objectives of the proposed update, and a description of the plan update alternatives.

1.2 SEPA and Public Involvement

1.2.1 EIS Process

The City of Puyallup determined that the Comprehensive Plan update has the potential to result in significant adverse impacts to the environment, and therefore an environmental impact statement (EIS) is required under the Washington State Environmental Policy Act (SEPA). Subsequently, the City issued a Determination of Significance (DS) and a request for comments on the scope of the EIS on Monday, August 28, 2023, for the Comprehensive Plan update and associated amendments to the City's development regulations. There was a 30-day public comment period during which no comments were received.

The analysis in this Draft EIS will be used to review the potential environmental impacts of the Comprehensive Plan update. The adoption of comprehensive plans or other long-range planning activities is classified as a nonproject action under SEPA. A nonproject action is defined as an action that involves decisions on policies, plans, or programs. An EIS for a nonproject proposal does not require site-specific analyses; instead, it discusses potential impacts appropriate to the scope and planning level of the nonproject proposal. Specifically related to an EIS for a comprehensive plan, SEPA provides that the discussion of alternatives “shall be limited to a general discussion of the impacts of alternate proposals for policies contained in such plans, for land use or shoreline

designations, and for implementation measures. The lead agency is not required under SEPA to examine all conceivable policies, designations, or implementation measures but should cover a range of such topics.”

This Draft EIS is meant to help the public and decision-makers identify and evaluate the potential environmental effects of alternative policies, development patterns, and implementation approaches related to future growth in Puyallup. Subsequent development proposals would require additional environmental reviews and permit approvals.

1.2.2 Public Involvement

The City of Puyallup has conducted several public engagement activities for its Comprehensive Plan update effort. This includes several meetings with the Community Advisory Group (CAG), which is made up of residents, business owners, representatives of various local and regional organizations, and other key stakeholders. The CAG provided feedback and guidance to the City at key phases of the project. The City also conducted stakeholder interviews with those involved in housing development, business and property owners, major employers, and stakeholders involved in the real estate industry in Puyallup.

During the summer and fall of 2023, City staff hosted the following activities:

- **Pop-up Events.** City staff hosted booths at three community events where they provided information about the project and invited community members to provide input through various activities.
- **Community Workshop.** This event was held on Wednesday, September 13, at Pierce College and involved hands-on small group activities that asked participants to share their future visions for Puyallup and to consider how growth in the city should occur over the next 20 years.
- **Online Survey.** An online survey was conducted between September 1 and October 2; it mirrored many of the in-person activities at the pop-ups and workshop.

During the spring and summer of 2024, City staff hosted these additional activities:

- **Pop-up Events.** City staff hosted booths at two community events in May and June 2024 where they invited community members to provide input on guiding principles and housing policies for the Comprehensive Plan update. The public also had the opportunity to provide feedback on the same topics at the Puyallup Public Library in June 2024.
- **Online Policy Survey.** An online survey / public forum was available between May 23 and June 23, 2024. Participants were asked to provide input on a range of policy concepts under consideration for the Comprehensive Plan update.

The City will host future opportunities for community involvement through workshops and open houses throughout 2024.

1.3 Significant Areas of Controversy and Uncertainty, and Issues to be Resolved

The environmental review has identified and addressed the significant policy areas being included in the 2024 Comprehensive Plan update that inform the EIS alternatives. Because the 2024 update is happening concurrently with the production of the Draft EIS, there is uncertainty about which policies

will ultimately be adopted by the City Council. Over the next few months, the Puyallup City Council will review and amend the draft plan and adopt a recommended proposal, which may be one of the EIS alternatives or include components of each.

Key issues facing decision-makers include the following:

- Creation of a growth concept that will accommodate the city’s housing and job growth needs and expectations in a manner that is consistent with the community vision.
- Adoption of a Comprehensive Plan—including guiding principles, goals, and policies—that fulfills Puyallup’s vision and meets state and regional requirements.
- Adoption of development regulations that implement the Comprehensive Plan goals and policies and meet state requirements, resulting in greater housing choices, quality design, and protection of critical areas.

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2. Proposed Action and Alternatives

This chapter discusses the objectives of Puyallup's Comprehensive Plan update, plan update alternatives, and the planning context in which the plan update is being developed.

2.1 Planning Context

2.1.1 Washington State Growth Management Act

Comprehensive plans and development regulations (codes) that apply to the city of Puyallup must be consistent with the provisions of the GMA. The GMA sets forth planning goals to guide the development and adoption of comprehensive plans and development regulations by counties and cities. Jurisdictions subject to the GMA, including Puyallup, must prepare comprehensive plans that include maps and text describing the objectives, principles, and standards used to develop the comprehensive plan.

All elements of the Comprehensive Plan must be consistent with the future land use map. Required elements of the Comprehensive Plan include land use, housing, capital facilities, utilities, and transportation. Economic development and parks and recreation are required when funding is provided, but jurisdictions often prepare the elements to meet state and local goals and grant opportunities. Puyallup's Comprehensive Plan includes an Economic Development element and a Parks, Recreation, and Open Space element.

In the 2023 session, the Washington State Legislature amended the GMA to require planning for climate change and resiliency in comprehensive plans; however, those updates are not required until the 2029 and 2034 comprehensive plan updates. Local governments may include other elements if they wish, including subarea plans. All development regulations, such as zoning classifications or critical areas ordinances (CAOs), must be consistent with a county or city's comprehensive plan.

2.1.2 Puget Sound Regional Council – VISION 2050

The GMA requires the adoption of multicounty planning policies (MPPs) for larger counties with a contiguous urban area, such as King, Kitsap, Snohomish, and Pierce counties. MPPs serve as the regional framework for growth management and guide land use, economic development, public services, environmental planning, and transportation projects within Central Puget Sound. MPPs serve three key roles:

- Implement the Regional Growth Strategy, which defines roles for different types of places in accommodating the region's population and employment growth.
- Create a common planning framework for local plans and countywide planning policies (CPPs).
- Provide the policy structure for other regional plans.

VISION 2050 establishes the region's MPPs. It is the current regional plan for managing growth over the coming decades in King, Kitsap, Pierce, and Snohomish Counties. It was prepared by the Puget Sound Regional Council (PSRC) in coordination with its member jurisdictions, and it was approved by the PSRC General Assembly in October 2020.

VISION 2050 incorporates a focus on locating growth in more compact, walkable, and transit-served locations. The plan's Regional Growth Strategy calls for new housing, jobs, and development in regional growth centers and near high-capacity transit. Regional growth centers are located within designated Metropolitan Cities and Core Cities, such as Puyallup, and are characterized by compact, pedestrian-oriented development with a mix of uses. Regional growth centers are envisioned as a major focal point of higher-density population and employment, with efficient multimodal transportation infrastructure and services. The Regional Growth Strategy also aims to keep rural areas, farmlands, and forests healthy and thriving.

The goal of the Regional Growth Strategy is for 65% of the region's population growth—anticipated to reach 5.8 million people by 2050—and 75% of the region's forecast employment growth of 3.4 million jobs by 2050 to be in regional growth centers and within walking distance of high-capacity transit. The VISION 2050 Regional Growth Strategy calls for high-capacity transit communities—cities and urban unincorporated areas with existing or planned high-capacity transit investments—to accommodate 24% of the region's population growth (approximately 1.4 million people) and 13% of its employment growth by the year 2050. This regional-scale goal provides a benchmark to inform local housing and job growth targets and continues to focus the location of new growth as transit investments come into service.

2.1.3 Pierce County Countywide Planning Policies

The GMA requires that the comprehensive plan of each county or city be coordinated with, and consistent with, the comprehensive plans of other counties or cities with which the county or city has, in part, common borders or related regional issues. Each county is required to develop CPPs, which are policy statements for establishing a countywide framework from which county and city comprehensive plans are developed and adopted. CPPs ensure that city and county comprehensive plans are consistent and meet minimum policy requirements. Counties must periodically review and, in collaboration with cities, update their CPPs as necessary, such as when MPPs are updated, when the GMA or other statutes affecting land use planning are adopted or amended, or when the county identifies new information or analysis that impacts its buildable lands program.

Pierce County's CPPs were last updated in May 2022. They provide a shared and consistent framework for growth management planning between the County and its cities within, including Puyallup. The CPPs implement the MPPs and provide more specific details for local comprehensive planning. They are one of the primary mechanisms for VISION 2050 to be implemented at the local level.

2.2 Proposed Action and Alternatives

2.2.1 Proposal Objectives

In accordance with the Washington State Environmental Policy Act (SEPA), this section states the proposal's objectives, specifying the purpose and needs to which the proposal is responding. For a non-project action, such as plan changes or regulatory amendments, objectives can be expressed in terms of a vision and principles.

2.2.1.1 Population and Job Growth Targets

Accommodate Puyallup's adopted housing and employment growth targets for 2044 as adopted by Pierce County in 2022 and 2023 and accepted by the City of Puyallup.

2.2.1.2 Housing

- Plan for a variety of residential densities and housing types. (*CP Goal H-3*)
- Plan for higher-density housing within regional growth centers. (*CP Goal H-4*)
- Promote housing affordability to meet the needs of all economic segments of the city. (*CP Goal H-5*)
- Address housing inequities. (*new potential goal*)
- Plan for healthy and connected residential neighborhoods with access to green spaces, transportation options, employment, services, and commercial centers.

2.2.1.3 Economy

- Increase access to living wage jobs in the city.
- Support small local businesses.
- Support vibrant commercial centers and corridors.

2.2.1.4 Environment

- Protect and enhance the natural environment. (*CP Goal NE-2*)
- Reduce greenhouse gas emissions. (*CP Goal NE 11*)

2.2.1.5 Transportation

- Focus housing and job growth in places with good access to a variety of transportation options.
- Enhance opportunities to access employment, services, commercial areas, and parks by walking, bicycling, or taking transit. (*CP Goal T-4*)
- Enable efficient mobility of people and goods throughout the city. (*CP Goal T-5*)

2.2.1.6 Capital Facilities

- Plan for growth that makes efficient use of capital facilities and City services.

2.2.2 EIS Alternatives

Alternatives are different ways of achieving a proposal's objectives and serve as the basis for environmental analysis relative to elements of the environment. The alternatives assume a broad range of land uses, including existing land use classifications identified in the City's Future Land Use (FLU) map. The alternatives also include new land use classifications to incorporate a broader range of housing and development types, including multifamily residential and mixed-use development with various numbers of floors, middle housing (i.e., duplexes, triplexes, fourplexes, and townhomes), and a variety of other development types that address community input that desires more walkable development and access to services.

The State requires jurisdictions to plan for housing and employment growth that meet targets by 2044.⁴ The land use alternatives are intended to test different growth scenarios that meet the designated growth targets for Puyallup, which includes targets to add 7,482 housing units and 14,715 jobs by 2044.

Development assumptions for each alternative are summarized in Table 2.2-1 and Table 2.2-2.⁵

Table 2.2-1. Housing Capacity by Alternative

Focus Area	Alternative 1 Housing Units	Alternative 2 Housing Units	Alternative 3 Housing Units
Downtown RGC	1,510	2,310	2,070
Fairground Mixed-Use	160	170	980
Medical Mixed-Use	20	30	480
Meridian Corridor	60	300	250
Pioneer Mixed-Use	70	470	540
River Road Mixed-Use	70	560	420
Shaw Road Mixed-Use	30	30	510
South Hill RGC	2,940	7,230	5,730
South River Employment	-	-	30
Southwest Node	30	30	330
Stewart Nodes	30	40	240
W Pioneer Nodes	20	20	110
All Other Areas	1,750	1,750	1,750
Middle Housing Development (vacant and underutilized)		190	240
Middle Housing Infill/Redevelopment (developed)	-	270	450
Total	6,690	13,420	14,210
Target [Net]	7,482 [6,910]		
Urban Growth Area	990	990	990

RGC = regional growth center

⁴ Ordinance 2022-46s.

https://online.co.pierce.wa.us/cfapps/council/iview/proposal.cfm?proposal_num=2022-46#

Ordinance 2023-22s.

https://online.co.pierce.wa.us/cfapps/council/iview/proposal.cfm?proposal_num=2023-22s

⁵ Housing and employment capacity for each alternative in the summary tables have been rounded to the nearest 10. Citywide total may not equal the sum of the individual areas.

Table 2.2-2. Employment Capacity by Alternative

Focus Area	Alternative 1 Jobs	Alternative 2 Jobs	Alternative 3 Jobs
Downtown RGC	1,830	3,040	2,700
Fairground Mixed-Use	220	220	1,150
Medical Mixed-Use	720	720	5,360
Meridian Corridor	-	340	100
Pioneer Mixed-Use	310	960	470
River Road Mixed-Use	850	960	720
Shaw Road Mixed-Use	10	10	310
South Hill RGC	3,320	9,160	5,300
South River Employment	170	170	340
Southwest Node	-	-	340
Stewart Nodes	10	10	250
W Pioneer Nodes	10	10	40
All Other Areas	1,440	1,440	1,440
Total	8,880	17,020	18,520
Target [Net]	14,715 [13,970]		
Urban Growth Area	1,070	1,070	1,070

RGC = regional growth center

2.2.2.1 Alternative 1: No Action

A No Action Alternative is a required alternative under SEPA.

The No Action Alternative assumes that no change would occur to the existing 2015 FLU Map or Comprehensive Plan policies relating to development within the Puyallup city limits. This alternative would maintain the City's existing land use designations without modifications, which means growth would occur within existing land use regulations and policies.

Under the No Action Alternative Puyallup would have capacity for approximately 7,680 housing units, with an estimated 6,690 units within the city limits, and 990 units in the unincorporated urban growth area (UGA) (Table 2.2-1). The Pierce County 2020–2044 Growth Target for housing in Puyallup is 7,482 housing units within city limits.⁶ Since 2020, an estimated 570 housing units have been constructed (based on property that has been developed or is in the permitting pipeline), reducing the total number of housing units needed to meet City targets by 2044 from 7,482 to approximately 6,910 units. While housing that has been developed since 2020 meets a portion of the growth target for housing, development since 2020 also reduces the amount of land available in

⁶ Ordinance No. 2023-22s.

https://online.co.pierce.wa.us/cfapps/council/iview/proposal.cfm?proposal_num=2023-22s

the city limits for future development. If development occurs as assumed under the No Action Alternative, the City would not meet its 2020–2044 target for housing units with a projected deficit of approximately 790 housing units.

The Pierce County 2020–2044 growth target for Puyallup employment is 14,715 jobs within the city limits. The No Action Alternative includes a total employment capacity estimate of 9,950 jobs, with capacity for approximately 8,880 jobs within the city limits and 1,070 jobs in the unincorporated UGA (Table 2.2-2). Since 2020, approximately 750 jobs have been created, reducing the total number of jobs still needed by 2044 to approximately 13,970 jobs. Assuming similar growth patterns and no land use or other policy changes, Puyallup would not meet its jobs target, with a projected deficit of approximately 5,840 jobs compared to the 2020–2044 Growth Target (or 5,090 jobs accounting for development since 2020).

The No Action Alternative would also not meet other new planning requirements related to affordable housing across income bands, providing a range of housing types, allowing middle housing, multimodal level of service requirements, or new Critical Areas requirements related to best available science.

2.2.2.2 Alternative 2: Focused Growth

Alternative 2 assumes more housing and jobs and a greater diversity of housing types than the No Action Alternative by concentrating growth in certain areas of the city.

As shown in Figure 2.2-1 and Figure 2.2-2, Alternative 2 would concentrate residential and employment growth in Puyallup’s designated regional growth centers (the Downtown RGC and the South Hill RGC). It would also focus growth along major commercial corridors such as River Road and South Meridian, and at the intersection of East Pioneer and Shaw Road.

Alternative 2 focuses growth in the Puyallup regional growth centers through mixed-use and residential development. Other corridors and focus areas are assumed to be a mix of uses, including detached residential, commercial, and mixed-use development.

Alternative 2 also assumes that middle housing would be constructed in existing residential areas on both vacant and developed land, based on implementation of the recent State legislation that requires cities allow middle housing in single-family areas (House Bill 1110, 2023).⁷ Alternative 2 assumes that 10% of vacant and underutilized land identified in the Buildable Lands Inventory would develop as middle housing, and 3% of currently developed parcels would redevelop as middle housing (even if they are not identified as vacant or underutilized in the Buildable Lands Inventory). The percentages are based on analyses cited in the *User Guide for Middle Housing Model Ordinance*, which was prepared for the Washington Department of Commerce.⁸

Alternative 2 would add capacity for an additional 13,420 housing units within the city limits (Table 2.2-1), which is approximately double the capacity of the No Action Alternative and the 2020–2044 Growth Target. Alternative 2 assumes employment capacity of approximately 17,020 jobs within the city limits, which is nearly twice as many jobs as the No Action Alternative and 2,300 more jobs than the 2020–2044 Employment Target.

⁷ HB 1110. <https://lawfilesexternal.wa.gov/biennium/2023-24/Pdf/Bills/Session%20Laws/House/1110-S2.SL.pdf?q=20230828214038>

⁸ User Guide for Middle Housing Model Ordinance.
<https://deptofcommerce.app.box.com/s/dip01jnz8i0o2eeuy9v8n39kcm1uc4mk>

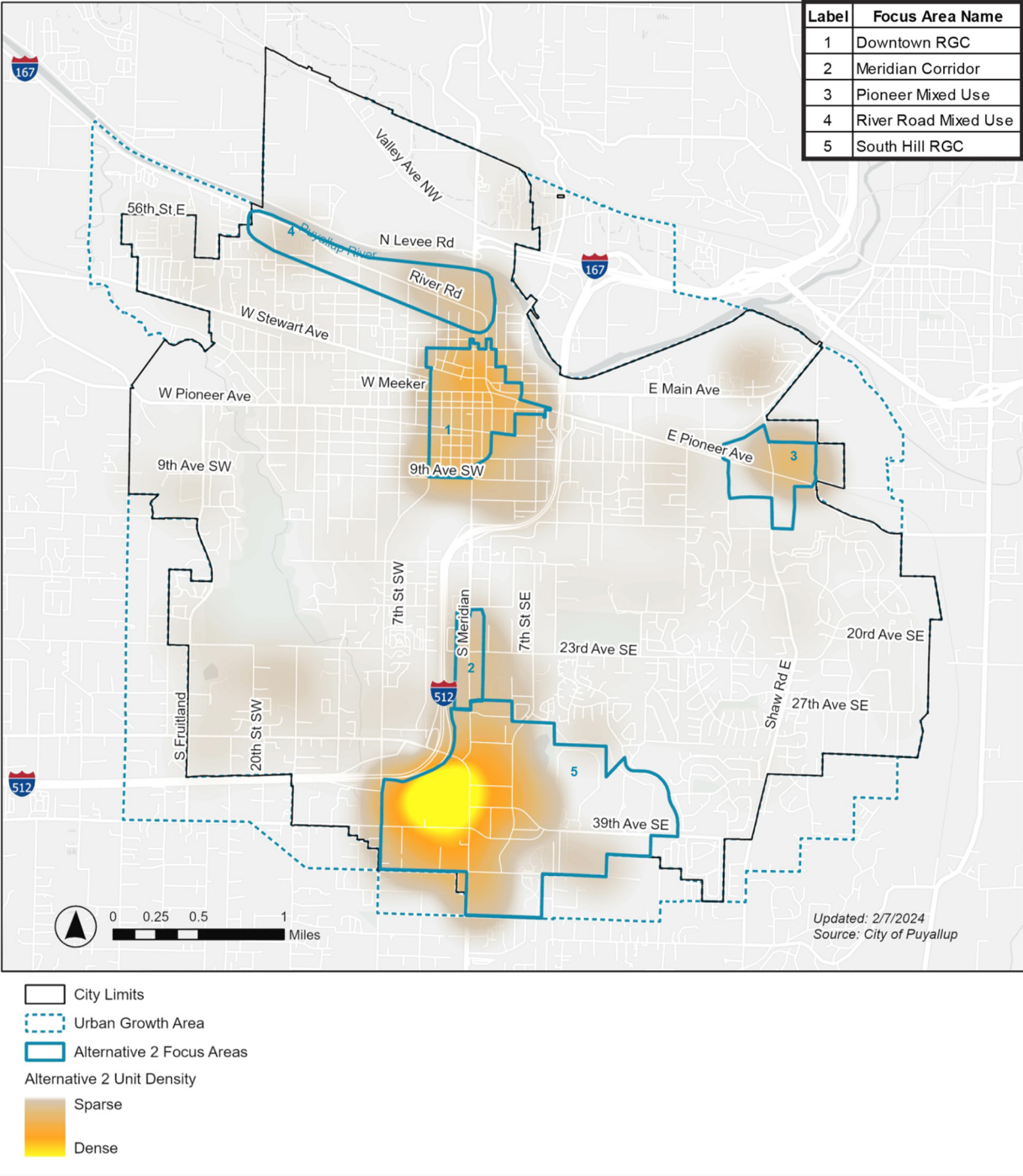


Figure 2.2-1. Alternative 2 Housing Unit Distribution

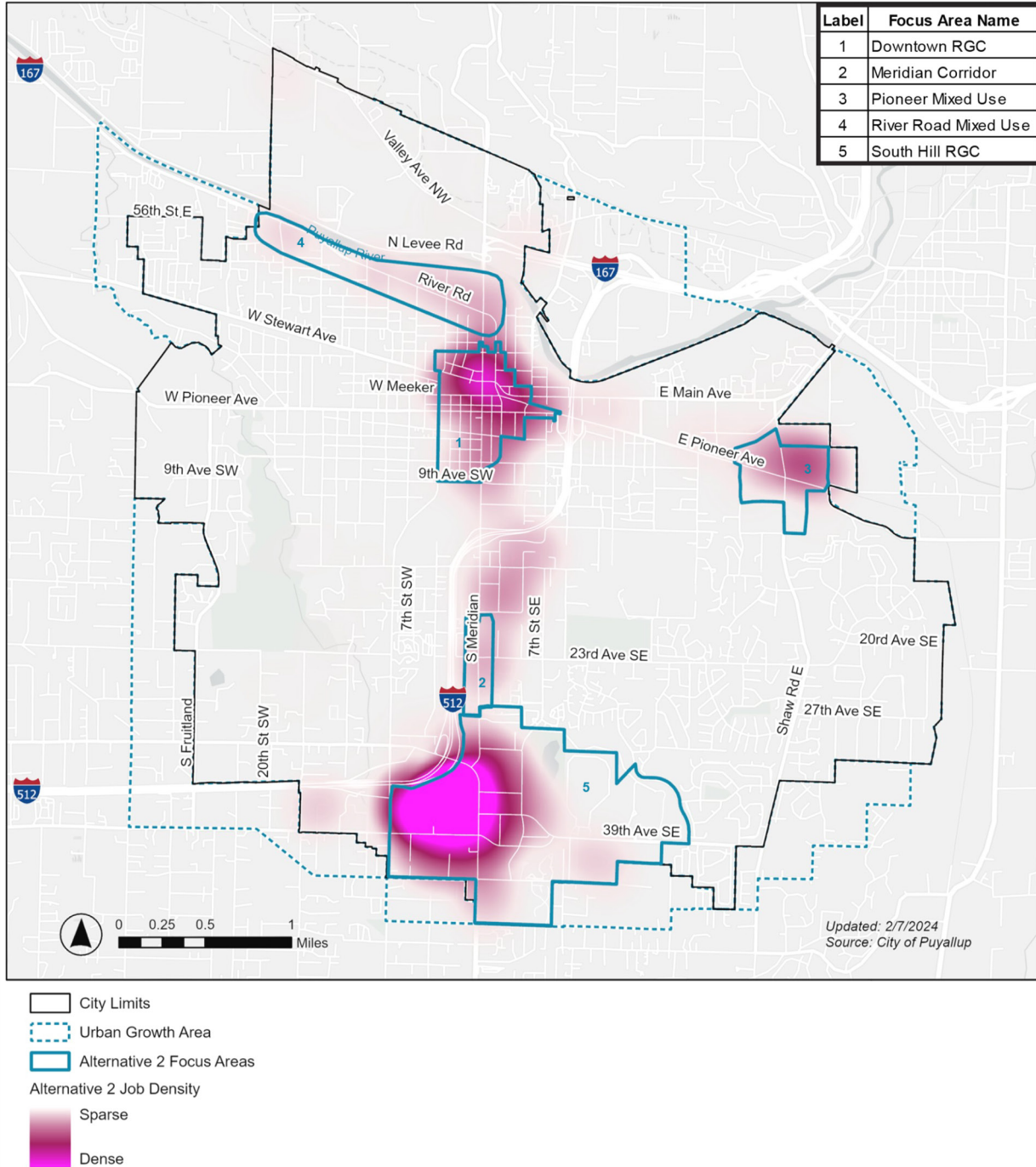


Figure 2.2-2. Alternative 2 Jobs Density

2.2.2.3 Alternative 3: Distributed Growth

Alternative 3 would allow more housing and jobs and a greater diversity of housing types than the No Action Alternative and Alternative 2 by focusing growth among a wider range of areas in the city.

As shown in Figure 2.2-3 and Figure 2.2-4, Alternative 3 would target new jobs and housing growth at key locations throughout the city at important intersections and along transportation corridors, while assuming somewhat less-intense growth within the regional growth centers and other focus areas of Alternative 2.

This alternative generally assumed more low- to medium-density residential and mixed use across a wider range of focus areas. The South Hill and Downtown RGCs still assume the most housing and employment, although at a smaller percentage of the overall capacity compared to Alternative 2. Both of these regional growth centers contain most of the assumed high-density residential and mixed-use capacity, along with some higher density residential and mixed-use assumptions in the Fairground and Medical Mixed Use focus areas. The Medical Mixed-Use focus area also includes capacity for medical office development, which assumes a relatively high jobs density compared to other land use types. The River Road and South River Employment focus areas contain most of the general commercial and employment capacity. The remaining focus areas include a mix of neighborhood commercial and low to medium mixed use and residential capacity assumptions, which are intended to be more compatible with existing neighborhood scales of development.

Alternative 3 also allows a wider range of middle housing types within residential areas to encourage more housing choices in these neighborhoods. This translates to more assumed middle housing development than assumed for Alternative 2. Alternative 3 assumes that 15% of vacant or underutilized land identified in the Buildable Lands Inventory would develop as middle housing, and 5% of currently developed parcels would redevelop as middle housing.

Alternative 3 would add capacity for approximately 14,210 housing units (Table 2.2-1) within the city limits, which is over twice the capacity of the No Action Alternative, approximately 6,730 more units than the 2020–2044 Growth Target, and approximately 800 more units than Alternative 2. Alternative 3 assumes up to approximately 18,520 new jobs within the city limits, which is more than double the No Action jobs capacity for the No Action Alternative, approximately 1,500 more jobs than Alternative 2, and approximately 3,810 more jobs than the 2020–2044 Employment Target in Table 2.2-2.

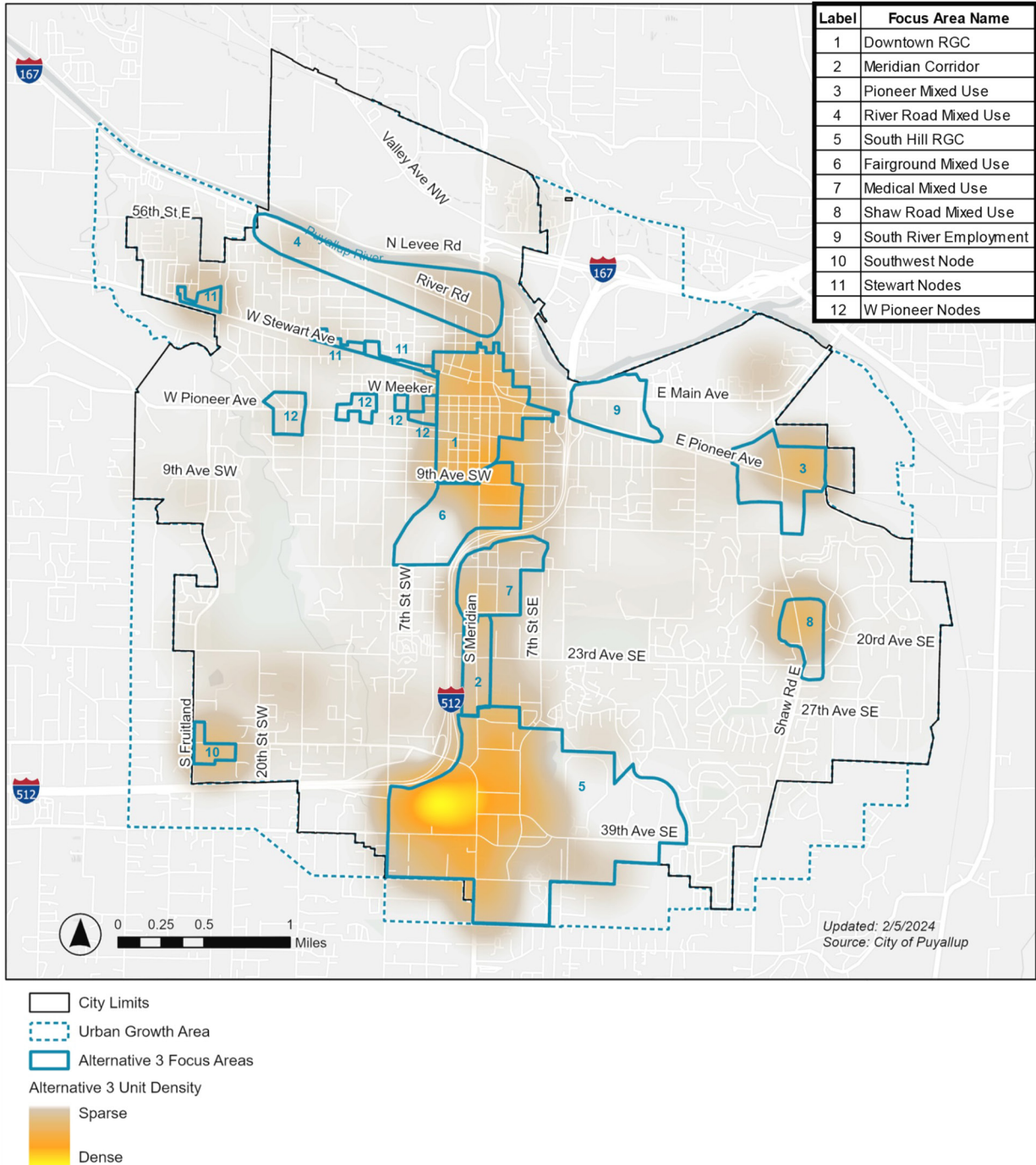


Figure 2.2-3. Alternative 3 Housing Unit Distribution

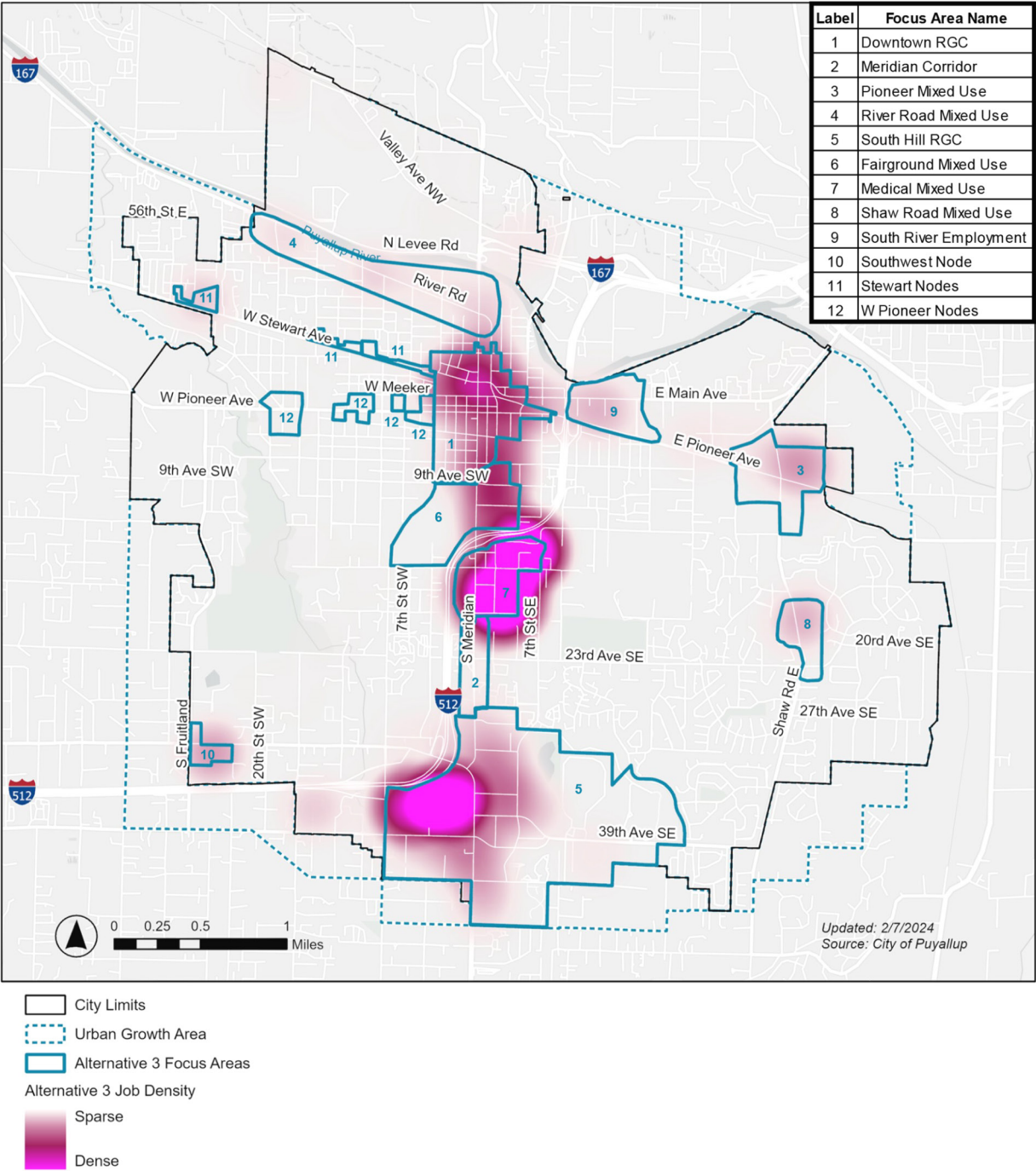


Figure 2.2-4. Alternative 3 Jobs Distribution

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3. Affected Environment, Environmental Impacts, and Potential Mitigation Measures

3.1 Air Quality and Greenhouse Gases

3.1.1 Affected Environment

This section identifies policies and regulations governing air quality and GHG emissions, existing air quality and GHG emissions conditions in the city of Puyallup, overburdened populations more susceptible to environmental effects and health disparities from air toxics and GHGs, and the potential effects of the three alternatives being considered for the Comprehensive Plan Update.

3.1.1.1 Air Quality

Regulatory Environment

A number of federal, state, and regional regulations and regulatory agencies govern air quality and emissions within the city of Puyallup and the surrounding region.

The 1970 Clean Air Act (42 USC Chapter 85 [§ 7401-7671q])

The CAA established the National Ambient Air Quality Standards (NAAQS) to protect the public health and welfare from air pollution. Under the CAA, the EPA identified six criteria air pollutants for which state and federal health-based ambient air quality standards have been established, including ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead, and particulate matter (PM). The EPA also identified subsets of PM for which permissible levels are established: PM less than or equal to 10 microns in aerodynamic diameter (PM₁₀) and PM less than or equal to 2.5 microns in aerodynamic diameter (PM_{2.5}). Areas with air pollution levels that meet or surpass the NAAQS are termed attainment areas.

U.S. Environmental Protection Agency

The EPA is an independent agency of the federal government whose mission is to protect people and the environment from significant health risks. EPA also sponsors and conducts research and develops and enforces environmental regulations. EPA is the primary regulating authority for the CAA.

The Washington Clean Air Act (Chapter 70A.15, RCW)

The state act declares the preservation, protection, and enhancement of the state's air quality for current and future generations to be the public policy of the state. The act provides all counties with the option of selecting either local authority over the provisions of the act or letting Ecology retain authority. The act incorporates the requirements of the federal CAA as a baseline, but enables Ecology or local clean air agencies to adopt stricter standards.

Washington State Department of Ecology

Ecology is Washington's environmental regulatory agency. With respect to air quality, Ecology manages smoke, car pollution, industrial emissions, and other pollutants through permits,

regulations, and reporting systems intended to keep air pollution at healthy levels. Ecology also regulates air quality in counties without a local clean air agency. As Washington's lead agency on climate change, Ecology is working to update the state's current Climate Response Strategy by September 30, 2024.

The Puget Sound Clean Air Agency

The PSCAA regulates air quality in Puyallup and the surrounding four-county region (King, Kitsap, Pierce, and Snohomish). Ecology and PSCAA have the authority to adopt stricter standards than the NAAQS. In 1999, the PSCAA Board of Directors adopted a more stringent health goal for 24-hour PM_{2.5} of 25 micrograms per cubic meter (µg/m³) based on recommendations from the PSCAA Particulate Matter Health Committee (PSCAA 2023).

The Puget Sound Regional Council

The PSRC functions as the metropolitan planning organization and the regional transportation planning organization for King, Kitsap, Pierce, and Snohomish Counties. PSRC developed VISION 2050, a regional long-range plan that identifies policies and goals for air quality and climate change. (PSRC 2020). Air quality goals include reducing impacts to disproportionately affected populations, meeting all federal and state air quality standards, and continued reduction of transportation-related air pollution.

The City of Puyallup's 2015 Comprehensive Plan

The comprehensive plan identifies a series of goals and policies aimed at reducing air toxics and GHG emissions. Air quality goals include maintaining high air quality through land use and transportation planning, promoting the reduction of GHG emissions through energy conservation, the use of alternative energy sources, and increasing transportation alternatives that reduce vehicle miles traveled (City of Puyallup 2015).

Existing Air Quality Conditions

Nationally, most air toxics and GHG emissions originate from human-generated sources including road mobile sources (e.g., cars, trucks, buses), non-road mobile sources (e.g., airplanes, locomotives), stationary sources (e.g., factories, refineries, power plants), and indoor sources (e.g., building materials) (EPA 2018). Largely as a function of the increasing regulation of these sources, criteria pollutants are exhibiting a general reduction in ambient concentrations over time (EPA 2022a, 2022b). In the Puget Sound region, most air pollution comes from transportation—cars, trucks, ships, planes, and trains. Engine exhaust contains fine and diesel particulate matter, smog-forming chemicals, and cancer-causing toxics, all of which can affect human health (PSCAA 2024a).

The criteria air pollutants that have historically been of concern in the Puget Sound airshed are CO, O₃, PM₁₀, PM_{2.5}, and ozone precursors (volatile organic compounds [VOCs] and nitrogen oxides). Pierce County, including the city of Puyallup, has been in attainment of the NAAQS since 2015, and current levels of all criteria pollutants remain within the limits of federal air quality standards.

PM_{2.5} and O₃ (smog) continue to be of concern to the Puget Sound region; however, levels of these two criteria pollutants continue to show improvement (PSCAA 2024b). Consistent with air quality trends observed at the national level, Pierce County air quality trends for PM_{2.5} show a general decline over time (PSCAA 2023). Monitors in King, Kitsap, Pierce, and Snohomish Counties exceeded the local PSCAA health goal of 25 µg/m³ on 22 days during the winter months of 2022. This can be attributed to temperature inversions, which are more common during colder months. Inversions limit

air mixing to a few hundred feet or less above ground surface allowing pollutants to accumulate to high concentrations (PSCAA 2023). The Puget Sound region also routinely experiences spikes in PM_{2.5} due to wildfires. In 2020, a particularly bad year for wildfires, the 98th percentile concentrations exceeded the 24-hour NAAQS for PM_{2.5} by a wide margin. Nonetheless, the Puget Sound region has overall, remained within the NAAQS regardless of whether wildfire event days are included or excluded from the analysis. With wildfire excluded, the annual 98th percentile concentration for PM_{2.5} in Puyallup was 16.7 µg/m³. This is lower than both the national air quality standard of 35 µg/m³ and Ecology's healthy air goal of 20 µg/m³ (Ecology 2023).

O₃ concentrations have consistently met the current federal 8-hour standard for O₃ since its establishment in 2015 and have remained generally stable, even when taking into account seasonal influence from wildfire emissions (PSCAA 2023). However, Ecology has recommended that the EPA adopt more stringent standards for O₃ pollution. According to Ecology, based on a review of available science the 2015 federal O₃ standards do not adequately protect human health, especially for individuals with preexisting respiratory conditions. Additionally, ground-level ozone concentrations are compounded by climate change, especially in urban areas, and increased O₃ pollution is detrimental to Washington's agricultural economy due to likely adverse effects on agricultural crops and workers' respiratory health (Ecology 2020).

Similarly, measured concentrations of nitrogen oxides have demonstrated attainment with the NAAQS within the region but are a prominent component of emissions from high-volume roadways. High-volume roadways are those that have more than 100,000 annual average trips per day—a level of traffic known to produce air contaminant concentrations that can be harmful to human health. Two high-volume freeways, State Route (SR) 512 and SR 167, traverse the city of Puyallup. In 2019, SR 512 between Puyallup and Lakewood had annual average daily traffic (AADT) volumes over 110,000 (WSDOT 2024a). A slightly lower AADT of approximately 93,000 was recorded in 2022 (WSDOT 2024b). Traffic counts for SR 167 just east of the SR 512 interchange recorded an AADT of 105,000 in 2022 (WSDOT 2024b).

Air Quality Conditions in Overburdened and Highly Impacted Communities

Washington's GMA (Chapter 36.70A RCW) mandates that counties or cities include in their comprehensive plans "efforts to reduce localized greenhouse gas emissions and avoid creating or worsening localized climate impacts to vulnerable populations and overburdened communities." As part of this, jurisdictions are directed to prioritize emissions reductions that maximize the cobenefits of reduced air pollution and environmental justice in order to benefit overburdened communities. The GMA defines "overburdened communities" as geographic areas where vulnerable populations face combined, multiple environmental harms and health impacts (RCW 36.70A.030).

The Washington State Department of Health (DOH) identifies "highly impacted communities" as any census tract with a 9 or 10 overall rank on the Environmental Health Disparities (EHD) map (DOH 2024b), or any census tract with tribal lands. The EHD map is the DOH tool for conducting the cumulative impact analysis that is required under Chapter 19.405 RCW (see Section 3.1.1.2). The EHD map ranks the risks that communities face from environmental burdens, including fossil fuel pollution and vulnerability to climate change impacts, which in combination with socioeconomic factors such as poverty, unemployment, and high percentage of people of color, contribute to health inequities (DOH 2024a).

Ecology (2023) identified Northeast Puyallup as 1 of 16 communities statewide that is both overburdened and highly impacted by criteria air pollution. In addition, tribal lands located within the city limits in north and northwest Puyallup comprise portions of three census tracts, qualifying these three census tracts as highly impacted communities.

Northeast Puyallup Study Area

The Northeast Puyallup study area is approximately 2.8 square miles in area, consisting of two census tracts bounded by SR 512 on the west, the Puyallup River on the north, the Puyallup city limit on the northeast, Shaw Road E on the southeast, and 23rd Avenue SE on the south (see Figure 3.1-1). A December 2023 report by Ecology found Northeast Puyallup to be highly impacted by air pollution based on modeled levels of cumulative criteria air pollution, primarily driven by levels of PM_{2.5}, O₃, and NO₂. Concentrations of other criteria air pollutants (CO, lead, SO₂) are considered likely to be low in this area (Ecology 2023).

Review of the Northeast Puyallup study area was conducted using the EPA’s EJScreen Environmental Justice Screening and Mapping Tool (EPA 2024) and the Washington EHD Map (DOH 2024b). The EJScreen analysis indicated that Northeast Puyallup is in a higher percentile class than the city as a whole for all environmental and socioeconomic indicators of concern. The area is below state and federal averages for most socioeconomic indicators including percentages of the study area composed of people of color, low-income, and limited English speaking populations. However, the area is above the state average for low life expectancy and above both state and federal averages for unemployment rate. In Census Tract 53053073405, which abuts SR 512 and the Puyallup River, metrics for people of color exceed state averages, and populations with less than high school education, low life expectancy, and persons with disabilities exceed both state and federal averages. (see Table 3.1-1).

Table 3.1-1. Socioeconomic Indicators of Concern for Northeast Puyallup

Variable	NE Puyallup Study Area	Census Tract 53053073405	Census Tract 53053073406	State Average	U.S. Average
People of Color	30%	35% ^a	27%	32%	39%
Low Income	22%	23%	22%	24%	31%
Unemployment Rate	9% ^b	5%	11% ^b	5%	6%
Limited English Speaking Households	2%	0%	3%	4%	5%
Less than High School Education	8%	13% ^b	6%	8%	12%
Low Life Expectancy	20% ^a	25% ^b	17%	18%	20%
Persons with Disabilities	13.3% ^a	17.6% ^b	10.9%	13.1%	13.4%

Source: EPA 2024

^a Exceeds state average

^b Exceeds state and national average

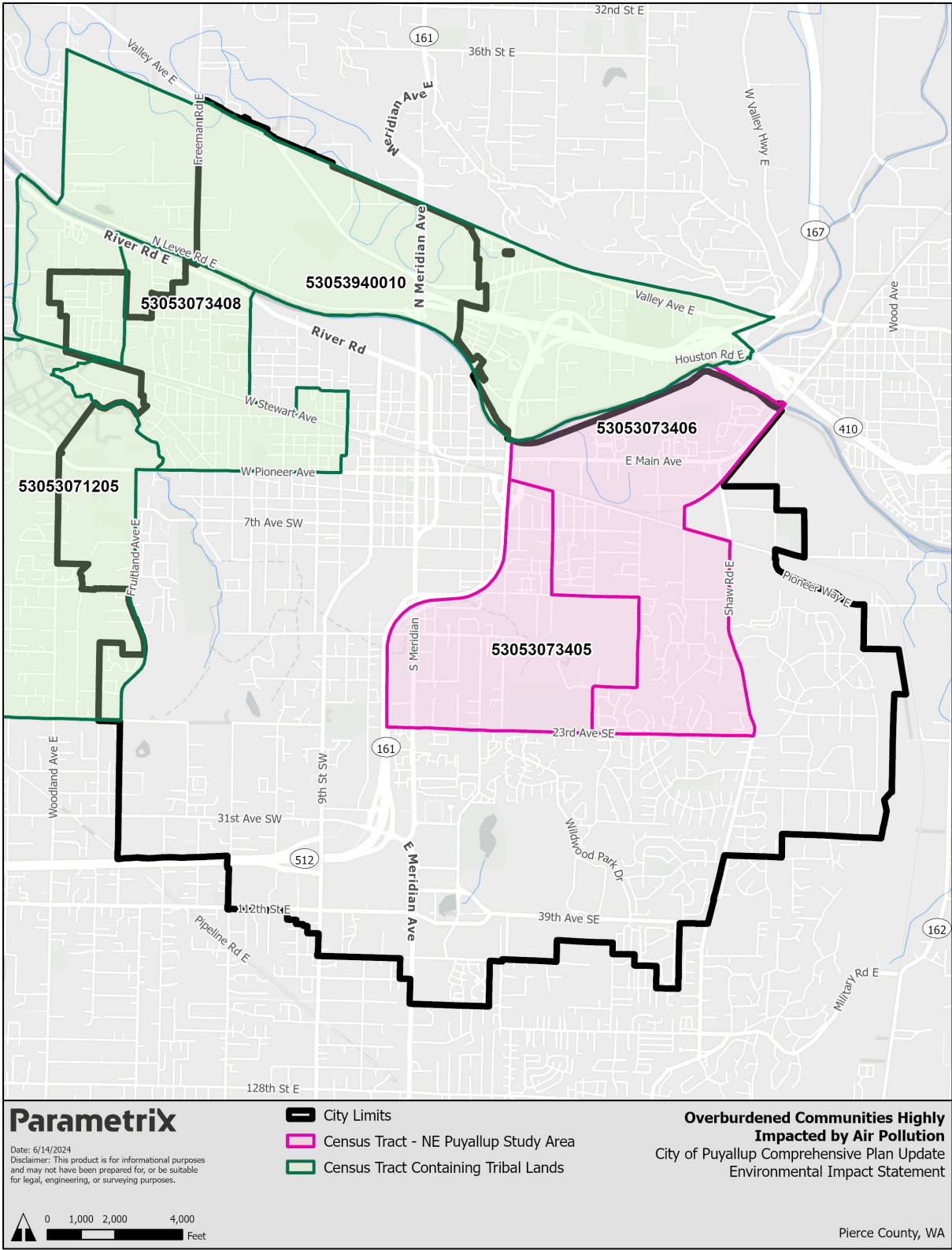


Figure 3.1-1. Overburdened and Highly Impacted Communities

The Northeast Puyallup study area also ranks higher than state and federal averages for diesel particulate matter, air toxics cancer risk, and air toxics health index, and above the state average for O₃. Census Tract 53053073405 ranks substantially higher than state and federal averages for diesel particulate matter, air toxics cancer risk, air toxics health index, and traffic proximity (see Table 3.1-2).

Table 3.1-2. Air Quality Indicators of Concern for Northeast Puyallup

Variable	NE Puyallup Study Area	Census Tract 53053073405	Census Tract 53053073406	State Average	U.S. Average
Particulate Matter (PM _{2.5}) (µg/m ³)	6.71	6.74	6.69	7.02	8.08
Ozone (ppb)	52.8 ^c	52.7 ^c	52.9 ^c	49.8	61.6
Diesel Particulate Matter (µg/m ³)	0.36 ^d	0.36 ^d	0.36 ^d	0.35	0.26
Air Toxics Cancer Risk (lifetime risk per million)	30 ^d	30 ^d	30 ^d	27	25
Air Toxics Respiratory Hazards Index ^a	0.44 ^d	0.5 ^d	0.4 ^d	0.39	0.31
Traffic Proximity ^b	190	410 ^d	63	190	210

Source: EPA 2024

a The sum of hazard indices for those air toxics with EPA-assigned reference concentrations based on respiratory endpoints, where each hazard index is the ratio of exposure concentration in the air to the health-based reference concentration set by EPA.

b Count of vehicles per day (average annual daily traffic) at major roads within 500 meters (or nearest one beyond 500 m), divided by distance in meters. Calculated from U.S. Department of Transportation National Transportation Atlas Database, Highway Performance Monitoring System.

c Exceeds state average.

d Exceeds state and national average.

Consistent with the findings of the EJScreen analysis, the Washington EHD Map assigns rankings of 10 and 9 to the two census tracts making up the Northeast Puyallup study area. These represent the highest and second-highest health disparity rankings and by definition identify Northeast Puyallup as a highly impacted community. Key air toxics exposure metrics driving these rankings are O₃, diesel exhaust PM_{2.5} emissions, and proximity to heavy traffic roadways (DOH 2024b).

North and Northwest Puyallup Census Tracts Containing Tribal Land

Census tracts containing tribal land within the Puyallup city limits include three census tracts comprising approximately 7.6 square miles in the north and northwest portions of the city and adjacent areas outside the city. The three census tracts were reviewed using EJScreen and the Washington EHD Map. The EJScreen analysis indicated that these census tracts are in a comparable percentile class to the city as a whole for most socioeconomic indicators of concern (see Table 3.1-3). The area generally exceeds state and federal averages for most air quality indicators of concern (see Table 3.1-4).

Table 3.1-3. Socioeconomic Indicators of Concern for Puyallup Census Tracts Containing Tribal Land

Variable	All Tracts Containing Tribal Land	Census Tract 53053940010	Census Tract 53053073408	Census Tract 53053071205	State Average	U.S. Average
People of Color	24%	34% ^b	21%	14%	32%	39%
Low Income	16%	18%	18%	16%	24%	31%
Unemployment Rate	4%	7% ^a	4%	2%	5%	6%
Limited English Speaking Households	3%	5% ^b	2%	3%	4%	5%
Less than High School Education	7%	8%	8%	4%	8%	12%
Low Life Expectancy	9%	N/A	19% ^b	10%	18%	20%
Persons with Disabilities	12.3%	14% ^a	10.8%	14% ^a	13.1%	13.4%

Source: EPA 2024

a Exceeds state and national average.

b Exceeds state average.

Table 3.1-4. Air Quality Indicators of Concern: Puyallup Census Tracts Containing Tribal Land

Variable	All Tracts Containing Tribal Land	Census Tract 53053940010	Census Tract 53053073408	Census Tract 53053071205	State Average	U.S. Average
Particulate Matter (PM _{2.5}) (µg/m ³)	6.94	6.88	6.93	7.01	7.02	8.08
Ozone (ppb)	51.9 ^c	52 ^c	51.9 ^c	51.7 ^c	49.8	61.6
Diesel Particulate Matter (µg/m ³)	0.41 ^d	0.43 ^d	0.41 ^d	0.4 ^d	0.35	0.26
Air Toxics Cancer Risk (lifetime risk per million)	30 ^d	30 ^d	30 ^d	30 ^d	27	25
Air Toxics Respiratory Hazards Index ^a	0.5 ^d	0.5 ^d	0.5 ^d	0.5	0.39	0.31
Traffic Proximity ^b	170	380 ^d	77	34	190	210

Source: EPA 2024

a The sum of hazard indices for those air toxics with EPA-assigned reference concentrations based on respiratory endpoints, where each hazard index is the ratio of exposure concentration in the air to the health-based reference concentration set by EPA.

b Count of vehicles per day (average annual daily traffic) at major roads within 500 meters (or nearest one beyond 500 m), divided by distance in meters. Calculated from U.S. Department of Transportation National Transportation Atlas Database, Highway Performance Monitoring System.

c Exceeds state average.

d Exceeds state and national average.

Consistent with the findings of the EJScreen analysis, the Washington EHD Map assigns rankings of 6, 7, and 8 to the three census tracts containing tribal land. Key environmental exposure metrics driving these rankings include O₃, diesel exhaust PM_{2.5} emissions, and proximity to heavy traffic roadways (DOH 2024b).

3.1.1.2 Greenhouse Gases

Regulatory Environment

A variety of policies and regulations at the federal, state, and regional levels are applicable to GHG emissions in the Puget Sound region; they are summarized below. At the federal and state levels, vehicle emissions standards are intended to contribute to continued reduction in on-road emissions, while planned reductions in vehicle miles traveled are built in to the PSRC Regional Transportation Plan (PSRC 2022).

Washington State Climate Goal (House Bill 1181, 2023)

HB 1181 adds a climate goal to the GMA and requires local comprehensive plans to have a climate element with resilience and GHG emissions mitigation sub-elements.

Washington Climate Commitment Act (2021)

The Washington Climate Commitment Act caps and reduces GHG emissions from Washington's largest emitting sources and industries, allowing businesses to find the most efficient path to lower carbon emissions.

Washington Clean Buildings Act (2019)

The Washington Clean Buildings Act requires all new and existing commercial buildings over 50,000 square feet to reduce their energy use intensity by 15%, compared to the 2009–2018 average. Buildings greater than 220,000 square feet must comply by June 1, 2026. Mandatory compliance for all buildings over 50,000 square feet begins on June 1, 2028.

Washington Clean Energy Transformation Act (Chapter 19.405 RCW)

This law commits Washington to developing an electricity supply free of GHG emissions by 2045. Among its requirements, the law mandates that DOH must develop a cumulative impact analysis to identify communities throughout the state that are highly impacted by fossil fuel pollution and climate change.

Limiting Greenhouse Gas Emissions (Chapter 70A.45 RCW)

Among other requirements and guidelines, this law sets forth GHG reporting requirements and establishes statewide targets that propose a 50% reduction in GHG emissions from a 1990 baseline by 2030, a 70% reduction by 2040, and a 95% reduction by 2050.

Integrated Climate Change Response Strategy (Chapter 70A.05 RCW)

This law requires state agencies to develop an integrated climate change response strategy to better enable the state to prepare for, address, and adapt to the impacts of climate change. The law requires climate change response strategies to include and prioritize actions that both reduce greenhouse gas emissions and build climate preparedness.

Washington Clean Fuels Standard, Chapter 70A.535 RCW (HB 1091)

The standard requires a 20% reduction in the carbon intensity of transportation fuels by 2038, compared to a 2017 baseline level, which may be achieved through cleaner fuels or by purchasing clean fuel credits. Boats, trains, aircraft, and military vehicles and equipment are excluded.

Hydrofluorocarbons — Emissions Reduction, Chapter 70A.60 RCW

As of July 25, 2021, the law bans the sale and purchase of certain hydrofluorocarbon refrigerants with high global warming potential as well as non-essential consumer products (e.g., air horns and noisemakers) which contain high global warming potential refrigerants.

Washington Internal Combustion Engine Ban

The ban adopts additional vehicle emission standards that increase the requirement for new zero-emission vehicle sales of passenger cars, light-duty trucks, and medium-duty vehicles to 100% starting in 2035. It also requires cleaner, less polluting new heavy-duty internal combustion engines.

Motor Vehicle Emissions Standards, Section 70A.30 RCW

This Washington standard adopts the California motor vehicle emission standards in Title 13 of the California Code of Regulations, which are more stringent than federal regulations.

Washington Clean Vehicles Program, Chapter 173-423 WAC

The program requires that 100% of light-duty (passenger) vehicles and 40 to 75% of medium- and heavy-duty vehicles sold in the state be zero-emission vehicles by 2035. By that same year, medium- and heavy-duty trucks sold in the state must reduce nitrogen oxides emissions by 90% and particulate pollution by 50% from a 2020 baseline.

Sustainability 2030: Pierce County's Greenhouse Gas Reduction Plan

Pierce County has committed to reducing GHG emissions 45% by 2030, compared to 2015 levels. (Pierce County 2023). This plan provides a roadmap of measurable and science-based actions for reducing both communitywide GHG emissions and internal County operational GHG emissions.

City of Puyallup Environment and Sustainability Action Plan

This plan contains GHG goals including reducing emissions to 45% below 1990 baseline levels by 2030; 70% below 1990 levels by 2040, and 95% below 1990 levels by 2050 (City of Puyallup 2023). The plan identifies a set of strategies and actions for reducing GHG emissions from municipal operations, buildings and energy, and transportation.

Regional and Local Greenhouse Gas Conditions and Trends

Ecology publishes a statewide GHG emissions inventory every 2 years—most recently in 2022 for calendar years 2018 through 2019. The 2022 report indicates that transportation is the largest contributor of GHG emissions statewide at 39% of total; followed by residential, commercial, and industrial heating (25%); and electricity generation (21%). Washington's GHG emissions rose almost 7% from 2018 to 2019, reaching 102.1 million metric tons (MT) of carbon dioxide equivalent (CO₂e) (Ecology 2022).

GHG emissions analyses were developed for Pierce County and Puyallup in 2022, drawing on inventory data gathered in two separate years: 2015 and 2019. In 2019, Pierce County's residents, businesses, employees, and visitors produced 10.8 million MTCO₂e, equating to roughly 12.2 MTCO₂e per capita. Total GHG emissions in 2019 increased 16% compared to 2015, while per-capita GHG emissions increased 9% in the same timeframe (Cascadia Consulting Group 2022a). The largest sources of GHG emissions in Pierce County in 2019 were estimated to be land use-related emissions, including tree loss and agriculture (27%), on-road transportation (23%), building electricity (14%), and building natural gas (14%) (Cascadia Consulting Group 2022a).

Transportation creates nearly 50% of the Puget Sound region's GHG emissions (PSCAA 2024a). Consistent with this, the top drivers of communitywide GHG emissions in 2019 in the city of Puyallup were on-road transportation, estimated at 35%, followed by building electricity (21%), and building natural gas (20%). Other minor contributions to emissions included refrigerants, off-road equipment, solid waste disposal, and aviation (Cascadia Consulting Group 2022b). From 2015 to 2019, communitywide GHG emissions increased by 14%, from approximately 296,000 MTCO_{2e} to approximately 338,000 MTCO_{2e}. Per capita emissions during this period increased 7%.

The Puyallup Environment and Sustainability Action Plan includes a number of strategies and proposed actions for reducing GHG emissions from primary contributing sources to help achieve the City's GHG emissions reduction goal of 95% below 1990 levels by 2050. These include developing internal city policies aimed at municipal operations that include creating a Puyallup-wide GHG inventory, evaluating and implementing decarbonization strategies for city buildings and facilities, and establishing a purchasing policy that requires prioritizing electric vehicles and hybrid options for City vehicles. The plan also includes strategies aimed at reducing GHG emissions from buildings and energy. The strategies include promoting renewable energy upgrades for residential buildings, as well as working with regional utilities to promote electric heat pumps to replace natural gas-powered furnaces and increase energy efficiency in existing commercial and residential buildings. Finally, the plan's transportation strategies focus on improving and expanding biking infrastructure; funding, developing, and expanding electric vehicle infrastructure throughout the city; and adopting and maintaining Comprehensive Plan policies and zoning that support transit access and transit-oriented Development (City of Puyallup 2023).

3.1.2 Impacts

3.1.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on air quality and GHG.

Impacts of the alternatives on air quality are considered significant if they meet the following criteria:

- Future growth and development would be expected to result in an increase in air toxics over time such that the levels of criteria pollutants cannot remain within the limits of the NAAQS.
- Future growth and development would be expected to result in sustained exceedances of the local PSCAA health goal for PM_{2.5} of 25 µg/m³, taking into account potential temporary exceedances from summer wildfires and wintertime inversions.
- Future growth and development would be expected to exacerbate the EJScreen Air Quality Indicators of Concern identified in Table 3.1-2 or the State of Washington's environmental health disparity indicators for highly impacted communities.

Impacts of the alternatives on GHG emission are considered significant if they meet the following:

- Future growth and development would conflict with regional and local efforts to meet GHG emissions reduction targets.

3.1.2.2 Impacts Common to All Alternatives

Future growth and development would take place under all of the alternatives and would generate construction-phase emissions that would temporarily affect air quality. The total emissions and their timing would vary depending on the alternative, the specific project(s) being implemented, and the

durations and complexity of construction activities planned within each of the concentrated growth areas.

Typical sources of emissions during construction projects include the following:

- Fugitive dust generated during excavation, grading, and loading and unloading activities.
- Dust generated during demolition of structures and pavement.
- Engine exhaust emissions from construction vehicles, worker vehicles, and diesel fuel-powered construction equipment.
- Increased motor vehicle emissions associated with increased traffic congestion during construction.
- Ozone precursors (nitrogen oxides and VOCs) emitted during asphalt paving and painting.

Dust from construction (excavation, grading, etc.) and demolition activities can increase levels of PM_{2.5} and PM₁₀. Engine and motor vehicle exhaust would result in emissions of ozone precursors, PM_{2.5}, PM₁₀, air toxics (e.g., diesel PM), and GHGs. Construction emissions are temporary and not easily quantified at the long-range planning level, and their timing under any of the alternatives cannot be accurately forecasted. Therefore, the potential temporary influence on ambient concentrations cannot be accurately assessed as part of this analysis. Future construction activities implemented under any of the alternatives would have temporary adverse impacts; however, these would not be expected to have a significant adverse impact on air quality.

Long-term development and population growth under all alternatives would be expected to result in increased daily vehicle miles traveled (VMT) as population grows within the city and more workers commute from other areas to new jobs within the city. Expansion of the built environment—including commercial, industrial, and mixed-use developments to accommodate new jobs as well as residential development to accommodate new residents—would increase overall energy demand. As discussed in Section 3.1.1, on-road mobile sources are the largest generator of air toxics in the Puget Sound region, while on-road vehicles and building energy consumption are the two largest drivers of GHG emissions in Puyallup. Increases in VMT and development of the built environment would be expected to cause emissions to increase, resulting in adverse impacts.

However, under all alternatives, state and local regulations, policies, and plans currently in place would be expected to reduce GHG emissions over the long term. A communitywide GHG emissions analysis for Pierce County conducted in 2022 estimated that existing federal, state, and regional climate policies already in effect would reduce emissions 36% by 2050 compared to a 2015 baseline. The greatest impact is projected to come from Washington's Clean Energy Transformation Act and Internal Combustion Engine Ban (SB 5974; Cascadia Consulting Group 2022). Implementation of new regulations, development of new technologies, alternative fuels, and other innovations are expected to contribute to continued reductions in overall emissions over time.

While overall emissions in Puyallup are anticipated to decline by 2050, air quality and GHG impacts would nonetheless be expected from project implementation under any of the alternatives. Gas-powered vehicles will remain part of the vehicle fleet mix until they are gradually phased out, and the power generation systems supplying the built environment will likewise require time to fully transition to emissions-free sources. Adverse GHG impacts could result from permanent vegetation clearing, particularly forest clearing. Although not identified as a major driver of GHG emissions in Puyallup, deforestation and tree cover loss have been identified as a substantial contributor to GHG emissions in Pierce County (Cascadia Consulting Group 2022b).

Asphalt has been identified as a potential major source of VOCs and semivolatile organic compounds (SVOCs). These compounds are important precursors to O₃ and secondary organic aerosols, which are a major component of PM_{2.5}. Furthermore, emissions of SVOCs and VOCs from asphalt have been shown to increase markedly with solar exposure, resulting in the highest emissions impacts during hotter, sunnier periods (Khare et al. 2020). Scientific study of the specific contribution of asphalt surfaces to overall air toxics and GHG emissions is evolving, and the potential impacts are not possible to analyze in detail. However, the creation of new asphalt surfaces as individual projects and sites are developed under all alternatives would have long-term adverse impacts.

3.1.2.3 Impacts of Alternative 1 (No Action)

The impacts of Alternative 1 would be similar to those described for impacts common to all alternatives. Under Alternative 1, construction would continue according to existing plans and zoning, and growth in population, employment, and housing would continue according to existing forecasts. Alternative 1 would not induce additional construction or density increases outside the existing concentrated development areas in South Hill and Downtown Puyallup.

Under Alternative 1, continued implementation of existing regulations and policies focused on emissions reduction would be expected to moderate increases in air toxics and GHGs over time. Because Puyallup and the surrounding region are in attainment for pollutants of concern under current conditions, and concentrations for those pollutants have continued to trend downward over time (see Section 3.1.1), Alternative 1 is not expected to affect concentrations of pollutants of concern or cause the NAAQS to be exceeded.

Among the three alternatives, Alternative 1 would result in the smallest long-term (i.e., 2024 to 2044) increase in VMT, at 45,800 additional VMT during the 3 pm – 6 pm period. Alternative 1 would result in an overall long-term reduction in VMT per capita, from 4.3 to 3.7. However, it would result in an increased average trip length of more than half a mile, suggesting that commuters may be traveling farther to their jobs in Puyallup due to a lack of housing options within the city. This would result in adverse impacts from vehicle emissions, as the additional average trip distance suggests commuters would spend longer periods of time driving. Traffic impacts are analyzed in detail in Section 3.6, Transportation.

Under Alternative 1, near-road land uses would continue to be characterized by the existing relative mix of commercial and residential development. A portion of future new housing unit construction would likely take place within 500 feet of major high-volume roadways, which would lead to increased exposure to a variety of air pollutants as VMT increases. Overburdened communities in northeast Puyallup that are currently highly impacted by air pollution, especially in areas adjacent to SR 512, would remain so. Air quality conditions in census tracts containing tribal lands would not change. These communities would continue to experience adverse air quality impacts, which may subside over time as the on-road vehicle fleet mix transitions to primarily non-emissions-generating vehicles. In the long term, existing regulations, plans, and policies aimed at reducing on-road vehicle pollution and transitioning to clean fuels could counteract the adverse impacts of projects that place development within areas of exposure to on-road vehicle emissions under Alternative 1.

Alternative 1 would result in adverse impacts from increased energy consumption due to construction and operation of new buildings. Additionally, the incremental increase in new asphalt surfaces under Alternative 1 would likely contribute continued adverse air quality impacts in the long term. However, the overall reductions in air toxics and GHG emissions as a result of existing regulations, plans, and policies aimed at reducing emissions would render these impacts less than significant.

Overall, Alternative 1 is expected to result in less than significant adverse impacts on air quality and GHG emissions. Implementation of existing regulations, plans, and policies aimed at reducing emissions of air toxics and GHGs is expected to reduce emissions in the long term, which would outweigh the adverse impacts from Alternative 1.

3.1.2.4 Impacts of Alternative 2

Impacts under Alternative 2 would be similar to those described for Alternative 1, but greater. Alternative 2 would entail greater population and employment growth than Alternative 1, as well as more residential and mixed-use development, increased density, more tree cover loss, and greater area of new asphalt surfaces. Because of the relatively greater amount of construction activity that Alternative 2 would generate, short-term emissions impacts would be greater than those under Alternative 1. However, because much of the growth under Alternative 2 would take the form of increased density within and adjacent to existing development centers, adverse effects from vegetation clearing and construction of new asphalt surfaces would likely be moderated in the long term.

Alternative 2 would result in an estimated long-term increase of 70,400 additional VMT during the 3 pm – 6 pm period, which is an additional 24,600 VMT compared to Alternative 1. Alternative 2 would result in a greater overall estimated long-term reduction in VMT per capita than under Alternative 1. VMT per capita would be reduced to 3.5, as compared to 3.7 under Alternative 1. Alternative 2 would also have a smaller increased average trip length than Alternative 1, less than a quarter-mile compared to a half-mile increase under Alternative 1. This suggests that increased housing options within the City may enable residents to drive less, over shorter distances, to reach places of employment and essential services. Increased VMT would nonetheless have adverse impacts from increased emissions, which would lessen over time if the passenger vehicle fleet transitions primarily to zero-emissions vehicles. The traffic impact analysis is described in detail in Section 3.6, Transportation.

Under Alternative 2, development would be concentrated in areas of high-density residential use and mixed use adjacent to SR 512 in South Hill, and along South Meridian between South Hill Mall and the state fairgrounds. Greater residential density in these areas near a high-traffic roadway would place more individuals at risk from exposure to air toxics. Increased residential and mixed-use development in the planned concentrated growth area along River Road, where 2022 traffic counts measured approximately 30,000 AADT (WSDOT 2024b), could also potentially put more residents at risk from exposure to on-road vehicle emissions. As described under Alternative 1, existing regulations would minimize the adverse impacts of projects that place development within areas of exposure to on-road vehicle emissions under Alternative 2. Adverse air toxics impacts on overburdened communities in Northeast Puyallup and tribal communities in north and northwest Puyallup would also continue until the vehicle fleet mix fully transitions away from emissions-generating vehicles and fuels. Increased building construction and energy demand could create emissions impacts during the earlier years of comprehensive plan implementation as Washington continues to transition away from emissions-producing power generation. These impacts would be moderated by the energy performance requirements for new buildings that are currently in place under Washington's Clean Buildings Act.

Consolidation of new residential development near new and existing employment areas and high-capacity transit options may help to facilitate higher rates of transit use and active transportation modes (e.g., walking and biking). This could serve to moderate increases in VMT, which could in turn moderate emissions impacts.

Overall, Alternative 2 is expected to result in less than significant adverse impacts on air quality and GHG emissions. Implementation of existing and future regulations, plans, and policies aimed at reducing emissions of air toxics and GHGs is expected to reduce emissions in the long term, which would outweigh the adverse impacts from Alternative 2.

3.1.2.5 Impacts of Alternative 3

Short- and long-term impacts under Alternative 3 would be similar to those described under Alternative 2. Short-term adverse air quality and GHG impacts would result from construction activities, which under Alternative 3 would be spread most widely throughout the city relative to other alternatives. Increases in VMT and new building construction and operation would continue to have adverse emissions impacts until Washington transitions more fully away from emissions-producing vehicles and power generation over time.

Alternative 3 would add the greatest amount of residential and mixed-use development among the three alternatives and is expected to have a greater impact on air quality and GHG emissions than Alternative 2. It would also result in a diffuse distribution of concentrated growth areas that would introduce density to currently less-heavily developed areas.

As with Alternative 2, Alternative 3 would be expected to facilitate opportunities for multimodal options for residents to reach services and places of employment by walking, biking, or using transit instead of driving. Compared to Alternative 2, which would concentrate new commercial and mixed use development in three primary areas, Alternative 3 would create more nodes of commercial activity, employment, and retail services near current and proposed residential areas throughout the city.

Among the alternatives, Alternative 3 would result in the greatest estimated long-term increase in VMT, at 75,600 VMT during the 3 pm – 6 pm period, which is an additional 29,800 VMT compared to Alternative 1. Alternative 3 would result in an overall estimated long-term reduction in VMT per capita and increased average trip length that would be nearly identical to Alternative 2. Increased VMT would have adverse impacts from increased emissions, which would lessen over time if the passenger vehicle fleet transitions primarily to zero-emissions vehicles. Traffic impacts are analyzed in detail in Section 3.6, Transportation.

Alternative 3 would involve the greatest potential acreage of forest clearing among the alternatives (see Table 3.3-3 in Section 3.3, Fish, Wildlife, and Vegetation). It would also likely result in the greatest area of new asphalt pavement construction. The associated potential long-term impacts associated with both forest loss and addition of asphalt surface would thus be greatest under Alternative 3.

As with Alternative 2, Alternative 3 is expected to result in less than significant adverse impacts on air quality and GHGs. Implementation of existing and future regulations, plans, and policies aimed at reducing emissions of air toxics and GHGs is expected to reduce emissions in the long term, which would outweigh the adverse impacts from Alternative 3.

3.1.3 Avoidance, Minimization, and Mitigation Measures

Avoidance and minimization measures for construction activities under all alternatives would include implementation of construction-phase best management practices designed to minimize dust, emissions, and vegetation clearing to the greatest possible extent. In addition, federal and state air quality regulations mandating a transition to cleaner, less polluting heavy-duty internal combustion

engines could potentially result in reduced emissions from construction activities over time, depending on the timing of construction that ultimately takes place under each alternative.

In the long term, implementation of local and state regulations, plans, and policies focused on emissions reduction would minimize overall long-term air quality and GHG impacts. Therefore, no need for mitigation is anticipated.

3.1.4 Significant Unavoidable Adverse Impacts

Under all alternatives, unavoidable adverse impacts would result from increases in VMT and increased building energy consumption as population increases and the developed environment expands. Air toxics and GHG impacts could also result from added asphalt pavement and permanent loss of tree cover. Over time, existing and future regulations, plans, and policies would result in the phase-out of gas-powered vehicles and emissions-producing electrical generation. As a result, air toxics and GHG emissions would decrease to levels substantially below current conditions; therefore, no significant unavoidable adverse impacts would be expected.

3.2 Water Resources

3.2.1 Affected Environment

The city of Puyallup is located within the Puyallup River watershed of Water Resource Inventory Area (WRIA) 10 (Puyallup-White), one of the most heavily populated basins in western Washington. The western portion of the watershed is predominantly an urban setting (Ecology 2021). This section discusses the regulations and policies that regulate water resources; surface water resources in Puyallup including rivers, streams, floodplains, lakes, and wetlands; and the quality of the water flowing through these features. This section also addresses groundwater, including the regulatory mechanisms in place to protect and maintain groundwater quality for local water supplies.

3.2.1.1 Regulatory Environment

Clean Water Act, 1977 as Amended, 33 USC 1251-1376

The CWA requires states to set water quality standards for all contaminants in surface waters based on the “beneficial” or “designated” uses for the water body and makes it unlawful for a person to discharge a pollutant from a point source into navigable waters unless a permit was obtained under its provisions. It also recognizes the need to address the problems posed by nonpoint source pollution.

Section 402 National Pollutant Discharge Elimination System Permits

The EPA requires National Pollutant Discharge Elimination System (NPDES) permits for industrial sites and construction activities, as well as for certain sizes of municipalities that discharge stormwater into waterways. In Washington, these permits are administered through Ecology.

Section 303(d) Impaired Waters and Total Maximum Daily Loads

This requires states to issue water quality status reports every 2 years that identify water quality trends, prioritize polluted waters, and target waters for total maximum daily load (TMDL) development. TMDLs identify pollutant load reductions that are necessary from point and nonpoint sources and guide implementation work by federal, state, tribal, territorial, and local water quality protection programs. In Washington, Ecology develops a Section 303(d) list for approval by the EPA.

Safe Drinking Water Act

The SDWA protects drinking water and its sources including rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and human-made contaminants. The SDWA also includes the Source Water Protection Program, which includes a wide variety of actions and activities aimed at safeguarding, maintaining, or improving the quality and/or quantity of drinking water sources and their contributing areas, and the Sole Source Aquifers program that enables the EPA to designate an aquifer as a sole source of drinking water and establish a review area (EPA 2024a).

Federal Emergency Management Agency National Flood Insurance Program (44 CFR 59, 60, 65, and 70)

The FEMA NFIP provides flood insurance to property owners, renters, and businesses to help them recover faster after floodwaters recede. The program works with communities to adopt and enforce floodplain management regulations that help mitigate flooding effects.

Chapter 246-290 WAC and Chapter 246-291 WAC

These chapters are the respective regulations for Group A Public Water Supplies (systems with 15 or more residential connections) and Group B Public Water Supplies (systems with 3 to 14 connections). Generally, the state regulates Group A water supplies and the local health jurisdiction regulates Group B water supplies.

Chapter 365-190 WAC

Mapped wellhead protection zones may be designated as a category of Critical Aquifer Recharge Area.

Source Water Protection, WAC 246-290-135

This chapter defines basic regulatory requirements to protect the health of consumers using public drinking water supplies.

Chapter 173-220 WAC

This chapter establishes Ecology's NPDES permit program and the procedures and requirements for obtaining an NPDES permit.

Shoreline Management Act (RCW 90.58, WAC 173-18-100, and Chapter 173-22 WAC) of 1972

The SMA requires protection for shoreline natural resources, including "... the land and its vegetation and wildlife, and the waters of the state and their aquatic life ... to ensure no net loss of ecological function." Its goal is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." The SMA requires jurisdictions with river, lake, or marine shorelines to develop and implement Shoreline Master Programs (SMPs).

Puyallup Critical Areas Ordinance (Puyallup Municipal Code [PMC] 21.06)

The CAO provides for the protection of designated critical areas identified in the GMA, including Fish and Wildlife Habitat Conservation Areas, Wetlands, Critical Aquifer Recharge Areas, and Geologically Hazardous Areas.

PMC 21.07 Flood Damage Protection

Provides for the protection of, and the regulation of uses within, frequently flooded areas.

Puyallup Shoreline Master Program

The SMP regulates land use within shorelands, which include the area within 200 feet of the shorelines of the State (Puyallup River and Clarks Creek) along with their associated wetlands. The SMP defines how shoreland within the city and its UGA will be managed, and it includes development standards and use regulations for a wide range of specific uses and shoreline modifications (City of Puyallup 2023a).

City of Puyallup Environment and Sustainability Action Plan

This plan includes several goals aimed at conserving and providing equitable access to water, including promoting water efficiency, recycling gray water, increasing drought-tolerant/pollinator friendly native vegetation, and restoring stream water quality (City of Puyallup 2023).

3.2.1.2 Surface Water Bodies

The major surface water bodies within the city of Puyallup are the Puyallup River and Clarks Creek, along with their smaller fish-bearing and non-fish-bearing tributaries. Other surface water bodies in Puyallup consist largely of wetland areas and smaller ponds scattered throughout the city including Dead Man's Pond located midway up South Hill close to the Meeker Creek drainage and Willow's Pond located on South Hill. Bradley Lake, a 12-acre water body located at an elevation of 439 feet at the headwaters of Wildwood Creek on South Hill, was originally a peat bog and was created after 30 years of peat farming (City of Puyallup 2014). Figure 3.2-1 identifies surface water bodies in the city of Puyallup.

Streams

The Puyallup CAO assigns streams within the city a designation of I to IV based on various criteria such as their size, importance to overall ecological function on the landscape, designation as a Shoreline of the State, known or potential use by anadromous or resident fish species, and permanence (perennial vs. intermittent or ephemeral). Stream designations in the city of Puyallup roughly correspond to the Washington State Department of Natural Resources (DNR) water type classifications (DNR 2024). They are defined as follows (PMC 21.06.1010):

- Type I – Streams identified and regulated as “Shorelines of the State” pursuant to WAC 173-18-310 and the City of Puyallup SMP. Within the city's corporate limits and the UGA, Type I streams are the Puyallup River and Clarks Creek below Maplewood Springs.
- Type II – Natural streams that are not Type I streams and are either perennial or intermittent and have known or potential use by anadromous or resident fish species, significant recreational value, or significant wildlife habitat functions.
- Type III – Streams with perennial or intermittent flow and not used by anadromous fish.
- Type IV – Intermittent or ephemeral streams with channel widths less than 2 feet taken at the ordinary high water mark that are not used by anadromous fish or resident fish.
- Type I streams in Puyallup include the Puyallup River and Clarks Creek, its largest tributary within the city. The Puyallup River and Clarks Creek are both Shorelines of the State and therefore subject to the Puyallup CAO as well as the Puyallup SMP (PMC 21.06).
- Known Type II streams in Puyallup include Deer Creek, Wapato Creek, and Wildwood Creek, all small tributaries flowing directly into the Puyallup River, along with Diru Creek, Meeker Creek, Rody Creek, Silver Creek, and Woodland Creek, which are tributaries of Clarks Creek.

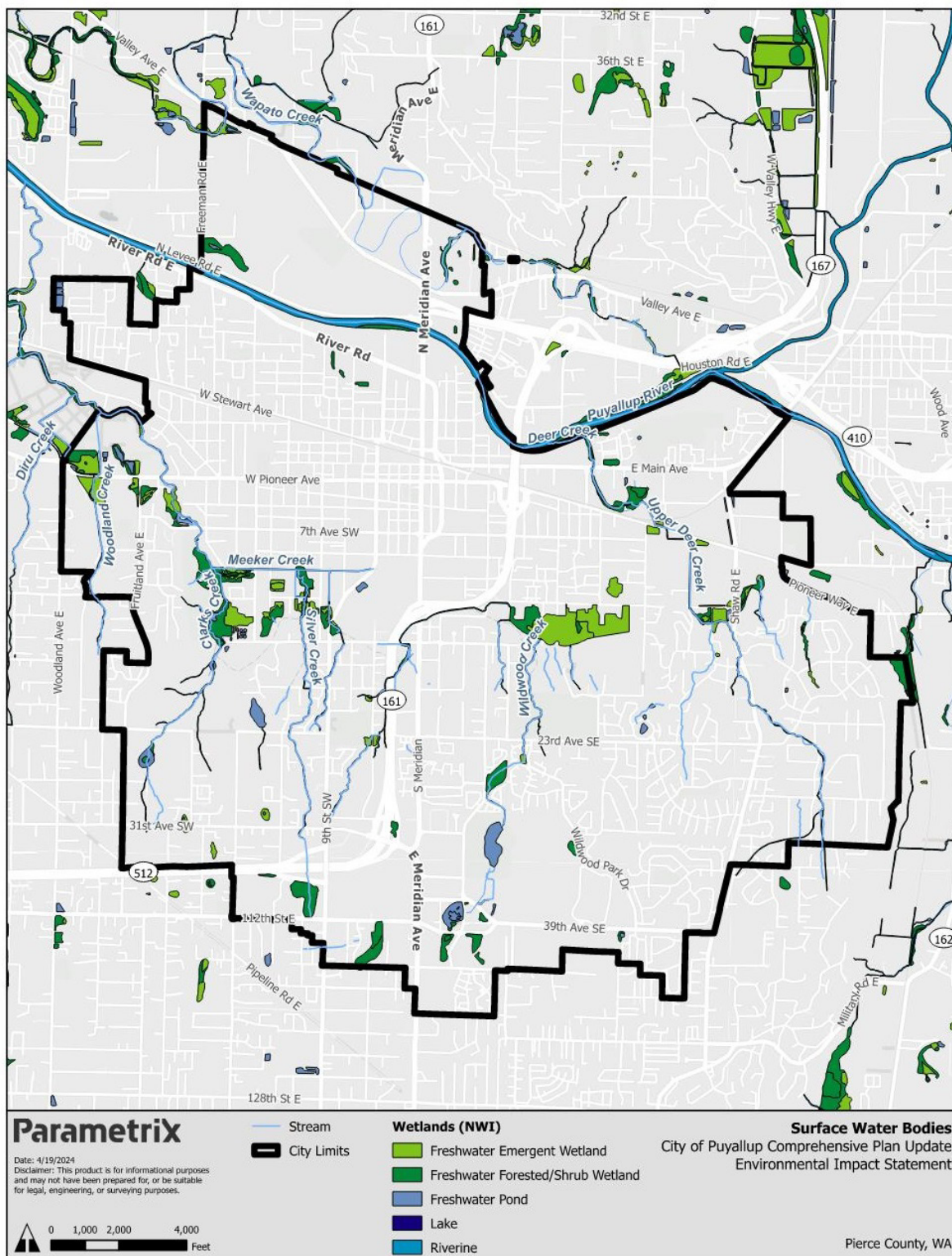


Figure 3.2-1. Surface Water Bodies (Streams, Lakes, Ponds, Wetlands)

The CAO mandates that stream buffers must be established landward of the ordinary high water mark adjacent to streams to protect the integrity, functions, and values of the resource. Buffers must consist of an undisturbed area of native vegetation and reflect the sensitivity of the stream and the type and intensity of the adjacent human use or activity. Standard buffer widths for the four stream designations are identified in Table 3.2-1.

Table 3.2-1. City of Puyallup Stream Designations (PMC 21.06.1010)

Stream Type (PMC 21.06.1010)	Example	Standard Buffer Widths	Corresponding Forest Practices Water Type (DNR)
I	Puyallup River, Clarks Creek	150 feet ^a	S = Shoreline
II	Deer Creek, Diru Creek, Meeker Creek, Rody Creek, Silver Creek, Wapato Creek, Wildwood Creek, Woodland Creek	100 feet	F = Fish
III	Various small unnamed tributaries	50 feet	Np = Non-Fish
IV	Various small unnamed intermittent or ephemeral tributaries	35 feet	Ns = Non-Fish Seasonal

^a Shorelands extend for 200 feet from the ordinary high water mark and from any associated wetlands of Shorelines of the State (Type I streams) and are regulated under the SMP (City of Puyallup 2023a).

DNR = Washington State Department of Natural Resources

The standard required buffer widths are considered to be the minimum required and presume the existence of a relatively intact native vegetation community in the buffer zone adequate to protect the stream functions and values at the time of the proposed activity. If the vegetation is inadequate, then a critical area's buffer width must be increased or the buffer planted to maintain and improve the buffer functions.

Shorelines of the State

The Puyallup SMP defines how the shoreline areas of the city will be managed. Puyallup's SMP regulates shorelands, the area within 200 feet of the Puyallup River and Clarks Creek, along with any associated wetlands. It includes development standards and regulations for a wide range of specific uses and shoreline modifications, including residential and commercial use, dredging, bulkheads, and shoreline stabilization. The city's shoreline areas have significant overlap with critical areas, floodplains, and priority habitat (City of Puyallup 2014). Shoreline designations in the city of Puyallup are shown in Figure 3.2-2.

The Puyallup River shoreline within the city of Puyallup is designated as Puyallup River Urban Conservancy. The purpose of the Urban Conservancy designation is to protect and restore ecological functions of open space, floodplain, and other sensitive lands along the Puyallup River where they exist in urban and developed settings. This designation allows for a variety of compatible urban uses including appropriate flood hazard prevention measures, public access, and recreational uses (City of Puyallup 2023a).

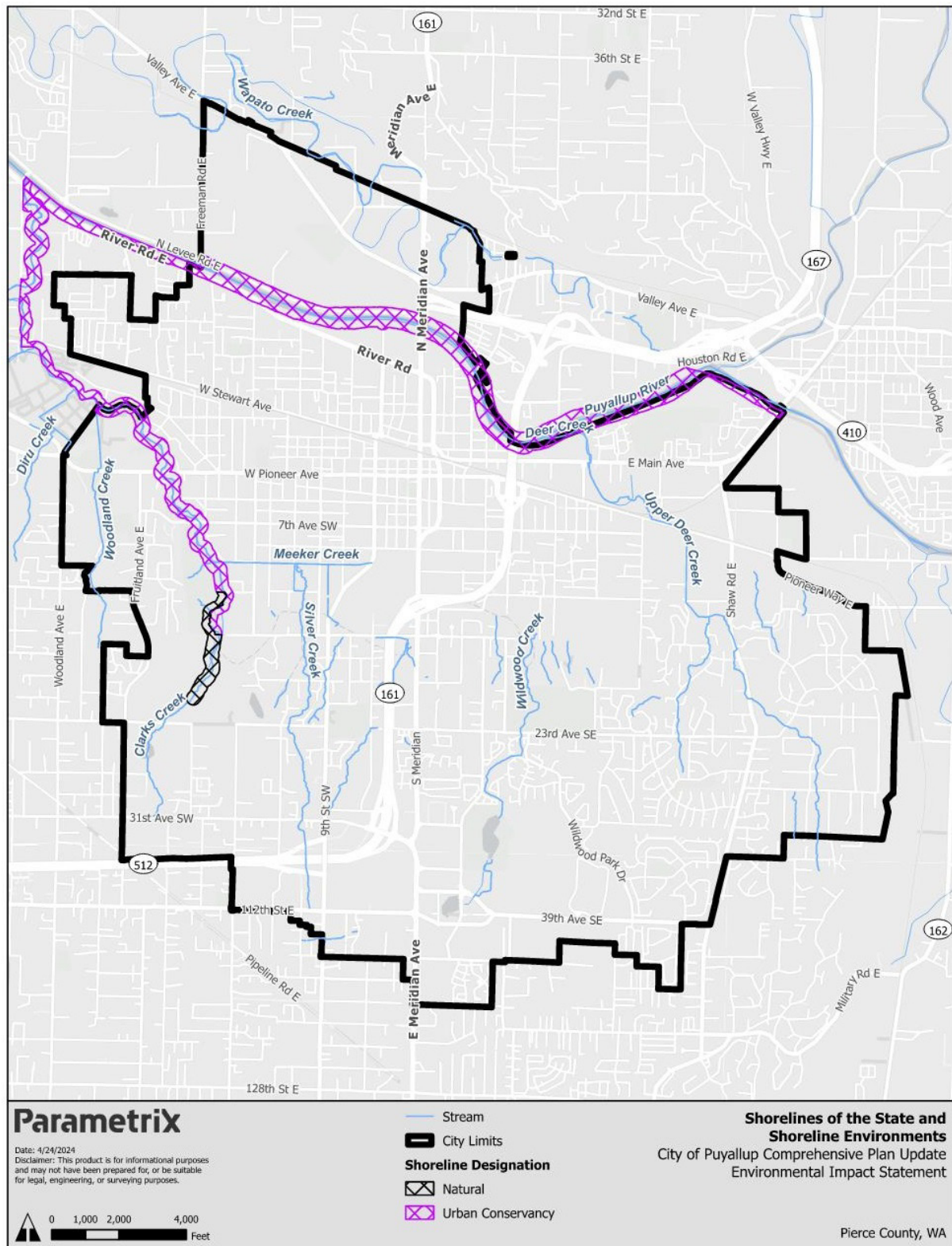


Figure 3.2-2. Puyallup Shorelines of the State and Shoreline Environments

Portions of the Clarks Creek shoreline environment are designated Urban Conservancy and portions are designated Natural. The Clarks Creek Urban Conservancy designation extends along the left bank (facing downstream) from 12th Avenue SW downstream to the confluence with the Puyallup River and along the right bank (facing downstream) from 15th Avenue SW downstream to the confluence with the Puyallup River. Areas upstream from the Urban Conservancy-designated portion of the Clarks Creek shoreline are designated as Natural. The purpose of the Natural designation is to protect shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions and processes. Structural development in the Natural-designated environment is strictly limited, and in some cases is prohibited outright (City of Puyallup 2023a).

Puyallup River

The Puyallup River originates from the Klapatche area on the southwest slopes of Mount Rainier and drains to Commencement Bay at the Port of Tacoma. The river's drainage basin covers approximately 970 square miles in the Puget Sound lowlands. The major streams of the basin are the Puyallup River and its two largest tributaries: the Carbon and White Rivers. The White River joins the Puyallup River immediately upstream of the city's northeastern boundary with the city of Sumner (Puyallup River Watershed Council 2014). The Puyallup River separates an approximately 4.5-square-mile area of northern Puyallup from the rest of the city and forms approximately 2 miles of the city's northern boundary with Sumner, unincorporated Pierce County, and Fife.

Within the city of Puyallup, the river has been substantially altered through channelization and loss of riparian and off-channel habitats. Since at least 1980, summer low flows in the Puyallup River have declined continuously, despite the closure of new surface water withdrawals and the 1980 establishment of minimum in-stream flow requirements (NWIFC 2016). The lower portion of the Puyallup River now only provides a migration corridor for salmonids, as it has been dramatically altered and restricted by human development (Kerwin 1999).

Type II tributaries of the Puyallup River within the city limits include Deer Creek, Wapato Creek, Wildwood Creek, and Woodland Creek.

Deer Creek

Deer Creek is a small tributary of the Puyallup River that drains an area of 2.7 square miles located along the southeast side of the city. Deer Creek flows for approximately 3 miles from its headwaters to the Puyallup River (Pierce Conservation District 2018). The upper portion of the Deer Creek Watershed is primarily composed of newer low- and medium-density single-family residential development. Several salmon species have been observed in the lower reaches of Deer Creek (NHC 2022).

Wapato Creek

Wapato Creek is a meandering stream that generally travels east to west, parallel to the Puyallup River, from its headwater at the base of the hillside on the city's northern boundary across the northern part of Puyallup (City of Puyallup 2014). Wapato Creek drains a roughly 0.3-square-mile area along the northern edge of Puyallup. This area drains to the larger Wapato Creek system (6 square miles), which ultimately discharges to Commencement Bay at the Port of Tacoma (NHC 2022). The upper reaches of Wapato Creek were diverted to the Puyallup River in the late 1970s (City of Fife 2023).

Wildwood Creek

Wildwood Creek is an intermittent stream located between the Clarks Creek and Deer Creek drainages. It flows north into the valley from Bradley Lake on South Hill during the wet season. The stream feeds a number of wetlands located at the base of the hill slope (City of Puyallup 2014). Surrounding land use in the stream's contributing area is predominantly commercial and multifamily residential with some low-density residential (NHC 2022).

Clarks Creek

Clarks Creek is located in the southwestern portion of the city of Puyallup and drains a total watershed area of approximately 13 square miles (NHC 2022). Clarks Creek flows year-round out of Maplewood Springs and is fed by a number of smaller tributaries including Diru Creek, Meeker Creek, Rody Creek, and Silver Creek along with numerous smaller unnamed tributaries. Many of the smaller streams flow primarily in the wet season. Clarks Creek is a salmon-bearing stream supporting Chinook, coho, and chum salmon, steelhead, and cutthroat trout, and its larger tributaries provide habitat for these species as well (SWIFD 2024).

The Clarks Creek Watershed's contributing area is a mix of rural and medium- and low-density residential areas with commercial and high-density development located in the eastern portion of the watershed. Commercial development is concentrated along the major transportation corridors of Meridian Avenue and the SR 512 interchange. The stream's contributing area overall is highly developed, with an effective impervious area of approximately 25% (Ecology 2014).

Compared to the Puyallup River, shoreline functions along Clarks Creek have been impaired on a smaller scale. Native riparian vegetation has been affected by agricultural development and shoreline armoring (e.g., bulkheads or riprap), more so in the stream's lower reaches. This has affected in-stream and riparian habitat conditions and limited connectivity with off-channel and riparian wetlands (City of Puyallup 2023a).

Type II tributaries of Clarks Creek include Diru Creek, Meeker Creek, Rody Creek, Silver Creek, and Woodland Creek.

Diru Creek

Diru Creek is located in the western portion of the City of Puyallup. Its contributing area consists largely of agricultural, rural, and suburban single-family residential land uses. The Puyallup Tribe operates a salmon hatchery on Diru Creek. The stream has significant channel erosion, resulting in transport of sediment downstream into Clarks Creek. A project currently under design will use a combination of engineered wood crib structures and plantings to stabilize the banks and trap excess sediment in the creek channel allowing the creek to aggrade and reverse channel incision (Pierce County 2024a).

Meeker Creek

Meeker Creek is a relatively short and highly altered tributary to Clarks Creek. Historical maps detail the headwaters of Meeker Creek reaching southeast of its current start point at the state fairgrounds (City of Puyallup n.d.). Upper portions of the creek were redirected to the state highway drainage system when SR 512 was built. The City of Puyallup has begun returning the stream from its current trapezoidal ditch to a natural, meandering stream channel and restoring riparian vegetation to benefit water quality and fish habitat (Washington State RCO 2024a).

Rody Creek

Rody Creek is approximately 1.6 miles long and flows north near the city's western boundary; it feeds into Clarks Creek approximately 0.8 miles upstream from the confluence with the Puyallup River. Rody Creek supports large wetland areas along the city's western limits (City of Puyallup 2014; NHC 2022). Over the years, the stream's channel bed has deepened by about 5 to 8 feet due to downcutting. A number of channel stabilization projects have been planned or implemented as a result (Pierce County 2024a).

Silver Creek

Silver Creek is a previously ditched and partially restored natural tributary to Meeker Creek, feeding into Clarks Creek via Meeker Creek. Long stretches of the stream have been returned to the natural streambed, but efforts are ongoing to return upper reaches of the stream to its natural stream channel. Degraded channel conditions in the upper reaches of Silver Creek have led to channel incision, contributing to sedimentation of downstream reaches including Clarks Creek (Washington State RCO 2024b; City of Puyallup 2024a).

Woodland Creek

Woodland Creek is an intermittent stream that flows approximately from the base of South Hill to Clarks Creek through areas largely characterized by low-density residential development. The stream has been modified by culverts along portions of its length. Restoration of the creek is ongoing as funding allows, including a 2010 project that daylighted and restored approximately 200 feet of Woodland Creek that was previously buried in an underground culvert (Pierce County 2024b).

Wetlands

Wetlands are important for providing habitat, storm and flood water storage and filtration, groundwater recharge, recreational and educational opportunities, and shoreline protection. Clarks Creek and its tributary streams support a number of riparian wetlands. There are also mapped wetland complexes in the floodplain of the Puyallup River and smaller patches of wetland mapped throughout the city (USFWS 2023; City of Puyallup 2023b). Wet spots, bogs, peat, and muck deposits from 1 to 5 acres in size are scattered throughout Puyallup. There are large natural and mitigated wetlands in the river bottom lands and along the base of the South Hill slopes (City of Puyallup 2023c). Figure 3.2-1 identifies known wetlands in the city of Puyallup.

All development and uses are generally prohibited from wetlands and wetland buffers, except as provided for by the Puyallup CAO. In general, the limitations on allowable impacts and the required widths of wetland buffers are directly related to the habitat quality and the integrity of ecological function provided by the wetland. If the potential exists for an action to affect a wetland critical area, all feasible and reasonable measures must be taken to avoid and minimize impacts.

Flood Hazard Areas

Flood hazard areas are defined by the flood elevations that have a 1% or greater chance of being equaled or exceeded in any given year (PMC 21.07). These areas are commonly referred to as 100-year floodplains. Natural floodplains provide flood risk reduction benefits by slowing runoff and storing flood water. They also provide other benefits of considerable economic, social, and environmental value that are often overlooked when local land-use decisions are made. Floodplains frequently contain wetlands and other important ecological areas that directly affect the quality of the local environment. Some of the benefits of functioning, natural floodplains include fish and wildlife habitat protection, natural flood and erosion control, surface water quality maintenance, biological productivity, and groundwater recharge (FEMA 2024).

Protection and management of frequently flooded areas (i.e., floodplains) is governed in accordance with PMC 21.07, Flood Damage Protection. Areas regulated under the City's Frequently Flooded Areas provisions include FEMA designated 100-year floodplains and those lands that provide important flood storage, conveyance, and attenuation functions (PMC 21.07).

Most floodplain resources are concentrated along the Puyallup River, while some regulated floodplains are also located along Clarks Creek, in the central portions of Puyallup, and in small areas in the southern part of the city (City of Puyallup 2023a). Mapped floodplains in the city of Puyallup are shown in Figure 3.2-3. Levees, dikes, and bank revetments have been constructed and maintained along the Puyallup River to limit the extent of flooding and increase the utility of floodplains for agricultural, industrial, and urban uses. This has reduced connectivity of the river to its floodplain and compromised many of the ecological benefits provided by a naturally functioning floodplain.

3.2.1.3 Surface Water Quality

Surface water quality (i.e., the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose such as drinking or swimming) is protected through the implementation of water quality standards pursuant to the CWA. The water quality standards established under the CWA are intended to sustain public health and public enjoyment of the waters and the propagation and protection of fish, shellfish, and wildlife. When surface water bodies do not meet their established standards, they are identified as impaired under Section 303(d) of the CWA. Ecology reviews and determines the water quality status of polluted water bodies within Washington for fresh and marine waters on an alternating 4-year cycle for EPA review and approval to publish. For each water body listed, Ecology then develops a pollutant management plan where TMDLs are established to rectify and maintain water quality within standards for those exceeded parameters (Ecology 2024). The Puyallup River is listed on the state's Section 303(d)/305(b) list as impaired for bacteria (fecal coliform), temperature, and mercury (Ecology 2024). Two TMDLs have been developed for the Puyallup River: (1) BOD (biochemical oxygen demand) and Ammonia-N (Ecology 1994) and (2) fecal coliform (Ecology 2011).

The Puyallup River TMDL for BOD and ammonia identifies discharges from municipal and industrial sources, along with four fish hatcheries, as the primary contributing sources of these two pollutants. Of these, municipal sources contribute the largest pollutant loads. The TMDL assigns waste load allocations and mixing zone limits for current and future permitted discharges. It also sets seasonal implementation parameters for the TMDL, based on the greater concentrations of these pollutants during lower-flow conditions (typically May through October (Ecology 1994).

As part of the fecal coliform TMDL for the Puyallup River, sampling indicated that Clarks Creek was the river's second largest source of fecal coliform, and that Deer Creek is also a contributor (NHC 2022). Potential pollutant sources identified as part of the fecal coliform TMDL include both point and nonpoint sources. Point sources include municipal wastewater treatment plants, industrial wastewater discharge, industrial stormwater, and stormwater runoff from WSDOT facilities. Nonpoint sources include range and pastured livestock with direct access to the stream; poor livestock or pet manure management on non-commercial farms; pet manure from residential areas; poorly constructed or maintained on-site septic systems; and pulp and wood waste (Ecology 2011). In addition to the TMDL implementation actions described for Clarks Creek below, the City of Puyallup continues to acquire land ownership along Deer Creek with the goal of creating a large corridor of continuous restored area to improve wetland and stream function. As part of that project, the city plans to monitor fecal coliform counts upstream and downstream of project sites to determine water quality improvements the project may provide by adding natural stream features (City of Puyallup 2024b).

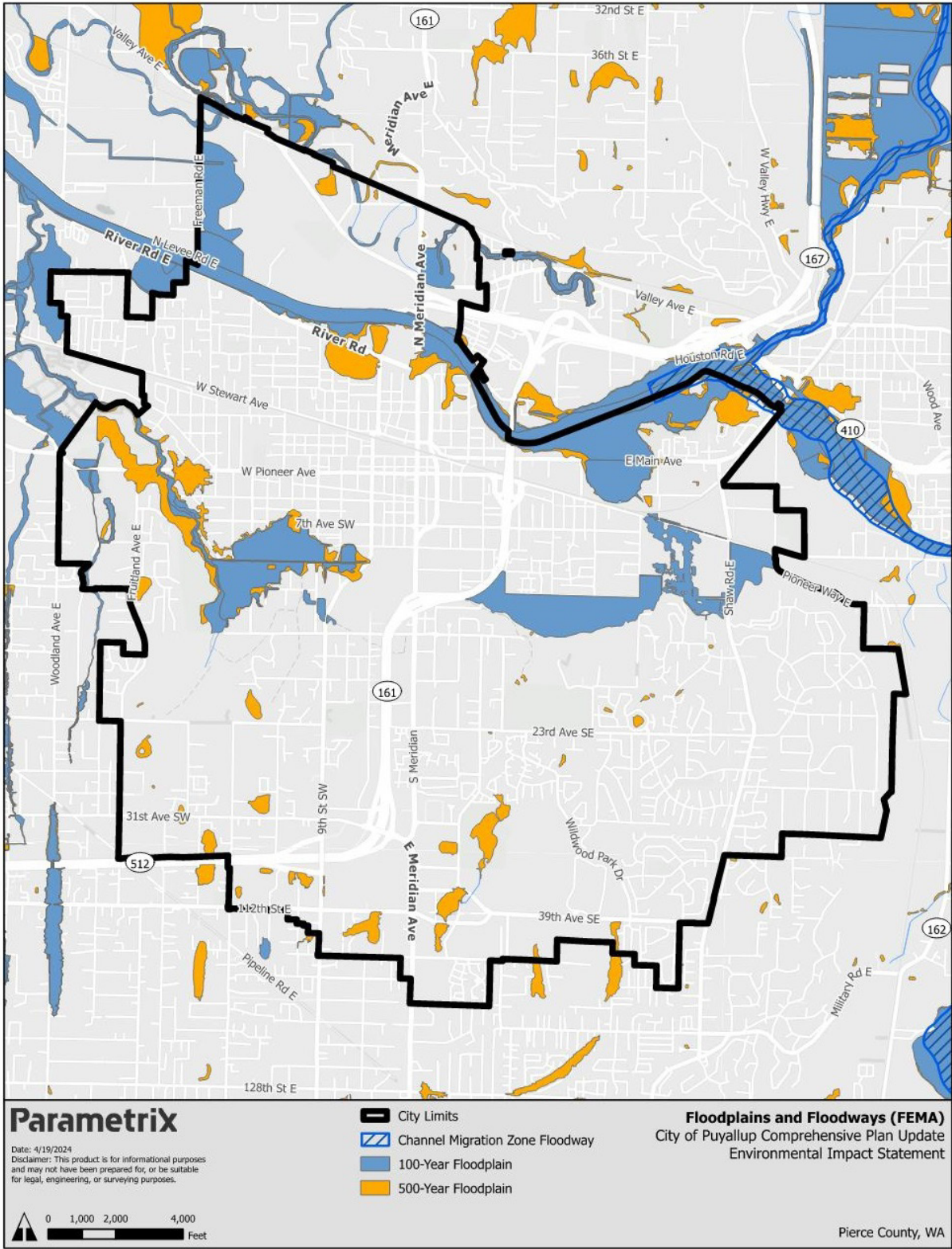


Figure 3.2-3. Floodplains

Clarks Creek is listed on the state's Section 303(d)/305(b) list as impaired for fecal coliform bacteria. A TMDL for fecal coliform was developed for Clarks Creek and Meeker Creek in 2008. The TMDL indicates that high levels of bacteria are likely from rodents, waterfowl, pet feces, and other human sources. Recommendations for meeting the TMDL include best management practices for new development, septic system inspection and repair, sanitary and storm sewer inspection and repair, riparian restoration and planting, and pet owner education (Ecology 2008). The city continues to implement activities outlined in the Clarks Creek TMDL Implementation Plan, including a pet waste program, riparian plantings, restoration of public and private streamside properties, and education and outreach to discourage the feeding of waterfowl in DeCoursey Park. The city also coordinates with the State Fair to limit animal waste entering storm drains by allowing catch basins to drain to the sanitary sewer during fair events (City of Puyallup 2024b).

In addition to the fecal coliform TMDL, a separate TMDL for dissolved oxygen and sediment levels was developed for Clarks Creek. The creek's dissolved oxygen and sediment TMDL also identifies Rody Creek and Silver Creek as impaired for fine sediment. The TMDL identifies that low dissolved oxygen, excess fine sediment and sand, and overgrowth of elodea create conditions that are harmful to fish and habitat. Potential pollutant sources identified as part of the TMDL include point source discharge of wastewater from two fish hatcheries and a fish rearing pond; point source discharge of stormwater from municipal, industrial, and construction uses; and nonpoint surface runoff (NHC 2022). Ecology and the City of Puyallup are working with local communities and stakeholders to implement the Clarks Creek Water Quality Improvement Plan with the goal to achieve pollution reductions and meet the dissolved oxygen and sediment TMDL by 2035 (Ecology 2014b).

Wapato Creek is currently listed on Ecology's Section 303(d) list as impaired for dissolved oxygen and bacteria. A TMDL does not exist for either pollutant due to lack of in-stream flow (City of Fife 2023; NHC 2022). However, it is expected that the overall influence of runoff from the city is small given that only a very small proportion of the basin is within the city of Puyallup (NHC 2022).

3.2.1.4 Groundwater

Polluted runoff or discharge can seep into aquifers and contribute to groundwater contamination, causing deleterious effects to municipal water supplies. All portions of the city of Puyallup located south of the Puyallup River are in the Central Pierce County Sole Source Aquifer Area (ID: SSA64, Federal Register ID: 59 F) (Pierce County 2024c; EPA 2024). In addition, much of the city is located within moderately to highly susceptible wellhead protection areas (10-year travel time) (DOH 2024). These areas are regulated under the CAO as Critical Aquifer Recharge Areas (CARAs) (PMC 21.06). CARAs have a critical recharging effect on aquifers used for potable water, including areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of the water or is susceptible to reduced recharge. See Figure 3.2-4 for locations of CARAs and Wellhead Protection Areas in the city of Puyallup.

The City obtains its drinking water from two natural groundwater springs, five deep wells, and an intertie with the City of Tacoma. The springs include Maplewood Spring on the southwest side of Puyallup at the headwaters of Clarks Creek and Salmon Springs, located in the City of Sumner (Washington DOH Drinking Water Division 2024). The springs produce 76% of the city's total drinking water supply, while the wells account for the remaining 24%. The Tacoma intertie accounts for less than 0.5% of annual domestic drinking water (City of Puyallup 2024c). See Section 3.8, Public Services, and Section 3.9, Utilities, for additional discussion of the City's water system.

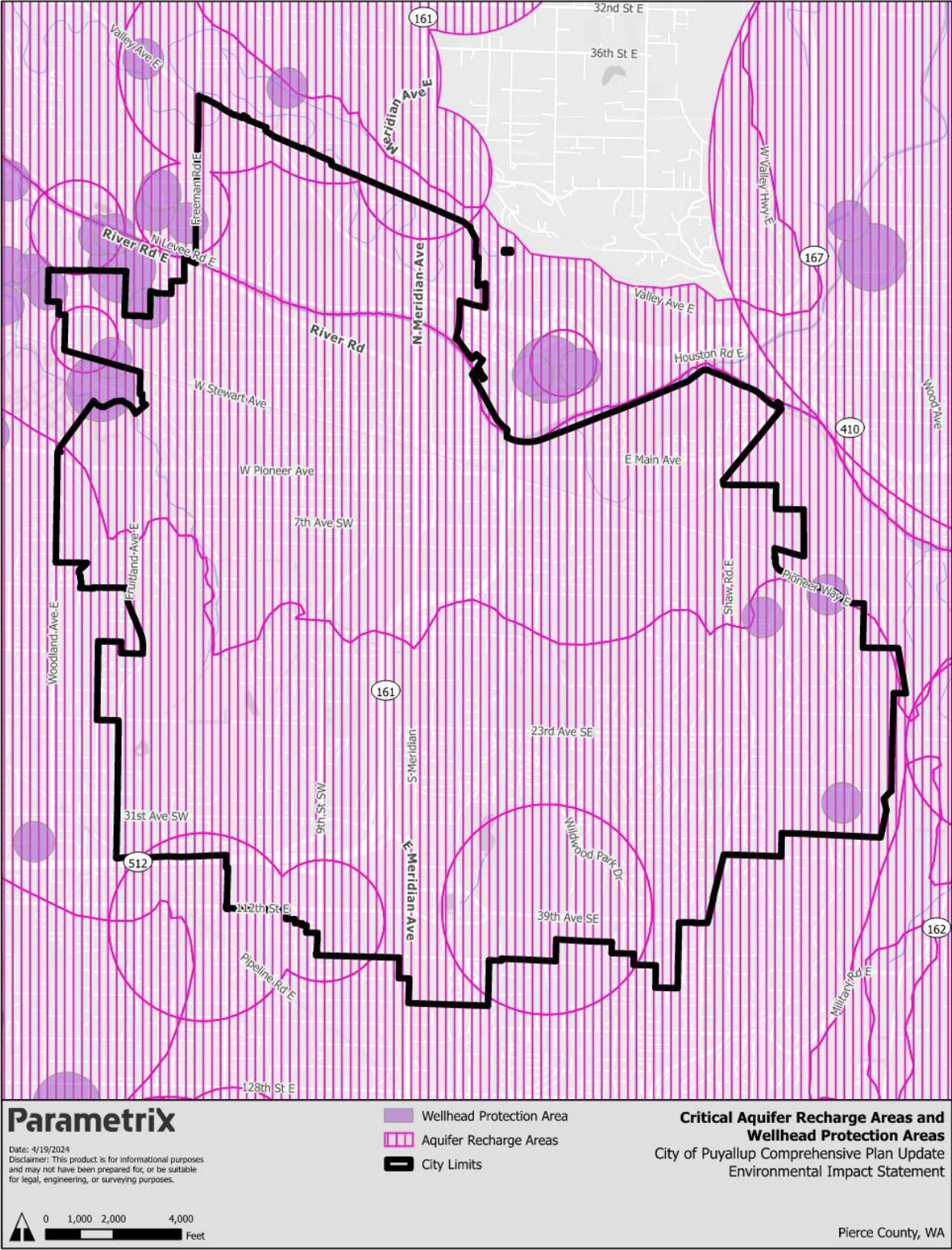


Figure 3.2-4. Critical Aquifer Recharge Areas and Wellhead Protection Areas

The City of Puyallup's Water Division tests its groundwater supply annually for organics and inorganics, and takes weekly samples from the water system to check for bacteria and chlorine residuals. DOH rules also require the Water Division to take 40 samples per month (City of Puyallup 2024c). According to the City's most recent water quality report, groundwater quality in Puyallup is generally very good (City of Puyallup 2023d).

3.2.2 Impacts

This section describes potential impacts related to water resources that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.2.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on water resources. Impacts were considered significant if they met the following criteria:

- Future growth and development would be expected to result in impairment of a water body not currently identified on the Ecology Section 303(d) list.
- Future growth and development would create conditions that preclude compliance with the existing TMDLs for Clarks Creek and the Puyallup River.
- Future growth and development would have permanent and unmitigable impacts on the flood storage capacity and/or ecological function of floodplain areas.
- Future growth and development would result in unmitigable adverse impacts to the sole source aquifer.

3.2.2.2 Impacts Common to All Alternatives

New development with the potential to result in adverse impacts would occur under all of the alternatives. Construction and development activities could have potentially adverse short-term impacts by increasing the risk of erosion with the exposure of soils and removal of trees and shrubs. Such conditions could potentially result in runoff of sediment to wetlands and water bodies and cause siltation and turbidity. Inadvertent spills of fuels and fluids from construction vehicles and equipment could also potentially become mobilized in stormwater runoff or seep into groundwater. Proposed projects would be required to incorporate construction-phase stormwater pollution-control best management practices and hazardous materials management plans and obtain construction-phase stormwater permits in order to receive development approval from the City. Project plans and permit applications submitted for City review and processing would be required to incorporate long-term treatment measures to address stormwater quantity and quality throughout the project's operating phase.

Future development would have potential impacts under all alternatives, including conversion of undeveloped land to impervious surfaces and reduction of vegetation coverage on the landscape that can naturally filter runoff. Increased areas of impervious surface decrease infiltration which reduces groundwater recharge rates and leads to higher stormwater runoff volumes entering

surrounding rivers and water bodies. Increased stormwater runoff can affect stream hydrology, contributing to higher, more flashy high flows and lower low flows. When natural infiltration processes are disrupted, this can further impact stream flows because groundwater is an important contributor to in-stream flow volumes, especially in drier summer months. Low flows can result in increased stream temperature, higher pollutant concentrations, and degradation and loss of habitat for aquatic species.

In addition to affecting streamflow, increased stormwater runoff from new roadways, parking lots, landscapes, and yards would increase the potential for mobilization of pollutants such as metals, excess nutrients, and pathogens into wetlands and waterbodies. Because increases in VMT over time would be expected regardless of which alternative is adopted, increased amounts of stormwater contaminants—such as fluids, oils, and tire dust—from on-road vehicles would be generated. Although increased impervious surface would potentially decrease groundwater and aquifer recharge rates, polluted stormwater could still contribute to infiltration of contaminants into groundwater if left untreated, thereby potentially causing groundwater contamination. The majority of the city of Puyallup is within a critical aquifer recharge area and would, therefore, be susceptible to groundwater contamination under all of the alternatives.

Development could have the potential to encroach on floodplains. However, the City would continue to maintain existing flood structures and revetments and require new development or redevelopment projects within flood hazard areas to comply with relevant flood hazard area development standards. These would include, but not be limited to, mitigation measures to offset any placement of fill and maintain the current natural floodwater storage function and volume of the floodplain. Overall, development under any of the alternatives would be unlikely to have significant adverse impacts on floodplains because of existing regulatory compliance requirements.

3.2.2.3 Impacts of Alternative 1 (No Action)

Potential impacts of future development under Alternative 1 would be similar in character to those described for impacts common to all alternatives. Under Alternative 1, future development would continue to be most concentrated in Downtown Puyallup and South Hill—areas currently characterized by denser, urban-scale development and a relatively high proportion of existing impervious surfaces. Future development would continue to follow current development patterns and densities throughout the rest of the city. This could potentially slow the conversion of undeveloped and less densely developed areas and areas of open space into urban-scale development with higher proportions of impervious surface. Future development under Alternative 1 would abide by existing regulations, policies, and programs to protect and improve water quality. Because of this, **Alternative 1 would result in less than significant impacts to water resources.**

3.2.2.4 Impacts of Alternative 2

The impacts of future development under Alternative 2 would be similar, but greater, than those described for Alternative 1. Alternative 2, if fully implemented over time, would concentrate future growth and development in the Bradley Lake/Wildwood Creek and lower Deer Creek watersheds, with additional areas of increased development intensity occurring in the lower Clarks Creek watershed and in the downtown areas that drain directly to the Puyallup River. The long-term impacts of development under Alternative 2 would depend on the timing, extent, and site-specific attributes of individual development projects. Proposed development would be required to abide by existing regulations, policies, and programs to protect and improve water quality. Under Alternative 2, there would be the potential to improve water quality and wetland health and function by providing greater protection for water resources, including wetlands and floodplains, with the creation of larger buffers

via updates to the City's CAO. Future development under Alternative 2 would abide by existing and future regulations, policies, and programs to protect and improve water quality. As a result, **Alternative 2 would result in less than significant impacts to water resources.**

3.2.2.5 Impacts of Alternative 3

The impacts of future development under Alternative 3 would be similar, but greater, than those under Alternative 2 as Alternative 3 would facilitate a larger proportion of future development in the Deer Creek watershed. Alternative 3 would also concentrate a substantial amount of planned development in the Clarks Creek watershed. If fully implemented over time, Alternative 3 would create the greatest potential among the alternatives for future development to affect wetlands and floodplains, as its focused growth areas contain the greatest combined acreage of these resources. It could also facilitate the greatest amount of conversion of rural and agricultural lands to urban-scale development and the greatest amount of conversion of vegetated area to impervious area. Conversely, as with Alternative 2, there is also the potential under Alternative 3 to improve water quality and wetland health and function by providing greater protection for water resources, including wetlands and floodplains, through updates to the City's CAO. The impacts of future development under Alternative 3 would depend on the timing, extent, and site-specific attributes of individual development projects. Future development under Alternative 3 would abide by existing and future regulations, policies, and programs to protect and improve water quality. As a result, **Alternative 3 would result in less than significant impacts to water resources.**

3.2.3 Avoidance, Minimization, and Mitigation Measures

Avoidance, minimization, and mitigation measures would be required by existing regulations for any future development projects that are proposed following adoption of any of the alternatives. Project developers would be required to perform detailed site-specific analyses of the impacts resulting from any projects that are developed during the future implementation phase(s) of any of the alternatives. Projects would need to demonstrate the incorporation of required avoidance, minimization, or mitigation measures when the associated project plans and permit applications are submitted for City review and processing.

3.2.4 Significant Unavoidable Adverse Impacts

As previously described, future development projects implemented under any of the alternatives would be required to comply with existing plans, policies, and regulations and incorporate any necessary mitigation measures such as using best management practices during construction and obtaining construction-phase stormwater permits. As a result, no significant unavoidable adverse impacts to water resources are expected as a result of the alternatives.

3.3 Fish, Wildlife, and Vegetation

3.3.1 Affected Environment

Habitat loss, fragmentation, and degradation are major challenges to Washington's fish and wildlife. Much of this challenge is associated with the urban and suburban development that will support the state's increasing human population. As urban communities continue to grow, habitat can become increasingly less available and more fragmented. This section discusses important fish and wildlife species and vegetated habitats in the City of Puyallup and the potential impacts of the Alternatives on these resources.

3.3.1.1 Regulatory Environment

A substantial body of regulation exists to direct the management and protection of fish, wildlife and habitat within the State of Washington. Key federal, state, and local laws affecting fish, wildlife and vegetation are summarized below.

Federal

Endangered Species Act

The ESA provides a framework to conserve and protect endangered and threatened species and their habitats from a project's effects. Section 7 of the ESA requires federal agencies to ensure that their actions do not jeopardize the existence of any listed species or destroy or adversely modify designated critical habitat. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries, or NMFS).

Migratory Bird Treaty Act of 1918

The act protects migratory birds, making it illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under a valid federal permit from USFWS.

Bald and Golden Eagle Protection Act of 1940

This act prohibits "take," including parts (including feathers), nests, or eggs of bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*).

State of Washington

Growth Management Act of 1990 (RCW 36.70A)

The GMA states that in drafting comprehensive plans, jurisdictions should "protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water", and "conserve fish and wildlife habitat" (RCW 36.70A.020). The GMA requires that critical areas be designated and development regulations be adopted to protect such areas.

Shoreline Management Act [RCW 90.58, WAC 173-18-100, and Chapter 173-22 WAC] of 1972

The SMA requires protection for shoreline natural resources to ensure no net loss of ecological function. The SMA requires jurisdictions with river, lake, or marine shorelines to develop and implement shoreline master programs.

Chapter 220-610 WAC, State and Protected Species

Identifies the federal ESA-listed species that are present in Washington and establishes closed seasons and penalties for take of federally listed fish species. Identifies and classifies native wildlife species needing protection in Washington and defines the listing, management, recovery, and delisting processes. Establishes rules for bald eagle management in Washington.

Chapter 77.12.020 RCW, Wildlife to be classified

Empowers the director of the Washington Fish and Wildlife Commission to determine whether a species should be managed by WDFW, and to classify it as protected, endangered, or as deleterious exotic wildlife that is dangerous to the environment or wildlife of the state.

Chapter 220-640 WAC, Invasive/Non-native Species; Chapter 17.10 RCW, Noxious Weeds—Control Boards; and Chapter 16-750 WAC State Noxious Weed List and Schedule of Monetary Penalties:

The chapters establish the framework for regulating and controlling noxious weeds in the state of Washington and designate the list of noxious weeds that pose threats statewide and regionally.

Washington State Wildlife Action Plan

This is a comprehensive plan for conserving the state’s fish and wildlife and the natural habitats on which they depend.

City of Puyallup

Critical Areas Ordinance (Puyallup Municipal Code [PMC] 21.06)

The CAO provides for the protection of designated critical areas identified in the GMA, including Fish and Wildlife Habitat Conservation Areas, Wetlands, Critical Aquifer Recharge Areas, and Geologically Hazardous Areas. Frequently Flooded Areas, are regulated under PMC 21.07, Flood Damage Protection.

Shoreline Master Program

The program regulates land use in Shorelines of the State, which include the area within 200 feet of the Puyallup River and Clarks Creek along with their associated wetlands. Defines how shoreline areas within the City of Puyallup and its UGA will be managed and includes development standards and use regulations.

3.3.1.2 General Habitat Setting

Overall, the land cover types present in the City of Puyallup are representative of the effects of the human development activities that have taken place on the City’s landscape over time. The current landscape is characteristic of suburban cities in the Puget Sound region that have converted over time from agricultural and rural to urban land use. Forest clearing in what is now Puyallup began for small farms and residences in the mid- to late 1800s. Most of the valley bottom and adjacent hillslopes were cleared by the early 1930s. Early attempts to train and confine the Puyallup river began in the 1920s with construction of levees. Significant channel straightening and more extensive levee confinement began in the 1960s in an attempt to increase conveyance of sediment and floodwaters. From the 1970s to the present day, rural areas are undergoing conversion to suburban land use while suburban residential lands are being converted to industrial and more urban land-use practices. Most of the productive farmlands, meadows, and forested hillsides exist in areas nearer to the periphery of the city boundary. Current land cover types in the city of Puyallup and their prevalence on the city’s landscape, are listed in Table 3.3-1 and shown in Figure 3.3-1.

Table 3.3-1. National Land Cover Database Land Cover Types in the City of Puyallup

NLCD Land Cover Type	Acres	Percentage of Total
Developed, Medium Intensity	3,146.3	33.9%
Developed, Low Intensity	2,444.1	26.4%
Developed, High Intensity	1,362.6	14.7%
Developed, Open Space	1,088.1	11.7%
Mixed Forest	425.4	4.6%

NLCD Land Cover Type	Acres	Percentage of Total
Deciduous Forest	201.8	2.2%
Pasture/Hay	173.3	1.9%
Evergreen Forest	142.0	1.5%
Cultivated Crops	118.9	1.3%
Open Water	46.5	0.5%
Woody Wetlands	56.7	0.6%
Emergent Herbaceous Wetlands	22.7	0.2%
Grasslands/Herbaceous	21.6	0.2%
Shrub/Scrub	15.4	0.2%
Barren Land (Rock/Sand/Clay)	8.1	0.1%
Total	9,273.5	100%

Source USGS National Land Cover Database (NLCD) 2024.

Vegetated habitats in lowland areas of the Puyallup River drainage are characterized by grasses and riparian vegetation. Deciduous tree species such as red alder, big leaf maple (*Acer macrophyllum*), and golden chinquapin (*Chrysolepis chrysophylla*) are generally dominant on lands that have been cleared for urban and agriculture uses. Deciduous hardwood trees including red alder (*Alnus rubra*), cottonwood (*Populus trichocarpa*), Oregon Ash (*Fraxinus latifolia*), willow (*Salix* sp.), and associated understory species are dominant within and adjacent to wetland areas and along major water corridors. Portions of Puyallup, particularly the wooded hillsides and ravines along the Puyallup River valley and South Hill, include second-growth lowland coniferous, deciduous, and mixed coniferous/deciduous forest cover types (City of Puyallup 2014).

Common invasive plant species include reed canary grass (*Phalaris arundinacea*), found in wetlands, and Himalayan blackberry (*Rubus armeniacus*), which grows in a wide range of habitats. Both species are designated as Class C noxious weeds, which are species either already widespread in Washington or of special interest to the agricultural industry. Counties may enforce control of Class C species or may choose to provide education or technical support for their removal or control. Other Class C noxious weed species that have been reported in Puyallup since 2020 include common cat's ear (*Hypochaeris radicata*), bull thistle (*Cirsium vulgare*), Canada thistle (*Cirsium arvense*), tree-of-heaven (*Ailanthus altissima*), and yellow toadflax (*Linaria vulgaris*). Class B noxious weeds reported in Puyallup in the past 4 years include Bohemian knotweed (*Polygonum x bohemicum*) and diffuse knapweed (*Centaurea diffusa*). Class B noxious weeds are nonnative species that are limited to portions of Washington State but may be widespread elsewhere. They are designated for mandatory control in regions where they are not yet widespread. Containment of these weeds is a key goal to prevent new infestations and avoid their spread into un-infested regions. No Class A noxious weeds have been reported in Puyallup since 2017. Class A noxious weeds are the highest priority for eliminating existing infestations and preventing new ones. Eradication of all Class A plants is required by law (Washington State Noxious Weed Control Board 2024; WSDA 2024).

Aquatic habitats in Puyallup are predominantly associated with the Puyallup River, its adjacent wetlands, and its tributary streams, and secondarily with Clarks Creek, the largest Puyallup River tributary in the city. Smaller ponds and wetland areas are also scattered throughout the city. Bradley Lake, a 12-acre water body located at the headwaters of Wildwood Creek on South Hill, was originally a peat bog and was created after 30 years of peat farming.

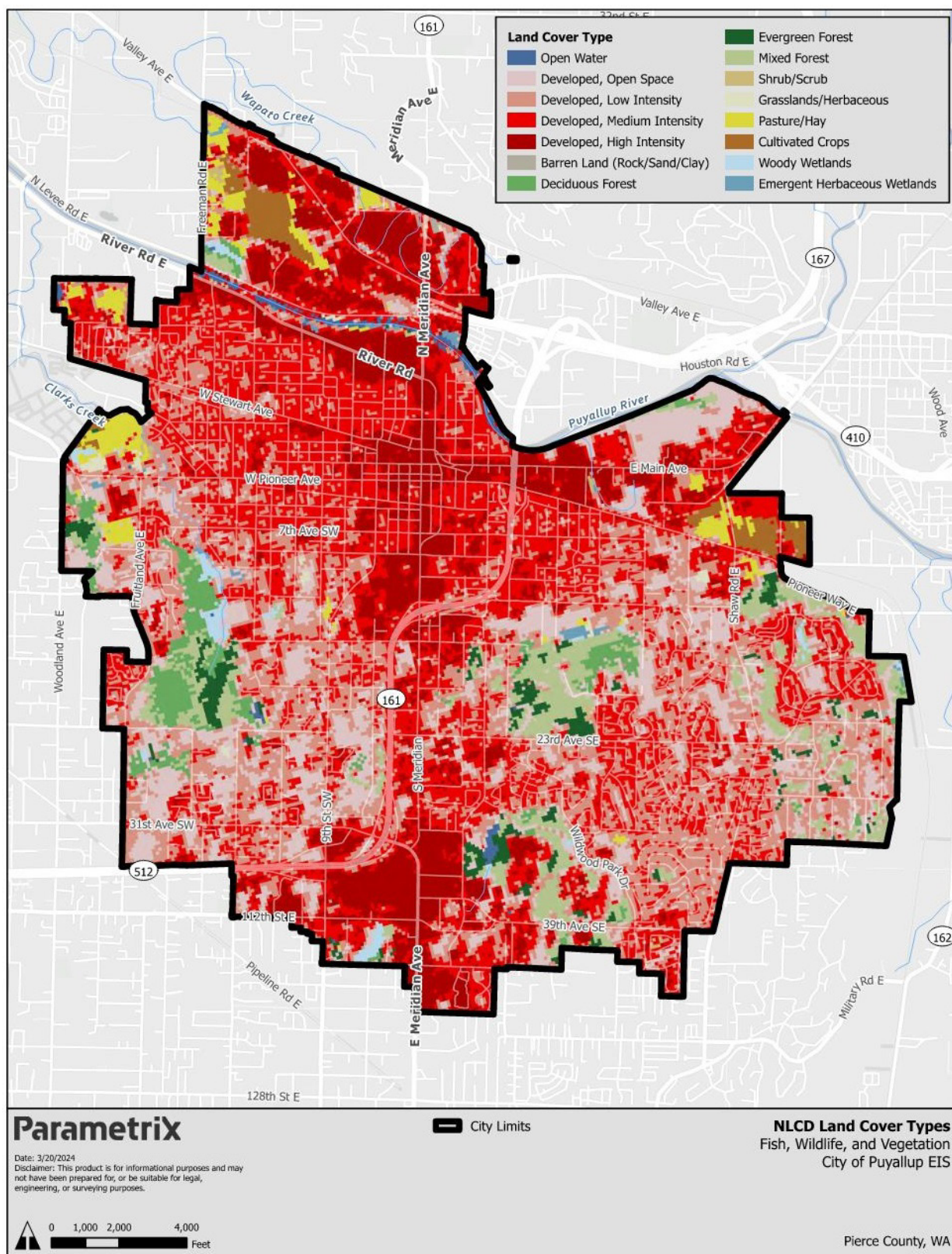


Figure 3.3-1. National Land Cover Database Land Cover Types

Riverine and stream habitats within the study area, particularly those associated with the Puyallup River, are affected by channelization, levees, and the close proximity of residential, commercial, and industrial land uses. Urban development adjacent to shoreline and waterfront areas of the Puyallup River often directly abuts or encroaches on vegetated riparian buffers and has filled former wetland and floodplain habitat areas (City of Puyallup 2023a). Such changes have affected channel migration, riverine habitat, wetland functions, and floodplain connectivity throughout the watershed, reducing the quality and complexity of aquatic and riparian habitat and creating more areas potentially affected by floods (City of Puyallup 2023a, 2023b). Some of the smaller Puyallup River tributary streams have also been altered by fill, piped agricultural diversions, culverts, dikes, and channeling (City of Puyallup 2014), adversely affecting aquatic habitat and fish passage.

3.3.1.3 Critical Areas, Floodplains, and Priority Habitats

Critical Areas

Critical areas contain valuable natural resources, provide natural scenic qualities, support important ecological functions and processes, and/or present potential hazards to human life and property. Critical areas are regulated under PMC 21.06, with the purpose of avoiding impacts to these areas from alteration wherever feasible and reasonable. Critical areas include wetlands, fish and wildlife habitat conservation areas, frequently flooded areas, critical aquifer recharge areas, and geologically hazardous areas (City of Puyallup 2024c). Currently mapped critical areas are distributed throughout the central portion of the city and overlap with other resource areas, including shoreline areas and priority habitats (City of Puyallup 2023a). Mapped wetlands and fish and wildlife habitat conservation areas in the City of Puyallup are shown in Figure 3.3-2. Critical aquifer recharge areas and geologically hazardous areas are discussed in Section 3.2, Water Resources and Section 3.4, Land Use, respectively.

All development and uses are generally prohibited from wetlands and wetland buffers, except as provided for by federal, state, and local regulations. In general, limitations on allowable impacts and the required widths of wetland buffers are directly related to the habitat quality and the integrity of ecological function provided by the wetland.

Fish and Wildlife Habitat Conservation Areas are areas identified as being of critical importance to the maintenance of fish, wildlife, or plant species. They include streams, associated riparian habitat areas, and non-riparian habitats that support or have a primary association with state or federally designated special status species; state priority habitats and areas associated with state priority species; or habitats and species of local importance, including corridors connecting habitat. Limitations on allowable impacts are directly related to the critical importance of the resource (i.e. Shorelines of the State and/or fish-bearing streams) and the integrity of ecological function provided.

Floodplains

Natural floodplains provide benefits to a functioning natural system including fish and wildlife habitat protection, enhanced biological productivity, natural flood storage and erosion control, surface water quality maintenance, and groundwater recharge (FEMA 2024). Most floodplain resources are concentrated along the Puyallup River, while some regulated floodplains are also found along Clarks Creek, in the central portions of Puyallup, and distributed in small areas in the southern part of the city (City of Puyallup 2023a). Mapped floodplains in the City of Puyallup are shown in Figure 3.3-2. See Section 3.2, Water Resources, for additional discussion of floodplains.

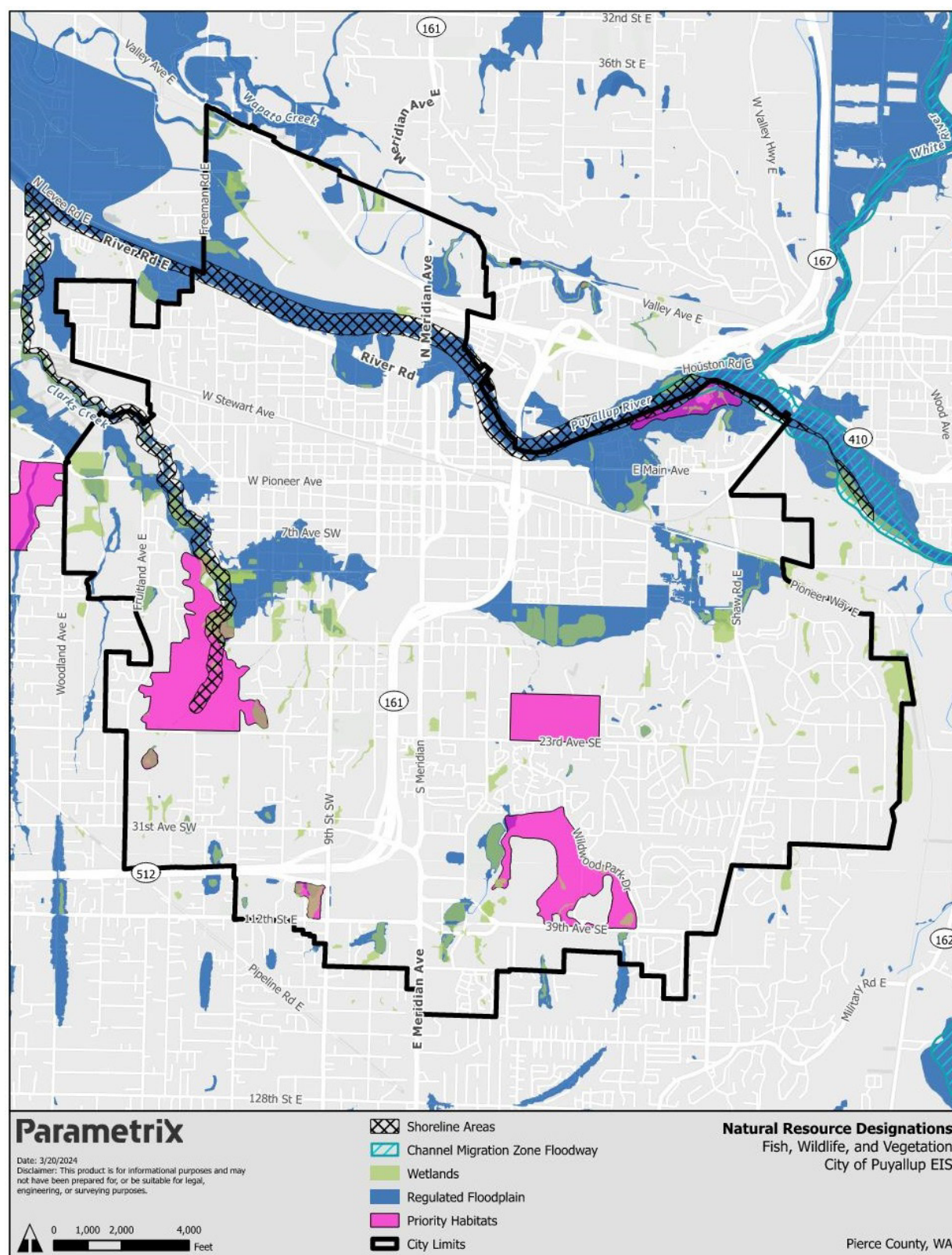


Figure 3.3-2. Natural Resource Designations in the City of Puyallup

Priority Habitats

Priority Habitats are habitat types or elements with unique or significant value to one or more species. A priority habitat may consist of a unique vegetation type, dominant plant species, a described successional stage (e.g., old-growth forest), or a specific habitat feature (e.g., cliffs). In general, priority habitats with greater importance to fish or wildlife have one or more of these characteristics:

- Habitat areas that are larger are generally better than areas that are smaller,
- Habitat areas with more structural complexity (e.g., multiple canopy layers, snags, geologically diverse) are generally better than areas with less.
- Areas that contain native habitat types contiguous with one another are better than isolated habitats (especially aquatic habitats associated with terrestrial habitats),
- Habitat areas that are connected are generally better than areas that are isolated.
- Habitat areas that have maintained continuity in historical ecosystem processes (e.g., disturbance regimes, successional patterns) are generally better than areas lacking such processes (WDFW 2023a).

The city has three relatively large patches of Priority Habitat. These patches are located near the city's western boundary, in the center of the city north of 23rd Avenue SE, and near the city's southern boundary. Portions of each of these habitat patches are located within city parks, including Clarks Creek Park South, Bradley Lake Park, and Wildwood Park (City of Puyallup 2023a). Mapped Priority Habitats in the City of Puyallup are shown in Figure 3.3-2. Priority Habitats occurring within the City of Puyallup predominantly consist of freshwater forested/shrub wetland, freshwater emergent wetland, riverine, and pond habitats. The Carbon River Open Space area on the city's eastern edge is identified as a Biodiversity Areas and Corridors area (WDFW 2024a). These consist of relatively undisturbed and unbroken tracts of vegetation connecting fish and wildlife habitat conservation areas, priority habitats, or other biologically diverse areas (WDFW 2023b).

3.3.1.4 Fish and Wildlife

Table 3.3-2 identifies federally listed species and Washington Priority Species that are potentially present in Puyallup and the surrounding vicinity.

Fish

The Puyallup River and its tributaries provide migration habitat for numerous native and non-native fish species. Native fish documented in the river include federally listed Chinook salmon (*Oncorhynchus tshawytscha* [Puget Sound ESU]), steelhead (*Oncorhynchus mykiss* [Puget Sound DPS]), and bull trout (*Salvelinus confluentus*), all of which are listed as threatened under the ESA and have designated critical habitat in the Puyallup River. Other salmonid species include Coho (*Oncorhynchus kisutch*), chum (*Oncorhynchus keta*), pink (*Oncorhynchus gorbuscha*), and sockeye salmon (*Oncorhynchus nerka*) as well as coastal cutthroat trout (*Oncorhynchus clarkii*). Additionally, the river provides rearing habitat for Coho, Chinook, and bull trout (USFWS 2024a; NMFS 2024a; WDFW 2024a). The lower reaches of some Puyallup tributary creeks that have not been affected by culverts and farmland drainage channels may also provide freshwater habitat for native salmon and steelhead (City of Puyallup 2014).

Table 3.3-2. Summary of Federally Listed Species and Washington Priority Species in the Study Area

Priority Species or Habitat	Scientific Name	Federal Status	State Status	Critical Habitat
Chinook Salmon	<i>Oncorhynchus tshawytscha</i> , Puget Sound ESU	Threatened	N/A	Puyallup River, Clarks Creek (70 FR 52630, September 2, 2005)
Steelhead	<i>Oncorhynchus mykiss</i> , Puget Sound DPS	Threatened	N/A	Puyallup River, Clarks Creek (81 FR 9252, February 24, 2016)
Bull Trout	<i>Salvelinus confluentus</i>	Threatened	N/A	Puyallup River (75 FR 63898, November 17, 2010)
Northwestern Pond Turtle	<i>Actinemys marmorata</i>	Proposed threatened	Endangered	N/A
Big Brown Bat	<i>Eptesicus fuscus</i>	N/A	Endangered	N/A
Beller's Ground Beetle	<i>Agonum belleri</i>	undefined	Candidate	N/A
Coho Salmon	<i>Oncorhynchus kisutch</i>	N/A	N/A	N/A
Sockeye Salmon	<i>Oncorhynchus nerka</i>	N/A	N/A	N/A
Chum Salmon	<i>Oncorhynchus keta</i>	Not warranted	N/A	N/A
Pink Salmon	<i>Oncorhynchus gorbuscha</i>	Not warranted	N/A	N/A
Coastal Cutthroat Trout	<i>Oncorhynchus clarkii clarkii</i>	Not warranted	N/A	N/A
Dolly Varden	<i>Salvelinus malma</i>	N/A	N/A	N/A
Great Blue Heron	<i>Ardea herodias</i>	N/A	N/A	N/A

Sources: USFWS 2024a; WDFW 2024a.

DPS = distinct population segment; EDU = evolutionarily significant unit; N/A = not applicable

Additional game fish that have been identified or reported in the Puyallup River system include rainbow trout (*Oncorhynchus mykiss irideus*), Dolly Varden (*Salvelinus malma*), eastern brook trout (*Salvelinus fontinalis*), whitefish (*Prosopium williamsoni*), largemouth bass (*Micropterus salmoides*), black crappie (*Pomoxis nigromaculatus*), and white sucker (*Catostomus commersonii*) (City of Puyallup 2014; Washington Fish Reports.com 2024; Fishbrain.com 2024).

The Clarks Creek watershed provides spawning habitat for Chinook, coho, and chum salmon as well as steelhead (SWIFD 2024). Clarks Creek has a number of passable culverts and crossings that allow access to spawning in the mainstem of the creek, but a diversion dam just south of Clarks Creek Park at approximately river mile 3.7 creates a total fish passage barrier. Several partial and total fish passage barriers limit access to habitats in the upper reaches of tributary streams such as Rody Creek, Diru Creek, and Woodland Creek (WDFW 2024b).

Bradley Lake is stocked annually with hatchery rainbow trout. The lake also supports naturally reproducing populations of largemouth bass, black crappie, yellow perch (*Perca flavescens*), and brown bullhead catfish (*Ameiurus nebulosus*) (City of Puyallup 2014).

Wildlife

Agricultural, urban, and suburban development within the Puyallup area have substantially altered wildlife habitat and diversity through the years. Common mammals within the wooded areas of the city include chipmunks, rabbits, marmots, skunks, and raccoons. Many of these species can tolerate urban development as long as some habitat and connecting migration corridors remain undisturbed. Wooded areas in the City of Puyallup support a wide variety of small mammals, birds, reptiles, and

amphibians. Larger mammals including black-tailed deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and cougar (*Puma concolor*) occur more frequently at the edge of the Cascade foothills where larger areas of contiguous forest remain. These species can also occasionally migrate into the urban areas. Large and contiguous parcels of rural land provide habitat for wildlife that compete successfully with other species in deeper cover, like birds and larger mammals like deer, bobcat, and possibly even bear at the upper most edges of the Cascade foothills. The number and diversity of species declines in direct relation to the size of habitat patches and their level of isolation from other natural areas (City of Puyallup 2014).

Migratory songbirds rely on the habitat provided by larger wooded areas. Smaller wooded tracts can be suitable for many plant and animal communities and may provide temporary cover for some species for foraging or migratory movement. Large parks and open spaces serve as wildlife refuges within the urban areas of Puyallup, including DeCoursey, Clarks Creek, Bradley Lake, and Wildwood Parks. Clarks Creek provides habitat for great blue heron (*Ardea herodias*), bald eagles (*Haliaeetus leucocephalus*), and osprey (*Pandion haliaetus*). Portions of the Wapato, Woodland, and Wildwood Creek drainages provide potentially suitable habitat for these species as well. Though no longer on Washington's state endangered species list, bald eagles continue to be protected under federal law and remain a protected species in Washington state (City of Puyallup 2014).

Wetlands and riparian areas support muskrat (*Ondatra zibethicus*), mink (*Neogale vison*), river otter (*Lontra canadensis*), beaver (*Castor canadensis*), raccoon (*Procyon lotor*), and weasel (*Mustela* spp.). Water bodies, wetlands, and adjacent fields also provide suitable nesting and feeding habitat for mallard ducks (*Anas platyrhynchos*), American wigeons (*Mareca americana*), green-winged teal (*Anas carolinensis*), common coot (*Fulica americana*), common merganser (*Mergus merganser*), blue-wing teal (*Spatula discors*), great blue heron, and greater (*Branta canadensis*) and lesser (*Branta canadensis parvipes*) Canada goose (City of Puyallup 2014).

Federal and State Threatened, Endangered, and Special Status Species

The Northwestern Pond Turtle (*Actinemys marmorata*) was proposed for listing as threatened in October 2023. No critical habitat has been proposed or designated for the species at this time. They are found associated with ponds, small lakes, and wetlands at elevations below 300 m (985 feet) (Hays et al. 1999). They also require the availability of adjoining open upland habitats. The Northwestern Pond Turtle is known to occur in one location in Pierce County, approximately 10 miles from Puyallup. They are unlikely to occur in Puyallup without human intervention, due to the dense road network between the known existing turtle population and habitats within the city.

A list of fish and wildlife species protected under the ESA (16 USC 1531 et seq., as amended in 1998), that are known or expected to occur in the study area was compiled using USFWS IpaC Information for Planning and Consultation database (USFWS 2024a), the NOAA Fisheries Protected Resources Mapper (NMFS 2024a), and the WDFW Priority Habitats and Species (PHS) webmap (WDFW 2024a). A query using the Washington Natural Heritage Program data explorer webmap did not locate any populations of special-status plant species within the City of Puyallup (DNR 2024). Most of the federally listed terrestrial species identified as potentially present are assumed not present in the study area due to lack of suitable habitat. These include the North American wolverine (*Gulo gulo luscus*), which is associated with remote areas, marbled murrelet (*Brachyramphus marmoratus*), which requires large areas of coastal and near-coastal old growth forest habitat, and streaked horned lark (*Eremophila alpestris strigata*), which uses habitats on remnant prairies, beaches, and mowed areas of airports. The yellow-billed cuckoo (*Coccyzus americanus*) is considered to be functionally extirpated in Washington and assumed not present (Wiles and Kalasz 2017).

Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act Species

Migratory birds are federally protected under the Migratory Bird Treaty Act (MBTA), which makes it illegal to take, possess, import, export, transport, sell, purchase, barter, or offer for sale any migratory bird, or eagle, or the parts, nests, or eggs of such a bird except under the terms of a valid federal permit from USFWS (16 USC 703 et seq). Bald eagles and golden eagles are protected under the Bald and Golden Eagle Protection Act which prohibits take (defined to include pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing bald or golden eagles), possession, and commerce of these species (16 USC 668-668d). Like most of Western Washington, Puyallup is within the Pacific Flyway, a migratory bird route that extends from Alaska to South America. Migratory birds are known to travel through Puyallup and its vicinity and use various habitats including agricultural habitats, interspersed undeveloped uplands, open space, forests and wetland areas, and aquatic habitats associated with streams and ponds. The primary nesting season for most migratory birds in Washington is from April 1 to July 1 (USDA-FSA 2018). Bald eagles are present in the Puyallup area, and likely nesting and breeding between the months of January through September (USFWS 2024a). Development activities within up to 660 feet of bald eagle nests, roost sites, or foraging areas—or up to 0.5 miles for activities producing loud intermittent noises—is required to comply with federal guidelines for bald eagle management (USFWS 2007).

3.3.2 Impacts

This section describes potential impacts related to fish, wildlife, and vegetation that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.3.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on fish, wildlife, and vegetation. Impacts of the alternatives on fish, wildlife, and vegetation were considered significant if the met the following criteria:

- An alternative would be expected to result in population-level adverse effects to fish, wildlife, and plant species that would be perceptible and measurable within the surrounding region.
- An alternative would be likely to adversely affect threatened or endangered species or their habitats, and those adverse effects could not be fully addressed through avoidance, minimization, or mitigation.
- An alternative would be expected to result in permanent habitat conversion sufficient to compromise overall regional ecosystem function relative to current conditions.

3.3.2.2 Impacts Common to All Alternatives

Population and employment growth, and therefore new development, will continue into the future under all alternatives. Land development would result in construction activities that would create noise impacts that could cause short-term behavioral disturbance to terrestrial wildlife. Ground clearing would expose soils and sediments that could be mobilized in stormwater runoff and impact nearby aquatic habitats. Spills of fuels and fluids from construction vehicles and equipment could

also potentially result in mobilization of contaminants to surface water bodies and impacts to fish and aquatic wildlife.

All the alternatives would provide opportunities for development within currently vegetated areas; thereby, all have the potential to impact wildlife and fish habitats, including tree canopy, open space, wetlands, streams, and riparian areas. Site development and redevelopment would directly affect vegetation by physically removing trees, shrubs, and non-woody plants. Additionally, vegetation removal and ground disturbance would provide opportunities for establishment of non-native and invasive plants, which tend to establish quickly and colonize areas where soils have been disturbed.

Development activities can result in fragmentation of wildlife habitat and reduction of wildlife habitat connectivity, quality, and function, resulting in adverse long-term impacts. Conversion of forest, open space, and agricultural lands to urban-scale development would permanently remove vegetated habitat, increase impervious surfaces, and facilitate increased generation of pollutants that could reach aquatic habitats. Removal of trees and reduction in tree canopy cover, in particular, would result in the loss of benefits such as terrestrial wildlife and migratory bird habitat, soil and slope stabilization, and the maintenance of lower ground surface and stream temperatures.

Development of vacant or larger low-density properties under all alternatives would lead to habitat loss and reduced connectivity that would further reduce biodiversity. Increases in impervious surface would also reduce the quality of aquatic habitat by increasing peak flows, reducing low flows, introducing pollutants, increasing water temperatures, and reducing the amount of shade. Development may also result in conversion of wetlands or degradation of floodplain or riparian habitat quality, adversely affecting habitats that support fish and aquatic wildlife.

The potential to affect habitat varies among the alternatives, because the footprint of the concentrated development areas varies by alternative. Table 3.3-3 shows the acreage of potentially affected wildlife habitat resources within the footprint of each alternative. The relative adverse and beneficial impacts to fish, wildlife, and vegetation for each of the alternatives are discussed below.

Table 3.3-3. Potentially Affected Habitat Resources by Alternative

Alternative	Washington State Priority Habitats ^a (acres)	Wetlands ^b (acres)	Regulated Floodplains ^a (acres)	Forest ^c (acres)	Open Space ^d (acres)	Agriculture ^e (acres)
1 – No Action	94	38	48	102	65	0.2
2 – Focused Growth	94	45	150	107	71	55
3 – Distributed Growth	94	54	178	124	108	56

Source: USGS 2021; USFWS 2024c; City of Puyallup GIS

a Priority habitats include wetlands, certain floodplain areas, some forested areas, and additional habitat resources that may be included in other categories identified in this table. Priority habitat acreage provided for illustrative purposes only (City of Puyallup GIS).

b Includes forested, shrub-scrub, and herbaceous wetland types (USFWS 2024c)

c Includes deciduous forest, evergreen forest, and mixed forest land cover types (USGS 2021)

d Corresponds to “Developed, open space” land cover type (USGS 2021)

e Includes Pasture/Hay plus Cultivated Crops land cover types (USGS 2021)

3.3.2.3 Impacts of Alternative 1 (No Action)

The overall character of potential impacts to fish, wildlife and vegetation under Alternative 1 would be consistent with the impacts common to all alternatives discussed above. Puyallup’s future growth

under Alternative 1 is focused in the existing concentrated growth areas of Downtown Puyallup and South Hill, which are already highly developed. Development of residentially-zoned areas outside Downtown and South Hill would continue along current patterns at current densities. Continuing to focus development in developed areas characterized by large areas of impervious surfaces and relatively less vegetation cover would reduce the potential for impacts to fish, wildlife, and vegetated habitats compared to focusing development in areas with more vegetation. Residential development continuing at existing densities outside of Downtown and South Hill would be expected to result in relatively less new impervious surface and loss of vegetative cover in these areas compared to Alternatives 2 and 3. However, some currently undeveloped areas surrounding residential development that function as greenspace would likely be eliminated as more single-family homes are needed to accommodate growth. Continued clearing of vegetation, particularly tree canopy, associated with residential development in these areas would contribute to loss and fragmentation of wildlife habitat.

No updates would be made to the Comprehensive Plan Environmental Element or the City's existing CAO under Alternative 1. City regulations regarding fish and wildlife and their habitats would remain the same. These regulations, along with existing state and federal regulations, would be expected to moderate potential adverse effects to fish, wildlife, and vegetation.

Population growth would not be fully accommodated within the Puyallup city limits under Alternative 1. This could potentially encourage sprawl-type development in unincorporated rural areas resulting in increased and more diffuse impacts to fish, wildlife and vegetation outside the Puyallup UGA.

Overall, Alternative 1 would be expected to result in adverse impacts to fish, wildlife and vegetation. However, among all of the alternatives, the impacts of Alternative 1 would likely have the smallest extent and scope within the city boundaries. As noted in Table 3.3-3, Alternative 1 has the least acreage of wetlands, floodplains, and undeveloped vegetated habitats within the footprint of its concentrated growth areas. Growth within the city of Puyallup would predominantly be concentrated in centers that currently have low overall fish and wildlife habitat value, which could moderate fragmentation and connectivity impacts. Because Downtown Puyallup and South Hill are already characterized by large areas of impervious surfaces, increasing development density in these areas would likely result in the smallest increase in impervious surface under Alternative 1. Stormwater runoff may result in relatively less pronounced impacts to stream hydrology. Pollution from increased population and development would still be a factor, but streams within the city may be less likely to experience adverse impacts from development under this alternative. Because Alternative 1 would not fully accommodate the projected population growth within the Puyallup city limits, it could result in a greater pressure to develop areas within unincorporated areas outside of the Puyallup city limits than would occur under Alternative 2 or 3.

Alternative 1 would not be expected to have population-level adverse effects on any fish or wildlife species. It would not have unavoidable, unmitigable adverse effects on any threatened or endangered species or their habitats, and it would not be expected to result in permanent habitat conversion sufficient to compromise overall ecosystem function relative to current conditions. Therefore, **Alternative 1 would result in less than significant impacts to fish, wildlife, and vegetation.**

3.3.2.4 Impacts of Alternative 2

Under Alternative 2, impacts citywide would be characteristic of those described for impacts common to all alternatives above. However, with increased development densities allowed in a greater number of concentrated development areas than under Alternative 1, the potential for impacts to fish, wildlife, and vegetation would be greater. Changes in housing types and maximum

densities would also occur in all residential zones, allowing for greater increase in population than under Alternative 1. Increased infill construction, redevelopment, and added development density in residential areas would contribute to a loss of vegetative cover including tree canopy, elimination of existing greenspace that currently provides migratory bird and urban wildlife habitat, the addition of impervious surfaces, and related impacts to terrestrial and aquatic habitat.

Alternative 2 would concentrate additional growth in the Downtown and South Hill growth areas, which are already heavily developed and where most employment and commercial activity would continue to be concentrated. It would also expand development and higher development densities into adjacent concentrated growth centers along the major corridor connecting the two primary centers of development (S Meridian) and along major arterials traversing the northern part of the city (River Road/SR 167). Because these areas are currently developed, there would be limited potential for impacts to currently available high-quality habitat and limited fragmentation and loss of habitat connectivity. Higher-density development would be allowed in some areas where development densities are currently low. This is particularly the case in areas near E Pioneer and Shaw Road, where agricultural land, lower-density residential development, and forested areas would be converted to urban-scale, higher-density development.

Existing state, federal and local regulations would be expected to moderate potential adverse effects to fish, wildlife, and vegetation. Additionally, updates to the City's CAO would take place under Alternative 2, and these may potentially increase protection for streams. In such a scenario, the increased stream protection would serve to further minimize potential impacts to floodplains and riparian vegetation as well as stormwater impacts.

Overall, while resulting in potentially greater impacts to fish, wildlife, and vegetation than Alternative 1, Alternative 2 would not be expected to have population-level adverse effects on any fish or wildlife species. It would not result in unmitigable effects on endangered species or their habitat. It would not be expected to result in permanent habitat conversion sufficient to compromise overall ecosystem function relative to current conditions. Therefore, **Alternative 2 would result in less than significant impacts to fish, wildlife, and vegetation.**

3.3.2.5 Impacts of Alternative 3

Alternative 3 plans for slightly greater citywide housing growth and higher employment growth than Alternative 2 and more concentrated development in existing development centers. However, it would also facilitate the creation of more dispersed nodes of mixed-use and commercial development throughout the city. This would result in greater impacts to wildlife and vegetation than Alternatives 1 or 2. It would intensify development in currently undeveloped or less densely developed areas with more existing vegetative cover. Under Alternative 3, the boundaries of the proposed concentrated growth areas encompass the greatest total acreage of habitat resources of all the alternatives (see Table 3.3-3). The risk for conversion of forested and open space areas to built areas is greatest under this alternative. The risk for potential impacts to wetland and floodplain habitats from adjacent development is also greatest under this alternative. Substantially increased development density in areas that are currently characterized by agricultural land, forest, and lower-density residential use would result in substantially increased impervious surface. This would increase the potential for runoff of pollutants into aquatic habitats and could have effects on stream and wetland hydrology.

Dispersed growth would be expected to result in more habitat fragmentation and greater space between habitat patches. Many current greenspaces surrounding higher-density development and higher-density infill residential development and redevelopment would likely be eliminated. Because the proposed concentrated development areas would be distributed more widely over the entire

landscape of the city than under Alternatives 1 and 2, the potential for habitat fragmentation and disruption of wildlife migration corridors is greatest under Alternative 3.

As with the other alternatives, existing state, federal and local regulations would be expected to moderate potential adverse effects to fish, wildlife, and vegetation under Alternative 3. Additionally, updates to the City's CAO would take place under Alternative 3, and these may potentially increase protection for streams. In such a scenario, the increased stream protection would serve to further minimize potential impacts to floodplains and riparian vegetation and moderate stormwater runoff effects.

Overall, while resulting in potentially greater impacts to fish, wildlife, and vegetation than Alternatives 1 and 2, Alternative 3 would not be expected to have population-level adverse effects on any fish or wildlife species. It would not result in unmitigable effects on endangered species or their habitat. It would not be expected to result in permanent habitat conversion sufficient to compromise overall ecosystem function relative to current conditions. Therefore, while Alternative 3 would be expected to have the greatest potential impact to vegetation, terrestrial wildlife, and fish and aquatic species and their habitats, **it would result in less than significant adverse impacts to fish, wildlife, and vegetation.**

3.3.3 Avoidance, Minimization, and Mitigation Measures

Impacts to terrestrial habitats and associated impacts to wildlife can be minimized via implementation of existing federal and state laws and local regulations such as the CAO and SMP.

Impacts to aquatic habitats and fish can be minimized by complying with regulations for all development projects. This includes, but is not limited to adhering to stream buffer requirements, complying with allowable in-water work windows, meeting stormwater requirements, and complying with state and federal requirements regarding fish, wildlife, and waters of the state and U.S.

Because none of the alternatives would result in significant adverse impacts, adherence to existing fish and wildlife habitat protection regulations would sufficiently minimize adverse impacts and no additional mitigation would be necessary. As a result, no mitigation is proposed.

3.3.4 Significant Unavoidable Adverse Impacts

All of the alternatives would result in unavoidable adverse impacts such as permanent conversion of forested areas and open space to developed space, decreased habitat connectivity, and additional stormwater runoff to aquatic habitats from increased impervious surfaces. However, because of existing and anticipated regulations, these effects would be moderated below the level of significance. While impacts would overall be adverse, no significant unavoidable adverse impacts are expected to result from any of the alternatives.

3.4 Land Use

This section describes the affected environment and regulatory framework necessary to evaluate the potential environmental impacts that could result from each alternative on land use (including designated land uses, patterns, and development intensities). It also identifies the thresholds of significance that were used to determine whether there could be potentially significant impacts, describes the potential impacts that could result from implementation of each alternative, and discusses measures that would avoid or reduce those potential impacts.

3.4.1 Affected Environment

The following section describes the regulatory environment, current land use conditions, development patterns, and aesthetics of the study area as defined by the Puyallup city limits and its UGA boundary.

3.4.1.1 Policy and Regulatory Environment

State Regulations and Laws

Washington State Growth Management Act

The GMA is a statewide mandate that regulates land use, planning, and development to accommodate anticipated population growth. It requires local jurisdictions to create comprehensive plans that include policies for how they plan to accommodate this growth with equitable distribution of resources and services over the next 20 years. The GMA is a series of statutes that have been codified under Chapter 36.70A RCW, though it has been added into other portions of the RCW as well. Among the 15 goals are land use directives, including:

- Protecting natural resource lands, distinctive from urban areas, which preserve the resources and inherent values of these critical areas; and
- Encouraging compact development and growth close to economic opportunity and transit stations, in order to prevent urban sprawl and invest in walkable, accessible, and equitable cities.

Included in these comprehensive plans are individual elements, or chapters, which outline the goals, policies, and objectives, which will provide a roadmap for the city on how they will achieve these directives.

RCW 36.70A.070

The comprehensive plan of a county or city that is required or chooses to plan under RCW 36.70A.040 shall consist of a map or maps, and descriptive text covering objectives, principles, and standards used to develop the comprehensive plan. The plan shall be an internally consistent document and all elements shall be consistent with the future land use map.

WAC 365-196-405. Land Use Element

The Washington Administrative Code (WAC) has requirements for land use determinations and development across the state and components that are required for land use elements included in Comprehensive Plans.

Regional and Local Regulations

VISION 2050 and Multicounty Planning Policies (MPPs)

In 2020, the PSRC established a regional, long-range growth strategy and guidance for development patterns in the King, Kitsap, Pierce, and Snohomish Counties called VISION 2050. VISION 2050 is comprised of multicounty planning policies (MPPs) that are used to guide this regional strategy, inform county- and city-specific policies, and mitigate adverse impacts posed by future growth. Some of the key and most applicable land use components in VISION 2050 include:

- **MPP-DP-1.** Develop high-quality, compact urban communities throughout the region's UGA that impart a sense of place, preserve local character, provide for mixed uses and choices in housing types, and encourage walking, bicycling, and transit use.
- **MPP-DP-2.** Reduce disparities in access to opportunity for the region's residents through inclusive community planning and targeted public and private investments that meet the needs of current and future residents and businesses.
- **MPP-DP-3.** Enhance existing neighborhoods to provide a high degree of connectivity in the street network to accommodate walking, bicycling, and transit use, and sufficient public spaces.
- **MPP-DP-8.** Conduct inclusive engagement to identify and address the diverse needs of the region's residents.
- **MPP-DP-11.** Identify and create opportunities to develop parks, civic places (including schools) and public spaces, especially in or adjacent to centers.
- **MPP-DP-41.** Establish best management practices that protect the long-term integrity of the natural environment, adjacent land uses, and the long-term productivity of resource lands.

Specific Regional Growth Strategy guidance includes the following:

- **MPP-RGS-4.** Accommodate the region's growth primarily in the UGA. Ensure that development in rural areas is consistent with the regional vision and the goals of the Regional Open Space Conservation Plan.
- **MPP-RGS-5.** Ensure long-term stability and sustainability of the UGA consistent with the regional vision.
- **MPP-RGS-6.** Encourage efficient use of urban land by optimizing the development potential of existing urban lands and increasing density in the UGA in locations consistent with the Regional Growth Strategy.

Pierce County Countywide Planning Policies

These CPPs were developed to align with VISION 2050 and the regional planning strategy but reflect a more county-specific approach. Each county is required to identify ways in which they will meet targeted population, job, and housing growth through coordinated citywide efforts. Land use focused CPPs are summarized below.

- Preserving agricultural lands from encroachment and utilizing them for long-term commercial significance;
- Developing annual development data and buildable lands analysis to determine if jurisdictions can meet projected population growth targets with current land capacity;
- Concentrating employment and housing growth in centers to create compact, walkable, equitable urban areas that provide access to living-wage job opportunities and transit;

According to Pierce County's adopted growth targets, the City of Puyallup needs to accommodate a growth target of 7,482 additional housing units and 14,715 additional jobs by 2044, based on a projected future population of 61,468 people.⁹ That is an increase in population of 18,495 people (or a 43% increase in population).

⁹ Pierce County Ordinance Numbers 2022-46s and 2023-22s.

2015 Puyallup Comprehensive Plan

Based on additional GMA requirements in RCW 36.70A.040, those in certain counties throughout the state of Washington, including Pierce County, are required to “fully plan.” A “fully planning” county means that long-range citywide plans need to be developed as a guide to the city’s development, and land use decisions. The City of Puyallup’s current Comprehensive Plan provides growth projections through 2035. The next round of periodic updates for comprehensive plans needs to be updated to reflect intended growth and development changes through the year 2044 by December 31, 2024. A land use element is a requirement for comprehensive plans, but the current *Puyallup Comprehensive Plan* also adopts neighborhood and subarea plans, including:

- **Downtown Neighborhood Plan.** Puyallup’s historic downtown is also a regional growth center, and this neighborhood plan focuses on the significance that a thriving Downtown could have on Puyallup and, by extension, the region. As a designated regional growth centers, Downtown must meet criteria established by PSRC—in particular—providing land use designations that will accommodate a significant amount of housing and job growth.
- **South Hill Neighborhood Plan.** South Hill is Puyallup’s other PSRC-designated regional growth center and, accordingly, is planned to serve as a major activity and employment center and to play a significant role in accommodating future housing and employment growth within the region.
- **River Road Corridor Plan.** River Road is not a designated growth center, but the River Road Corridor Plan lays out a vision for this area to develop as a pedestrian-friendly mixed-use area and an attractive gateway into the city.

City of Puyallup Municipal Code

Title 20 of the PMC is the City’s Zoning Code, which regulates development and land use within the city and ensures that development is consistent with the *Puyallup Comprehensive Plan*.

Critical Areas Ordinance

The CAO (PMC 21.06) provides for the protection of designated critical areas identified in the GMA, including Fish and Wildlife Habitat Conservation Areas, Wetlands, Critical Aquifer Recharge Areas, and Geologically Hazardous Areas. Frequently Flooded Areas are regulated under PMC 21.07, Flood Damage Protection.

Shoreline Master Program

The program regulates land use in Shorelines of the State, which include the area within 200 feet of the Puyallup River and Clarks Creek along with their associated wetlands. Last amended in 2023, the SMP defines how shoreline areas within the City of Puyallup and its UGA will be managed, and it includes development standards and use regulations.

3.4.1.2 Current Conditions

The City of Puyallup, Washington is located in Pierce County, approximately 10 miles southeast of Tacoma. Other nearby cities include Sumner, Bonney Lake, Edgewood, Fife, and Lakewood. According to the 2020 Census, the population of Puyallup is approximately 42,400 people and occupies an area of about 14 square miles.

The Puyallup River runs through the north side of the city. Puyallup is served by two state highways: SR 167 roughly follows the path of the river, running east-west through the north edge of town;

SR 512 bisects the city north to south with an interchange in the center of the city. Highway 410 is accessible from SR 512 and runs east into the Cascade Range, about 50 miles to Mt. Rainier National Park. The BNSF Railway runs approximately east-west through Downtown Puyallup, parallel to W Stewart Avenue and E Pioneer.

Comprehensive Plan Future Land Use Map

The City's current "Future Land Use" map identifies general areas where development is anticipated to occur over the next 20-year period but is less specific and regulatory than the zoning regulations (Figure 3.4-1). It designates future uses for land within the city's UGA, including areas within the UGA that are located outside city limits (i.e., the Potential Annexation Area).

The map depicts land use designations reflecting the predominant use allowed in each area of the city and its Potential Annexation Area. Table 3.4-1 provides additional detail. The major land use categories in the map are generally described as follows:

RBR – Rural Buffer Residential. This land use is primarily located on the fringes of the city and in the UGA. About three-quarters of this land use consists of the Very Low Density Single-Family (RS-35) zoning in the city, with the remaining RBR areas currently zoned for agricultural/recreational (ARO).

LDR – Low Density Residential. Over half of the city has the LDR land use designation, and nearly one-third of the UGA is designated LDR. This land use is distributed fairly uniformly outside of the city's commercial and employment centers and corridors (e.g., South Hill and Downtown, River Road, East Main, and the northern employment areas). Most of the LDR land use areas are zoned Low Density Single-Family (RS-10) at 64% and Medium Density Single-Family (RS-08) at 23%. Other implementing zones include Urban Density Single-Family (RS-06) and High Urban Density Single-Family (RS-04).

MDR – Moderate Density Residential. A very small portion of the city and its UGA is designated MDR at about 3% of the total combined area. Most of the MDR land use is located in the northwestern UGA and the north-central UGA near SR 167. The city includes pockets of the MDR land use in central locations near the highway. Inside the city, the MDR land use is entirely zoned for Medium Density Multi-Family (RM-10).

HDR - High Density Residential. This designation comprises about 7% of the combined total land use area of the city and UGA. Most of this land use is within the city and it is primarily concentrated in central areas near Meridian Avenue or SR 512. There is also a fairly large pocket of HDR in the northeastern portion of the city between E Main Avenue and the city limits. The majority of this land use includes High Density Multi-Family (RM-20) zoning, with some Regional Growth Multi-Family (RM-CORE) as well.

POC – Pedestrian Oriented Commercial. This land use comprises a small portion of the city's overall land area (roughly 1%). However, it represents the majority of Puyallup's downtown area, or the Downtown RGC. This land use is located entirely within the Downtown RGC, which is oriented around the intersection of S Meridian, Main Avenue, Pioneer Avenue, and Stewart Avenue corridors. This land use includes the Central Business District zoning designations (CBD and CBD-CORE).

AOC – Auto Oriented Commercial. This land use comprises about 4% of the city. AOC is primarily concentrated near major intersections and transportation corridors, including E Main Avenue, River Road, and the E Pioneer-Shaw Road intersection. This land use primarily consists of the General Commercial (CG) zoning classification in the city (about 69%), but it also includes other commercial and mixed-use zoning categories, such as Community Business (CB) and Shaw-Pioneer Community Mixed Use (CMX).

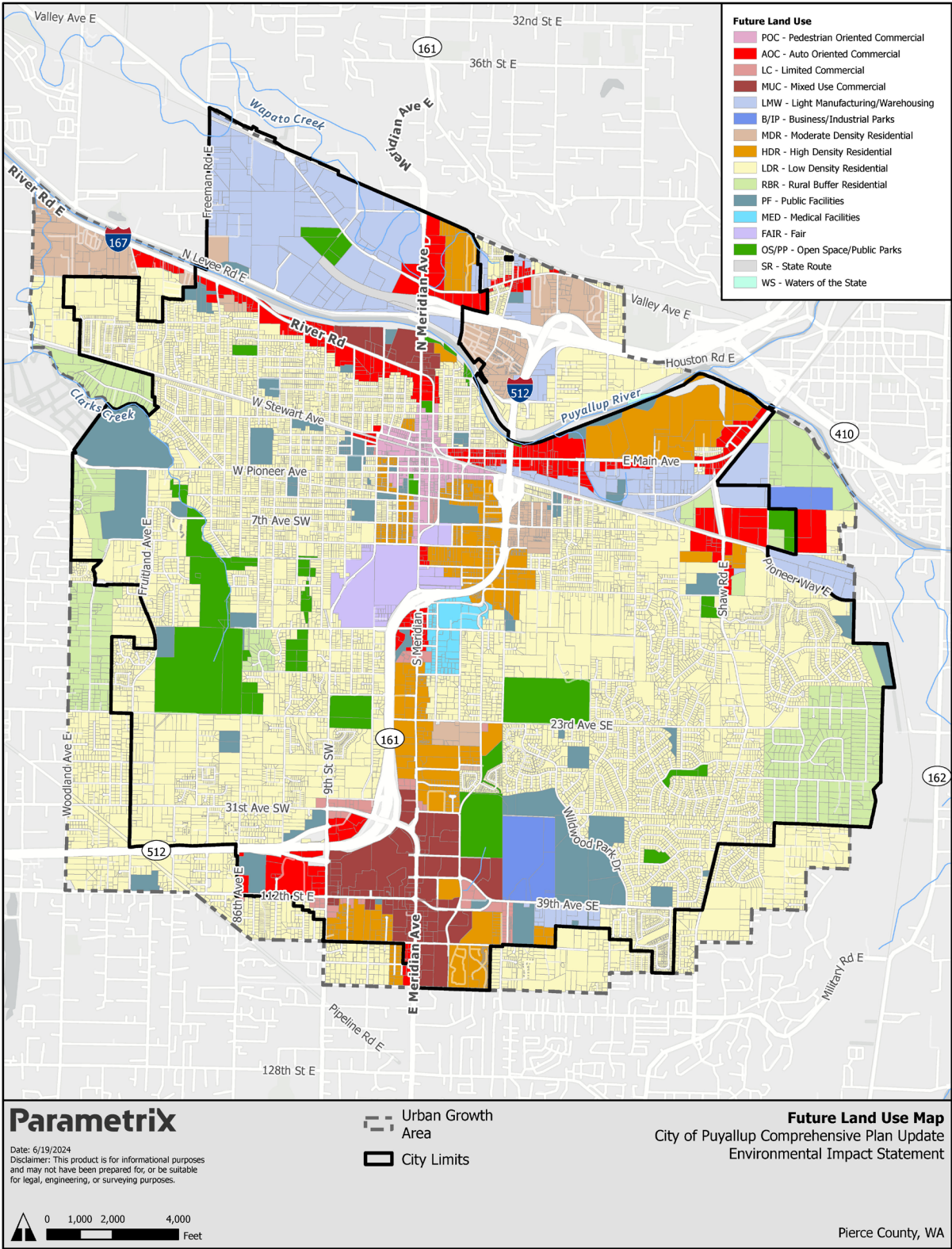


Figure 3.4-1. Puyallup Future Land Use Map

LC – Limited Commercial. This land use represents a small portion of the city at only about 1% of Puyallup’s land area. The LC land use is distributed in small, centrally located pockets that span along the north-south commercial and mixed-use corridors, including areas in the South Hill and Downtown RGCs. This land use includes Limited Commercial (CL), Limited Mixed-Use (LMX), and Professional Office (OP) zoning.

MUC – Mixed Use Commercial. This land use makes up about 4% of the city. The MUC land use is concentrated in the South Hill area (South Hill RGC) and along the northern side of River Road. The majority of this land use in the South Hill RGC is composed of the Urban Central Mixed Use (UCX) zoning designation, with some Community Commercial Mixed Use (CCX) zoning as well. The MUC land use in the River Road area is zoned as River Road Mixed Use (RMX).

MED – Medical Facilities. Although the Medical Facilities (MED) land use represents a small portion of the overall city (about 1%), this category plays a critical role in supporting Puyallup’s medical industry. The MED land use is entirely zoned MED and is located in the heart of the city, with access from some of the city’s key transportation corridors, including S Meridian and SR 512.

FAIR – Fair. Much like MED land use, the FAIR land use has a focused purpose in supporting one of the city’s core activities for economic development. This land use is mostly zoned FAIR and is intended to support activities and development associated with the fairgrounds. However, there are areas with the FAIR designation that have different zoning applied; for example, a few larger parcels west of Fairview Drive are zoned RS-08 and the Blue and Gold fair parking lots east of S Meridian are zoned CG and RM-20, respectively. The FAIR land use is only about 1% of the city’s overall land area, and it is centrally located near SR 512 and the Meridian transportation corridor.

B/IP – Business/Industrial Park. The B/IP land use represents about 2% of the total combined area between the city and the UGA. This land use is concentrated among large parcels in two areas – in the South Hill RGC and in the northeast UGA. The B/IP land use is entirely zoned Business Park (MP).

OS/PP – Open Space/Public Parks. The OS/PP land use is distributed throughout Puyallup’s parks and open spaces, representing approximately 3% of the total combined area of the city and UGA. This land use is almost entirely comprised of the Public Facilities (PF) zone.

LM/W – Light Manufacturing and Warehousing. The Light Manufacturing and Warehousing (LM/W) land use comprises about 8% of the city’s land area. LM/W is primarily located in northern areas of the city, especially north of the Puyallup River. This land use is almost entirely composed of the Limited Manufacturing (ML) zone.

PF – Public Facilities. The PF land use is distributed fairly evenly across the city, representing about 3% of the total combined area of the city and UGA. This land use designation is implemented by the PF zone.

Table 3.4-1. Existing Land Use in City and UGA

Existing Land Use	Puyallup (acres)	UGA (acres)	Total (acres)	Share of Land Use (%)
Residential				
RBR – Rural Buffer Residential	536.4	278.2	814.6	8
LDR – Low Density Residential	4,032.8	1,140.0	5,172.8	53
MDR – Moderate Density Residential	48.7	219.1	267.9	3
HDR – High Density Residential	711.4	13.9	725.3	7
<i>Total</i>	<i>5,329.3</i>	<i>1,651.2</i>	<i>6,980.6</i>	<i>72</i>
Commercial				
POC – Pedestrian Oriented Commercial	74.1	-	74.1	1
AOC – Auto Oriented Commercial	326.5	59.8	386.3	4
LC – Limited Commercial	75.3	-	75.3	1
MUC – Mixed Use Commercial	346.4	-	346.4	4
<i>Total</i>	<i>822.3</i>	<i>59.8</i>	<i>882.1</i>	<i>9</i>
Other				
MED – Medical Facilities	85.1	-	85.1	1
FAIR – Fair	112.6	-	112.6	1
B/IP – Business/Industrial Parks	139.8	100	239.8	2
OS/PP – Open Space/Public Parks	281.7	-	281.7	3
LM/W – Light Manufacturing/Warehousing	674.2	100.7	774.9	8
PF – Public Facilities	318.7	9.3	327.9	3
SR – State Roads	61.7	-	61.7	1
<i>Total</i>	<i>1,673.7</i>	<i>1,921.0</i>	<i>1,883.6</i>	<i>19</i>
Combined Total	7,825.4	3,632.1	9,746.3	100

Data Source: City of Puyallup.

Existing Zoning Districts and Development Patterns

Zoning is the most powerful tool that a local government can use to regulate development within its boundaries. Zoning regulations can be used to protect the environment, bring more services to a neighborhood, increase the housing supply, and allow opportunities for employment.

Puyallup is largely zoned for residential uses totaling 63% of the land area, including single family, which comprise about 52%, and multifamily, which makes up approximately 10% (Figure 3.4-2). Public facilities, including the fairgrounds, make up about 14%. Industrial land (light manufacturing, business park, etc.) accounts for about 9% of the city's total land area. A sizeable portion of the city (12%) is designated for mixed-use: a combination of residential and employment uses; these areas include the city's Downtown core, the South Hill area, and the area along River Road.

As shown in Figure 3.4-3, Multifamily residential zoning is primarily located along the SR 512 corridor. Commercial zoning districts are concentrated along major thoroughfares and highway corridors. Industrial areas are mainly focused north of the river and along E Pioneer Avenue. Table 3.4-2 shows Puyallup's current zoning designations.

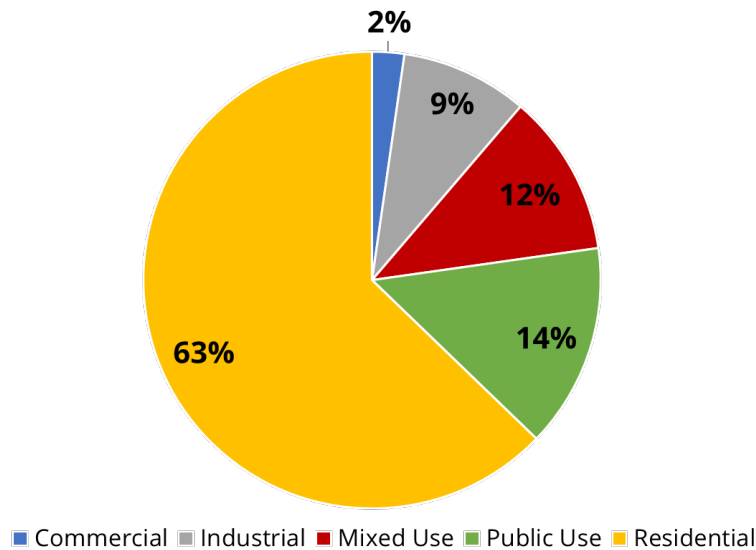


Figure 3.4-2. Land Area by Zone Type

Table 3.4-2. List of Puyallup Zones

Zone/Zoning Categories	
<i>Residential Zones</i>	<i>Manufacturing Zones</i>
RS-35 Very low density single-family residential zone	MP Business Park
RS-10 Low urban density single-family residential zone	ML Limited Manufacturing
RS-08 Medium urban density single-family residential zone	MR Rail Manufacturing
RS-06 Urban density single-family residential zone	<i>Other Zones</i>
RS-04 High urban density single-family residential zone	OP Professional Office
RM-10 Medium density multiple-family residential zone	ARO Agriculture, Recreation, and Open Space
RM-20 High density multiple-family residential zone	FAIR Fairgrounds
RM-Core Regional growth center-oriented high density multiple-family residential zone	MED Medical
<i>Commercial Zones</i>	PF Public Facilities
CBD-Core Central Business District Core	<i>Overlay Zones</i>
CBD Central Business District	CB-SPO Community business, Shaw-East Pioneer overlay
CL Limited Commercial	CG-SPO General commercial, Shaw-East Pioneer overlay
CB Community Business Zone	ML-SPO Limited manufacturing, Shaw-East Pioneer overlay
CG General Commercial	RS-FPO Single-family residential, fair parking overlay
<i>Mixed-Use Zones</i>	RM-FPO Multiple-family residential, fair parking overlay
CMX Shaw-Pioneer Mixed-Use	AGO Agriculture Overlay
RMX River Road Mixed-Use	DRO Design Review Overlay
CCX Community Commercial Mixed-Use	MX-DRO Mixed Use Design Overlay
UCX Urban Center Mixed-Use	
LMX Limited Mixed-Use	

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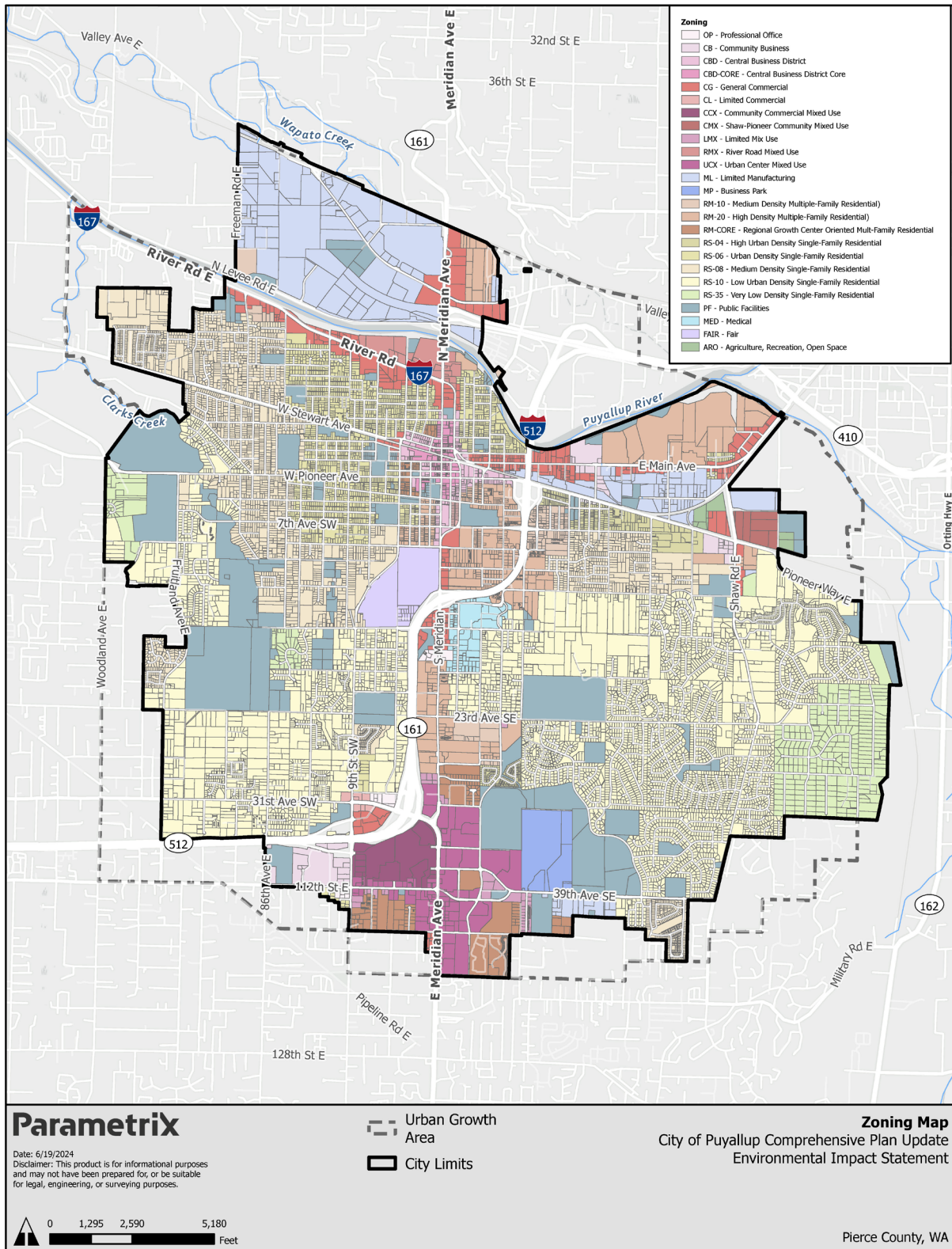


Figure 3.4-3. 2021 Zoning Map

Regional Growth Centers

Regional growth centers are designated by the Puget Sound Regional Council (PSRC) as the locations of the region's most significant growth and development opportunities for business, governmental, and cultural facilities. Cities are required by PSRC to plan for certain housing and employment growth targets and to comply with other regulatory standards within regional growth centers.

Puyallup has two designated regional growth centers: Downtown and South Hill (Figure 3.4-4). The Downtown RGC includes much of the historic Downtown area. City hall, the public library, the senior activity center, Puyallup Sounder station (a major transit hub), historic Meeker Mansion, and a city park are all located in the Downtown RGC. Recently, Downtown Puyallup has been a focus of local revitalization efforts and has seen new housing development proposals.

The South Hill RGC is the heart of Puyallup's rapidly growing South Hill Subarea. Major development in the South Hill area includes the South Hill Mall, auto-oriented retail businesses located along South Meridian, Pierce College, and the South Hill Business and Technology Center, as well as large retail shopping developments and a mix of single-family and multifamily housing.

These two centers will be an important focus of the Puyallup Comprehensive Plan update, as the City updates its Downtown and South Hill Neighborhood Plans to accommodate the PSRC targets in these areas.

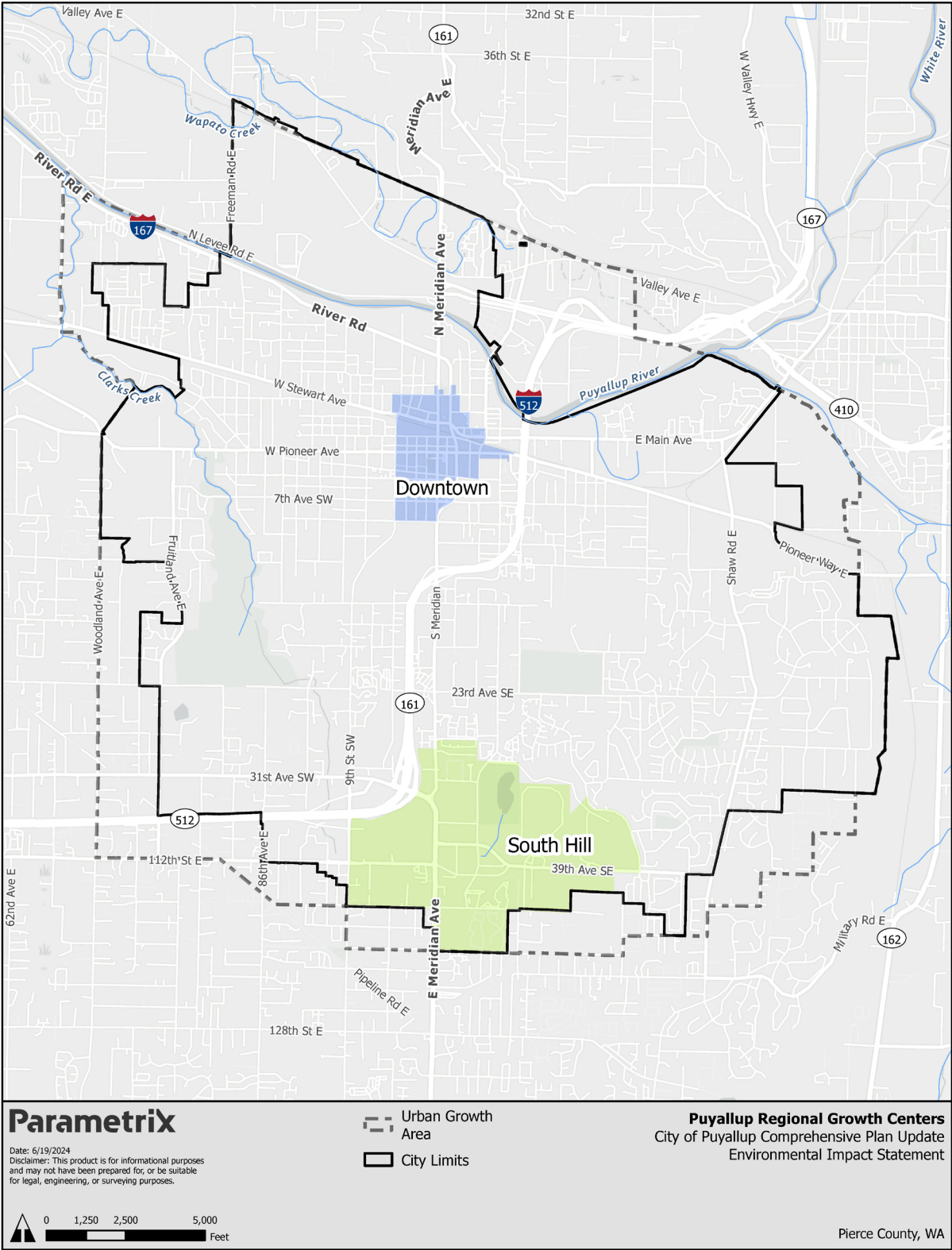


Figure 3.4-4. Puyallup Regional Growth Centers

3.4.1.3 Building Height, Bulk, and Scale

PMC Title 20 contains design and development standards that regulate the built environment within the city. Building height, lot coverage, and overall scale of development varies depending on the land use zone and development standards (Table 3.4-3). While buildings in some commercial or mixed-use zones can reach up to 10 stories with density bonuses, most structures typically are not permitted to exceed 4 or 5 stories.

With about 52% of the city zoned for single-family residential and about another 10% zoned for multifamily residential, a majority of the structures are not permitted to exceed three stories. Density and lot coverage exceptions for residential zones pertain to the RM-Core zone located within regional growth centers (Figure 3.4-4). In the South Hill RGC, the South Hill Mall, auto-oriented retail businesses along S Meridian, Pierce College, the South Hill Business and Technology Center, and other retail spaces account for a large portion of the mixed-use, multifamily, and manufacturing development in the city. These mixed-use buildings can reach up to 10 stories high in Community Commercial Mixed-Use zones, and there is no maximum density unit; this allows for more diversity in affordable housing options. These mixed-use zones are intended to be more compact and walkable environments geared toward pedestrians.

In the northern part of the city, directly to the north of the Puyallup River, are broad structures that are intended for limited retail and light manufacturing, with buildings no taller than five stories and the ability to cover 65% of their lot. This leads to low and wide buildings, and parking lots to support warehouse and distribution workers and freight in and out of this area. The General Commercial corridor along River Road also lends itself to more broad development, catering to a more auto-centered environment.

Table 3.4-3. Bulk and Density Standards by Zone

Zone		Density Allowed	Maximum Height	Maximum Lot Coverage
Residential Zones				
Single-Family Residential	RS-35	1 du/acre	36 ft single-family	- -
	RS-10	4 du/acre	28 ft other structures	40%
	RS-08	5 du/acre		45%
	RS-06	6 du/acre		45%
	RS-04	8 du/acre	28 ft single-family 25 ft other structures	50%
Multifamily Residential	RM-10	14 du/acre	28 ft ^a	60%
	RM-20	22 du/acre	36 ft ^a	55%
	RM-Core	No maximum	50 ft ^a	90%
Mixed Use Zones				
CCX		No maximum	75 ft Up to 125 ft with bonuses	85%
RMX		22 du/acre	68 ft	65%
UCX			Up to 90 ft with bonuses	
LMX		12 du/acre	40 ft	50%

Zone	Density Allowed	Maximum Height	Maximum Lot Coverage
CMX	10 du/acre	40 ft	85%
Commercial Zones			
CBD	-- b	55 ft	100%
CBD-Core	-- b	65 ft	100%
CL	--	--	50%
CB	--	75 ft	75%
CG	--	75 ft	75%
Manufacturing Zones			
MP	--	50 ft	50%
ML	--	50 ft	65%
MR	--	65 ft	65%
Other			
ARO	0.1 du/acre	40 ft	--
FAIR	--	50 ft	--
OP	--	36 ft	50%
MED	22 du/acre	36 ft Up to 70 ft with master plan	50%
PF	Depends on abutting zone	--	--

a Refer to PMC 20.25.0205 and 20.25.0216 for height exceptions in these zones.

b Density is not limited in the Central Business District and Central Business District Core zones provided certain criteria are met, pursuant to PMC 20.30.025.

du = dwelling units; ft = feet

3.4.2 Impacts

This section describes potential impacts related to land use that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.4.2.1 Thresholds of Significance

The thresholds of significance listed below were used to determine whether the alternatives would have a significant impact on land use. Impacts of the alternatives on land use were considered significant if they met the following criteria:

- Conflict with the following applicable land use plans, policies, or regulations of an agency with jurisdiction over the proposal:
 - GMA goals

- PSRC VISION 2050 and MPPs
- Pierce County CPPs
- Other land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental impact
- Result in differences in activity levels at land use boundaries that would likely result in incompatible uses.

Impacts to land use could include future actions such as zoning modifications, individual development proposals, and redeveloping existing land uses to increase the number of housing units and jobs in the city. Such future actions would undergo a separate environmental review at the time of their proposal to determine potential impacts and necessary mitigation measures.

3.4.2.2 Impacts Common to All Alternatives

The City developed land use categories as part of the three growth alternatives for the Comprehensive Plan update (see Table 3.4-4). Alternative 1 (No Action) would rely on the City's existing Future Land Use (FLU) designations, and the two Action Alternatives include a mix of the City's current FLU designations and new land use categories developed for the growth alternatives analysis that are not found in the City's current FLU map. The land use categories in Alternatives 2 and 3 include a broader range of housing and building types, including mid-rise residential and mixed-use development, middle housing (i.e., duplexes, triplexes, fourplexes, and townhomes), and a variety of other development types that provide a wider range of densities and intensity of development. In general, future development is only assumed to take place in areas of the city with future growth potential (i.e., properties identified as vacant, partially vacant, or underutilized by the Pierce County Buildable Lands Report).¹⁰ The three alternatives were informed by input from the Community Advisory Group for the Comprehensive Plan Periodic Update, a community survey, stakeholder engagement, City staff, the Puyallup Planning Commission, and Puyallup City Council.

Table 3.4-4. Land Use Categories for the Alternatives

Designation and Description	Alternative 1 (No Action)		Alternatives 2 and 3 (Action Alternatives)	
	Max. Density Range (units/gross acre)	Max. Height Range	Max. Density Range (units/gross acre)	Max. Height Range
Residential				
Rural Buffer Residential Very low-density residential areas; used to buffer the edges of/or within the community. Allows for ongoing agricultural uses as well as recreational and open space uses.	1	Up to 40 ft	1-4	Up to 40 ft

¹⁰ An exception is that a small amount of infill development of middle housing and accessory dwelling units is assumed to take place on developed residential properties, consistent with guidance from the Washington State Department of Commerce.

Designation and Description	Alternative 1 (No Action)		Alternatives 2 and 3 (Action Alternatives)	
	Max. Density Range (units/gross acre)	Max. Height Range	Max. Density Range (units/gross acre)	Max. Height Range
Low Density Residential Low-density residential areas; provides opportunities for a variety of primarily detached single-family housing types.	4–8	Up to 36 ft	4–16	Up to 36 ft
Moderate Density Residential Moderate density housing types; provides housing choices that help transition between low-density and higher-density residential uses.	9–14	Up to 38 ft	9–36	Up to 38 ft
High Density Residential Multifamily housing types; provides housing choices that help transition between low-density residential and employment or commercial areas	15 – No max	Up to 50 ft	15–50	Up to 50 ft
High Density Residential – RGC (NEW) Applied within the Downtown and South Hill Growth Centers and allows for the highest-intensity residential development in the city. Density is not limited in this zone, but the scale and intensity of development is dependent on the site standards.	N/A	N/A	No max. Density limited by site standards.	Up to 75 ft
Commercial				
Pedestrian Oriented Commercial Pedestrian-oriented areas for commercial, residential, and mixed-use development within the historic downtown core.	No max	Up to 65 ft	Same as Alternative 1	
Auto Oriented Commercial Areas accessible to automobiles; intended for retail and other commercial services that serve the local community and surrounding market area.	10 – No max.	Up to 75 ft	Same as Alternative 1	
Limited Commercial Lower-intensity retail, commercial, and professional office development in areas which are less suitable for more intensive commercial development.	12 – No max.	Up to 40 ft	Same as Alternative 1	
Neighborhood Commercial (NEW) Allows for lower-intensity, small-scale businesses, with some limited residential uses. Intended for neighborhood-serving businesses that are easily accessible and walkable from nearby residential areas.	N/A	N/A	No max. Assumed avg. density: 16	Up to 40 ft
General Commercial (NEW) Higher-intensity retail, commercial, professional office development, and residential mixed use. Accommodates larger-format commercial uses that serve the local community and the surrounding market area.	N/A	N/A	No max. Assumed avg. density: 16	Up to 50 ft

Designation and Description	Alternative 1 (No Action)		Alternatives 2 and 3 (Action Alternatives)	
	Max. Density Range (units/gross acre)	Max. Height Range	Max. Density Range (units/gross acre)	Max. Height Range
Mixed Use				
Mixed-Use Center Applied in mixed-use subareas (i.e., River Road and South Hill) where concentrations of compact infill redevelopment of intermixed uses is desired.	22 – No max.	Up to 125 ft	Same as Alternative 1	
Mixed Use Low (NEW) Intended for smaller-scale mixed-use development in highly walkable areas. Opportunities for retail, commercial, and office spaces are accompanied by moderate-density multifamily and middle housing above or adjacent to commercial uses.	N/A	N/A	No max. Assumed avg. density: 24	Up to 45 ft
Mixed Use Medium (NEW) Provides for uses similar to Mixed-Use Low, but at higher densities, scale, and intensity. Development types focus on a compact footprint of mixed-use buildings with retail, commercial spaces, and offices located in close proximity to multifamily housing.	N/A	N/A	No max. Assumed avg. density: 40	Up to 75 ft
Mixed Use High (NEW) Applied within the Downtown and South Hill regional growth centers. Offers the highest-intensity and largest-scale development opportunities with a mix of uses. Commercial, office, and residential uses often share the same building footprint or could be on the same site or in close proximity.	N/A	N/A	No max. Assumed avg. density: 60	Up to 125 ft
Employment				
Business/Industrial Park Areas for employee-intensive business and industrial park developments.	N/A	50 ft	Same as Alternative 1	
Light Manufacturing/Warehousing Areas for various employment opportunities including manufacturing, warehousing, and distribution operations.	N/A	Up to 65 ft	Same as Alternative 1	
Medical Facilitates a regional medical center and accommodates surrounding medical and clinical services.	22	36 ft	Same as Alternative 1	
Mixed Employment (NEW) Areas for employee-intensive business and light industrial uses including manufacturing, warehousing, flex spaces, and tech and office uses.	N/A	N/A	N/A	Up to 65 ft

Designation and Description	Alternative 1 (No Action)		Alternatives 2 and 3 (Action Alternatives)	
	Max. Density Range (units/gross acre)	Max. Height Range	Max. Density Range (units/gross acre)	Max. Height Range
Medical Mixed Use (NEW) Allows for a range of professional office and medical facilities as well as larger regional medical centers. Also allows for limited commercial and residential mixed-use development with a focus on amenities that serve employees and visitors.	N/A	N/A	No max. Assumed avg. density: 60	Up to 165 ft

ft = feet; N/A = not applicable

New growth is expected to occur under all the alternatives, although the amount of growth and composition of the mix of land uses would vary by alternative. Activity levels would increase across the city with new businesses, residents, and employees. Pierce County’s adopted Countywide Planning Policies (CPPs) establish a housing target for Puyallup of 7,482 new units and an employment target of 14,715 new jobs by 2044. A summary of capacity for housing and job growth under each alternative is provided in Table 3.4-5.

Table 3.4-5. Targets and Capacity by Alternative (within City Limits)

		2044 Targets Minus Already Developed Parcels	Alternative 1 (No Action)	Alternative 2	Alternative 3
Housing Units	7,482	6,910	6,690	13,420	14,210
Jobs	14,715	13,970	8,880	17,020	18,520

Note: These numbers apply to areas within the city limits, and do not include the additional housing units or jobs available in the unincorporated land within the urban growth area.

Under all alternatives, growth is anticipated to result in new development as well as redevelopment of some previously developed areas. The actual pace and distribution of future growth would be influenced in part by the implementation of Comprehensive Plan policies and related regulations, as well as by decisions made by individual property owners and developers. General impacts associated with additional population and employment growth would include the conversion of undeveloped land for new residential, commercial, industrial, or mixed-use areas; increased intensity of use on developed parcels through redevelopment and infill development on underutilized parcels; and potential land use compatibility issues resulting from the encroachment of new, more intense development patterns on current parcels.

Localized impacts could occur under all of the alternatives from conversion of vacant or less dense/intense current land uses to uses designated by the Future Land Use Map (Figure 3.4-1). Land that is vacant, partially vacant, or underutilized would experience pressure to be redeveloped to accommodate new population and employment.

Increased density of the urban environment—while providing benefits through increased access to transit and other amenities and less reliance on vehicles—could promote gentrification in some

areas and increase the risk for displacement of people with low incomes or small businesses (see Section 3.5, Population, Employment, and Housing).

Areas zoned for higher densities would likely experience land use intensification. Under all alternatives, a large share of growth would be concentrated in previously planned growth areas. Infill and redevelopment would also result in associated changes to visual character. The extent of land use and associated impacts (e.g., visual character, noise, traffic) would depend on the type, scale, and pace of development. As areas are redeveloped over the next 20 years, secondary impacts such as construction-related fugitive dust, traffic delays, increased noise, and additional stormwater runoff would accompany growth. Cumulative impacts would include increased urban activity such as traffic, noise, glare, and pedestrian activity. Growth close to critical areas could also create pressure for conversion and potentially adversely impact floodplains, steep slopes, wetlands, and streams (see Section 3.2, Water Resources).

Land use compatibility issues could arise with infill development, as could abutting land use designations of significantly different types or intensity, including bulk and scale of development. In some areas currently developed with low-density residential uses, higher permitted densities could, for example, introduce larger buildings with more lot coverage and additional parking needs. Development and redevelopment of property with larger buildings and increased parking areas could result in localized compatibility impacts if adjacent properties are smaller in height, bulk, and scale. Impacts could include increased visual contrast in building scale, potential for increased shadowing, and an incremental change in the local built form, from suburban to urban in form. The magnitude of these impacts would generally depend on the compatibility of future development with the surrounding landscape including bulk and scale, but also building form, line, color, and continuity. PMC Title 20 regulates use, height, bulk, and scale of new development within each of the Puyallup zoning districts with the purpose of avoiding use conflicts, and it is intended to mitigate incompatibilities of new infill development.

Under all alternatives, the City would continue to implement its SMP, protecting shoreline areas and mitigating impacts resulting from any alteration or development within shorelines. Additionally, no changes to the City's CAO would reduce its ability to identify, regulate, and protect wetlands, streams, wildlife and fisheries habitat, geologic hazard areas, frequently flooded areas, and critical aquifer recharge areas. Future development facilitated under any of the alternatives would continue to comply with SEPA, as applications for new development or redevelopment would be subject to the SEPA process.

3.4.2.3 Impacts of Alternative 1 (No Action)

GMA and Land Use

Alternative 1 would comply with GMA goals to reduce the inappropriate conversion of underdeveloped land into sprawling, low-density development, and direct growth to urban areas where adequate public facilities and services exist or can be provided in an efficient manner. Under Alternative 1, new growth would primarily occur in Puyallup's previously planned areas, including the city's regional growth centers.

Alternative 1 would retain the City's current Comprehensive Plan, which contains a Land Use Element developed consistent with the GMA. However, the GMA also requires that cities like Puyallup be able to accommodate population projections, ensuring that land use and zoning have enough capacity to meet growth targets. Alternative 1 would not update the City's Future Land Use Map, nor would it amend existing single-family residential zones to permit middle housing options to meet growth targets; it would not meet the new requirements of HB 1110.

Alternative 1 would not meet housing or job targets within city limits (by a deficit of approximately 570 housing units and 5,840 jobs). **Therefore, Alternative 1 would not provide adequate land use capacity to meet growth targets required by the GMA, and it would have a significant impact as it would conflict with the requirement for Puyallup to accommodate growth projections.**

VISION 2050 and Land Use

The VISION 2050 regional strategy and MPPs direct growth to urban areas and focus the growth in designated centers and transit stations to reduce the effects of unplanned, sprawled growth and ensure that new growth occurs in areas that can be served by public services and infrastructure. MPPs encourage walkable, compact, and transit-oriented communities, as well as the preservation of natural areas and open space. Additionally, they support expanding housing capacity for moderate density housing to bridge the gap between single-family and more intensive multifamily development.

Alternative 1 would retain the City's current Comprehensive Plan, which was developed in 2015 prior to VISION 2050. While Alternative 1 aligns with the VISION 2050 land use strategy to direct growth in urban areas, particularly regional growth centers such as Downtown Puyallup and South Hill, it would not update the Comprehensive Plan to emphasize mixed uses, choices in housing types, or the transformation of key underutilized lands to higher density, mixed-use areas. This alternative also would not intentionally focus on increasing development near the Puyallup Station, along arterials, or near existing bus routes at an increased intensity consistent with MPPs that emphasize walkable development and increased proximity to multimodal services. It also would not include new or amended policies consistent with MPPs focused on coordinated planning to understand, protect, and restore watersheds, reduce and mitigate stormwater impacts and improve water quality, reduce air pollution, improve habitat protection, and limit and mitigate development impacts on the natural environment, while conserving and protecting open space consistent with the Regional Open Space Conservation Plan. **Alternative 1 would not update the Comprehensive Plan for consistency with VISION 2050 and MPPs related to land use and the reduction of development impacts on the environment, resulting in a significant impact.**

Countywide Planning Policies and Land Use

Pierce County CPPs were updated in 2021 to be consistent with the MPPs and are one of the primary mechanisms to implement VISION 2050 at a localized level. The No Action Alternative would not update the *Puyallup Comprehensive Plan* to be consistent with updated CPPs nor VISION 2050. The No Action Alternative also would not meet the housing or employment growth targets, conflicting with the CPPs related to ensuring that comprehensive plans and zoning regulations provide capacity for residential, commercial, and industrial uses that is sufficient to meet 20-year growth targets. Similar to the impacts described under the above section, **Alternative 1 would not update the Comprehensive Plan for consistency with the Pierce County CPPs related to land use and the reduction of development impacts on the environment, resulting in a significant impact.**

Other Land Use Plans and Regulations

Alternative 1 would continue to implement the City's existing SMP and implement existing policies designed to mitigate potential impacts to Puyallup's shorelines. Continued implementation of these existing regulations would ensure that implementation of Alternative 1 would have a less than significant impact on Puyallup's shorelines.

The GMA requires jurisdictions to review and update their CAO every 10 years based on best available science. Under Alternative 1, the City of Puyallup would not update its CAO based on best

available science and would continue to apply its current adopted CAO to new development or redevelopment that could impact wetlands, streams, wildlife and fisheries habitat, geologic hazard areas, frequently flooded areas, and critical aquifer recharge areas. **As a result, Alternative 1 has the potential to have a significant impact by failing to update Puyallup's CAO.**

Land Use Compatibility

As growth and development occur to meet the needs of the growing population in the city, land uses may change and parcel development could increase in intensity of development. With this transition, there would be a chance that incompatible types and scales of development would end up abutting one another and lead to increased noise, odor, or light and glare (generated from outdoor lighting and window reflection). As described in Section 3.4.2.2, Impacts Common to All Alternatives, PMC Title 20 regulates use, height, bulk, and scale of new development within each of Puyallup's zoning districts with the purpose of avoiding use conflicts and is intended to mitigate incompatibilities of new infill development. The PMC also includes design standards for new mixed-use, multifamily, commercial, and industrial development in Chapter 20.26, Design Review Standards and Procedures; as well as design standards for the South Hill area in Chapter 20.52, MX-DRO Mixed-Use Design Review Overlay Zone; and Downtown Design Guidelines. The City of Puyallup would continue to apply these regulations under Alternative 1, which would avoid or minimize conflicts or compatibility issues between adjacent land uses.

Additionally, as it pertains to height, bulk, and scale, Alternative 1 would propose continued growth at the current level of intensity, with large-scale mixed-use and commercial areas remaining close to Downtown, South Hill, and along River Road and E Pioneer Avenue. This alternative does not assume a change in land use, zoning, or development standards. **Alternative 1 would result in less than significant impacts to land use compatibility.**

3.4.2.4 Impacts of Alternative 2

GMA and Land Use

Alternative 2 would comply with GMA goals to reduce the inappropriate conversion of underdeveloped land into sprawling, low-density development, and it would direct growth to urban areas where adequate public facilities and services exist or can be provided in an efficient manner.

Action Alternative 2 would exceed 2044 citywide housing targets by approximately 6,000 units and would exceed jobs targets by approximately 2,300 jobs. Compared to Alternative 1, Action Alternative 2 would have the potential to accommodate approximately 6,730 more housing units and 8,140 more jobs.

This alternative would integrate updates to the Comprehensive Plan and extend citywide goals through 2044 (as opposed to 2035), consistent with GMA requirements. Under Alternative 2, new growth would primarily occur in Puyallup's previously planned areas including the city's regional growth centers, as well as along major commercial corridors such as River Road and S Meridian and at the intersection of E Pioneer and Shaw Road. Alternative 2 would be consistent with GMA goals to direct growth in urban areas as well as areas where there are existing utilities, schools, parks, and other public services and infrastructure available. Alternative 2 would also meet GMA requirements to accommodate population projections and ensure that land use and zoning have enough capacity to meet growth targets.

In addition, Alternative 2 would update the City's Future Land Use Map and amend single-family residential zones to permit middle housing options, meeting the minimum requirements of HB 1110.

For this analysis, under Alternative 2, 10% of vacant and underutilized land in single-family areas would be developed as middle housing and 3% of currently developed single-family parcels would be redeveloped as middle housing.

Alternative 2 would align with the GMA and land use planning requirements and therefore would avoid impacts resulting from conflicts with the GMA.

VISION 2050 and Land Use

Alternative 2 would update the Comprehensive Plan to emphasize mixed uses, choices in housing types, and the transformation of key underutilized lands to higher density, mixed-use areas. It would include new or amended policies consistent with MPPs focused on coordinated planning to understand, protect, and restore watersheds, reduce and mitigate stormwater impacts and improve water quality, reduce air pollution, improve habitat protection, and limit and mitigate development impacts on the natural environment while conserving and protecting open space consistent with the Regional Open Space Conservation Plan. **Alternative 2 would update the Comprehensive Plan for consistency with VISION 2050 and MPPs related to land use and the reduction of development impacts on the environment, avoiding impacts resulting from conflicts with VISION 2050.**

Countywide Planning Policies and Land Use

Alternative 2 would update the *Puyallup Comprehensive Plan* to emphasize mixed uses, choices in housing types, the transformation of key underutilized lands to higher density, mixed-use areas, or focus new growth near transit stations and corridors, consistent with 2021 Pierce County CPPs. Alternative 2 would also meet growth targets for housing and employment and align with the CPPs related to ensuring that comprehensive plans and zoning regulations provide capacity for residential, commercial, and employment uses that is sufficient to meet 20-year growth targets. Alternative 2 would add new or amend existing policies related to minimizing growth impacts on natural resources, environmentally sensitive areas, climate, and other elements of the natural environment.

Alternative 2 would update the Comprehensive Plan for consistency with the Pierce County CPPs related to land use and the reduction of development impacts on the environment, avoiding impacts resulting from conflicts with Pierce County CPPs.

Other Land Use Plans and Regulations

Alternative 2 would continue to implement the City's existing SMP and implement existing policies designed to mitigate potential impacts to Puyallup's shorelines. This alternative would update the City's CAO to incorporate best available science and further strengthen existing policies designed to mitigate impacts to wetlands, streams, wildlife and fisheries habitat, geologic hazard areas, frequently flooded areas, and critical aquifer recharge areas. Implementation of these regulations would ensure that implementation of Alternative 2 would have a less than significant impact on Puyallup's critical areas.

Land Use Compatibility

With this alternative, employment and residential growth would be anticipated to occur at a greater intensity in areas that are already designated for this type of land use: South Hill and Downtown. Due to this focus on previously developed areas, additional infill or development in these areas is likely to be compatible with existing buildings and the urban environment.

Areas that anticipate new mixed-use development—such as River Road, S Meridian, and the E Pioneer and Shaw Road intersection—might experience an increase in height or bulk. River Road and the Shaw/Pioneer intersection area are already zoned for commercial or mixed-use development,

therefore changes or impacts from this transition would be less than significant to the surrounding areas or land uses.

The land along S Meridian between approximately 19th Avenue SE and 27th Avenue SE is currently designated for multifamily residential uses, and under Alternative 2, it would transition to a mixed-use style of development. Without development standards to ensure appropriate transitions in scale, height, or bulk, there is a potential for incompatibilities. However, the application of a mixed-use designation along S Meridian would be accompanied by development standards in PMC Title 20 regulating use, height, bulk, and scale of new development, similar to the city's existing mixed-use designations. These standards have the purpose of avoiding use conflicts and are intended to avoid or minimize incompatibilities of new infill development. The PMC also includes design standards for new mixed-use, residential, and commercial development that the City of Puyallup would continue to apply under Alternative 2, which would avoid or minimize conflicts or compatibility issues between adjacent land uses.

Increased mixed-use development would also introduce more mixing of uses than would occur under Alternative 1. More mixing of uses increases the likelihood of localized adverse spillover effects (such as residential or commercial activities that might lead to increased noise). These compatibility challenges would not be an uncommon or new phenomenon within Puyallup's higher density areas, but they would represent a potential adverse land use impact of future growth. Such impacts could be avoided or minimized by continuing to implement land use policies and zoning district or use requirements that address land use incompatibilities through the use of transitions in intensity, use restrictions, or avoiding proximity of certain kinds of zones. Noise, nuisance, and public safety codes would also continue to provide protection against some of the potential impacts. **As such, potential impacts on land use compatibility are expected to be less than significant.**

3.4.2.5 Impacts of Alternative 3

GMA and Land Use

Similar to the other alternatives, Alternative 3 would comply with GMA goals to reduce the inappropriate conversion of underdeveloped land into sprawling, low-density development, and direct growth to urban areas where adequate public facilities and services exist or can be provided in an efficient manner. Under Alternative 3, much of the city's new growth would occur in Puyallup's previously planned areas including the city's regional growth centers. Like Alternative 2, growth would also be focused in other areas well served by urban services, including major commercial corridors such as River Road and S Meridian and at the intersection of E Pioneer and Shaw Road. Alternative 3 would also distribute additional growth at new neighborhood commercial nodes along existing transportation corridors, including Shaw Road E, W Stewart Avenue, W Pioneer Avenue, and S Fruitland, thereby increasing access to commercial services from a wider range of residential areas.

This alternative would allow for the most development capacity out of the three alternatives. It would exceed 2044 housing targets by approximately 6,730 units and would accommodate approximately 790 more units than Alternative 2. Alternative 3 would exceed the 2044 job targets by approximately 3,800 jobs and would accommodate approximately 1,500 more jobs than Alternative 2. Alternative 3 would meet GMA requirements to accommodate population projections and ensure that land use and zoning have enough capacity to meet growth targets.

In addition, Alternative 3 would update the City's Future Land Use Map and amend single-family residential zones to permit middle housing options, thereby meeting and exceeding the requirements of HB 1110. Alternative 3 would allow a wider range of middle housing types within residential areas

to encourage more housing choices in these neighborhoods, which translates to more assumed middle housing development than assumed for Alternative 2. Alternative 3 assumes that 15% of vacant or underutilized land in single-family areas would be developed as middle housing, and 5% of currently developed single-family parcels would be redeveloped as middle housing.

Alternative 3 would align with the GMA and land use planning requirements, and therefore it would avoid impacts resulting from conflicts with the GMA.

VISION 2050 and Land Use

In addition to creating the most capacity for housing and jobs of the three alternatives, Alternative 3 also would distribute these opportunities throughout the city at more neighborhood locations compared to Alternatives 1 and 2. The regional centers would still assume the most housing and employment, similar to the other alternatives, but development in the regional centers would account for a smaller share of the development compared to Alternative 2. Similar to Alternative 2, mixed-use areas at E Pioneer and Shaw Road, along S Meridian, and along River Road would assume a larger share of development in this alternative than under Alternative 1. In addition, the Medical Mixed-Use focus area would increase opportunities for a mix of employment and residential uses and new neighborhood commercial nodes along key corridors.

Alternative 3 would also allow a wider range of middle housing types within residential areas to encourage more housing choices in these neighborhoods. This would enable a greater opportunity for housing variety, including more attainable homeownership options, within single-family neighborhoods and would be more consistent with VISION 2050 MPPs than Alternative 2. Alternative 3 would update the Comprehensive Plan to emphasize mixed uses, choices in housing types, and the transformation of key underutilized lands to higher density, mixed-use areas.

Alternative 3 would also include new or amended policies consistent with MPPs focused on coordinated planning to understand, protect, and restore watersheds, reduce and mitigate stormwater impacts to improve water quality, reduce air pollution, improve habitat protection, and limit and mitigate development impacts on the natural environment while conserving and protecting open space consistent with the Regional Open Space Conservation Plan. **Alternative 3 would update the Comprehensive Plan for consistency with VISION 2050 and MPPs related to land use and the reduction of development impacts on the environment, thus avoiding impacts resulting from conflicts with VISION 2050.**

Countywide Planning Policies and Land Use

Alternative 3 would update the *Puyallup Comprehensive Plan* to emphasize mixed uses, choices in housing types, the transformation of key underutilized lands to higher density, mixed-use areas, and it would focus new growth near transit stations and corridors, consistent with 2021 Pierce County CPPs. Alternative 3 would also meet growth targets for housing and employment and align with the CPPs related to ensuring that comprehensive plans and zoning regulations provide capacity for residential, commercial, and industrial uses that is sufficient to meet 20-year growth targets. Alternative 3 would add new or amend existing policies related to minimizing growth impacts on natural resources, environmentally sensitive areas, climate, and other elements of the natural environment. **Alternative 3 would update the Comprehensive Plan for consistency with the Pierce County CPPs related to land use and the reduction of development impacts on the environment; it would avoid impacts resulting from conflicts with Pierce County CPPs.**

Other Land Use Plans and Regulations

Similar to Alternative 2, this alternative would continue to implement the City's existing SMP and implement existing policies designed to mitigate potential impacts to Puyallup's shorelines. Also, like Alternative 2, this alternative would update the City's CAO to incorporate best available science and further strengthen existing policies, which would ensure that Alternative 3 would have a less than significant impact on Puyallup's critical areas.

Land Use Compatibility

With this alternative, employment and residential growth are anticipated to occur at a greater intensity in areas that are already designated for this type of land use: South Hill and Downtown. Due to this existing development focus, additional infill or development in these areas would likely be compatible with existing buildings and an urban environment.

Areas that anticipate new mixed-use development—such as the River Road and S Meridian corridors and the Shaw/Pioneer intersection—might experience an increase in height or bulk. As described under Alternative 2, PMC Title 20 includes standards regulating use, height, bulk, and scale of new development, with the purpose of avoiding use conflicts and avoiding or minimizing incompatibilities of new infill development. The PMC also includes design standards for new mixed-use, residential, and commercial development that the City of Puyallup would continue to apply under Alternative 3, which would avoid or minimize conflicts or compatibility issues between adjacent land uses.

Similar to Alternative 2, Alternative 3 includes new mixed-use, higher-density, and higher-intensity development, though the extent of this type of development is wider under Alternative 3 given the identification of new neighborhood commercial and mixed-use nodes in key locations. Potential impacts of this intensification could be avoided or mitigated by continuing to implement land use policies and zoning district and use requirements that consider the potential for land use incompatibilities and avoid them through the use of transitions in intensity, use restrictions, and/or avoiding the proximity of certain kinds of zones. Noise, nuisance, and public safety codes would also continue to provide protection against some of the potential impacts. Alternative 3 also assumes that a greater amount of middle housing redevelopment would occur in existing neighborhoods. Impacts from the development of middle housing that would replace existing houses would be avoided or minimized by height, bulk, scale, and lot coverage requirements. **As such, potential impacts on land use compatibility are expected to be less than significant.**

3.4.3 Avoidance, Minimization, and Mitigation Measures

Alternative 1 is the only alternative that would result in a significant adverse impact to land use, as it would not fully align with countywide, regional, and statewide planning goals, policies, and regulations for land use. Updating the Comprehensive Plan consistent with the updated GMA, VISION 2050, and Pierce County policies would avoid these impacts under the Action Alternatives.

Under Alternatives 2 and 3, no mitigation measures would be needed as no significant impacts have been identified under either alternative. Even though Alternatives 2 and 3 would be more likely to create urban environments where more intense infill development could occur, implementation of existing regulations in PMC Title 20 as well as noise, nuisance, and public safety requirements in the municipal code would avoid or minimize all impacts to a less than significant level.

3.4.4 Significant Unavoidable Adverse Impacts

Under all of the alternatives, the city would experience development, redevelopment, and conversion of existing uses over the next 20 years. Alternative 1 would not update the Comprehensive Plan to align with land use policies included in VISION 2050 and the Pierce County CPPs that are intended to minimize and avoid impacts from urban growth on the environment. Alternative 1 would also conflict with GMA requirements that comprehensive plans and zoning regulations provide capacity for residential, commercial, and industrial uses that is sufficient to meet 20-year growth targets.

Both Action Alternatives would update the current Comprehensive Plan to align with land use requirements and policies in the GMA, VISION 2050, and Pierce County CPPs. No significant adverse and unavoidable impacts are expected under either Alternatives 2 or 3 as future development facilitated under the Action Alternatives would be subject to land use and development standards as well as regulations protecting shorelines and critical areas.

3.5 Population, Employment, and Housing

This chapter describes the affected environment and regulatory framework necessary to evaluate potential environmental impacts resulting from the Comprehensive Plan update alternatives, identifies thresholds of significance to determine whether there are potentially significant impacts, describes potential impacts that could result from the implementation of the alternatives, and discusses measures that would avoid or reduce those potential impacts.

3.5.1 Affected Environment

The following section summarizes the regulatory environment related to housing and employment, and current demographic, housing, and employment conditions in Puyallup.

3.5.1.1 Policy and Regulatory Framework

State Laws and Regulations

Washington State Growth Management Act

The GMA is a statewide mandate that regulates land use, planning, and development to accommodate anticipated population growth. It requires local jurisdictions to create comprehensive plans that include policies for how they plan to accommodate this growth with equitable distribution of resources and services over the next 20 years. The GMA is a series of statutes that have been codified under Chapter 36.70A RCW, though it has been added into other portions of the RCW as well. Among the 15 goals are the following requirements for cities and counties:

- Plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.
- Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, promote the retention and expansion of existing businesses and recruitment of new businesses, recognize regional differences impacting economic development opportunities, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.

Required elements include land use, housing, capital facilities, utilities, transportation, economic development, and parks and recreation. The GMA and other state and regional policies provide specific guidance for the contents of these elements.

RCW 36.70A.020

Requires local governments to plan for and accommodate housing affordable to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock, including but not limited to the recent amendments identified below.

Engrossed Second Substitute House Bill 1220 (Chapter 254, Laws of 2021)

This bill amended the GMA's Housing Goal to instruct local governments to "plan for and accommodate" housing affordable to all income levels. To implement the changes to the goal, jurisdictions must conduct a suite of new analyses and show evidence of new accommodations in their comprehensive plans.

Engrossed House Bill 1337 (Chapter 334, Laws of 2023)

This bill amended the GMA to require local governments to adopt local development regulations that allow for the construction of accessory dwelling units within UGAs and comply with certain policies.

RCW 36.70A.070

The comprehensive plan of a county or city that is required or chooses to plan under RCW 36.70A.040 shall consist of a map or maps, and descriptive text covering objectives, principles, and standards used to develop the comprehensive plan. The plan shall be an internally consistent document and all elements shall be consistent with the future land use map.

WAC 365-196-410. Housing Element

The Washington Administrative Code (WAC) has requirements for housing supply, provisions for varying income levels, and components that are required for housing elements included in comprehensive plans.

Regional and Local Regulations

VISION 2050 Multicounty Planning Policies (MPPs)

VISION 2050 contains the Regional Growth Strategy and multicounty planning policies (MPPs), adopted in October 2020. The policies address land use, housing, UGA designations, target setting for population and employment, and focusing development in centers. MPPs also serve as mitigation to offset potential negative impacts that result from growth in the region. Applicable multicounty planning policies include:

- **MPP-H-1.** Plan for housing supply, forms, and densities to meet the region's current and projected needs consistent with the Regional Growth Strategy and to make significant progress toward jobs/housing balance.
- **MPP-H-2.** Provide a range of housing types and choices to meet the housing needs of all income levels and demographic groups within the region.
- **MPP-H-3.** Achieve and sustain—through preservation, rehabilitation, and new development—a sufficient supply of housing to meet the needs of low-income, moderate-income,

middle-income, and special needs individuals and households that is equitably and rationally distributed throughout the region.

- **MPP-H-4.** Address the need for housing affordable to low- and very low-income households, recognizing that these critical needs will require significant public intervention through funding, collaboration, and jurisdictional action.
- **MPP-H-5.** Promote homeownership opportunities for low-income, moderate-income, and middle-income families and individuals while recognizing historic inequities in access to homeownership opportunities for communities of color.
- **MPP-H-6.** Develop and provide a range of housing choices for workers at all income levels throughout the region that is accessible to job centers and attainable to workers at anticipated wages.
- **MPP-H-7.** Expand the housing at densities to maximize the benefits of transit investments, including affordable units, in growth centers and station areas throughout the region.
- **MPP-H-8.** Promote the development and preservation of long-term affordable housing options in walking distance to transit by implementing zoning, regulations, and incentives.
- **MPP-H-9.** Expand housing capacity for moderate density housing to bridge the gap between single-family and more intensive multifamily development and provide opportunities for more affordable ownership and rental housing that allows more people to live in neighborhoods across the region.
- **MPP-H-10.** Encourage jurisdictions to review and streamline development standards and regulations to advance their public benefit, provide flexibility, and minimize additional costs to housing.
- **MPP-H-11.** Encourage interjurisdictional cooperative efforts and public-private partnerships to advance the provision of affordable and special needs housing.
- **MPP-H-12.** Identify potential physical, economic, and cultural displacement of low-income households and marginalized populations that may result from planning, public investments, private redevelopment, and market pressure. Use a range of strategies to mitigate displacement impacts to the extent feasible.

Pierce County Countywide Planning Policies

CPPs regulate the housing standards for each county, and Pierce County has eight policies that pertain to affordable housing in the county:

- **CPP-AH-1.** Explore and identify opportunities to reutilize and redevelop existing parcels where rehabilitation of the buildings is not cost-effective, provided the same is consistent with the countywide policy on historic, archaeological, and cultural preservation and with Policy AH-8 regarding displacement.
- **CPP-AH-2.** Plan to meet their affordable and moderate-income housing needs goal by utilizing a range of strategies that may include a housing action plan and will result in the preservation of existing housing, and the production of new, affordable, and moderate-income housing that is safe and healthy. Jurisdictions should consider the availability and proximity of public transportation, governmental and commercial services necessary to support residents' needs, and prioritize density and investment in these areas.
- **CPP-AH-3.** Determine the extent of the need for housing affordable for all economic segments of the population, with special attention paid to the historically underserved, both

existing and projected for its jurisdiction over the planning period and shall encourage the availability of housing affordable to all economic segments of the population for each jurisdiction.

- **CPP-AH-4.** Establish a countywide housing affordability program by an organization capable of long-term consistent coordination of regional housing planning, design, development, funding, and housing management. All jurisdictions should cooperatively maximize available funding opportunities and leverage private resources in the development of affordable housing for households.
- **CPP-AH-5.** Explore and identify opportunities to reduce land costs for non-profit and for-profit developers to build affordable housing.
- **CPP-AH-6.** Jurisdictions shall periodically monitor and assess their success in meeting the housing needs to accommodate their 20-year population allocation.
- **CPP-AH-7.** Support and encourage homeownership opportunities for low-income, moderate-income, and middle-income families and individuals while recognizing historic inequities in access to homeownership opportunities for communities of color.
- **CPP-AH-8.** Jurisdictions should identify potential physical, economic, and cultural displacement of low-income households and marginalized populations that may result from planning, public investments, private redevelopment, and market pressure, and use a range of strategies to prevent and minimize, the cultural and physical displacement and mitigate its impacts to the extent feasible.

Housing Action Plan (2021)

The City of Puyallup *Housing Action Plan* identifies housing policies, actions, and strategies to meeting local community needs.

3.5.1.2 Current Conditions

Population

According to the 2020 census, the total population of Puyallup in 2020 was 42,973. More recent estimates from the Washington Office of Financial Management estimate Puyallup's 2023 population as 43,420. Puyallup accounts for nearly 5% of the population in Pierce County. Puyallup is projected to have a 2044 population of 61,468.¹¹ This represents a compound annual growth rate (CAGR) of roughly 1.4%.

Age

The median age has increased in Puyallup; in 2021, the median age is 37.3, compared to 34.9 in 2010. The median age in Puyallup is also older than that of Pierce County, which is 36.4 in 2021. Populations aged 18 to 25 years and 18 years and under decreased by 34% and 8% respectively to account for a total of 31% of the population (Figure 3.5-1). The age groups of 25 to 45 years, 45 to 65 years, and over 65 years each increased. In 2021, 14% of Puyallup residents are seniors, aged 65 years and older, an increase of 18% from 2010.

¹¹ [Pierce County Ordinance 2022-46s](#).

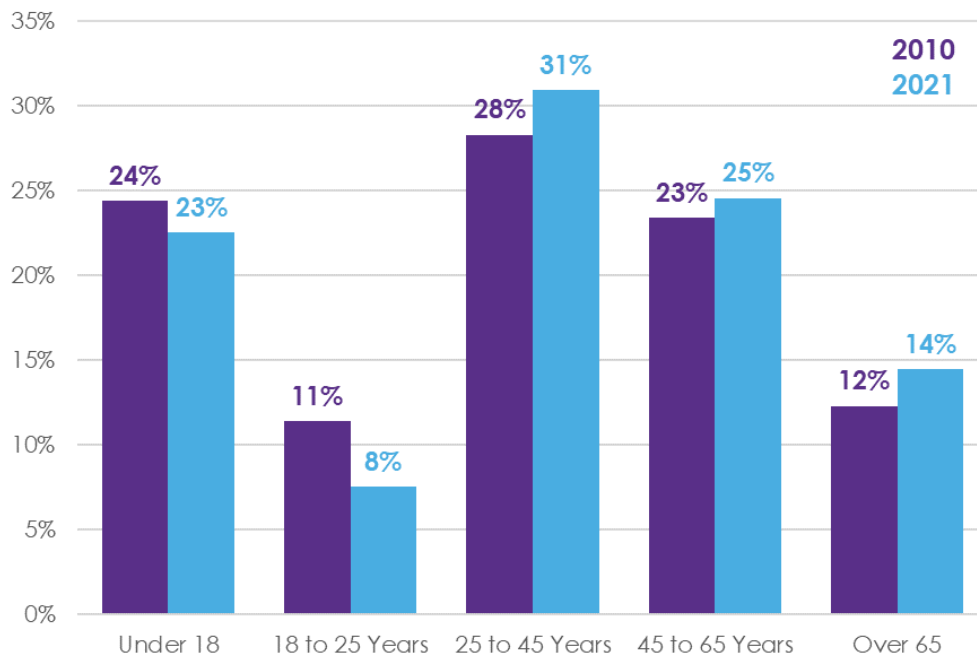


Figure 3.5-1. Population by Age, 2010 and 2021

Source(s): American Community Survey, 2021; CAI, 2023.

Race and Ethnicity

Puyallup is predominantly white, with approximately three-quarters of the population identifying as white alone. Those who identify as Hispanic or Latino and Multi-Racial (two or more races) make up the largest non-white race/ethnicities in the city at 6% and 9%, respectively.

Figure 3.5-2 shows the racial and ethnic makeup of Puyallup's residential population. Between 2010 and 2021, the share of residents who are Black, Asian, and multiracial increased. Conversely, the share of residents who identify as Hispanic or Latino experienced a decrease in population. The share of Native Hawaiian and Pacific Islander (NHPI) residents accounts for approximately 1% of Puyallup residents.

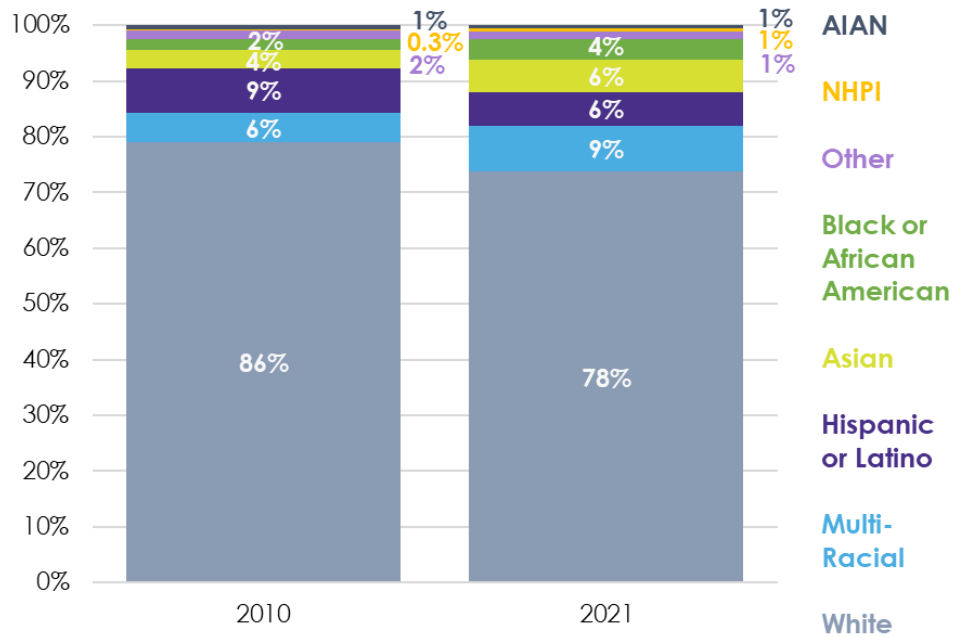


Figure 3.5-2. Race and Ethnicity of Residents, 2010 and 2021

Sources: American Community Survey, 2010, 2021; CAI, 2023.

AIAN = American Indian and Alaska Native; NHPI = for Native Hawaiian and Other Pacific Islander

Areas near SR 512 and in the South Hill area generally have higher concentrations of non-white community members (Figure 3.5-3).

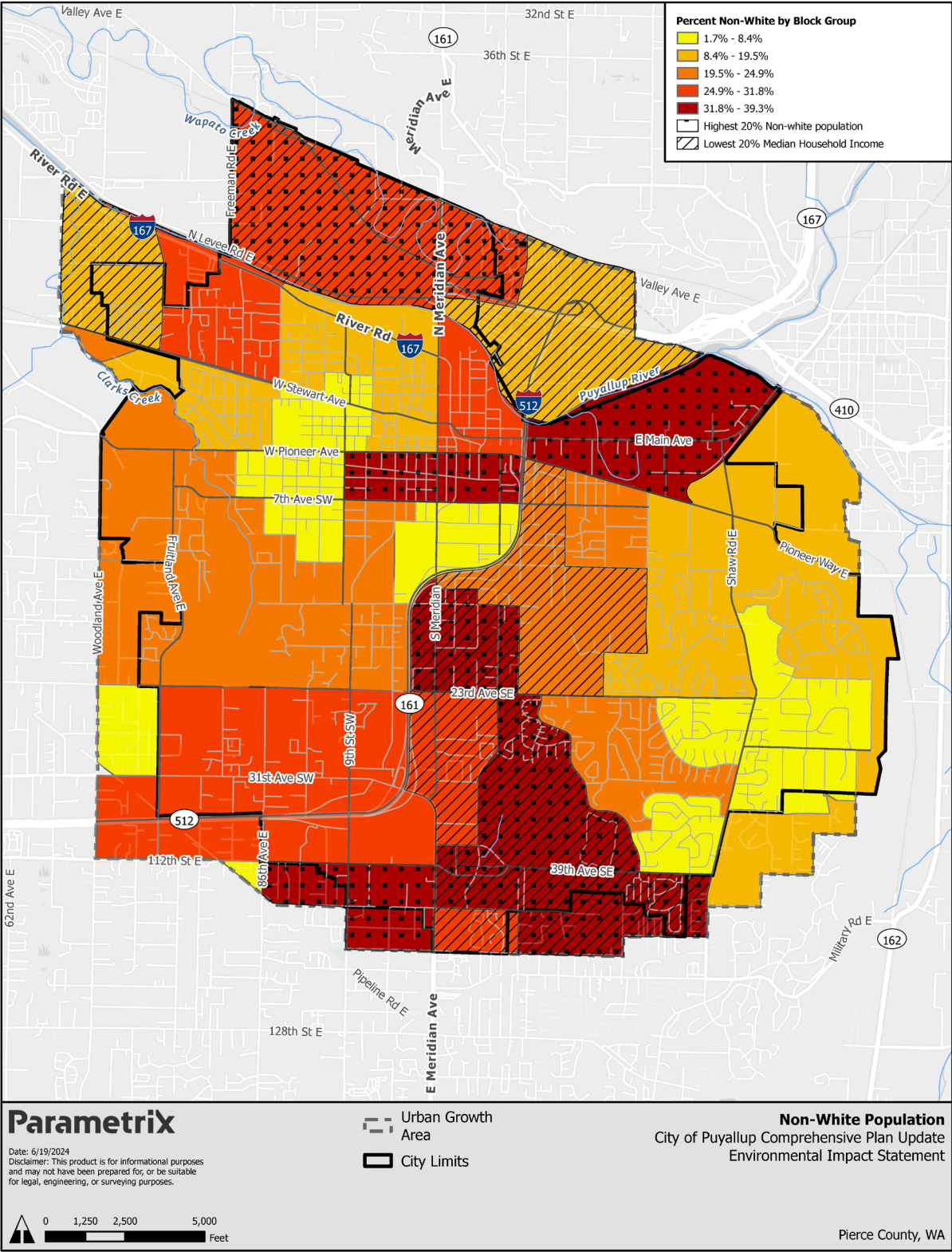


Figure 3.5-3. Non-White Population
Source: City of Puyallup 2023

Place of Birth and Citizenship Status

The majority (91%) of Puyallup's population is native born (Figure 3.5-4). Of the remaining 9% of the population who are foreign-born, a majority (52%) are naturalized citizens. In 2010, approximately 6% of Puyallup residents were foreign-born, an increase of 50% in foreign-born residents over 11 years.

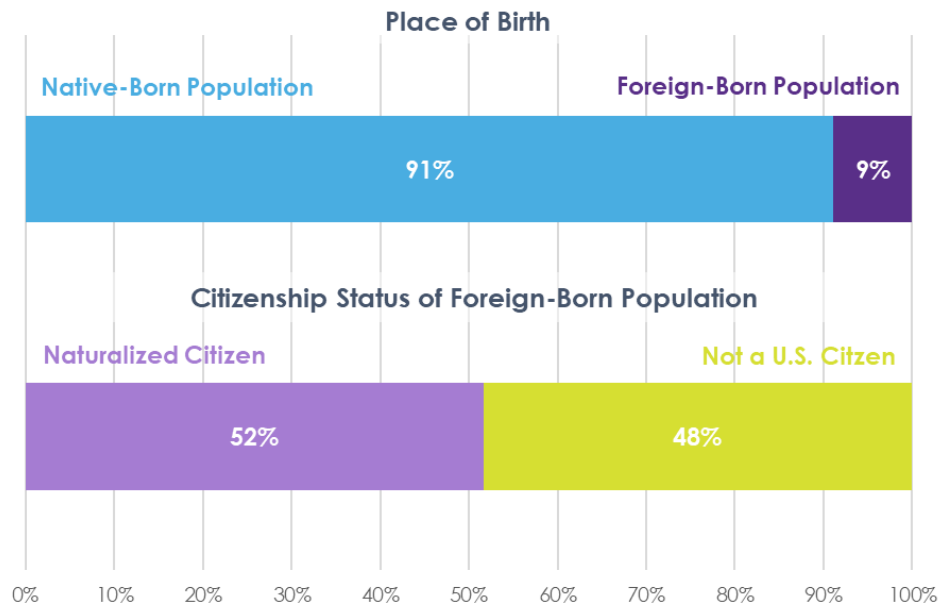


Figure 3.5-4. Place of Birth and Citizenship Status of Residents, 2021

Source(s): American Community Survey, 2021; CAI, 2023.

Language Preferred at Home

An estimated 18% of Puyallup residents speak a language other than English at home (Figure 3.5-5). Asian or Pacific Island languages represent the largest group of non-English speaking languages at 5%. Indo-European languages (3%), Spanish (2%) and others (1%) represent other language groups spoken at home.

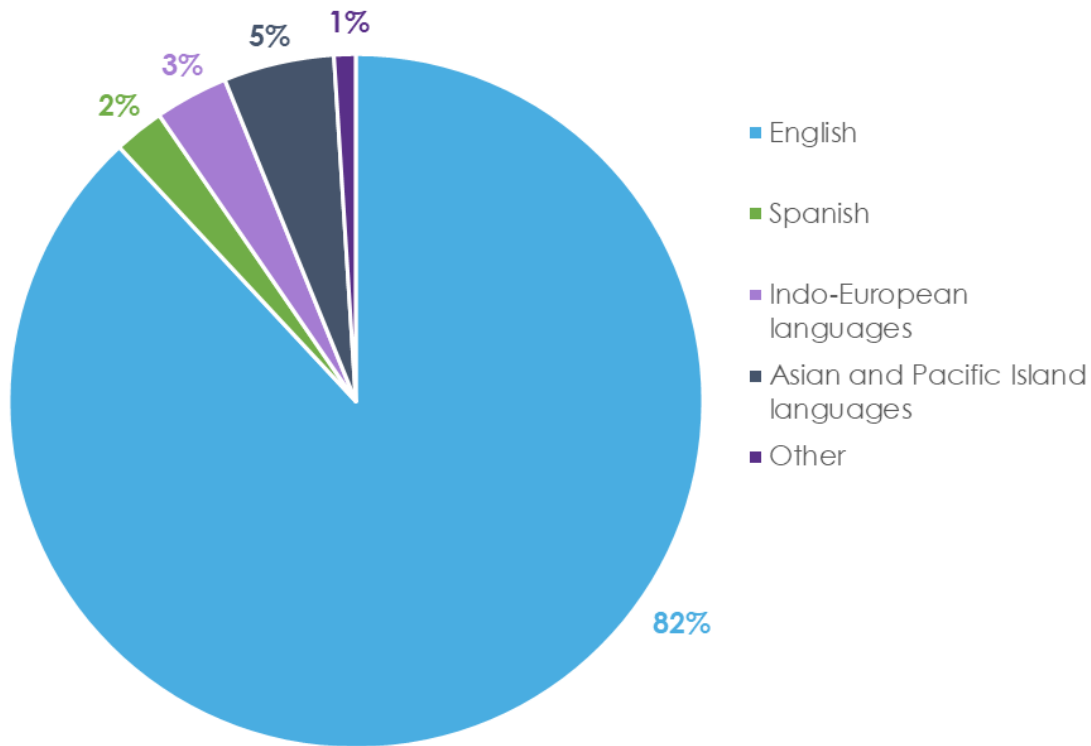


Figure 3.5-5. Language Spoken at Home, 2021

Sources: American Community Survey 2021; CAI 2023.

Education Levels

As of 2021, 39% of Puyallup residents had attained an associate's degree or higher while 1.9% had attained less than a high school diploma. Compared to the state, Puyallup has a smaller proportion of residents who did not finish high school, 1.9% compared to 4%. However, Puyallup shows a smaller proportion of highly educated residents compared to Washington state, which shows 49% of the population having attained an associate's degree or higher.

While educational attainment trends in Puyallup and Pierce County align more closely, some similar trends emerge as noted above. Puyallup exhibits a higher percentage of its population having attained a regular high school diploma or GED (29%), as well as an associate degree (31%), in comparison to Pierce County (26% and 12% respectively) (Figure 3.5-6). Pierce County holds a slightly greater portion of residents with a bachelor's degree (19%), master's degree (7%), and professional school degree (2%) than Puyallup (17%, 6%, and 1% respectively). However, Pierce County also reports a higher percentage of individuals with no schooling (1%) and no high school diploma (2%) compared to Puyallup (0.9% and 1% respectively).

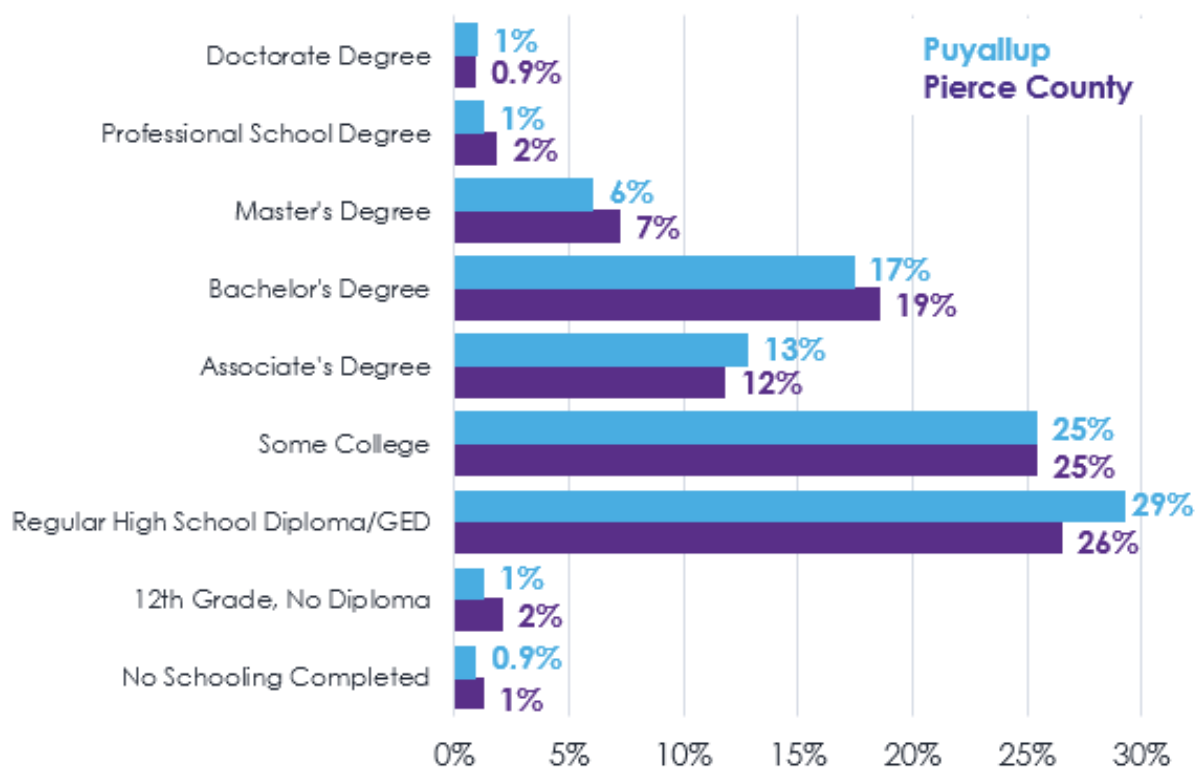


Figure 3.5-6. Educational Attainment for the Population Aged 25 and Older, 2021

Sources: American Community Survey 5-Year 2016-2021 Estimates; CAI 2023.

Areas in the central and southern portions of the city have the highest concentrations of adults without a high school degree, ranging between 15% and 25% (Figure 3.5-7). Areas in the city that have the highest percentages of non-white or low-income residents tend to have above average percentages of non-high school graduates (more than 5%), which are distributed through the north, south, and central portions of the city. Conversely, the eastern and western areas of the city and UGA tend to include the highest percentages of residents with a high school degree or higher.

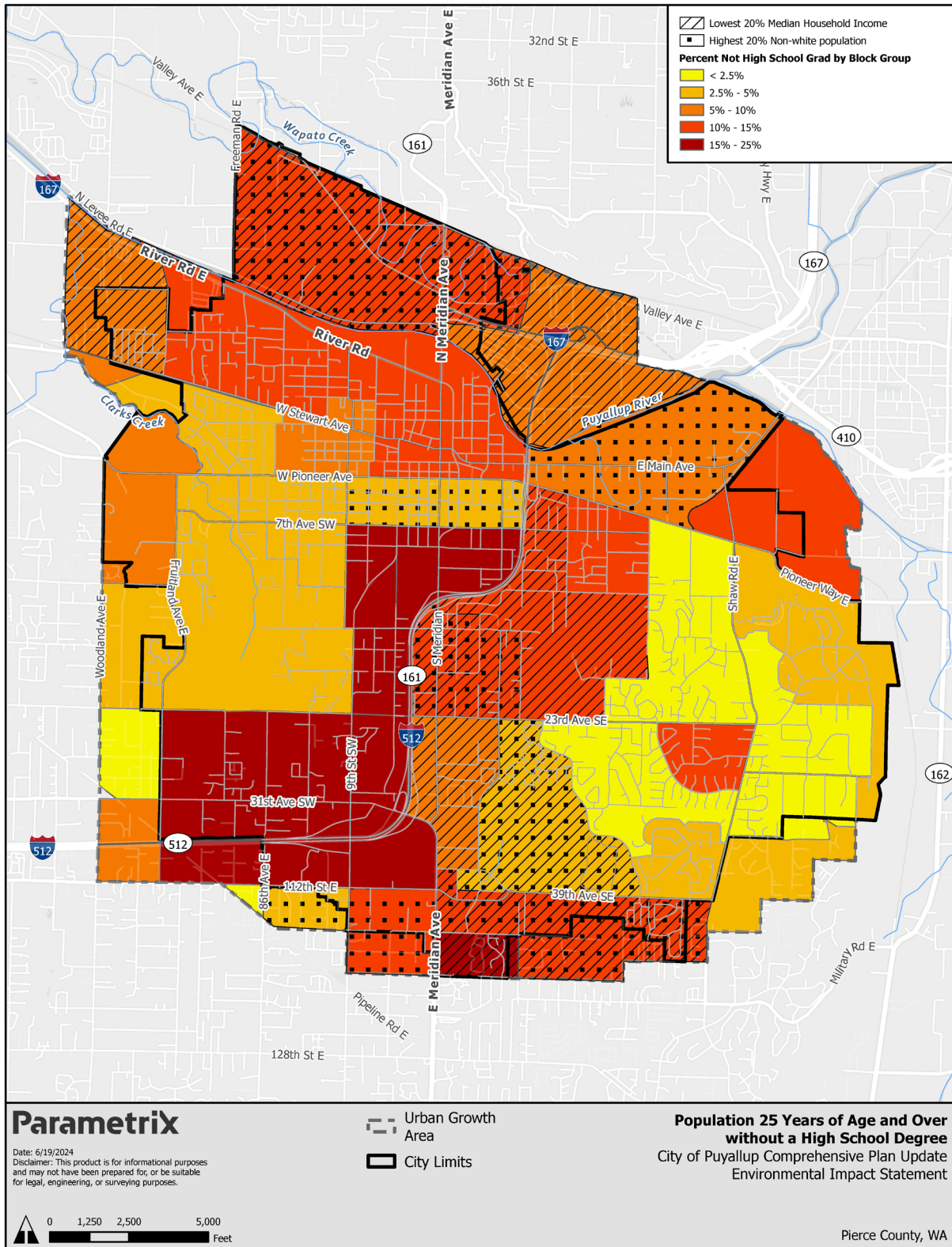


Figure 3.5-7. Population 25 Years of Age and Over without a High School Degree

Source: City of Puyallup 2023

Household Size

The majority of households in both Puyallup and Pierce County are made up of one or two people at approximately 64% and 59%, respectively (Figure 3.5-8). A slightly larger proportion of households in Pierce County have larger household sizes than in Puyallup. In both geographies, households of two people or four people or more are more common than one-person or three-person households.

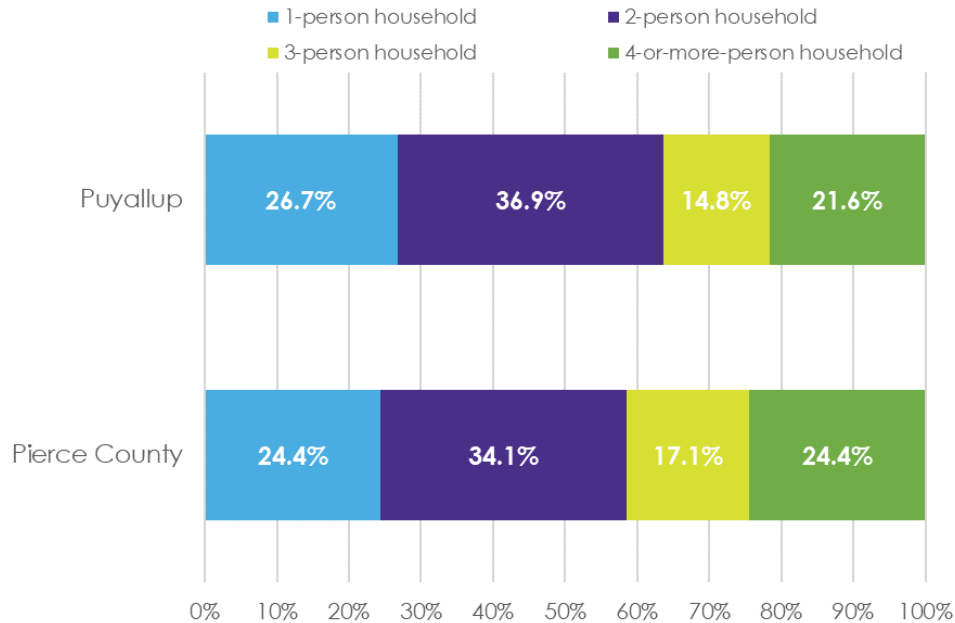


Figure 3.5-8. Size of Households, 2021

Sources: American Community Survey 5-Year 2016-2021 Estimates; CAI 2023.

Income

According to 2021 ACS 5-year estimates, the median household income for Puyallup is \$81,224.

In 2020, the Department of Housing and Urban Development (HUD) reports the area median income (AMI) for the Tacoma Metro Area as \$87,300. Table 3.5-1 provides the percentage of households in Puyallup that fall into various income categories, identified as a percentage of AMI. Income categories are defined as follows:

- Extremely low-income, 30% of AMI or less
- Very low-income, 30% to 50% AMI
- Low-income, 50% to 80% AMI
- Moderate-income, 80% to 100% AMI
- Higher-income, over 100% AMI

Table 3.5-1 indicates that over one-third of Puyallup households (37%) are considered low-income, earning 80% or less of the median income for the area. Twenty percent of households are considered very low- or extremely low-income, earn less than half of the area's median income.

Table 3.5-1. Total Household by Income Category, 2020

Income Category	Number of Households	Percentage of Total
30% AMI or Less	1,390	9%
30–50% AMI	1,695	11%
50–80% AMI	2,680	17%
80–100% AMI	2,185	14%
100%+ AMI	8,190	51%
All Households	16,130	N/A

Sources: U.S. Department of Housing and Urban Development CHAS 2016–2020; CAI 2023.

AMI = area median income; N/A = not applicable

Figure 3.5-9 shows median income by census block group for the city. Areas with the lowest median household income (less than \$60,000) tend to be concentrated in the northern and southern portions of the city, primarily north of Main Avenue in the northern region and south of 23rd Avenue SE in the southern region. Areas of lower median household income tend to correlate with areas that have the highest percentage of non-white residents, particularly in the southern area of the city and just north of N Levee Road.

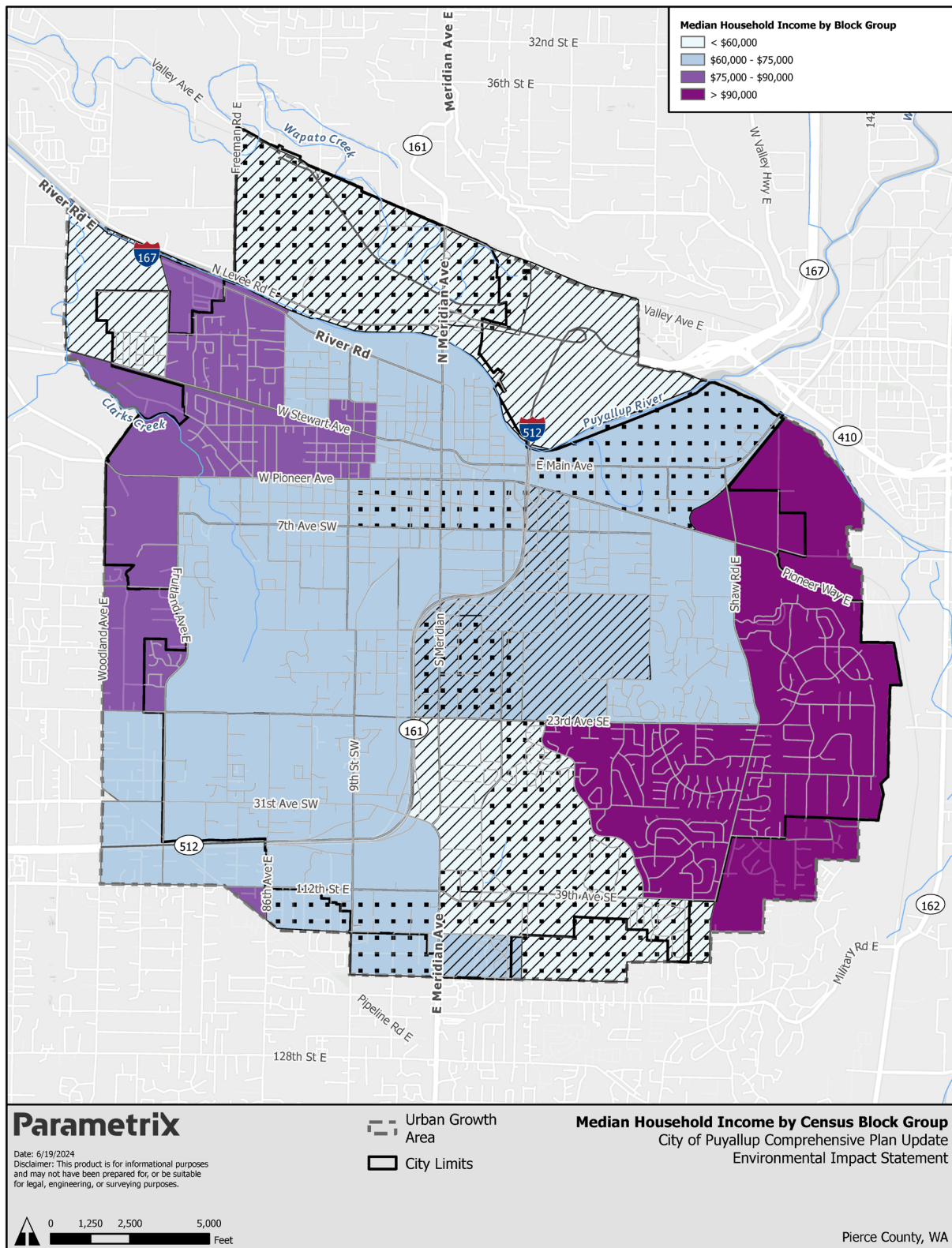


Figure 3.5-9. Median Household Income by Census Block Group, 2021

People with Disabilities

In 2021, 14% of Puyallup residents were living with one or more disabilities (5,899 total individuals). Between 2016 and 2021, Puyallup's disability demographics exhibited consistent patterns with minimal fluctuations over the years (Figure 3.5-10). Of all reported disabilities in 2021, ambulatory disabilities were reported the most, at 3,121 (26%) followed by cognitive and independent living (difficulty performing Instrumental Activities of Daily Living difficulties, at 2,439 (21%) and 2,099 (18%) individuals, respectively. Self-care and vision difficulty had the lowest counts of reporting at 1,247 (11%) and 1,094 (9%) respectively in Puyallup in 2021.

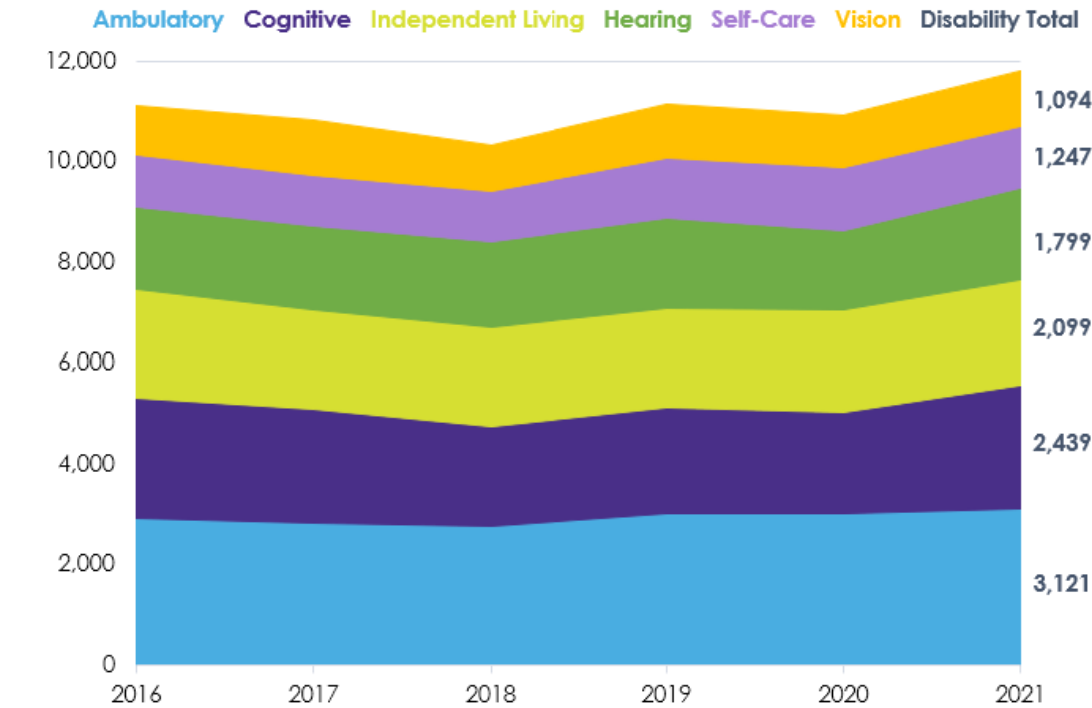


Figure 3.5-10. Disability Types, 2016 to 2021

Source: U.S. Census Bureau ACS 5-Year 2016-2021 Estimates; CAI, 2023.

Older Adults

Of older adult households (62+), 53% are classified as moderate or higher income (80% AMI and above), while 47% fall into the total low-income category (<80% AMI) (Figure 3.5-11). Within the total low-income category for older adult households, 13% are considered extremely low-income (<30% AMI), 11% are categorized as very low-income (30% to 50% AMI), and 23% are considered low-income (50% to 80% AMI).

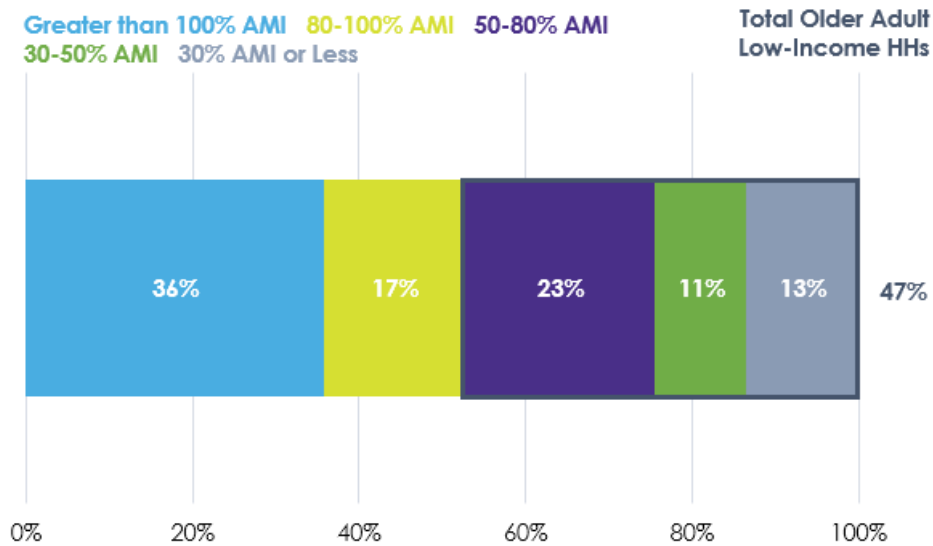


Figure 3.5-11. Income Brackets for Older Adult Households (62+), 2020

Source: HUD CHAS, 2016-2020; CAI, 2023.
Note: AMI = HUD Area Median Family Income.

Environmental Justice Populations

The GMA identifies a need to address environmental justice in Land Use and Climate Elements (RCW 36.70A.070). Environmental justice refers to “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, rules, and policies. Environmental justice includes addressing disproportionate environmental and health impacts in all laws, rules, and policies with environmental impacts by prioritizing vulnerable populations and overburdened communities and the equitable distribution of resources and benefits.”¹²

“Vulnerable populations” means population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: (i) Adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and (ii) sensitivity factors, such as low birth weight and higher rates of hospitalization.

(b) "Vulnerable populations" includes, but is not limited to:

- (i) Racial or ethnic minorities;
- (ii) Low-income populations; and
- (iii) Populations disproportionately impacted by environmental harm.

¹² RCW 70A.02.010(8). <https://app.leg.wa.gov/RCW/default.aspx?cite=70A.02.010>

Following is a summary of populations that could fall under the category of vulnerable populations:

- Low-income populations
 - Thirty-seven percent of Puyallup households are considered low-income, earning 80% or less of AMI. Within that group, 11% of households are considered very low-income (earning 30% to 50% of AMI) and 9% of households are considered extremely low-income, earn less than half of the area's median income (Table 3.5-1).
 - The map in Figure 3.5-9 indicates that areas with the lowest median household income (less than \$60k) tend to be concentrated in the northern and southern portions of the city.
- Racial or ethnic minorities
 - Approximately 12% of Puyallup's population falls into racial and ethnic minority groups that have been historically marginalized (Figure 3.5-2). This includes 6% Hispanic or Latino populations, 4% Black or African American, 1% American Indian and Alaska Native, and 1% Native Hawaiian and Other Pacific Islander.
 - As indicated in Figure 3.5-3 and Figure 3.5-9, areas of lower median household income tend to correlate with areas that have the highest percentage of non-white residents, particularly in the southern area of the city and the area north of N Levee Road.
- Older adults
 - Approximately 14% of residents in Puyallup are over the age of 65.
- People with disabilities
 - Approximately 14% of Puyallup residents are also living with one or more disabilities (Figure 3.5-10).

Impacts to these and other potentially vulnerable populations were considered as part of the EIS analysis.

Current Housing Conditions and Affordability

Housing Units by Type

The total number of housing units in Puyallup increased by roughly 4,800 dwellings over the 23-year period between 2000 and 2023, as shown in Figure 3.5-12, while the proportion of single-unit and multi-unit dwellings generally remained the same over the period. The total volume of multiunit dwellings increased by nearly 50%, or nearly 2,400 units. The total number of single-unit dwellings increased by nearly 30%, or about 2,500 housing units from 2000 to 2023. In 2000, single-unit dwellings comprised 62% of the total housing stock, and multi-unit homes made up 37% of all housing units. In 2023, single-unit homes made up 60% of all residences, and multi-unit properties were 40% of the total.

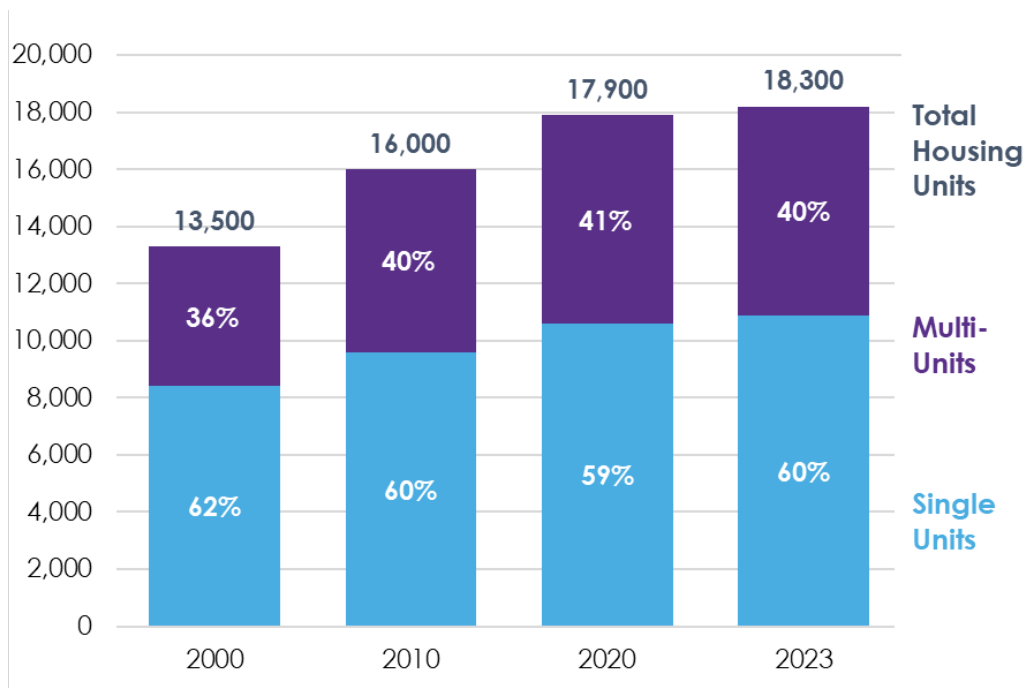


Figure 3.5-12. Housing Units by Number of Units in Structure, 2000 to 2023
Source: Washington Office of Financial Management 2023; CAI 2023.

Table 3.5-2 shows the number of housing units in Puyallup in 2010 and 2023, and the net change in the total number of residential dwellings, including single-unit dwellings, multi-unit dwellings, and mobile homes. In aggregate, the largest increase was observed in single-unit structures, which grew by 1,287 units from 2010 to 2023. The growth in the total number of multi-unit dwellings in Puyallup was 913 units, while mobile homes decreased by 57 units.

Table 3.5-2. Net Change in Housing Units by Type, 2010 to 2023

Housing Unit	2010 Count	2010 Share	2023 Count	2023 Share	Net Change	CAGR Change
Single Unit	9,577	59%	10,864	59%	1,287	1%
Multiunit	6,429	40%	7,342	40%	913	1%
Mobile Homes	165	1%	108	1%	-57	-3%
Total	16,171	100%	18,314	100%	2,143	1%

Source: Washington Office of Financial Management, 2023; CAI, 2023.
CAGR = compound annual growth rate

Housing Types and Location

Figure 3.5-13 shows the geographic distribution of housing unit types across Puyallup. The dots represent individual buildings, and each dot is sized by the building’s total square footage. Eighty-seven percent of Puyallup’s housing developments are single-unit dwellings, and these are

located throughout the city.¹³ The average size of a single-unit dwelling in Puyallup is about 1,900 square feet. Apartments account for the second largest share of housing units at approximately 5% of all units, and are generally located centrally and in the northern part of the city. Apartment structures within the city average about 8,000 square feet, but with high variability. Other multi-unit typologies, including townhouses, condominiums, and duplexes, make up an additional 3% of Puyallup's total housing units and are located centrally and toward the northwest end of the city. The average size for duplexes is around 1,900 square feet while townhouses and condominiums both average around 1,100 square feet. Triplexes make up the smallest share of housing units (about 0.4%) but average around 2,600 square feet and tend to be located northwest within the city.

¹³ "Housing developments" refer to buildings or communities consisting of multiple housing units, while "housing units" are individual dwellings within these developments that can be apartments, houses, condominiums, etc.

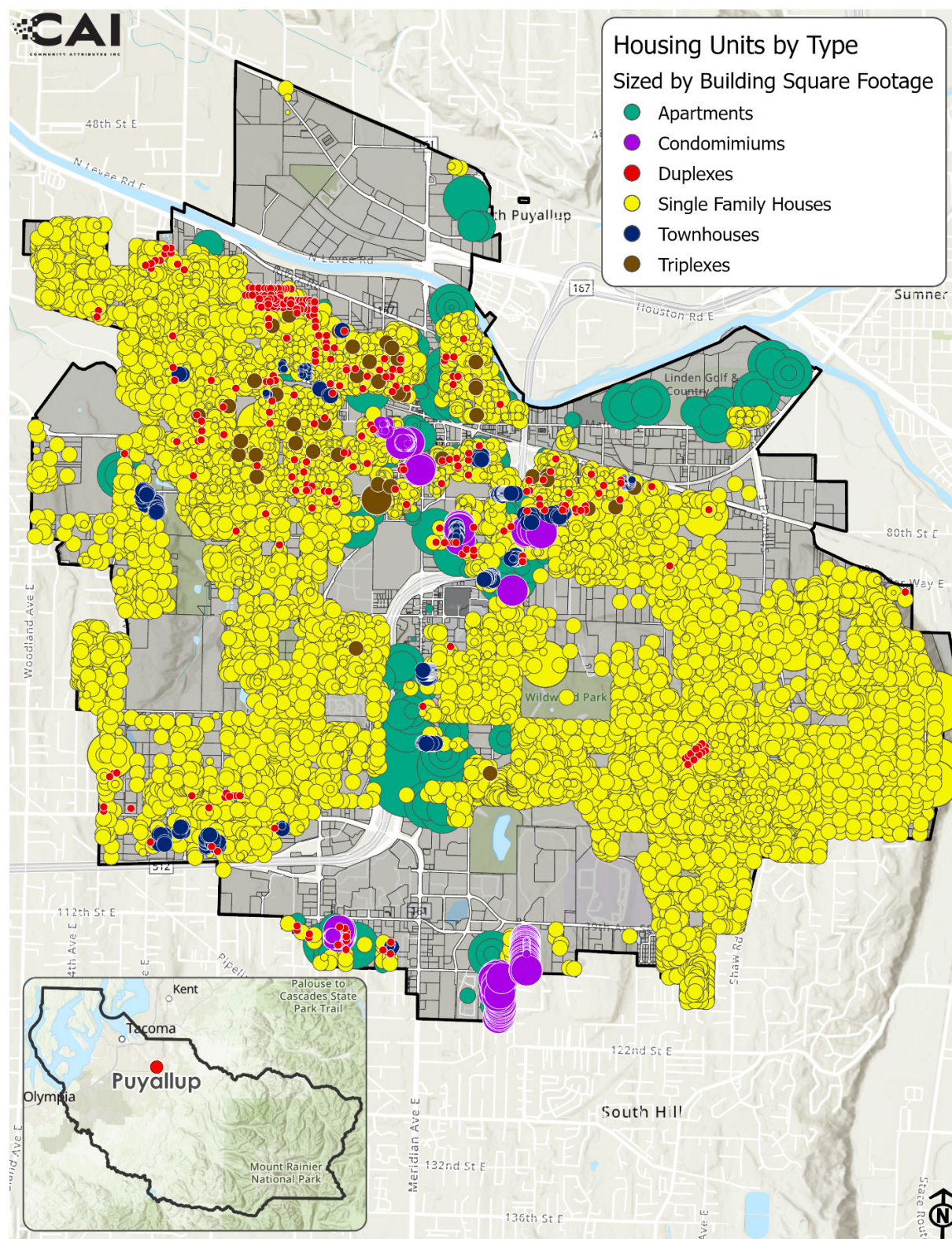


Figure 3.5-13. Housing Types and Units per Parcel, 2023

Source: Pierce County Department of Assessments, 2023; CAI, 2023.

Housing Tenure

In terms of Puyallup’s housing tenure, owner-occupied units constitute 51% of all units (Figure 3.5-14). Within this category, detached units are most often (85% of the time) occupied by the owner. The “Other” category, which includes mobile homes,¹⁴ boats, RVs, vans, etc., is the second most often occupied by the owner, at 68%. All attached housing types, including rowhouses, duplexes, and apartments, are overwhelmingly renter-occupied.

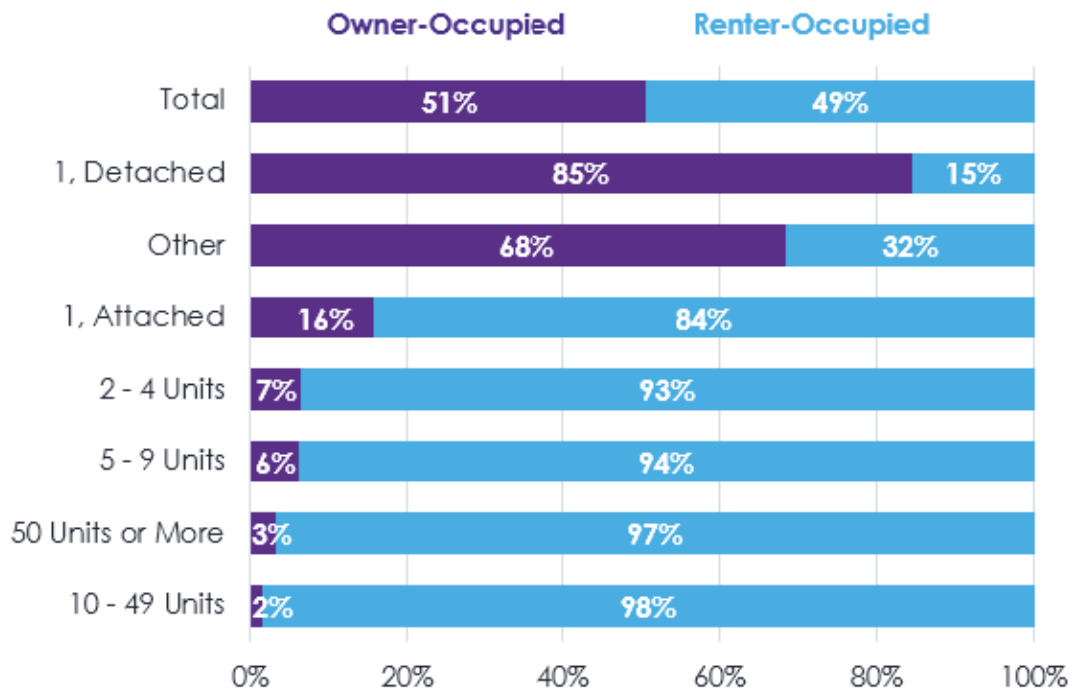


Figure 3.5-14. Housing Types by Tenure, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

Note: “1, Attached” is described as a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. This may include some rowhouses, duplexes, ADUs, etc.

Note 2: “Other” includes mobile homes, boats, RVs, vans, etc.

Housing Units by Size

The two most common housing unit sizes in Puyallup are two- and three-bedroom units, which represent 28% and 34% of all housing units, respectively (Figure 3.5-15). Pierce County as a whole has a larger share of bigger housing units, or those with three or four bedrooms, and a smaller share of one- to two-bedroom units than Puyallup. Puyallup and Pierce County have very small shares of no-bedroom (i.e., studio) and five- or more bedroom units.

¹⁴ The ACS defines mobile homes as follows: “HUD-code” Manufactured (mobile) Home – A manufactured home is defined as a movable dwelling, 8 feet or more wide and 40 feet or more long, designed to be towed on its own chassis, with transportation gear integral to the unit when it leaves the factory, and without need of a permanent foundation. These homes are built in accordance with the U.S. Department of Housing and Urban Development (HUD) building code.”

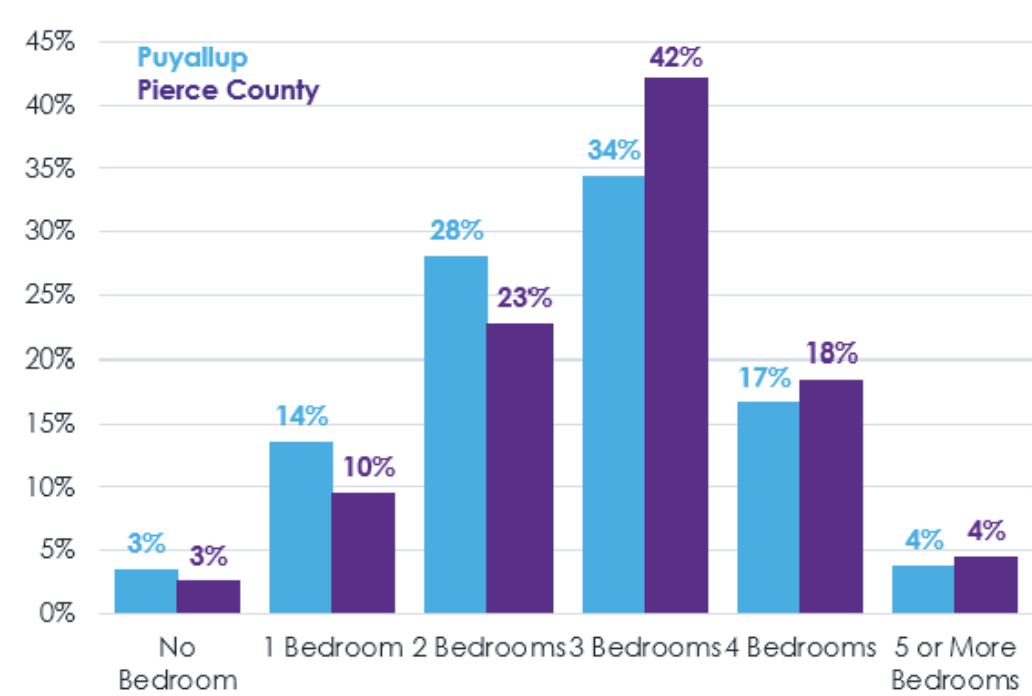


Figure 3.5-15. Number of Bedrooms in Home, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

While two- and three-bedroom units continue to make up the two largest categories of housing units in Puyallup by 2021, trends show that Puyallup’s housing stock is gradually becoming more diverse with an increase in the share of housing stock dedicated to very small or very large housing types (Table 3.5-3). Units with no bedrooms (often studio apartments) experienced the highest rate of growth between 2010 and 2020 with a compound annual growth rate of 17%. In this time period, housing units with four or more bedrooms grew to make up a larger share of the housing stock while housing units with one, two, or three bedrooms made up the same or smaller shares. Two-bedroom units had the only decrease from 2010 to 2021, showing a CAGR of -1%.

Table 3.5-3. Number and Change of Bedrooms in Unit, 2010 to 2021

Housing Unit	2010 Count	2010 Share	2021 Count	2021 Share	Net Change	CAGR Change
No Bedroom	108	1%	595	3%	487	17%
One Bedroom	2,265	14%	2,320	14%	55	0.2%
Two Bedrooms	5,150	33%	4,795	28%	-355	-1%
Three Bedrooms	5,371	34%	5,873	34%	502	1%
Four Bedrooms	2,279	15%	2,850	17%	571	2%
Five or More Bedrooms	468	3%	652	4%	184	3%
Total	15,641	100%	17,085	100%	1,444	1%

Source: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

CAGR = compound annual growth rate

Overcrowding

Lack of affordable, suitable housing can lead to overcrowding, or a higher number of individuals living within an existing housing unit. The rate at which overcrowding affects different racial groups can further illuminate the disproportionate impact of the lack of accessible, affordable housing. Overcrowding is defined by the U.S. Census Bureau as households in which there are more than 1.00 occupants per bedroom. In Puyallup, Native Hawaiian and Pacific Islander (NHPI) populations, which made up 1% of Puyallup's total population in 2021, experience the most overcrowding, at a rate of 46%. This is followed by Black (9%), Hispanic (7%), White (3%), multiracial (3%), and Asian (2%) households (Figure 3.5-16).

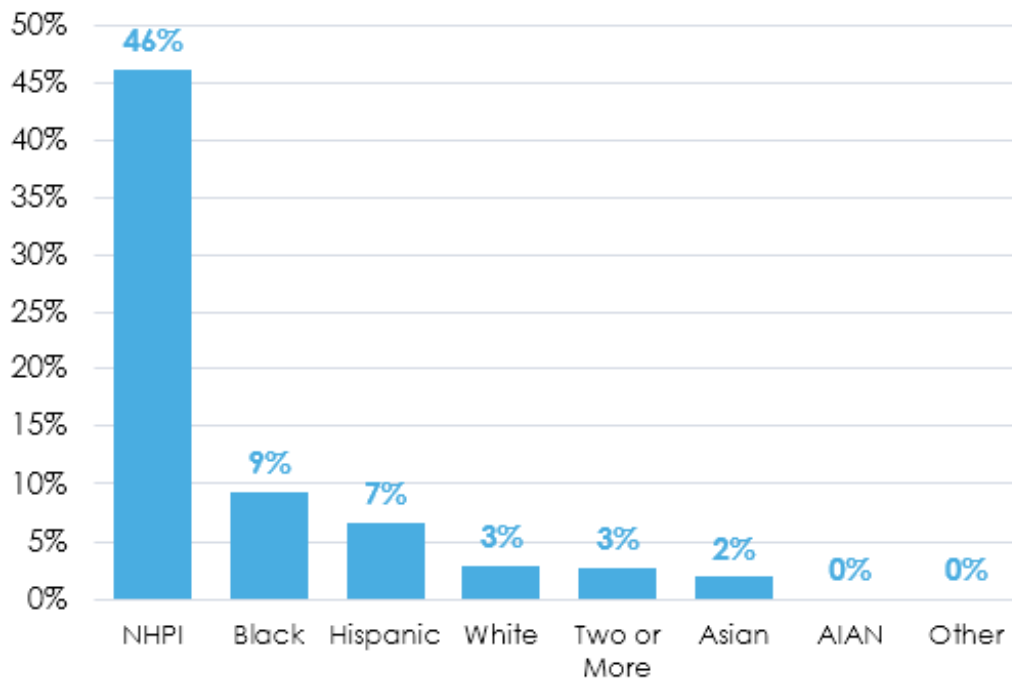


Figure 3.5-16. Rate of Overcrowding by Race/Ethnicity, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.
AIAN = American Indian and Alaska Native; NHPI = Native Hawaiian and Pacific Islander

With a few exceptions, areas directly north of 39th Avenue and surrounding SR 512 have some of the higher concentrations of crowded units in the city (between 5% and 10%). In addition, areas to the east of Shaw Road E also have relatively higher concentrations of crowded units compared to the rest of the city. Some smaller areas in the northern portion of the city, between Stewart Avenue and Levee Road, have some of the highest percentages of crowded units in Puyallup (Figure 3.5-17).

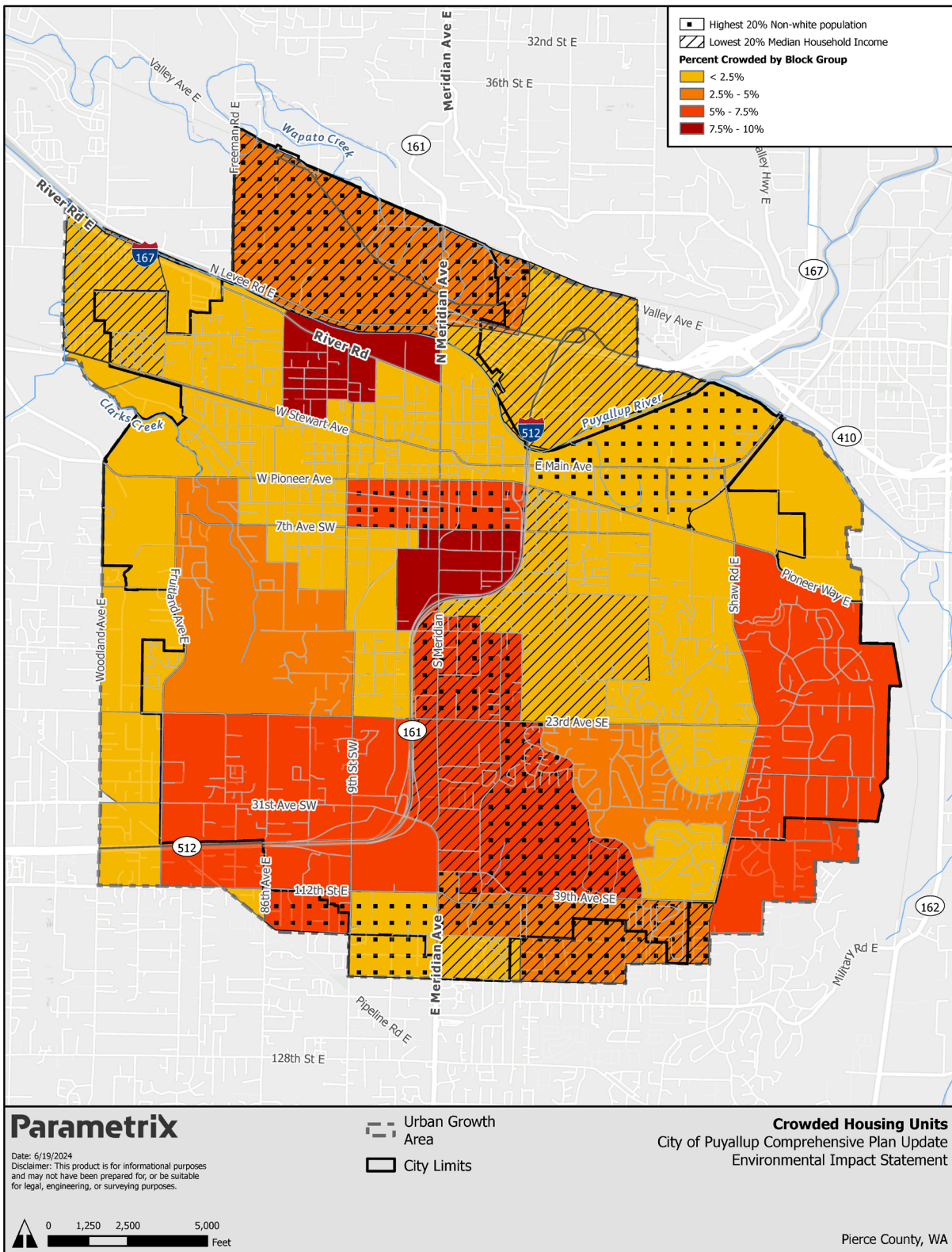


Figure 3.5-17. Crowded Housing Units

Source: City of Puyallup 2023

Housing Units by Age and Condition

In both Puyallup and Pierce County, the majority of housing units were constructed prior to 2000. The most productive time period for housing unit production was between 1980 and 1999, accounting for 38% (in Puyallup) and 31% (across Pierce County) (Figure 3.5-18). Less than 20% of Puyallup's housing stock was constructed prior to 1960, a slightly smaller share than across Pierce County. Approximately one-quarter of Puyallup's housing stock has been constructed since 2000.

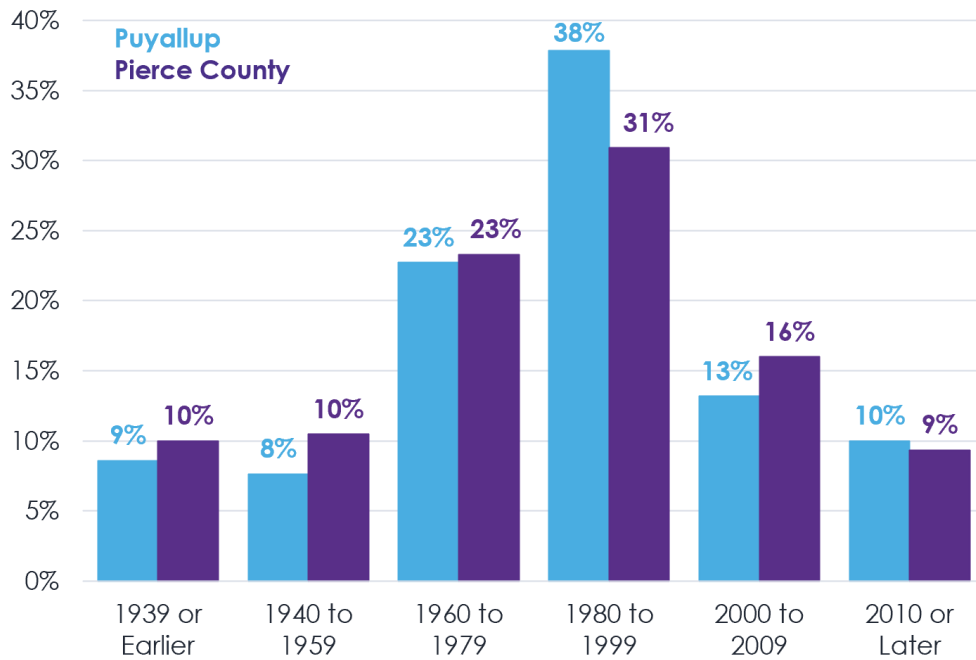


Figure 3.5-18. Age of Housing Units, Puyallup and Pierce County, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

The Pierce County Department of Assessments grades the overall condition, or depreciation, of a building unit on a parcel. The condition reflects the maintenance and upkeep of the structure. The Department of Assessments deems the vast majority (97%) of housing units in Puyallup to be in average condition, with a smaller share of units in fair (2%) and poor (1%) condition (Figure 3.5-19).

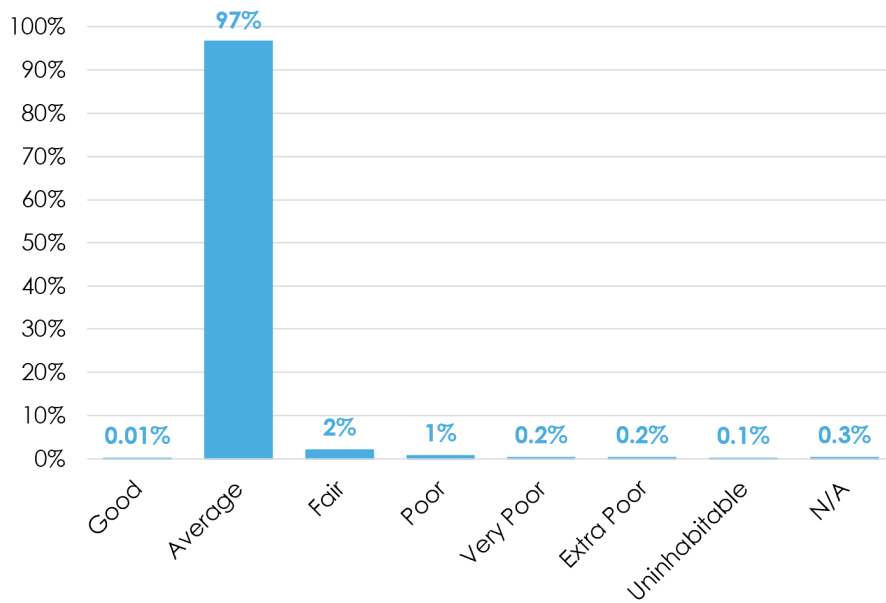


Figure 3.5-19. Housing Units by Condition, 2023

Source: Pierce County Department of Assessments, 2023; CAI, 2023.

Housing Costs and Affordability

Fifty-five percent of housing units in Puyallup and 46% of units in Pierce County are valued for ownership within the \$300,000 to \$500,000 price range (Figure 3.5-20). Within Pierce County, a larger portion of units are valued under \$300,000 (31%) compared to Puyallup (21%). Puyallup holds a higher share of units in the \$500,000 to \$1 million price ranges (24%) compared to Pierce County (20%). Both Puyallup and Pierce County share a small percentage of units with prices exceeding \$1 million (1% and 3% respectively).

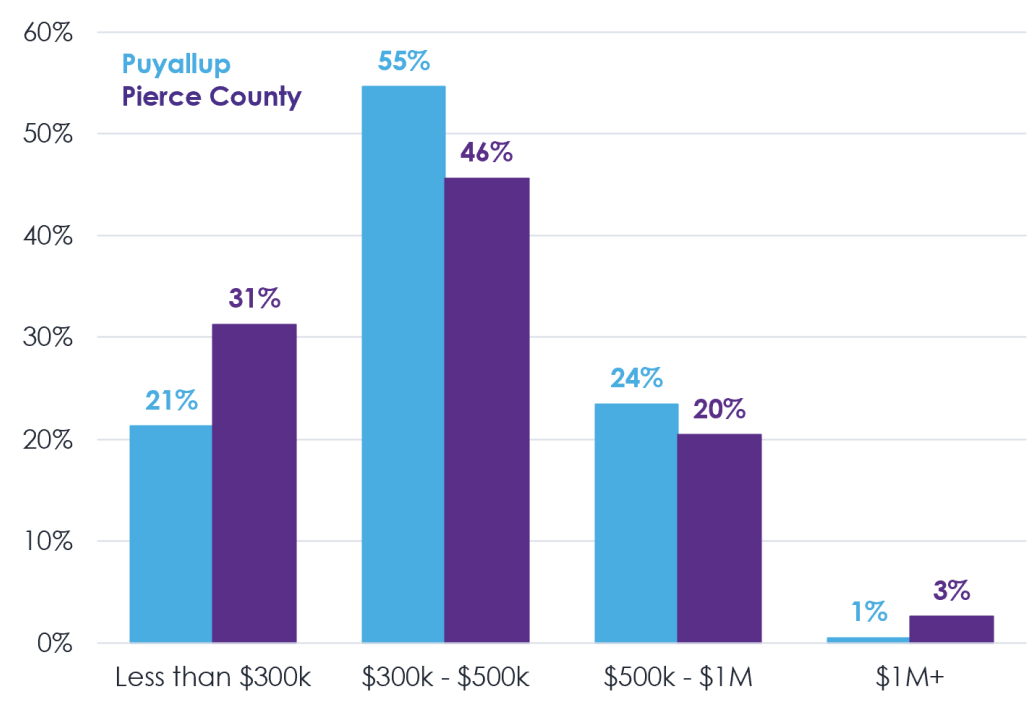


Figure 3.5-20. Owner-Occupied Housing Units Value, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

Housing affordability refers to a household’s ability to pay for housing within its financial means. Area median income (AMI) is used by the US Department of Housing and Urban Development (HUD) for determining eligibility for subsidized housing. HUD establishes extremely low-, very low-, low-, and moderate-income thresholds for households between one and eight people in size. Table 3.5-4 shows the 2021 income limits by household size in the Tacoma metro area, which includes Puyallup. The median income of a Tacoma metro area household of four is \$91,100. The median income for an individual is \$63,750.

Table 3.5-4. HUD Household Income Limits, Tacoma HUD Metro Fair Market Rent Area, 2021

Income Level	Household Size (Persons in Family)							
	1	2	3	4	5	6	7	8
Extremely Low (30% AMI)	\$19,100	\$21,800	\$24,550	\$27,250	\$31,040	\$35,580	\$40,120	\$44,660
Very Low (50% AMI)	\$31,800	\$36,350	\$40,900	\$45,400	\$49,050	\$52,700	\$56,300	\$59,950
Low (80% AMI)	\$50,900	\$58,150	\$65,400	\$72,650	\$78,500	\$84,300	\$90,100	\$95,900
Median	\$63,750	\$72,900	\$82,000	\$91,100	\$98,400	\$105,700	\$112,950	\$120,250

Sources: HUD 2021; CAI 2023.

Figure 3.5-21 compares the distribution of households by AMI level to the total number of housing units available at that same income level. In Puyallup, there is a shortage of housing units affordable for households earning less than 50% AMI (only 12% of the total housing stock), even though 20% of households fall within this income bracket. In contrast, Puyallup has a higher proportion of housing units (39% in total) that are affordable for those earning between 50 to 80% AMI, compared to the percentage of households at that income level (17%).¹⁵ For households earning 80% AMI and above (moderate- and higher-income households), Puyallup has a lower proportion of housing units affordable to those income levels (49%); however, these households can also afford the lower-cost units that are affordable to those earning below 80% AMI.

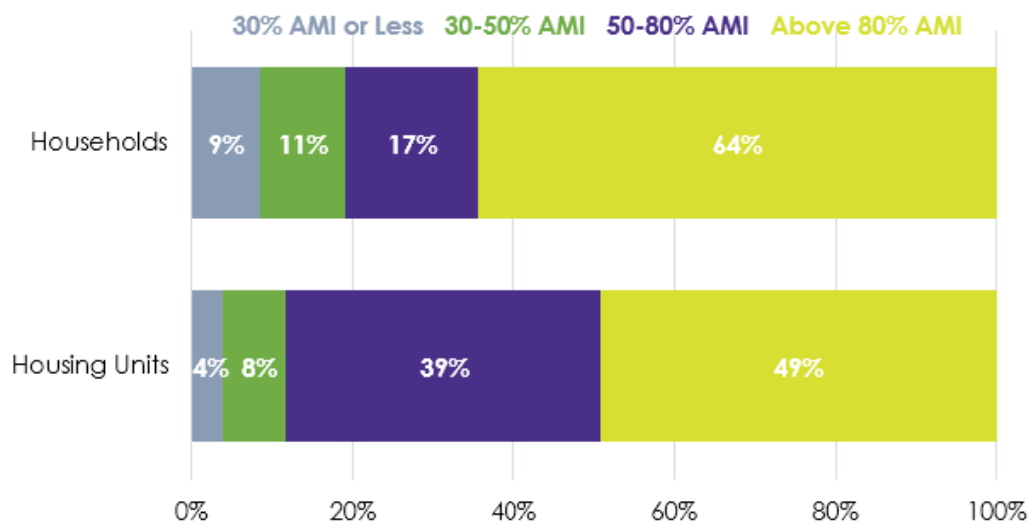


Figure 3.5-21. Affordability of Rental and Owner-Occupied Housing Units Compared to Household Incomes, 2020

Sources: HUD CHAS, 2016–2020; CAI 2023.
 Note: AMI = HUD Area Median Family Income.

¹⁵ Housing units that are affordable to households earning below 50% AMI are also affordable to households earning 50-80% AMI.

Housing Affordability by Race and Ethnicity

Figure 3.5-22 and Figure 3.5-23 show the difference between the maximum affordable rent and home value based on the median household income of racial and ethnic groups, respectively, and assuming a household will not spend more than 30% of its income on housing costs. Data are not available for Native Hawaiian and Pacific Islander households.

Overall, the median monthly rent in Puyallup in 2021 is \$1,490. Figure 3.5-22 shows the estimated **median affordable monthly rent** by racial and ethnic groups in Puyallup in 2021 as compared to the recorded median monthly rent in 2021. The median affordable rent for Asian households in Puyallup in 2021, is roughly estimated at \$2,500 in rent per month, which falls well above the recorded median rent. The median affordable rent for multiracial, white, and Hispanic households is also above the median rent price recorded in the city. Black and American Indian and Alaska Native households, in contrast, are estimated to have a median affordable rent that is lower than the median monthly rent in Puyallup.

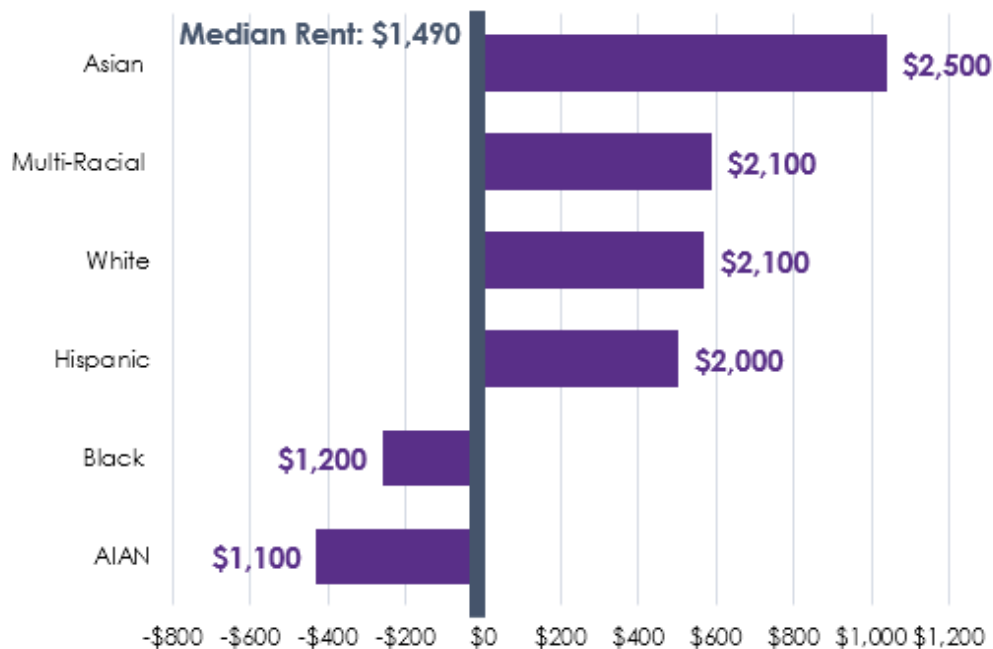


Figure 3.5-22. Rental Cost Compared to Median Affordable Rent by Racial/Ethnic Group, 2021

Source: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; CAI 2023.

AIAN = American Indian and Alaska Native

Figure 3.5-23 shows the maximum affordable **home value for owner-occupied units** for each racial and ethnic group based on their median household income. This calculation assumes the following conditions:

- A homebuyer will offer a 20% down payment and a 30-year fixed rate mortgage.
- The mortgage was calculated with an interest rate of 7.15% (the current rate at the time of calculation as published by Forbes) and insurance and property tax of 17% (an average of tax rates from Zillow, Redfin, and Bank of America mortgage calculators).
- The above factors will account for no more than 30% of a household's monthly income, so the household will not be cost burdened as defined by the U.S. Department of Housing and Urban Development.

The median home value in Puyallup was \$504,500 in 2021. The average household in Puyallup, regardless of race and ethnicity, cannot afford to buy a home at this median home value in 2021. This suggests that as Puyallup's housing costs increase, rental housing acts as a generally more affordable housing option than home ownership. An estimate of an affordable home for Asian households in Puyallup based on median household income, is roughly \$386,000. This falls approximately \$120,000 below the recorded median home value in Puyallup in 2021. The largest disparity between affordable home value, based on median household income, and Puyallup's recorded median home value in 2021 appears for Black and American Indian and Alaska Native households by a margin of more than \$315,000.

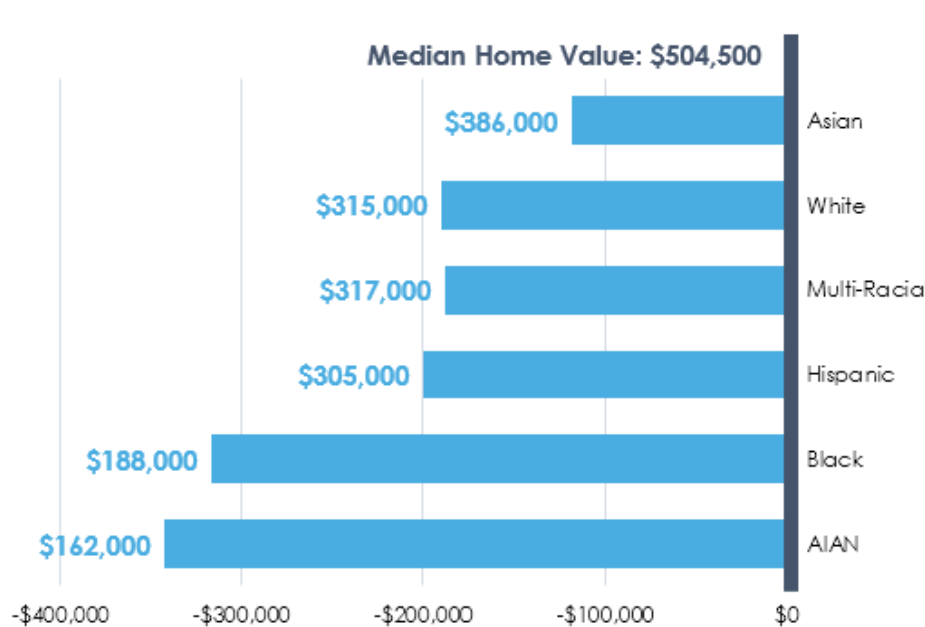


Figure 3.5-23. Owner-Occupied Housing Cost Compared to Median Affordable Housing Costs by Racial/Ethnic Group, 2021

Sources: U.S. Census Bureau ACS 5-Year 2016–2021 Estimates; Redfin 2021; CAI 2023.

AIAN = American Indian and Alaska Native

Cost-Burdened Households

The number of households that are cost-burdened or spending too much of their income on housing is an indicator of affordable housing need. HUD defines a household as cost burdened if they spend more than 30% of their gross household income on housing and severely cost burdened if they spend more than 50% of their gross household income on housing. One third of all Puyallup households are cost burdened, with 11% of those severely cost burdened.

Figure 3.5-24 provides insight into the extent of cost burden among various types of households in Puyallup. Among these, older adults living alone exhibit a significantly higher likelihood of experiencing cost burden, with 31% facing cost burden and an additional 31% enduring severe cost burden. Following closely are family groups categorized as “Other,” which encompasses non-elderly non-family households, with approximately 24% facing cost burden and an additional 13% enduring severe cost burden. Around 14% of small family households, consisting of two to four members, none of whom are older adults, experience cost burden, and 7% of them contend with severe cost burden. In contrast, older adult family households, composed of two individuals aged 62 or older, show a lower rate of cost burden, with 16% experiencing it and only 4% enduring severe cost burden. Large family households, those with five or more members, exhibit the lowest overall rate of cost burden at 12%, of which 10% are cost burdened and 3% are severely cost burdened.

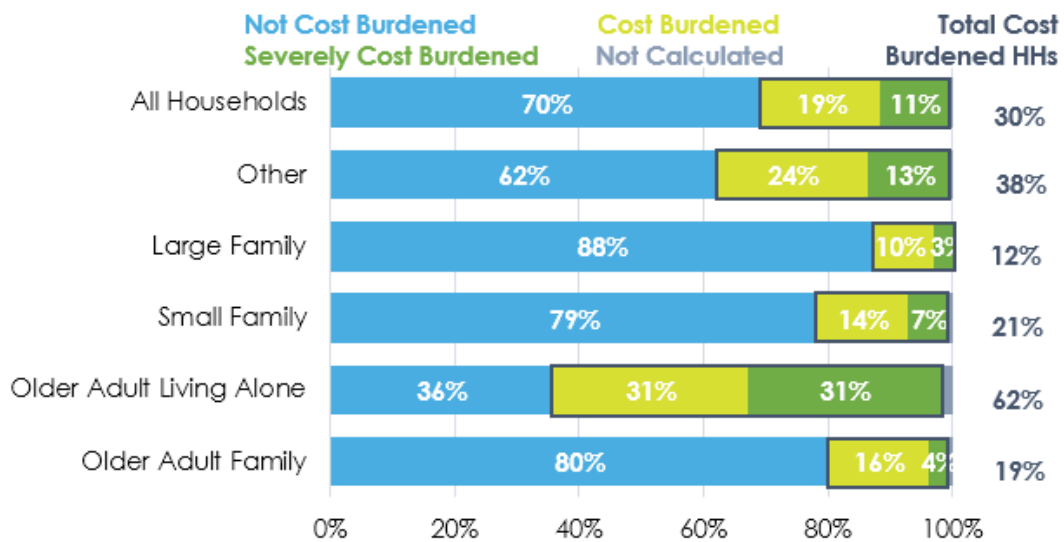


Figure 3.5-24. Cost Burdened Status by Household Type, 2020

Sources: HUD CHAS 2016–2020; CAI 2023.

Figure 3.5-25 displays cost burden by race and ethnicity from 2016-2020. Of the entire population, 30% of households are considered cost burdened, with 11% experiencing severe cost burden. Cost burden is most prevalent in Black households (64% of all households). Of those households, 24% are experiencing severe cost burden. The second most cost burdened group is the Native Hawaiian and Pacific Islander (NHPI) population, which makes up 1% of Puyallup's total population, and in which nearly half experience severe cost burden. The Hispanic population is the third most cost burdened population at 41% of all households, 15% of which are severely cost burdened.¹⁶ White, Asian, and households that identify as a race not included here have a total of 29%, 20%, and 16% of cost burdened households, respectively. Approximately 4% of the American Indian and Alaska Native population experience cost burden.

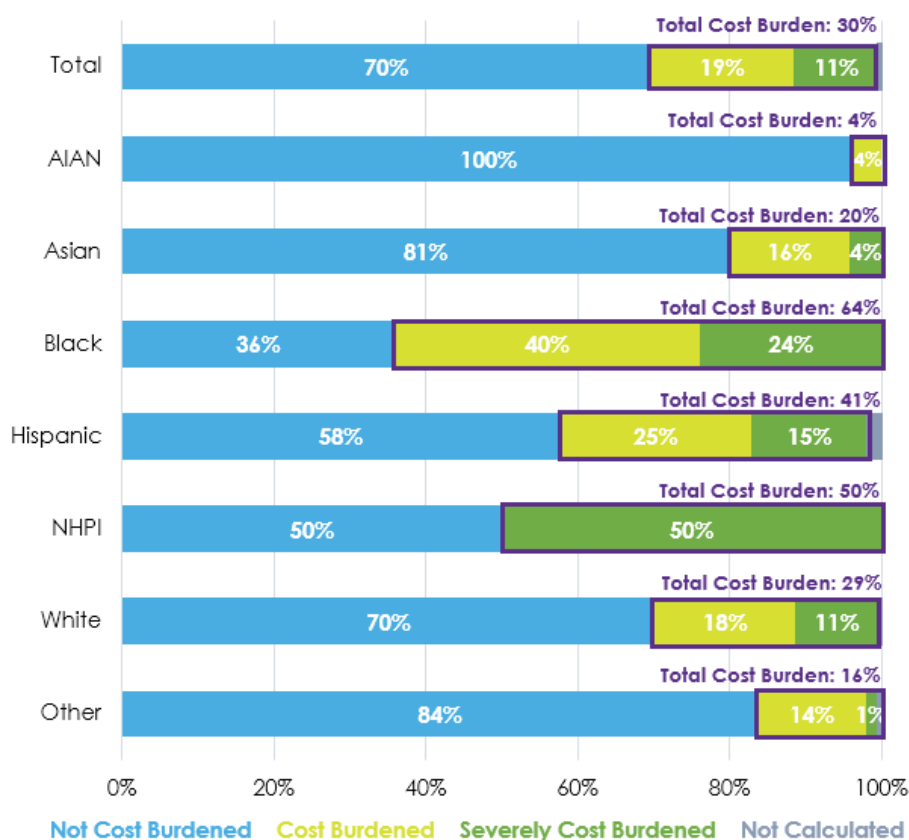


Figure 3.5-25. Cost Burden by Race and Ethnicity, 2016 to 2020

Sources: HUD CHAS 2016-2020; CAI 2023.

AIAN = American Indian and Alaska Native; NHPI = Native Hawaiian and Pacific Islander

¹⁶ While Figure 3.5-22 shows that the estimated median affordable rent for Hispanic households is higher than the recorded median rent in Puyallup in 2021, the measure of cost burden in Figure 3.5-25 takes into account data from 2016-2020 for both rental and ownership housing costs.

Figure 3.5-26 provides a breakdown of cost burden based on income level and housing tenure. In Puyallup, homeowners are less likely to be cost burdened than renters, with 18% of homeowner households experiencing cost burden compared to 42% of renter households. Smaller shares of moderate- and high-income owner households are cost burdened, at 24% and 3%, respectively. Regardless of their AMI level, renter-occupied households exhibit a higher likelihood of experiencing cost burdens. The most substantial cost burden is observed among very low-income renter households, with 88% spending more than 30% of their income on housing.

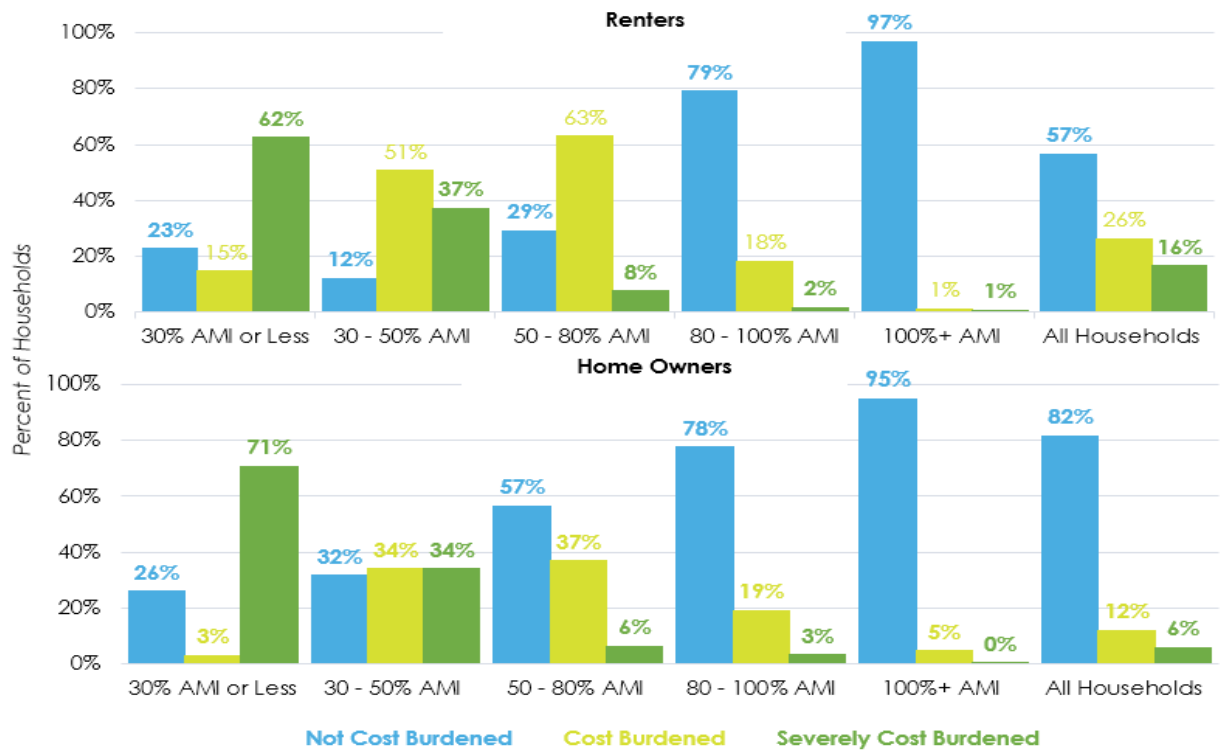


Figure 3.5-26. Distribution of Cost Burdened Status (Households) by AMI and Tenure, 2020

Sources: HUD CHAS 2016–2020; CAI 2023.

Note: AMI = HUD Area Median Family Income.

Mobile Home Parks and Units

Mobile home parks represent a type of “naturally occurring affordable housing,” due to their typically low housing costs for residents; however, rent levels for mobile home parks are not restricted via covenant or other means. There are two mobile home communities within the City of Puyallup’s boundaries: Elmwood Mobile Home Park and Meridian Mobile Estates.¹⁷ Meridian Mobile Estates, which held spaces for 42 homes, closed in 2019. Elmwood Mobile Home Park provides 30 mobile home sites. There are four other mobile home parks that fall just outside of Puyallup’s official city boundary, including Alpine Pioneer Mobile Home Park to the East, Norman J Greenfield Mobile Home Park to the North, and Riverside Villa Mobile Home Park¹⁸ and Clark’s Creek to the West. These four parks provide 123 units, of which there is currently a 16% vacancy rate.

¹⁷ State of Washington Department of Revenue, 2023. Open Pierce County, 2023.

¹⁸ Riverside Villa Mobile Home Park falls within Puyallup’s Urban Growth Area boundary, but is pending closure.

Affordable Housing Covenants

Affordable housing covenants in multifamily housing units limit the rental prices of a certain number of units to local area median income (AMI) levels. There are seven multifamily complexes that currently hold affordable covenants on a total of 582 units in Puyallup (Table 3.5-5). One community's covenant is set to expire in 2023, resulting in the loss of four affordable units. The majority of affordable units protected by housing covenants are set to expire in the mid-2040s. These complexes are evenly dispersed along Puyallup's north/south centerline, clustering along the 512 highway and Meridian.

Table 3.5-5. Status of Affordable Housing Covenants, 2023

Community or Project Name	Affordable Units	Duration (Years)	Expiration Year
3 Bed Duplexes	4	N/A	2023
Glenbrooke Apartments	225	40	2028
Puyallup Silvercrest	41	N/A	2036
Sunset Garden Apartments	276	40	2047
Creative Living/Four Bed Homes	8	N/A	2048
GAPP Homes III	3	N/A	2049
Rainier View Apartments	25	62	2050
Total	582	N/A	N/A

Source: Washington State Housing Finance Commission, 2023; CAI, 2023.

Homelessness

While data on homelessness within Puyallup is not available, this report relies on data from Pierce County, which provides a broader picture of homelessness in the region. Pierce County's Point-in-Time (PIT) count is an annual profile of individuals experiencing homelessness. The PIT count includes both sheltered individuals (temporarily living in emergency shelters, transitional housing, or other temporary accommodations) and unsheltered individuals (those sleeping outside or living in places that are not meant for human habitation).¹⁹ In the year 2023, this count identified 2,148 individuals as experiencing homelessness in Pierce County (Figure 3.5-27); however, Pierce County's Homeless Crisis Response System engaged with approximately 6,500 different individuals during the same period. The lower PIT count underscores the intricacies associated with counting a large, geographically distributed unsheltered population within the constraints of a 24-hour time frame. Various factors, such as weather conditions, the availability of overflow shelter accommodations, volunteer numbers, and the extent of engagement with the individuals interviewed by volunteers, can all influence the outcomes of this count.

While there was an increase of 297 individuals from 2022 to 2023 in the PIT counts, the 2023 figures now employ an updated methodology. In 2022, the methodology focused solely on a literal headcount of homeless individuals and did not account for those relying on temporary solutions, like staying with relatives or friends. In contrast, the 2023 methodology employs a measurement system based on the number of people accessing services within Pierce County's homeless crisis response

¹⁹ Pierce County Homeless Point-In-Time Count, <https://www.piercecountywa.gov/4719/Homeless-Point-in-Time-PIT-Count>

network. This updated approach encompasses not only those who are currently homeless but also individuals seeking services and who may be at risk of homelessness.²⁰

Based on the 2023 PIT data, the three primary factors driving homelessness are family crises, the unavailability of affordable housing, and eviction and mortgage foreclosures.

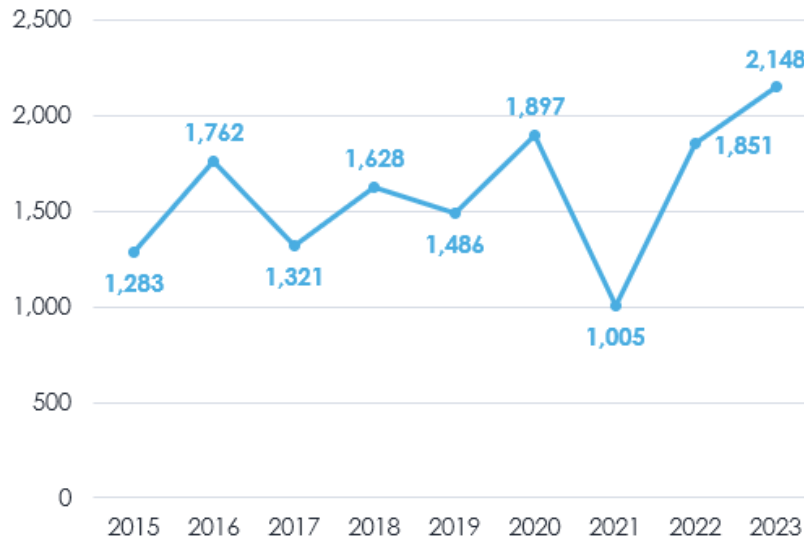


Figure 3.5-27. Point-in-Time Homeless Population, Pierce County, 2015 to 2023

Source: Pierce County Homeless Point-in-Time Count 2023; CAI 2023.

Displacement Risk and Neighborhood Resilience

The PSRC displacement risk map identifies areas where residents and businesses are at greater risk of displacement, based on a methodology defined by PSRC. Recent growth in the regional economy and pressure on the housing market has led to displacement of residents and businesses when neighborhood conditions have forced residents to move. Displacement risk is a composite of indicators representing five elements of neighborhood displacement risks:

- Socio-demographic indicators look at characteristics of current residents. These indicators include race and ethnicity, linguistic isolation, educational attainment, housing tenure, housing cost burden, and household income;
- Transportation indicators include access to jobs by car and transit, proximity to existing transit, and proximity to future light rail and streetcar service;
- Neighborhood characteristics include the proximity to services like supermarkets, restaurants, parks, and schools, and proximity to high-income areas;
- Housing indicators include development capacity and median rental prices; and
- Civic engagement is measured by voter turnout.

The data from these five displacement indicators create a composite displacement risk score for all census tracts in the region. Figure 3.5-28 shows the displacement risk index for the City of Puyallup,

²⁰ Pierce County Point-In-Time Count, <https://www.piercecountywa.gov/4719/Homeless-Point-in-Time-PIT-Count>

along with areas of the city that have the highest percentages of non-white residents and low-income households. Puyallup does not have any tracts that are considered high risk. Most tracts that are at moderate risk of displacement are also areas of the highest concentration of non-white residents and the lowest median household incomes. The moderate risk census tracts are primarily located in the south and central portions of the city, specifically south of 39th Avenue and the tracts east of SR 512. The tract in the north between Pioneer Avenue and River Road is also moderate risk.

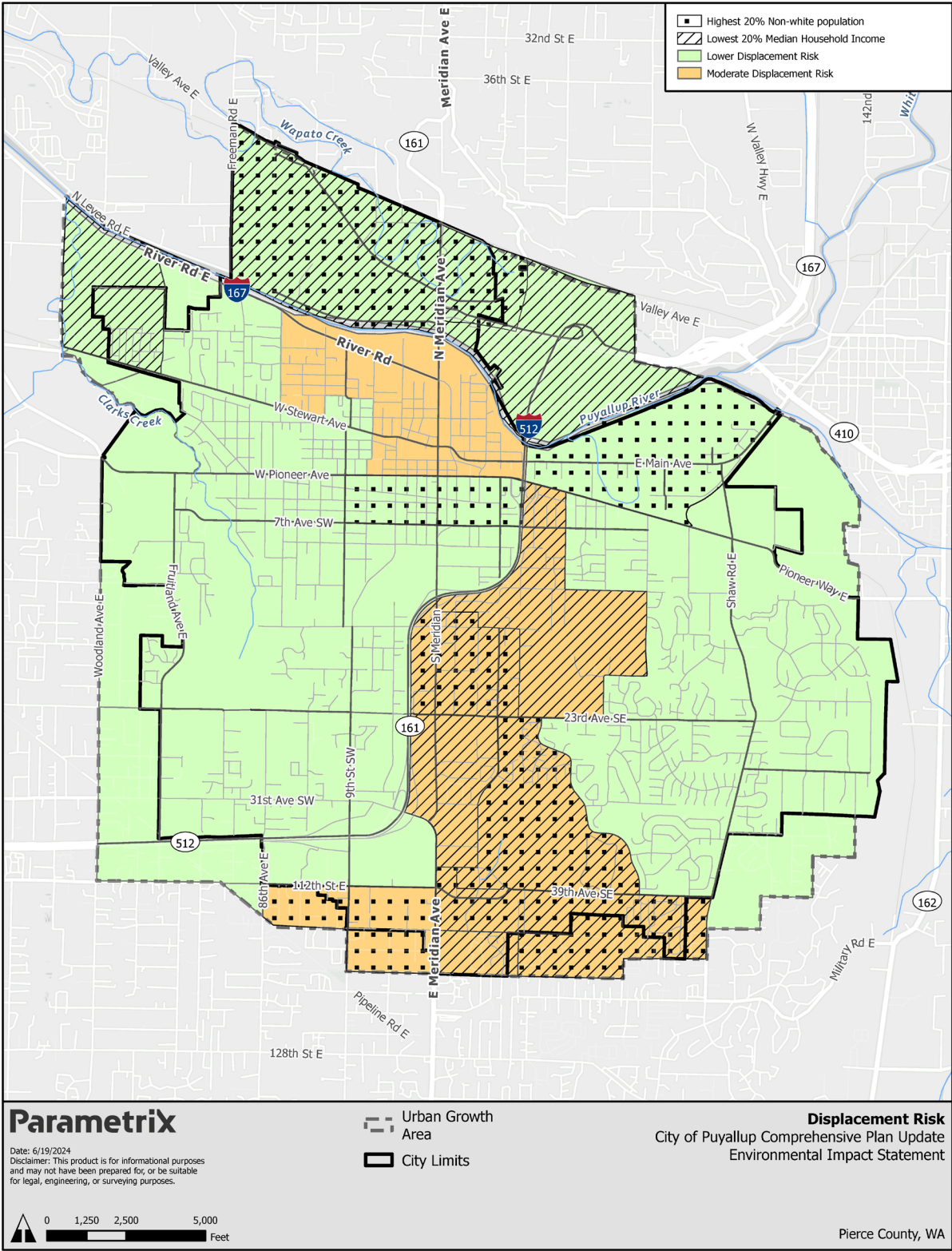


Figure 3.5-28. Displacement Risk
Source: PSRC 2023

Employment Considerations

Employment Growth

According to PSRC, Puyallup's total employment includes 28,487 jobs, as of 2022. This reflects an increase of 10,641 positions in the city between 2000 and 2022 (Figure 3.5-29). While employment increased on the whole, several drops in employment occurred in relation to major economic events such as the 2008 recession and the 2020 COVID-19 pandemic.

An estimated 14,715 new jobs are required to meet projected employment and population growth targets for 2044.

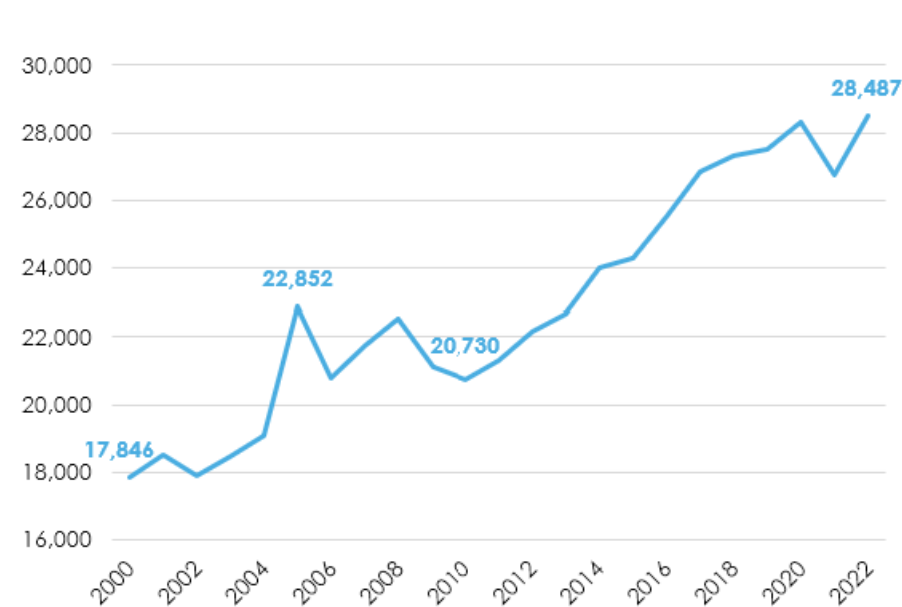


Figure 3.5-29. Covered Employment, 2000 to 2022

Sources: Puget Sound Regional Council 2022; CAI 2023.

Employment by Industry Sector

Employment in the services sector is prevalent in both Pierce County and in Puyallup and has only grown from 2010 to 2022, ending with the sector holding 43% and 53% of employment share respectively (Figure 3.5-30). Trailing far behind, the second largest share of employment is held by the retail sector, making up 11% of Peirce County's employment and 17% of Puyallup's employment. As employment in Pierce County grew from 2010 to 2022, the employment share by sector largely remained similar with only small variations (3% or less change in employment share). In Puyallup, retail jobs dropped by 5% from 2010 to 2022, while all other sectors saw small variations (3% change in employment share or less). Pierce County has a more diverse employment share among different sectors, and a larger share of employment is held by the government, warehousing, transportation and utilities, and manufacturing sectors.

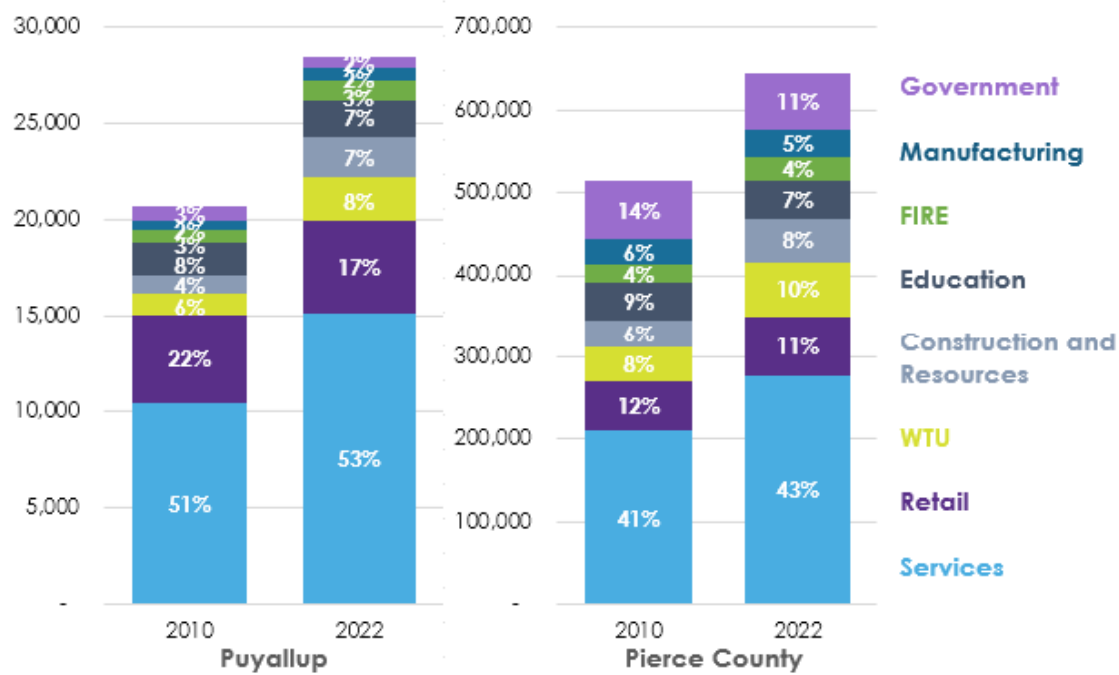


Figure 3.5-30. Employment by Industry Sector, 2010 to 2022

Sources: Puget Sound Regional Council 2022; CAI 2023.

In 2022, the Health Care and Social Assistance field stood as the leading industry in terms of employment, contributing 6,546 jobs followed by Retail Trade with 4,835 positions, and Accommodation and Food Services with 3,307 positions Table 3.5-6. From 2010 to 2022, the Health Care and Social Assistance industry exhibited a modest CAGR of 2%. In contrast, the Transportation and Warehousing industry experienced the greatest CAGR at 23% (ranked fourth in 2022) followed by Administration with a 9% CAGR (ranked seventh in 2022). Government jobs faced the greatest employment decline, observing a CAGR of -2% while Sales experienced a minor decline of -0.1%.

Table 3.5-6. Ten Largest Sectors by Employment, 2010 and 2022

NAICS 2-Digit	Industry	2010		2022		Net Change	CAGR
		Emp	Rank	Emp	Rank		
62	Health Care and Social Assistance	4,890	1	6,546	1	1,656	2%
44-45	Retail Trade	4,558	2	4,835	2	277	0.5%
72	Accommodation and Food Services	2,333	3	3,307	3	974	3%
48-49	Transportation and Warehousing *	150	12	1,882	4	1,732	23%
54	Professional, Scientific, and Technical Services	567	6	1,478	5	911	8%
81	Sales	1,325	4	1,314	6	-11	-0.1%
56	Administration	283	10	817	7	534	9%
31-33	Manufacturing *	275	11	677	8	402	8%
51	Information	510	7	633	9	123	2%
91	Government	722	5	599	10	-123	-2%

Source(s): Puget Sound Regional Council, 2022; CAI, 2023.

*The 2010 Transportation and Warehousing and Manufacturing sectors contain suppressed data as per the PSRC employer information protection, stipulated by ESD.

CAGR = compound annual growth rate; Emp = employees

Industry Specialization

Industries experiencing cluster advantage in Puyallup are health care and social assistance, accommodation and food services, retail, transportation and warehousing, information, professional, scientific and technical services, and other services.

Location quotient (LQ) is a measure that compares the frequency of an industry in a specific study area to that of the nation. LQ values higher than 1 show a greater concentration of that industry in the study area than in the nation. Figure 3.5-31 shows the six industries in which Puyallup specializes, having received a LQ value over 1 in 2021 compared to LQ values by industry in Pierce County. Puyallup's top industry specializations in 2021 are health care and social assistance, with an LQ of 2.0, accommodation and food services with 1.8, and retail trade, with 1.8. In contrast, management and government are both industries which demonstrate a high concentration of jobs within Pierce County compared to the nation through high LQ values, but do not have a strong presence in Puyallup and receive low LQs indicating a low concentration as compared to the nation.

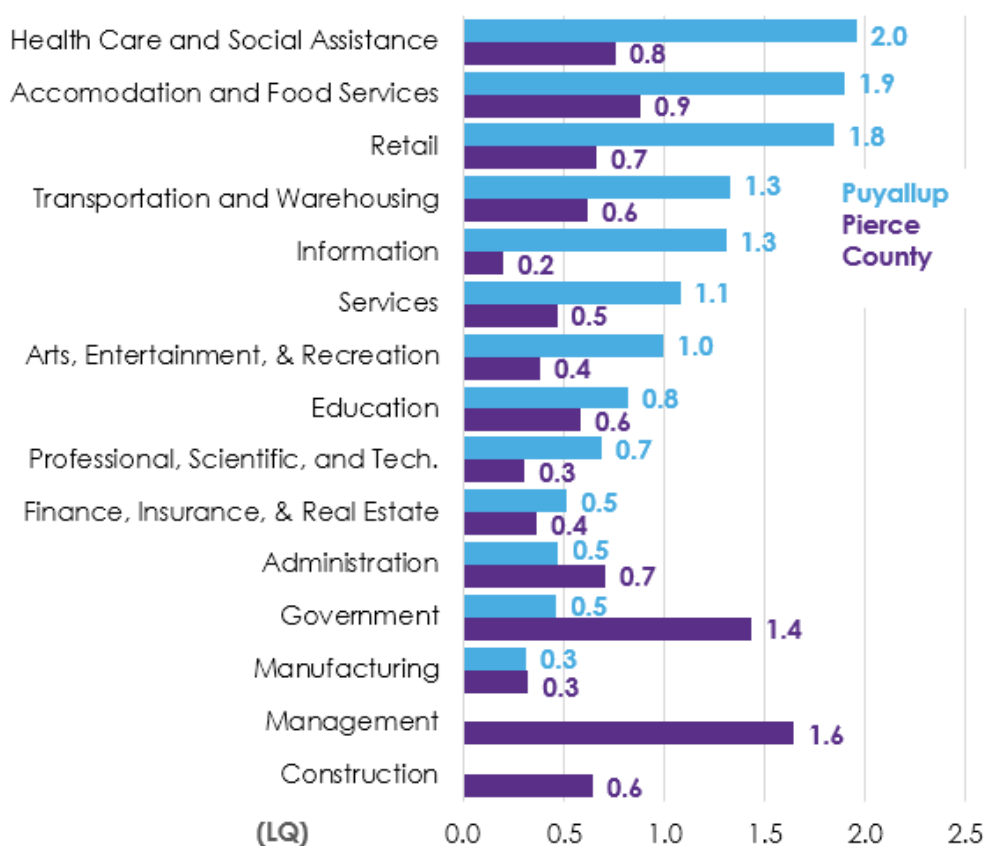


Figure 3.5-31. Industry Specializations, 2021

Sources: Puget Sound Regional Council Two-digit NAICS 2021; American Community Survey 2021; CAI 2023.

Commute Flow

The majority of the employed residents living in Puyallup commute to work outside of the city, with an estimated 14,276 residents out of 15,778 (roughly 91%) (Figure 3.5-32).²¹ Conversely, an estimated 21,792 employees who work in Puyallup commute into the city from elsewhere in the region. Only a small share of residents who live in Puyallup, work in Puyallup (less than 10%).

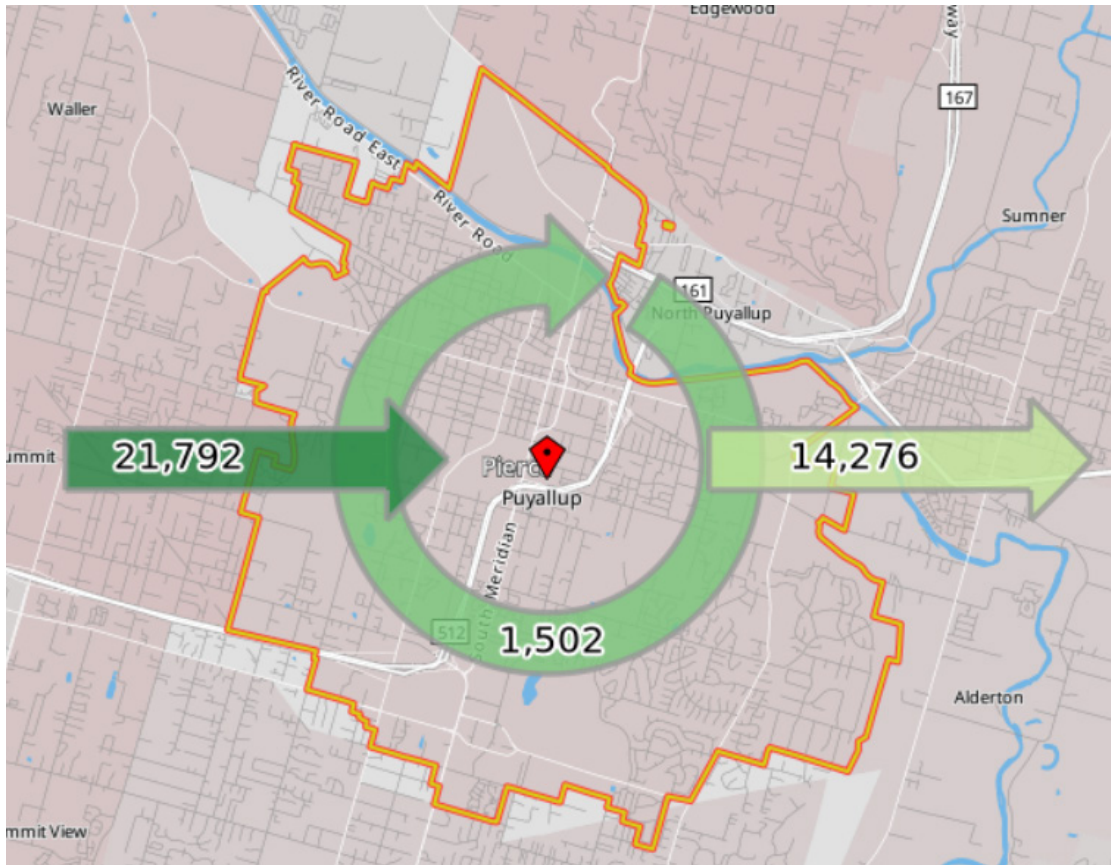


Figure 3.5-32. Employment Inflow/Outflow

Source: Census OnTheMap, 2024.

Jobs and Housing

Puyallup's jobs-to-housing ratio is an indicator of growing pressure in the housing market, which may lead to decreased availability and affordability of housing in Puyallup.

Puyallup has a higher ratio of jobs to housing units compared with the county, suggesting that the city acts as a regional employment center and experiences relatively strong economic activity (Figure 3.5-33). In both Puyallup and Pierce County, the ratio of jobs to housing units increased from 2010 to 2022, suggesting that overall, housing production has not kept up with increases in employment, though the increase was more pronounced in Puyallup than in the county.

²¹ Census OnTheMap. <https://onthemap.ces.census.gov/>

A large gap between housing and job opportunities, coupled with commute data, can indicate that the city does not have enough housing to accommodate its workforce or enough housing matching the needs and affordability levels of those wanting to live there. Still, Puyallup's adopted job growth target of 14,715 new jobs outpaces the city's adopted housing growth target of 7,482, suggesting that this imbalance is projected to continue into 2044.

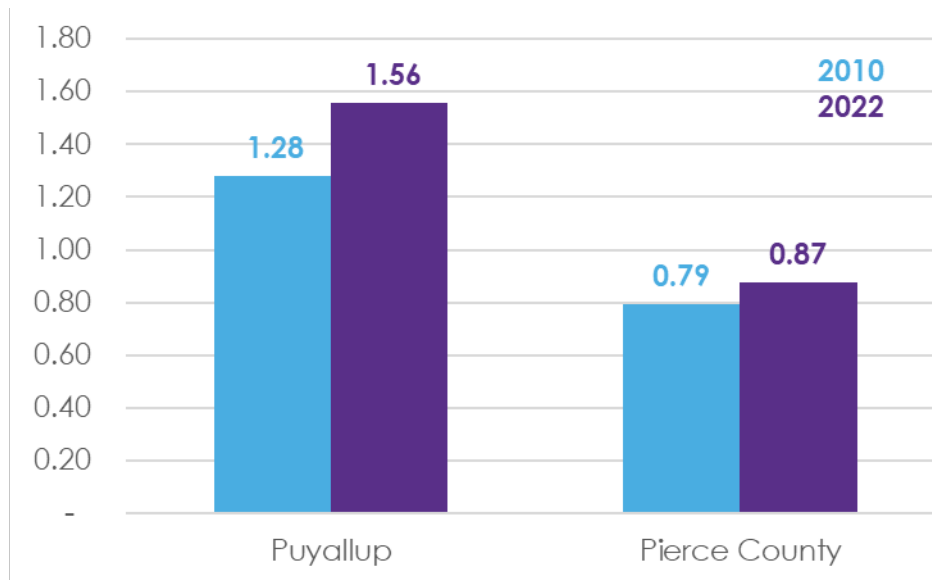


Figure 3.5-33. Jobs to Housing Unit Ratio, 2010 to 2022

Sources: Puget Sound Regional Council, 2010 & 2022; Washington Office of Financial Management, 2010 & 2022; CAI, 2023.

Economic Justice and Opportunity

The Opportunity Index Map identifies areas where residents and businesses are in, “a situation or condition that places individuals in a position to be more likely to succeed or excel,” as defined by PSRC.²² The score assigned to opportunity is a composite of indicators representing five elements, similar to those demarcating neighborhood displacement risks:

- Education
- Economic health
- Housing and neighborhood quality
- Mobility and transportation
- Health and environment

The data from these five indicators is mapped onto all census tracts in the region. Puyallup appears to have higher opportunity in central tracts and tracts in the northwest corner of the city. Low and very low opportunity appears more frequently in the eastern half and southern portion of the city (Figure 3.5-34).

²² [Opportunity Mapping in Central Puget Sound \(arcgis.com\)](https://arcgis.com)

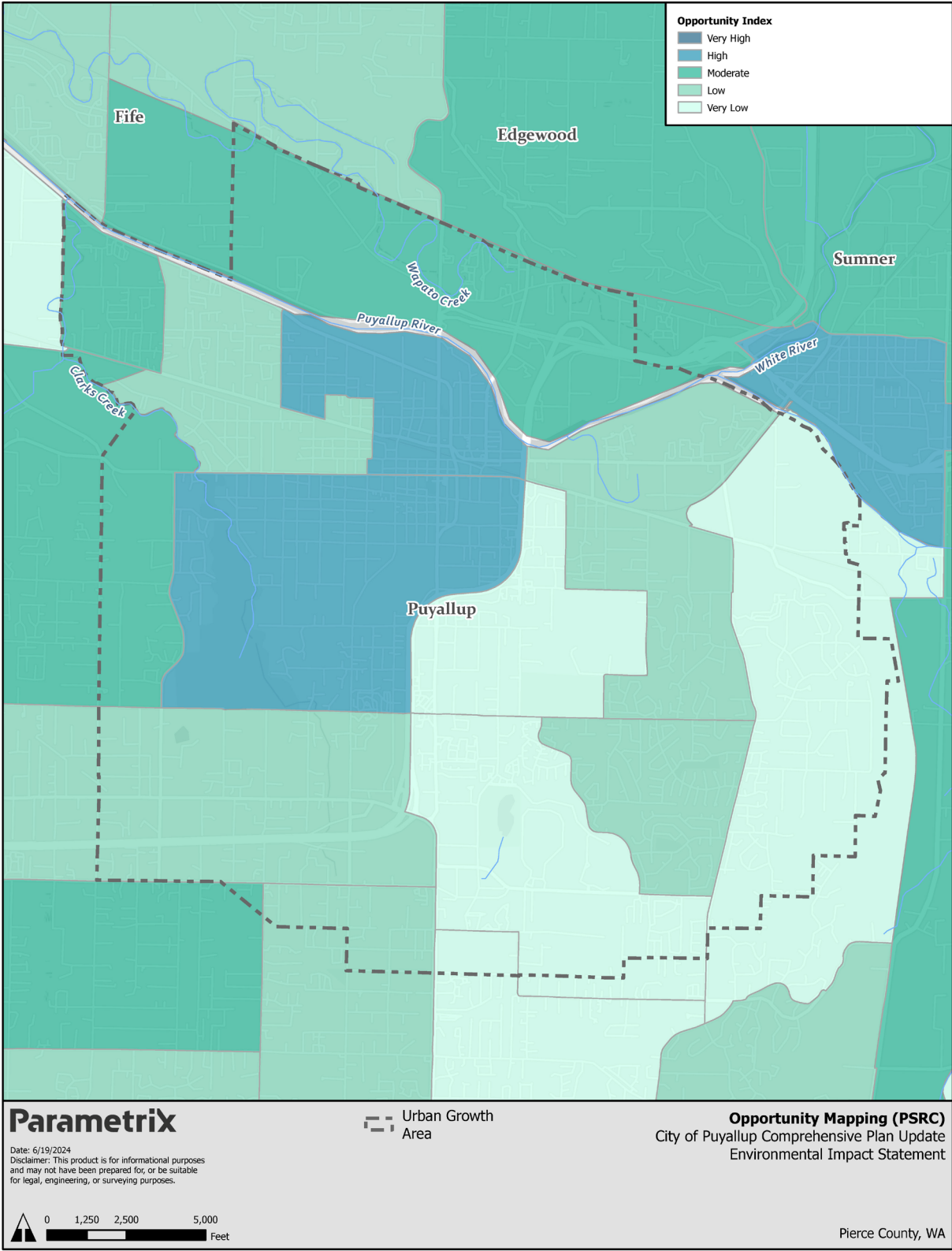


Figure 3.5-34. Opportunity Mapping (PSRC)

Source: Puget Sound Regional Council Opportunity Mapping, 2024.

Additionally, if you look at the economic health indicator along, high rates of opportunity emerge in the northern part of Puyallup, close to the River Road corridor and decrease as you move south. South Hill and South Meridian are areas that could use intentional investment to decrease rates of unemployment, increase instances of living wage jobs, and promote job growth.

3.5.2 Impacts

This section describes the potential impacts to population, employment, and housing that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

Mitigation measures, as needed to reduce significant impacts, are identified in Section 3.5.3.

3.5.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on population, employment, or housing. Impacts of the alternatives on population, employment, and housing were considered significant if they met the following criteria:

- Are unable to provide sufficient buildable land capacity to meet housing and job growth targets for 2044, including requirements to accommodate affordable housing across economic income segments and a range of housing types.
- Result in a decrease in the supply, diversity, or affordability of market-rate housing.
- Lead to displacement of substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere.
- Lead to substantial commercial displacement as a result of redevelopment.

3.5.2.2 Impacts Common to All Alternatives

Growth Targets and Affordability Requirements

Housing Targets

All alternatives would result in greater numbers of jobs and housing units but at varying levels and distributions throughout the city. Citywide, Pierce County's adopted 2044 growth targets for Puyallup are 7,482 additional housing units and 14,715 jobs. The difference in achieving these growth targets across the alternatives is described in Section 3.4, Land Use, and summarized in Table 3.5-7

Table 3.5-7. Targets and Capacity by Alternative (within City Limits)

	2044 Targets	2044 Targets Minus Already Developed Parcels	Alternative 1 (No Action)	Alternative 2	Alternative 3
Housing Units	7,482	6,910	6,690	13,420	14,210
Jobs	14,715	13,970	8,880	17,020	18,520

Note: These numbers apply to areas within the city limits, and do not include the additional housing units or jobs available in the unincorporated land within the urban growth area.

Housing Land Capacity Analysis

As described in Section 3.5.1, Affected Environment, 36.70A.070 (updated by HB 1220) requires each jurisdiction to “plan for and accommodate” housing that meets the needs of all income levels, including emergency housing and permanent supportive housing. The income levels identified by HB 1220 include the following:

- Extremely low – 0% to 30% AMI (includes permanent supportive housing)
- Very low – 30% to 50% AMI
- Low – 50% to 80% AMI
- Moderate – 80% to 120% AMI

Puyallup’s targets for the number of units within each income bracket needed by 2044 are allocated by Pierce County (Ordinance No. 2023-22s).

A housing land-capacity analysis was prepared to measure and document the capacity for new housing development on vacant, partially used, or under-developed lands.²³ The land-capacity analysis compared the three alternatives and evaluated each’s ability to accommodate housing needs by income level, and it evaluated emergency housing capacity.

In general, new housing in Puyallup’s low-density residential zones is assumed to meet the needs of higher income (>120% AMI) households, while moderate-density and mixed-use zones are assumed to provide housing affordable to those with moderate incomes. Higher-density residential zones that are expected to produce low- and mid-rise multifamily units have the ability to meet the needs of low-, very low-, and extremely low-income households. A portion of mixed-use areas is also assumed to be developed with stand-alone multifamily housing, thereby meeting a portion of the lower-income needs. Additionally, accessory dwelling units on single-family lots are also assumed to accommodate the needs of lower-income households.

Table 3.5-8 summarizes the potential housing capacity by income level for each of the three alternatives. As shown, Alternatives 2 and 3 provide adequate capacity to meet housing needs for extremely low-, very low-, low-, and moderate-income households. Alternative 1 would meet the needs of moderate-income households, but it would not meet housing needs for the three lower-income levels (with a collective deficit of capacity for over 1,700 units). All three alternatives would

²³ MIG, Puyallup Housing Land Capacity Analysis, 2024

fall short in terms of capacity for households earning over 120% AMI.²⁴ This is primarily because low-density-zoned areas within Puyallup cannot achieve adequate densities to meet the demand for housing at this income level. However, surplus moderate-density and mixed-use development could also meet the needs of these higher-income households.

In addition to housing units for all income levels and needs, HB 1220 also requires cities to provide sufficient capacity for emergency shelters, emergency housing, and transitional housing. Further discussion of emergency housing impacts is described in the impact section for each alternative.

Additionally, all of the alternatives would focus on development inside the regional growth centers Downtown and South Hill. While development and activity unit density would have the most potential with Alternative 2, both Alternative 1 and Alternative 3 would plan to accommodate an increase in activity unit density within these centers.²⁵ The diversity, affordability, and supply of housing and employment are discussed in more detail under each alternative.

Housing Supply, Diversity, and Affordability

None of the alternatives would result in a decrease to the housing supply as new housing growth is assumed under all of the alternatives. Varied housing types would have a greater potential to serve households of different income levels. Low-density, detached single-family homes, for example, would be more likely to meet the needs of higher-income households, while moderate-density housing types such as duplexes and townhomes may be able to meet the needs of moderate-income households. All alternatives would provide some housing variety given existing zoning, but housing variety would be stronger and more diverse under Alternatives 2 and 3, which would help meet new GMA housing requirements.

The actual pace and distribution of future housing development and changes in the housing mix would be influenced in part by the implementation of Comprehensive Plan policies, related regulations and actions, and decisions made by individual property owners and developers. Impacts on supply, diversity, and affordability are discussed in more detail under each alternative.

²⁴ Meeting the needs of higher-income households earning over 120% AMI is not an explicit requirement of RCW 36.70A.070; however, the GMA housing goal does call for “plan[ning] for and accommodat[ing] housing affordable to all economic segments of the population” (RCW 36.70A.020(4)).

²⁵ Activity unit density is defined by PSRC as the amount of people and employment in an area, or the amount of people that spend a significant amount of time in an area. To calculate the activity unit density, the total population is divided by land area to get the population density. Employment is divided by land area to get employment density. Then the population and employment densities are added together to get the area’s activity unit density. https://www.psrc.org/sites/default/files/2022-03/centers_monitoring.pdf This is a measurement for regional centers, by which PSRC is able to understand regional growth distribution.

Table 3.5-8. Housing Needs by Income Level Compared to the Capacity for Each Alternative

Income Level	Income Level (% AMI)	Target or Needs ^a	Zone Categories Serving these Needs	Aggregate Needs	Alt. 1 Units	Surplus or Deficit	Alt. 2 Units	Surplus or Deficit	Alt. 3 Units	Surplus or Deficit
Extremely Low Income	0 to ≤30% PSH	967	Subsidized Multifamily; Mixed-Use; and ADUs in Low-Density areas	4,758	3,030	-1,730	5,610	860	5,600	840
	0 to ≤30% non-PSH	1,306								
Very Low Income	>30 to ≤50%	1,388								
Low Income	>50 to ≤80%	1,097	Moderate-Density and Mixed-Use	900	2,620	1,720	6,370	5,470	7,050	6,150
Moderate Income	>80 to ≤100%	472								
	>100 to ≤120%	428								
Higher Income	>120% AMI	1,825	Low-Density	1,825	1,280	-540	1,610	-220	1,750	-80
Total		7,482		7,482	6,930	-550	13,590	6,110	14,400	6,920

Source: MIG 2024.

Note: This table and analysis have slight discrepancies with the housing estimates for the three alternatives in Table 3.5-7. These discrepancies are largely attributable to the inclusion of accessory dwelling unit assumptions (as required by GMA), rounding, and minor differences in the alternatives methodology. These discrepancies are not large enough to affect policy decision implications. Note: Numbers are rounded to the nearest 10.

a Pierce County Ordinance No. 2023-22s. https://online.co.pierce.wa.us/cfapps/council/iview/proposal.cfm?proposal_num=2023-22s

ADU = accessory dwelling unit; Alt. = alternative; AMI = HUD Area Median Family Income; PSH = permanent supportive housing

Residential and Commercial Displacement

Displacement is a risk when it comes to increased development, growth, and change in an area. Displacement can occur under varying situations:

- Physical displacement (eviction).
- Cultural displacement (the removal of businesses, amenities, or services that a resident frequents are priced out and the neighborhood changes so drastically that they are unable to meet their needs or do not feel comfortable and safe in the community anymore).
- Economic displacement (where residents or businesses are priced out of areas).

Particularly with increased housing and employment opportunities in an area, without additional supporting policies there is an increased risk in current residential or commercial spaces being demolished and replaced with market-rate housing, succumbing to market pressures. Community members that are particularly vulnerable and at risk of displacement are low-income households, communities of color, households with residents over 65 years old, and people living with disabilities.

The PSRC Displacement Risk Map (Figure 3.5-28) identifies areas across the city of Puyallup that are at increased risk for residential displacement. Properties located in the central (in between Meeker and River Road, west of SR 512) and southern (east of SR 512 and south of E Pioneer) sections of the city are considered to be at an increased risk of displacement (or moderate risk). The areas between W Meeker and 9th Avenue SW and east of S Meridian and south of 39th Avenue SE also overlap with areas of the highest concentration of non-white residents and the lowest median household incomes (less than \$60,000 to \$75,000), making them the most vulnerable to displacement.²⁶

Under all alternatives, some residents and businesses could be displaced by redevelopment or could be priced out as land prices and rents increase or because of the changing cultural fabric of their neighborhood. This would be defined as a significant impact. As described under the impacts for each alternative, Alternatives 2 and 3 would implement additional anti-displacement policies to balance accommodating new housing at all income levels with preservation of existing households through the updated 2044 Comprehensive Plan. Alternative 1 would not include additional strategies to mitigate displacement and could have significant adverse displacement impacts for current residents.

3.5.2.3 Impacts of Alternative 1 (No Action)

Growth Targets and Affordability Requirements

Housing Targets

Alternative 1 would not meet the 2044 housing growth target of 7,482 new units. This alternative also would not meet GMA or statewide requirements for affordable housing at all economic levels consistent with RCW 36.70A.020 (1), (2), or (9). While this alternative would provide capacity for some of the needed affordable housing for each income level (see Table 3.5-8), it would not meet the HB 1220 requirements for all jurisdictions to “plan for and accommodate” housing for all income brackets, remove barriers to safe housing options, or provide emergency and permanent supportive housing for all. While this alternative would meet (and exceed by 1,720 units) the moderate income

²⁶ MIG, Puyallup Existing Conditions Analysis, 2023.

(80% to 120% AMI) housing needs, it would not meet housing needs for higher-income households (over 120% AMI). There would also be a deficit in housing units for extremely low-, very low-, and low-income households (by 1,730 housing units). **Alternative 1 would not provide enough capacity to meet housing targets or housing needs across all economic segments, resulting in a significant impact to housing targets and affordability.**

Alternative 1 also would not provide adequate capacity to meet the adopted emergency housing target of at least 458 shelter beds, as it would continue applying current zoning regulations. Based on the current zoning and siting requirements in the PMC for emergency shelter and housing, the city has a land capacity for 150 emergency shelter beds (which is a deficit of 308 beds).²⁷ To meet its targets, the City would need to lift restrictions that limit siting emergency shelters to one per zone (with a maximum of 30 beds per shelter) and ease the maximum spacing restrictions. **Since Alternative 1 would not update the PMC to meet these requirements, it would have a significant adverse impact on shelter and housing capacity for people at risk of or experiencing homelessness.**

Employment Targets

Alternative 1 would not meet employment targets for 2044, with a deficit of more than 5,800 jobs. Without being able to meet employment targets, Alternative 1 would not meet GMA requirements, or the growth targets of the Pierce County CPPs. **Alternative 1 would not provide enough capacity to meet employment targets, resulting in a significant impact on employment growth.**

Housing Supply, Diversity, and Affordability

While housing supply would increase under Alternative 1, this alternative would have the least capacity for new housing among the alternatives. It assumes future growth consistent with the current plans, policies, zoning, and development regulations and standards that are in place today. Housing diversity would also continue to be limited in single-family areas as middle housing and accessory dwelling unit code updates (required by HB 1110 and HB 1337) would not be implemented under Alternative 1. Given the lower capacity for new housing, the limited changes in single-family areas and the absence of new policy interventions directed toward housing diversity, Alternative 1 would have the least potential to increase supply or diversity of the alternatives.

Policies in both the Land Use Element and Housing Element of the *Puyallup Comprehensive Plan* lay out a general housing policy framework that is still relevant for increasing the supply, diversity, and affordability of housing, despite its adoption in 2015 and the rapid acceleration of these issues in recent years. The policies related to housing are generally supportive of diversity in housing stock, quality design, increasing options, and allowing flexibility. However, some policies have been identified by City of Puyallup staff as having the potential to promote exclusion in housing (e.g., policies focused on preserving “existing neighborhood character”). As described in the previous section, Alternative 1 would not meet the need for varied housing types across all economic income levels.

Alternative 1 would continue implementing existing regulations, incentives, and programs targeted at affordability, but recent development trends have shown decreases in affordability despite these existing tools. **While Alternative 1 would increase the overall housing supply, without additional strategies directed toward affordability and housing diversity, Alternative 1 would have the potential to have a significant adverse impact on housing supply, diversity, and affordability.**

²⁷ MIG, Puyallup Housing Land Capacity Analysis, 2024

Residential and Commercial Displacement

Alternative 1 would continue development at the current level of intensity, with the primary focus being in the South Hill and Downtown areas. In this case, the pressure to redevelop and increase high-density developments would not increase. However, in the case of Downtown and areas along the River Road Corridor, these properties would hold the potential to remain at their current moderate risk (per the PSRC Displacement Risk Map, Figure 3.5-28) due to potential increased distance to amenities and living wage jobs, high rates of renters and people living below the 200% poverty line, and lack of affordable housing.

The new GMA requirements under HB 1220, as well as VISION 2050 and Pierce County CPPs, encourage cities to identify areas in the city that are highly susceptible to displacement and policies that may result in racially disparate impacts, displacement, or exclusion in housing. Alternative 1 would not include additional policies that mitigate displacement risk or remediate past or present harms for low-income or marginalized communities.

In terms of commercial displacement, Alternative 1 could have the potential to displace existing businesses due to new growth, though this is less likely than under the Action Alternatives that would modify some commercially zoned areas to permit mixed-use development. There would also be less opportunity for additional population to support more business growth.

Alternative 1 could result in a significant adverse impact on residential displacement risk, though a less than significant impact on commercial displacement is anticipated.

3.5.2.4 Impacts of Alternative 2

Growth Targets and Affordability Requirements

Housing Targets

Alternative 2 assumes more housing and jobs and a greater diversity of housing types than Alternative 1 by concentrating growth in certain areas of the city. Alternative 2 would exceed housing growth targets set by Pierce County by approximately 5,940 housing units. Multifamily housing and mixed-use development would occur at a greater intensity compared to recent development in regional growth centers, with additional mixed-use development at key commercial corridors (S Meridian and River Road) and intersections (Shaw/Pioneer). Additional development of lower-density residential land would be similar to past trends.

Alternative 2 would update the Housing Element of the Comprehensive Plan consistent with recent changes to state law, including requirements to accommodate housing affordable to all economic segments of the community, expand housing capacity to allow for middle housing and moderate-income housing, allow a wider variety of housing types in single-family neighborhoods, and include additional measures that address the potential for physical, economic, and cultural displacement to occur. This alternative would meet the new GMA requirements to “plan for and accommodate” housing for all income levels with capacity that meets affordability requirements (see Table 3.5-8). While the Housing Land Capacity analysis shows a deficit of units for higher-income households, there is sufficient surplus in the moderate-income housing supply that the needs of higher-income households could be met with land in the moderate-density and mixed-use zoning categories.

To meet housing affordability targets under Alternative 2, the Comprehensive Plan update proposal includes updated housing policies to expand options for constructing stand-alone multifamily housing in mixed-use areas. Currently, development in many of the city’s mixed-use zones (such as the CCX and UCX zones in South Hill) requires some commercial/non-residential use on the site. This

is a barrier to meeting needs for subsidized affordable housing, which the City will need to remedy in order to accommodate its lower-income housing allocations. **Such policy updates would minimize and avoid significant adverse impacts on housing affordability.**

Also under Alternative 2, the City would address the emergency housing needs as determined by the Department of Commerce as a development code project that would be scheduled to occur following adoption of the Comprehensive Plan. To satisfy the GMA requirement that the City identify sufficient capacity of land to accommodate the need for emergency housing and shelters as projected by Commerce (RCW 36.70A.070 (2)), the City would need to lift restrictions on the siting of emergency shelters. Alternative 2 could make land use and development standard updates to accommodate these needs and statewide regulations, **so that it would have no impact on emergency and permanent temporary housing needs (see Section 3.5.3 for mitigation measures).**

Employment Targets

Alternative 2 would meet and exceed employment targets for 2044 by approximately 2,300 jobs. It would also provide nearly double the employment capacity of Alternative 1. Alternative 2 would continue to focus job growth and development in Downtown and South Hill, but with a stronger focus on regional growth centers, as well as key commercial corridors and major intersections. This alternative would meet GMA and Pierce County goals for meeting job growth targets. However, to meet these targets, the City would need to consider new or updated policies, incentives, and other programs to encourage more intensive employment growth needed to meet employment targets as part of the Comprehensive Plan update (potential such programs are listed in Section 3.5.3. **By implementing additional mitigation measures and supportive policies, significant impacts on employment growth could be mitigated under Alternative 2.**

Housing Supply, Diversity, and Affordability

Alternative 2 would provide a greater supply of housing for all income levels and meet the needs of a wider range of household sizes, compositions, and preferences than Alternative 1. Under Alternative 2, housing policies and the zoning code would be updated to implement the recommendations of the *Puyallup Housing Action Plan* (2021) and to expand housing options. This alternative would also meet new requirements set by HB 1110 and HB 1337 and would amend policies and regulations to allow for middle housing in single-family zones and add flexibility for accessory dwelling units. Alternative 2 would also expand housing opportunities in mixed-use areas including the regional growth centers—along River Road and S Meridian—and at the Shaw/Pioneer intersection. This alternative would also include additional anti-displacement policies and strategies for low-income or marginalized communities.

The Housing Element of the current *Puyallup Comprehensive Plan* (2015) lays out a general policy framework that is relevant to increasing the supply, diversity, and affordability of housing. However, additional policy intervention and incentives will be necessary to ensure the production of housing that meets the needs of all residents, especially lower-income residents. Section 3.5.3 identifies mitigation measures that could be implemented at the policy or program level to address these needs, including strategies to boost production of affordable housing, preserve existing low-cost housing, and increase the supply diversity of housing produced. **With effective implementation of these mitigation measures, along with existing regional and local programs and policies, the potential impacts to housing supply, diversity, and affordability under Alternative 2 would be less than significant.**

Residential and Commercial Displacement

Potential displacement is likely higher under Alternative 2 than under Alternative 1 because of increased overall capacity for growth and expanded housing densities and typologies, as well as increased employment growth in some parts of the city. Alternative 2 would enable development within South Hill and Downtown at greater intensities than under Alternative 1, with additional mixed-use growth along main commercial corridors and major intersections. This new development could increase market pressures on housing and businesses in these areas. However, Alternative 2 would update the *Puyallup Comprehensive Plan* (2015) to comply with housing supply, diversity, and affordability requirements as well as further integrate the *Puyallup Housing Action Plan* (2021) into the City's policies, programs, and development regulations. Also, by increasing opportunities for living wage jobs and increasing that share of affordable housing in proximity to those jobs, this alternative could minimize the risk of displacement and would work toward keeping residents in place through affordable housing provisions. Anti-displacement strategies and other mitigation measures, such as those identified in Section 3.5.3, would be needed to ensure those impacted by new growth are able to stay in Puyallup and to further minimize or avoid potential displacement resulting from the implementation of Alternative 2. **With effective implementation of these mitigation measures, along with existing regional and local programs and regulations, the potential impacts to displacement under Alternative 2 would be less than significant.**

3.5.2.5 Impacts of Alternative 3

Growth Targets and Affordability Requirements

Housing Targets

Alternative 3 would allow more housing and jobs and a greater diversity of housing types than Alternative 1 and Alternative 2 by focusing growth among a wider range of areas in the city. Alternative 3 would exceed housing growth targets set by Pierce County by approximately 6,730 housing units, and more than double the capacity of Alternative 1. It would also provide approximately 800 more units than Alternative 2. Multifamily housing and mixed-use development would occur at a greater intensity in regional growth centers, though to a lesser degree than in Alternative 2. Additional mixed-use development would also occur along key commercial corridors and key intersections, similar to Alternative 2. However, somewhat less growth is assumed along S Meridian and River Road, compared to Alternative 2. Additional housing and job growth under Alternative 3 would be focused in areas near the state fairgrounds and around the Good Samaritan Hospital. In addition, Alternative 3 would contribute to growth in a number of new neighborhood commercial and small-scale mixed-use areas throughout the city (along W Stewart Avenue, W Pioneer Avenue, 31st Avenue SW/S Fruitland, and Shaw Road E). Alternative 3 also assumes greater flexibility for middle housing development than Alternative 2, which could accommodate additional middle housing and moderate-density development as compared to Alternative 2.

Like Alternative 2, Alternative 3 would update the Comprehensive Plan Housing Element consistent with recent changes to state law, including requirements to accommodate housing affordable to all economic segments of the community, expand housing capacity to allow for middle housing and moderate-income housing, allow a wider variety of housing types in single-family neighborhoods, and include additional measures that address the potential for physical, economic, and cultural displacement to occur. This alternative would meet the new GMA requirements to “plan for and accommodate” housing for all income levels, with capacity that meets affordability requirements (see Table 3.5-8). While the Housing Land Capacity analysis shows a deficit of units for higher-income households, there is sufficient surplus in the moderate-income housing supply that

the needs of higher-income households could be met with land in the moderate-density and mixed-use zoning categories.

Similar to Alternative 2, to meet housing affordability targets under Alternative 3, the Comprehensive Plan update proposal includes updated housing policies to expand options for constructing stand-alone multifamily housing in mixed-use areas. Currently, development in many of the city's mixed-use zones (such as the CCX and UCX zones in South Hill) requires some commercial/non-residential use on the site. This is a barrier to meeting the needs for subsidized affordable housing, which the City will need to remedy in order to accommodate its lower-income housing allocations. **Such policy updates would minimize and avoid significant adverse impacts on housing affordability.**

Also under Alternative 3, the City would address the emergency housing needs as determined by the Department of Commerce as a development code project that would be scheduled to occur following adoption of the Comprehensive Plan. To satisfy the GMA requirement that the City identify sufficient capacity of land to accommodate the need for emergency housing and shelters as projected by Commerce (RCW 36.70A.070 (2)), the City would need to lift restrictions on the siting of emergency shelters. Alternative 3 would make land use and development standard updates to accommodate these needs and statewide regulations, **so it would have no impact on emergency and permanent temporary housing needs.**

Employment Targets

Alternative 3 would meet and exceed employment targets for 2044 by approximately 3,810 jobs. It would provide more than double the employment capacity compared to Alternative 1 and exceed the Alternative 2 employment capacity by approximately 1,500 jobs. Alternative 3 would continue to focus job growth and development in Downtown and South Hill, but with an additional focus on regional growth centers, corridors, and major intersections. It would also provide additional employment opportunities through medical office uses near Good Samaritan Hospital and more intensive employment growth in the South River Employment focus area between E Main Avenue and E Pioneer. Additional employment opportunities would be located at new neighborhood commercial/mixed-use nodes. This alternative would meet GMA and Pierce County goals for meeting job growth targets. However, to meet these targets, similar to Alternative 2, the City would need to consider new or updated policies, incentives, and other programs to encourage more intensive employment growth needed to meet employment targets. **Such policy updates would take place as part of the Comprehensive Plan update and would avoid significant impacts on employment growth under Alternative 3.**

Housing Supply, Diversity, and Affordability

Similar to Alternative 2, Alternative 3 would provide a greater supply of housing for all income levels and meet the needs for a wider range of household sizes, compositions, and preferences. Under Alternative 3, housing policies and the zoning code would be updated to implement the recommendations of the *Puyallup Housing Action Plan* (2021) and expand housing options. This alternative would also meet new requirements set by HB 1110 and HB 1337 and would amend policies and regulations to allow for middle housing in single-family zones and add flexibility for accessory dwelling units. Alternative 3 would allow a wider range of middle housing types and additional units on single-family lots than Alternative 2. Alternative 3 would exceed the minimum requirements of HB 1110.

Like Alternative 2, Alternative 3 would also expand housing opportunities in mixed-use areas including the regional growth centers along River Road and S Meridian and at the Shaw/Pioneer intersection. It would also provide additional housing opportunities beyond Alternative 2 by focusing

mixed-use growth near the fairgrounds and near the hospital. This alternative would also include additional anti-displacement policies and strategies for low-income or marginalized communities.

The Housing Element of the *Puyallup Comprehensive Plan* (2015) lays out a general policy framework that is relevant to increasing the supply, diversity, and affordability of housing. However, similar to Alternative 2, additional policy intervention and incentives in Alternative 3 would be necessary to ensure the production of housing that meets the needs of all residents, especially lower-income residents. Section 3.5.3 identifies mitigation measures that could be implemented at the policy or program level to address these needs, including strategies to boost production of affordable housing, preserve existing low-cost housing, and increase the supply diversity of housing produced. **With effective implementation of these mitigation measures, along with existing regional and local programs and policies, the potential impacts to housing supply, diversity, and affordability under Alternative 3 would be less than significant.**

Residential and Commercial Displacement

As with Alternative 2, potential displacement is likely higher under Alternative 3 than under Alternative 1 because of increased overall capacity for growth and expanded housing densities and typologies, as well as increased employment growth in some parts of the city. Alternative 2 would enable development within South Hill and Downtown areas at greater intensities than Alternative 1, but to a lesser extent than in Alternative 2. Alternative 3 also assumes somewhat less growth than Alternative 2 along main commercial corridors and major intersections, thereby reducing redevelopment and displacement pressures in those areas. Conversely, Alternative 3 could increase redevelopment and displacement pressures in the new neighborhood commercial/mixed-use node areas, which today are largely designated for low-density residential use. However, Alternative 3 would update the City's Comprehensive Plan to comply with housing supply, diversity, and affordability requirements, as well as to further integrate the *Puyallup Housing Action Plan* (2021) into the City's policies, programs, and development regulations. It would bring amenities, services, and employment closer to housing, and it would increase the availability of affordable housing. Also, by increasing opportunities for living wage jobs and increasing the share of affordable housing in proximity to jobs through neighborhood-focused activity centers, this alternative could work toward minimizing the risk of displacement. The addition of anti-displacement strategies, policy amendments in the updated Comprehensive Plan, and mitigation measures aimed at keeping residents in their homes and businesses in their current locations (as identified in Section 3.5.3), similar to Alternative 2, would further minimize or avoid potential displacement resulting from the implementation of Alternative 3. **With effective implementation of these mitigation measures, along with existing regional and local programs and regulations, the potential impacts to displacement under Alternative 3 would be less than significant.**

3.5.3 Avoidance, Minimization, and Mitigation Measures

The following measures would help avoid, minimize, or mitigate adverse impacts to population, employment, or housing as it relates to the Action Alternatives. Many of these have already been identified through the *Puyallup Housing Action Plan*, which was adopted in 2021, or will be necessary to meet the requirements of the GMA, PSRC VISION 2050, and Pierce County CPPs.

Growth Targets and Affordability Requirements

The following measures would help avoid, minimize, or mitigate adverse impacts related to housing and employment growth targets and housing affordability requirements of the GMA in implementation of the alternatives.

- Modify zoning provisions or rezone areas to allow higher densities and more diverse housing types.
- Update housing policies and PMC to expand options for constructing stand-alone multifamily housing in mixed-use areas, as it has greater potential to provide subsidized housing opportunities for low-income households. Remove requirements for ground floor commercial or mixed-use sites in areas where retail frontages are less critical to promoting a walkable district. Note that this strategy would need to be balanced with strategies that continue to encourage employment growth in mixed-use areas, which will also be essential to meeting growth targets.
- Add new or updated policies, incentives, and other programs to encourage more intensive employment growth needed to meet employment targets.
- Amend the PMC restrictions that limit siting of emergency shelters to one per zone (with a maximum of 30 beds per shelter) and ease the maximum spacing restrictions.

Housing Supply, Diversity, and Affordability

The following measures would help avoid, minimize, or mitigate adverse impacts related to supply, diversity, and affordability of housing in implementation of the alternatives.

- Amend the PMC to allow duplexes and triplexes outright (and also consider allowing fourplexes and townhouses) in single-family zones subject to development regulations and streamline development regulations to align with less stringent single-family requirements for open space, minimum lot size, density, design standards, and parking.
- Amend the PMC to streamline cottage housing standards and approval processes.
- Adopt tactics that allow for more development of middle housing options, such as increasing flexibility in development standards to be more form-based and adopting a new unit-lot subdivision ordinance.
- Amend the PMC to remove barriers to housing production, especially more attainable housing options. The *Puyallup Housing Action Plan* identifies several potential zoning and code amendments for consideration, including enabling micro-housing.
- Continue to expand the multifamily tax exemption program in Puyallup to provide incentives for more affordable housing options, including subsidized housing for low-income residents.
- Realign capital investments to prioritize investments that support development and investment in underserved areas and in areas that have not met expectations for redevelopment (e.g., in the River Road corridor). Identify infrastructure funding from a range of potential sources, including local sources, federal or state appropriations or grants, Community Revitalization Fund financing, or bonding.
- Adopt policies that expand opportunities for affordable homeownership and increase access to homeownership for historically marginalized communities.
- Add a new housing policy supporting the use of development agreements or community benefit agreements between developers and either the City of Puyallup or a community based organization. These agreements specify public benefits a development would provide and can support affordable housing and equitable outcomes.
- Adopt policies to preserve existing naturally occurring affordable housing, including supporting existing multifamily buildings that serve low- or moderate-income residents (or partnering with affordable housing providers to acquire these buildings), offering home repair

loans, supporting community land trusts, and exploring zoning changes for areas where vacant or developable lands overlap with a high risk of displacement.

Residential and Commercial Displacement

The following measures would ensure that areas currently at risk of residential or commercial displacement would not be adversely impacted by new growth under the alternatives.

- Modify housing policies to include preservation of rental housing, multifamily housing, and naturally occurring affordable housing.
- Add a new housing policy to address the development of affordable rentals and homeownership opportunities, and consider emerging policy needs related to supportive housing.
- Add policies that provide support for tenants, such as rental assistance, landlord-liaison outreach, legal services and fair housing enforcement, and rental housing unit inspection for housing preservation.
- Prioritize displacement mitigation efforts on manufactured home parks, which could include creating educational materials regarding tenant rights and owner responsibilities and updating the code enforcement strategy.
- Integrate anti-displacement strategies and community planning with capital facility system planning, climate adaptation investments, and other efforts to reduce displacement risk.
- Implement tools and programs to help stabilize and grow small businesses that are vulnerable to displacement, such as business technical assistance and loans or grants for storefront or tenant improvements.
- Create regular monitoring and evaluation systems that would help the City and residents revisit these strategies and programs to identify which ones are most effective and adjust accordingly to redistribute resources to programs that are the most efficient.

3.5.4 Significant Unavoidable Adverse Impacts

Alternative 1 would result in significant adverse and unavoidable impacts to the provision of jobs and affordability of housing as it would result in insufficient capacity to meet employment targets and would not provide housing across all economic income segments. Alternative 1 would also not amend the *Puyallup Comprehensive Plan* to include additional policies or programs to avoid or minimize physical displacement which would have a significant adverse and unavoidable impact on displacement risk and could necessitate the construction of replacement housing elsewhere in Puyallup or the larger region.

The Action Alternatives would include the implementation of additional policies and programs to avoid displacement of existing housing and businesses and encourage housing diversity and affordability. Both Action Alternatives meet Puyallup's 2044 housing and employment targets and accommodate required housing across all economic income segments. Implementation of the mitigation measures identified in Section 3.5.3 would minimize potential significant adverse impacts to population, employment, or housing to a less than significant level.

3.6 Transportation

This chapter describes Puyallup's transportation environment for all modes (including driving; freight; transit; and active transportation such as walking, biking, and rolling) at the citywide level. It also

summarizes relevant transportation policies and plans that help inform the evaluation of infrastructure improvement needs to support growth over the next two decades. The planning area includes the city limits as well as Puyallup's UGA. More detail can be found in Appendix A, Transportation Analysis Support Documentation.

3.6.1 Affected Environment

3.6.1.1 Current Policy and Regulatory Framework

Relevant local transportation plans are summarized below. The City of Puyallup has adopted several citywide transportation plans over the last 9 years in conjunction with the last comprehensive plan, which was adopted in 2015. Additional regional plans that affect Puyallup are also summarized. Collectively, these plans set the context for identifying needs and opportunities in the transportation system.

City Plans

The Transportation Element of the 2015 Comprehensive Plan guides the improvement and expansion of the transportation system to meet the demands of planned growth through 2035. In addition to outlining Puyallup's future transportation vision and goals, it presents a list of transportation projects that respond to identified needs.

The City of Puyallup also updates its 6-Year Transportation Improvement Plan (TIP) every year, as required by the state. The TIP, most recently published for 2023–2028, is informed by the comprehensive plan and identifies near-term improvements to the transportation network and allocates funding for each year. The TIP is designed to provide a framework for prioritizing, scheduling, and implementing projects within the Transportation Element. These projects include corridor and intersection improvements, investments in active transportation infrastructure, traffic calming programs, and maintenance. Projects within the TIP are not required to be financially constrained to secured funding, but they do include reasonable sources of funding, such as grants, that the City may apply for.

Three pedestrian-oriented plans have been adopted since 2017 as part of the City's ongoing effort to improve active transportation. These include the Active Transportation Plan (2017), ADA [Americans with Disabilities Act] Transition Plan (2018), and Safe Routes to School (2019) Master Plan. These plans evaluate existing facilities and identify a range of potential projects that could be implemented to provide connectivity for local travel, improve safety and accessibility for all road users, and encourage the creation of a walkable identity for Puyallup's downtown. The ADA Transition Plan also serves as a framework for implementing required accessibility improvements within the public right-of-way.

Other Plans

Other transportation plans for the surrounding area include the Pierce County Comprehensive Plan; three WSDOT plans: the South Pierce Multimodal Connectivity Study (SPMCS; 2023), the SR 167 Master Plan (2023), and the SR 512 Corridor Study (2023); and the PSRC VISION 2050 regional growth plan (2020) and Regional Transportation Plan (2022).

These studies recommend significant transportation enhancements within and near Puyallup. The improvements include the implementation of bus rapid transit routes, increased transit service frequency, new trails and sidewalks, new and improved bicycle facilities, capacity improvements planned for key corridors and interchanges such as Shaw Road and SR 512, and strategic

bottleneck improvements. These enhancements collectively aim to enhance multimodal transportation, safety, and connectivity in and around Puyallup. However, many of these improvements are currently unfunded and may or may not be completed over the next two decades.

Pierce County

Pierce County is currently updating its comprehensive plan, which includes plans for roads in unincorporated areas around Puyallup. The County's updated plan is expected to be completed by December 31, 2024.

Washington State Department of Transportation

South Pierce Multimodal Connectivity Study

The SPMCS analyzed the area of Pierce County south of SR 512, which includes parts of Puyallup. The study recommends strategies to improve safety, multimodality, congestion, and connectivity in the area, among other goals. Below are the specific recommended strategies from the SPMCS that are most relevant to Puyallup.

Transit Strategies

- Implement bus rapid transit routes along SR 161 and 112th/39th Street (long-term strategy).
- Increase frequency and implement earlier/later service on existing transit routes (near-term strategy).

Active Mode Strategies

- Construct new trails as identified in the Pierce County Trails Plan (all phases strategy).

Vehicle and Freight Capacity Strategies

- Implement capacity improvements to the Shaw Road corridor as an identified corridor that connects the valley floor with the eastern part of the SPMCS study area.

Additionally, the SPMCS identifies the following programmatic improvements that may be constructed within Puyallup:

- Intersection upgrades (near-term strategy)
- Traffic signal upgrades (near-term strategy) and transit queue jumps (near-term strategy)
- Turn lanes (near-term strategy)
- Access management improvements (near-term strategy)
- New sidewalks and bike facilities (all phases strategy).

SR 167 Master Plan

The WSDOT SR 167 Master Plan designates Puyallup as an Active Mode Priority Area with the aim to close gaps in the active transportation network and address mobility needs for the SR 167 corridor. Below is the list of recommended strategies from the SR 167 Master Plan in Puyallup.

Active Transportation

- Bicycle facility improvements to connect to the Puyallup Sounder Station (near- or mid-term strategy).

Transportation System Management and Operations

- New traffic signals or other street crossing improvements in downtown Puyallup (near- or mid-term strategy).

Transit

- New SR 167 bus rapid transit service between Puyallup and Renton with possible extension to Link light-rail (mid- or long-term strategy).

SR 512 Corridor Study

The SR 512 Corridor Study recommends strategies for corridors in the city that include changes to traffic operations, roadway widening, transit access, and sidewalk and crossing improvements to supplement other corridor improvements. Below is the list of recommended strategies from the SR 512 Corridor Study in Puyallup.

Active Transportation

- Construct a bike lane on 94th Avenue from 39th Avenue SW to the north across SR 512 (mid-term strategy).
- Construct a bike lane on E Pioneer through the SR 512 interchange and to the west (mid-term strategy).
- Construct the Tacoma to Puyallup Regional Trail which follows the SR 167 completion alignment (mid-term strategy).
- Implement a new crossing of SR 512 at 23rd Avenue SW (long-term strategy).

Strategic Bottlenecks

- Construct eastbound auxiliary lanes along SR 512 from S Meridian to E Pioneer (mid-term strategy).
- Increase capacity at the SR 512 interchange with 31st Avenue SW by widening the overpass and modifying ramps (mid-term strategy).
- Construct auxiliary lanes in both directions from 31st Avenue SW to Meridian (mid-term strategy).
- Increase capacity at the SR 512 interchange with E Pioneer by widening the overpass and modifying ramps (long-term strategy).
- Increase capacity at the SR 512 interchange with S Meridian by widening the overpass and modifying ramps (long-term strategy).
- Increase capacity at the SR 512 interchange with 94th Avenue E by widening the overpass and modifying ramps (long-term strategy).

Transportation System Management and Operations

- Implement improvements along the 5th Street SE corridor to optimize operations (mid-term strategy).

Transit

- Develop a new bus rapid transit line from the Pierce County Airport to the South Hill Transit Center and downtown Puyallup via SR 161/Meridian Avenue (long-term strategy).

- Develop a new bus rapid transit line from Lakewood to the South Hill Mall TC via 112th Street E (long-term strategy).

PSRC

VISION 2050

VISION 2050 aims to “provide an exceptional quality of life, opportunity for all, connected communities, a spectacular natural environment, and an innovative, thriving economy” by the year 2050 in the central Puget Sound region. VISION 2050 also sets the stage for updates to local comprehensive plans for cities and counties in the region, including Puyallup. It includes a planning resource titled *Transportation Element Guidance* that provides guidance, best practices, and technical assistance to support local governments.

Regional Transportation Plan

The PSRC Regional Transportation Plan is the long-range transportation plan for the central Puget Sound region; the plan is adopted every 4 years. It is designed to implement VISION 2050, outlining investments the region is making in transit, rail, ferry, street, highway, freight, bicycle, and pedestrian facilities and other systems. Below is the list of recommended strategies from the PSRC Regional Transportation Plan in Puyallup.

Active Transportation Strategies

- Implement the Tacoma to Puyallup Regional Trail along SR 167, connecting from the Riverwalk Trail to the SR 167/Meridian interchange and extending along SR 167 to the 70th Avenue E Interurban Trailhead in Fife (near-term strategy).

Transit Strategies

- Establish high-capacity transit on Route 4, connecting Lakewood to Puyallup (long-term strategy).
- Develop high-capacity transit on Route 402 along S Meridian/SR 161 from downtown Puyallup to 176th Street E, as part of the bus rapid transit system expansion study (long-term strategy).

Vehicle and Freight Capacity Strategies

- Widen Shaw Road from 12th Avenue SE to 23rd Avenue SE (long-term strategy).
- Implement Stage 2 of the SR 167/I-5 to SR 161 project that involves construction of a new four-lane alignment on SR 167 between I-5 near Fife and SR 161 in Puyallup. This project includes the establishment of new interchanges at SR 161 and Valley Avenue (mid-term strategy).
- Construct eastbound and westbound auxiliary lanes from Meridian to Pioneer Way, incorporating two-lane off-ramps at each interchange. This initiative aims to enhance mainline operations on SR 512 and improve safety at this interchange (mid-term strategy).

3.6.1.2 Current Conditions

Auto

Puyallup’s roadways are classified into major arterials, minor arterials, major collectors, minor collectors, and local streets, as shown in Table 3.6-1 and displayed in Figure 3.6-1. Examples of

each roadway type, the AADT range for each roadway type, and the intended uses served are described below. Note that the AADT range for each roadway type is used as a guideline, not as a metric to define the classifications.

Table 3.6-1. Functional Classification of Roadways

Functional Classification	Average Annual Daily Traffic Range	Description	Example
Major Arterial	More than 15,000	These streets are Puyallup's highest functional classification and tend to carry the highest volumes. Major arterials serve regional through-trips and connect Puyallup with the rest of the region.	East/West Pioneer, South Meridian, Shaw Road
Minor Arterial	7,000–15,000	Puyallup's next highest functional classification, minor arterial, is designed for higher volumes, minor arterials tend not to be major regional connectors. Minor arterial streets provide inter-neighborhood connections.	Fairview Drive, West Stewart
Major Collectors	1,500–7,000	Major Collectors distribute trips between local streets and arterials and serve as transition roadways to or from commercial and residential areas. These are higher volume collectors.	7th Avenue SW/SE, Wildwood Park Drive
Minor Collectors	1,500–5,000	These streets also distribute trips between local streets and arterials and serve as transition roadways to or from commercial and residential areas. Minor Collectors have lower volumes and can include select traffic calming elements to balance experience for people walking and rolling with vehicular mobility.	12th Avenue SE, 4th Avenue NW
Local	Less than 1,500	Local streets are the lowest functional classification, providing circulation and access within residential neighborhoods.	9th Avenue SW, 11th Street SW

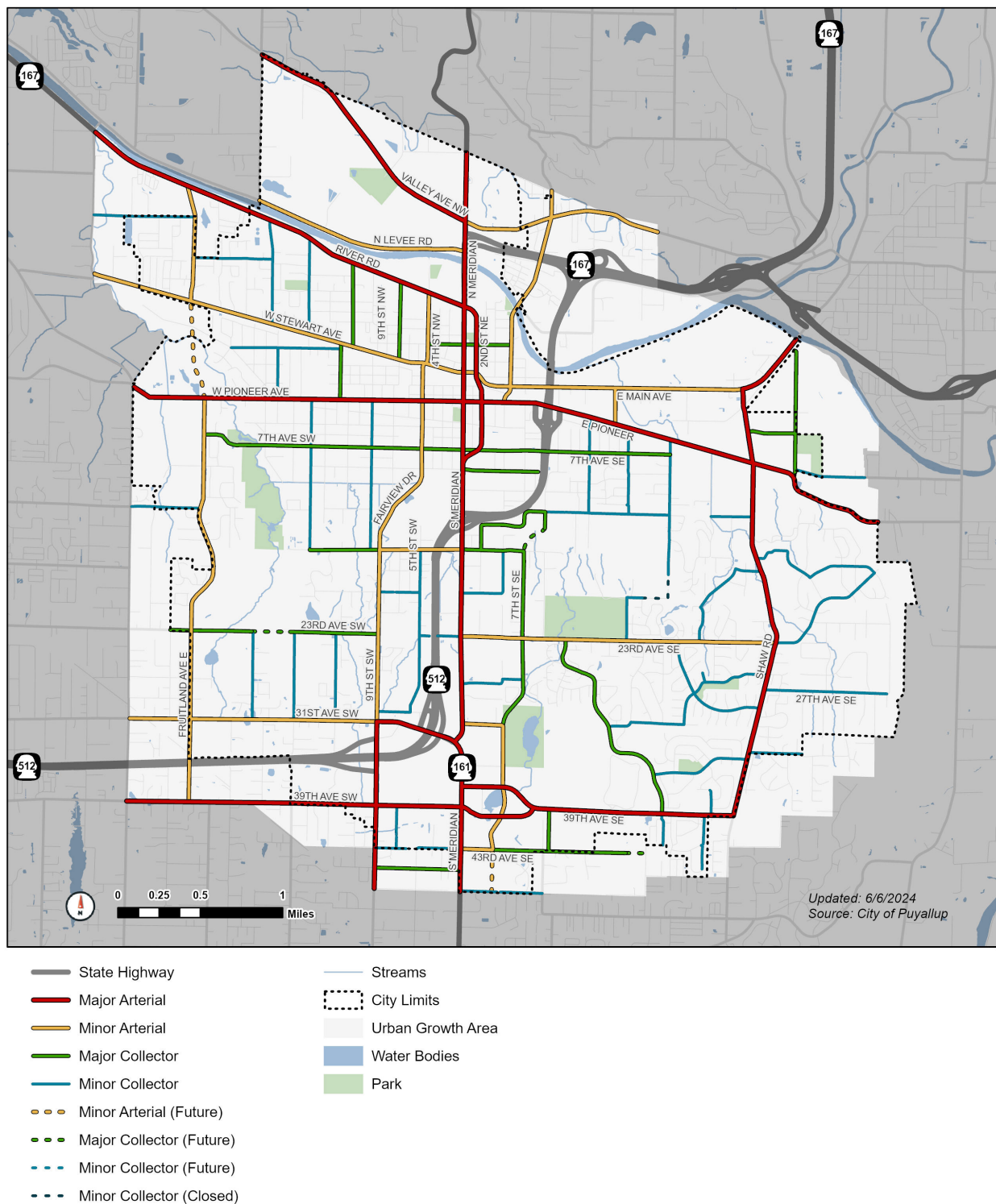


Figure 3.6-1 Roadway Classification

With Puyallup’s transportation network being used by both local and regional traffic, major corridors in the city have experienced a substantial growth in traffic volume between 2015 and 2023. The transportation network was evaluated based on traffic counts and roadway conditions compiled in 2023, representing existing conditions.

Traffic operations were assessed at 40 intersections, both signalized and unsignalized, throughout Puyallup. These intersections were selected in consultation with City staff and tend to be situated along critical junctions and corridors. Out of the 40, 24 were also evaluated as part of the 2015 Comprehensive Plan.

This section discusses the methodology and findings from the existing conditions traffic operations analysis and evaluates how well the existing system may be serving both local and regional needs.

Delay and Level of Service

Intersection-level delay (measured in seconds per vehicle) and LOS were the primary measures of intersection performance for the traffic operations analysis.

The *Highway Capacity Manual* (HCM) defines delay as “delay brought about by the presence of a traffic control device including delay associated with vehicles slowing in advance of an intersection, the time spent stopped on an intersection approach, the time spent as vehicles move up in the queue, and the time needed for vehicles to accelerate to their desired speed.”

LOS is a term that qualitatively describes the operating performance of an intersection and is a standard method for characterizing delay at an intersection. For signalized and all-way stop-controlled intersections, the LOS is based on the average delay for all approaches. For two-way stop-controlled intersections, the movement with the highest delay is used, which can lead to an LOS standard failure based on a relatively small number of delayed vehicles on the minor street. LOS is reported on a scale from A to F, with A representing the lowest delays and F the highest. Table 3.6-2 provides a brief description of each LOS letter designation based on the HCM, 6th Edition.

Table 3.6-2. Level of Service Descriptions

LOS	Description
A	Free-flowing conditions.
B	Stable operating conditions.
C	Stable operating conditions, but individual motorists are affected by interaction with others.
D	High density of motorists, but stable flow.
E	Near-capacity operations, with significant delay and low speeds.
F	Over capacity, with excessive delays and forced, unpredictable flows.

Source: Fehr & Peers descriptions, based on Highway Capacity Manual, 6th Edition.

The existing LOS policy for the City of Puyallup sets the following standards:

- LOS E for intersections on Meridian, Shaw Road, and 9th Street SW.
- LOS D for all other intersections in the city.
- 0.85 V/C ratio.
- Allows for a 15% increase in delay buffer for development related impacts to intersections that are failing prior to the development.

The LOS standards applicable to each study intersection are noted in Table 3.6-3. Intersections in **bold** do not currently meet the city's LOS Standard.

Table 3.6-3. Intersection Delay and Level of Service

No. ^a	Intersection Name	Control	Data Source	LOS Standard ^b	LOS	Delay (s/veh)
1 ^c	Freeman Road E & Valley Avenue E	Signal	StreetLight	D	C	23
2	11th Street NW & River Road	Signal	StreetLight	D	B	18
3	7th Street NW & River Road	Signal	StreetLight	D	B	13
4	4th Street NW & River Road	Signal	StreetLight	D	A	6
5	River Road & Fred Meyer Access	Signal	StreetLight	D	B	12
6	N Meridian & River Road/2nd Street NE	Signal	StreetLight	D	D	54
7	S Fruitland & W Pioneer	Signal	StreetLight	D	B	16
8 ^d	S Fruitland & WSU Driveway/7th Avenue SW	TWSC	StreetLight	D	F	>180
9 ^d	5th Street NW/4th Street NW & W Stewart Street	Signal	Counts	D	E	71
10	5th Street SW & W Pioneer	Signal	Counts	D	D	40
11	5th Street SW & 7th Avenue SW	Signal	Counts	D	C	30
12 ^d	N Meridian & W Stewart Street/E Stewart Street	Signal	Counts	E	F	91
13	2nd Street NE & E Stewart Street/E Main	Signal	Counts	D	C	26
14	S Meridian & W Pioneer/E Pioneer	Signal	Counts	E	E	63
15	3rd Street SE & E Pioneer	Signal	Counts	D	D	36
16	S Meridian & 9th Avenue SW/9th Avenue SE	Signal	Counts	E	E	60
17	5th Street NE & 5th Avenue NE	TWSC	StreetLight	D	D	31
18	5th Street SE/5th Street NE & E Main	Signal	Counts	D	D	42

No. ^a	Intersection Name	Control	Data Source	LOS Standard ^b	LOS	Delay (s/veh)
19	5th Street SE & E Pioneer	Signal	Counts	D	C	34
20	Shaw Road E & E Main	Signal	StreetLight	E	D	39
21^d	E Main & 5th Avenue NE	TWSC	StreetLight	D	F	61
22	Shaw Road & E Pioneer	Signal	StreetLight	E	E	71
23	9th Street SW/Fairview Drive & 15th Avenue SW	Signal	Counts	E	B	16
24	S Meridian & SR 512 EB Ramps	Signal	Counts	E	B	11
25	S Meridian & 15th Avenue SW/15th Avenue SE	Signal	Counts	E	E	78
26^d	7th Street SE & 23rd Avenue SE	AWSC	Counts	D	E	36
27	Shaw Road & 23rd Avenue SE	Signal	StreetLight	E	D	43
28^d	Fruitland Avenue & 104th Street E/31st Avenue SW	AWSC	StreetLight	D	F	169
29^d	9th Street SW & 31st Avenue SW	Signal	Counts	E	F	99
30	9th Street SW & SR 512 WB on ramp/SR 512 on ramp	Signal	StreetLight	E	D	50
31	9th Street SW & SR 512 EB off ramp/SR 512 off ramp	Signal	StreetLight	E	D	53
32	9th Street SW & 39th Avenue SW	Signal	StreetLight	E	D	41
33	31st Avenue SW & S Meridian	Signal	Counts	E	D	52
34	S Meridian & 35th Avenue SE	Signal	StreetLight	E	E	64
35	S Meridian & 37th Avenue SE	Signal	Counts	E	E	69
36	S Meridian & 39th Avenue SW/39th Avenue SE	Signal	Counts	E	D	41
37	5th Street SE & 31st Avenue SE	Signal	Counts	D	C	22
38	5th Street SE & 37th Avenue SE	Signal	Counts	D	D	38
39	5th Street SE & 43rd Avenue SE	Signal	StreetLight	D	C	31
40	Shaw Road E/Shaw Road & 39th Avenue SE	Signal	StreetLight	E	E	76

^a Intersection numbers correlate with those in Figure 3.6-2.

^b See Table 3.6-2, Level of Service Descriptions, for definitions of LOS standards.

^c The intersection is outside the city limits.

^d **Bold text** indicates that the intersection does not meet its LOS standard.

AWSC = all-way stop-controlled; LOS = level of service; s/veh = seconds per vehicle; TWSC = two-way stop-controlled; WSU = Washington State University

Traffic Operations Methodology

To understand traffic operations in the City of Puyallup, the project team used Synchro 11 traffic operations analysis software. The baseline year for the existing conditions analysis was determined to be 2023, and the analysis was carried out for the PM peak hour (4 p.m. to 5 p.m.). All intersections were assessed for delay and LOS using the HCM 6th Edition methodology. All study intersections are listed in Table 3.6-3 and depicted in Figure 3.6-2.

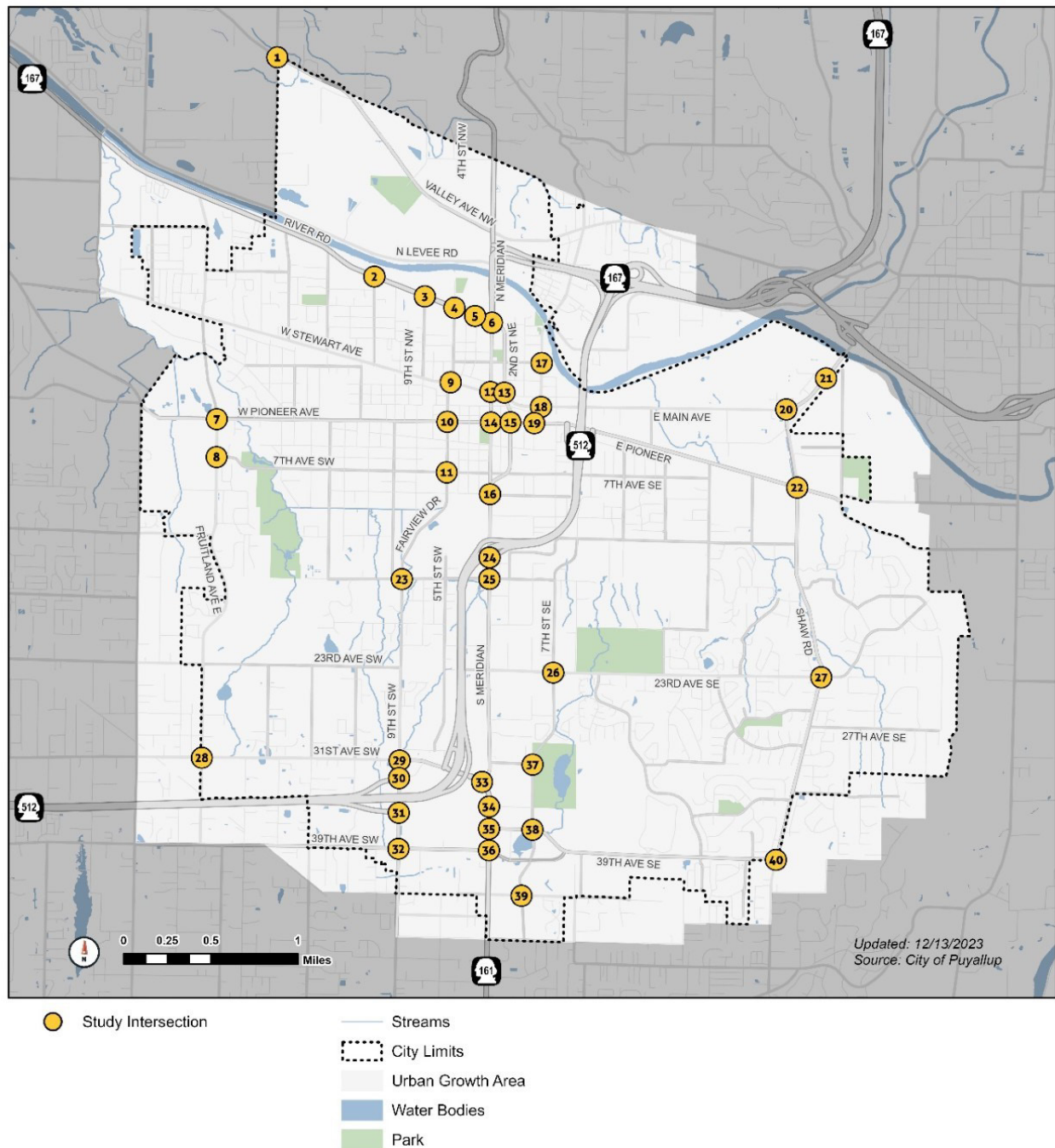


Figure 3.6-2. Study Intersections

Turning movement counts for the existing conditions analysis were collected for 20 intersections on June 21, 2023, as part of a traffic impact analysis within the city. The intersections for which counts were collected are noted in Table 3.6-3, with *Counts* as their data source. Due to lower than typical volumes on this day, adjustments were made to those 20 counts based on signal detection data and engineering judgement. Pedestrian, bicycle, and heavy vehicle data were also collected during this period.

StreetLight Data were used to obtain turning movement volumes for the remaining intersections. StreetLight Data is an online platform that retrieves and processes connected vehicle data to estimate turning movement volumes at intersections. StreetLight Data allows users to select date ranges, days of week, and hours of day, and it produces outputs based on an aggregation and expansion of all connected vehicle data trips available in that range. It does not provide turning movement counts for a specific date and time, but it provides traffic count estimates that are representative of the typical traffic behavior expected in a date range during a time range. For the StreetLight turning movement volumes, data were aggregated for a period from March 1 to May 31, 2023, Tuesdays through Thursdays, 4 to 5 p.m. Although turning movement counts were collected in June 2023, the month was excluded from the StreetLight Data download because of lower than typical volumes, potentially related to the end of the school year.

For the operations analysis, the peak hour factor (PHF) was calculated using data from the 20 intersections where counts were available. The PHF measures variation of traffic demand and is the ratio of the average 15-minute count to the maximum 15-minute count in the peak hour. It is always less than 1, and a high PHF represents traffic flow that is evenly distributed between the four 15-minute segments that make up an hour. A low PHF represents traffic that is significantly higher in the busiest 15 minutes than it is during the remaining hour. For this analysis, 15-minute counts were summed for the 20 intersections, and the PHF was calculated using these sums. The PHF value, 0.96, was then applied to all intersections. This high PHF reflects that commute from work congestion likely spreads trips across the peak hour more evenly than in areas with less congestion.

For intersections impacted by railroad blockages, the PHF was modified to account for the time that the railroad blockage removes from the capacity of the corridor.

Conflicting pedestrian volumes were determined using counts, where available. Conflicting pedestrian volumes were assumed to be five per hour for any movements where counts were not available or where counts were less than five pedestrians per hour.

Heavy vehicle volumes were used to determine intersection-specific heavy vehicle percentages where counts were available. For all other intersections, 2% heavy vehicles was assumed.

Traffic Operations Analysis Results

The results of the operations analysis are shown in Table 3.6-3 and Figure 3.6-3.

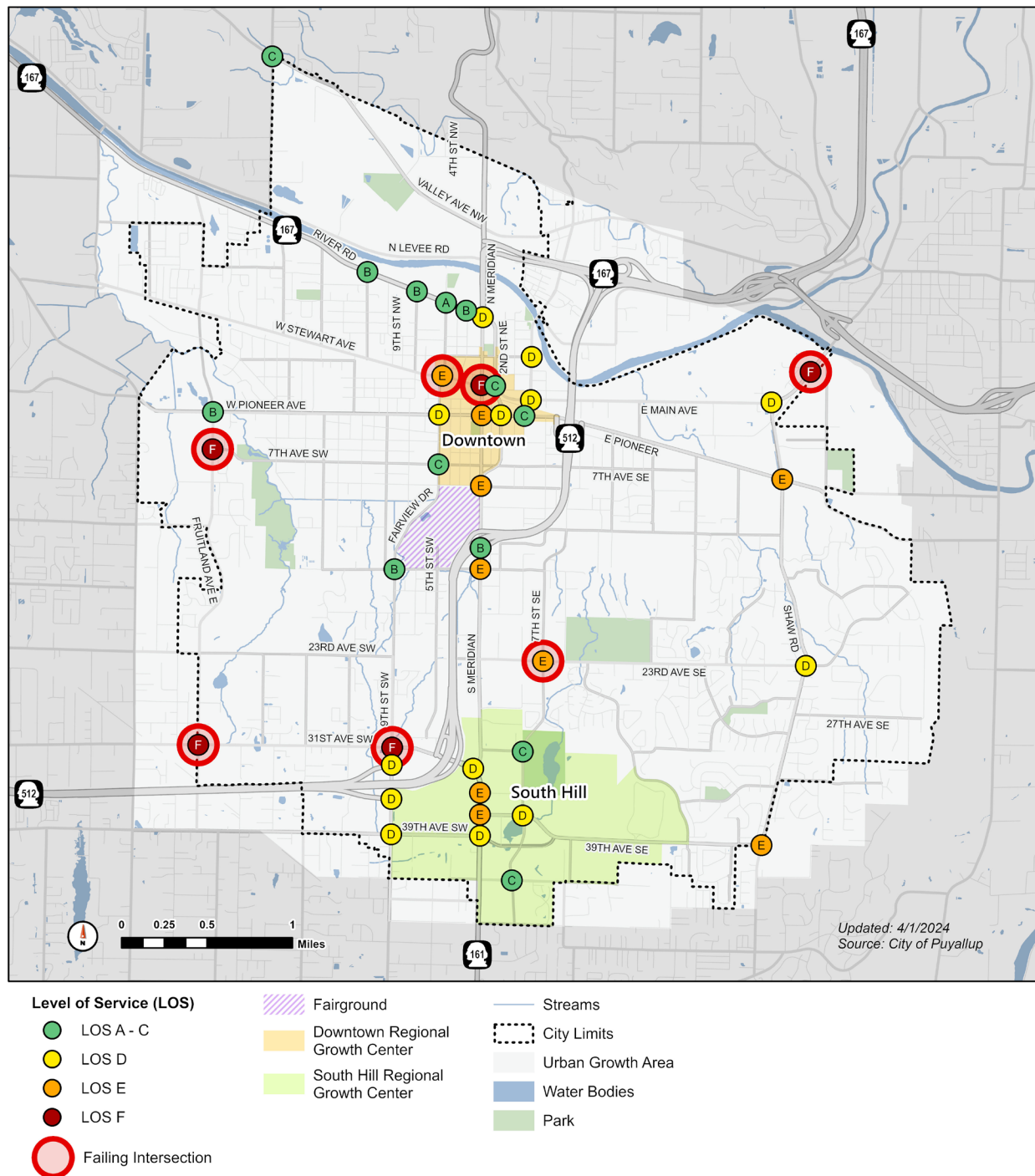


Figure 3.6-3. Intersection Level of Service

Out of the 40 intersections analyzed, seven were failing based on the City's adopted LOS standards (four stop-controlled and three signalized). Five of these intersections had an LOS of F, and two had an LOS of E. In general, these intersections are located along key north-south arterials, but one is on an east-west arterial. Barriers including the Puyallup River, the rail line, a disconnected street network, and SR 512 funnel congestion to the few arterials that cross these barriers, which results in

higher reported delays. Additionally, many key roadways have not been improved beyond their original unincorporated two-lane cross sections, largely due to the large costs to obtain additional right-of-way and construct improvements.

S Meridian/SR 161 serves as a major regional facility providing access to SR 512 and SR 167 from unincorporated communities like South Hill and Graham. The combination of regional and local traffic and congestion on SR 512 often means S Meridian operates at or over capacity during peak hours. Drivers use parallel north-south roadways in the city to avoid those conditions, which results in other facilities experiencing high demand.

Two of the four stop-controlled intersections are along S Fruitland where high east-west volumes intersect with a key north-south facility. The Fruitland and 7th Avenue SW two-way stop-controlled intersection reported the highest delay of the study intersections, which corresponded to the westbound left turning movement from the minor street. Longer wait times for traffic on the westbound approach may be due to high volumes along the uncontrolled major street approaches, which conflict with high westbound left turning volumes. People turning westbound left are likely to travel from the downtown area to Fruitland Avenue E to avoid southbound congestion on 9th Street SW and S Meridian.

31st Avenue SW has high east-west volumes from vehicles exiting SR 512 westbound to access the South Hill area. Fruitland and 9th St SW are two significant north-south corridors that intersect 31st Avenue SW. The combined volumes at these intersections result in higher delays.

The 7th Street SE and 23rd Avenue SE intersection is an all-way stop-controlled intersection that fails with a delay of 36 seconds per vehicle. The westbound approach experiences the highest volume and delay, which may be attributed to drivers turning onto 7th Street SE from S Meridian to avoid north-south congestion.

The fourth failing stop control intersection is E Main and 5th Avenue NE (two-way stop-controlled). E Main serves as a main arterial to the City of Puyallup for vehicles traveling from SR 410 or the Sumner area and has high westbound volumes in the PM peak hour. Vehicles waiting to turn left at the stop sign on 5th Avenue NE can experience delays of over 60 seconds waiting for gaps in traffic to enter E Main. Even with relatively low left turn volumes and the median to accommodate two-staged left turns, vehicles can have a difficult time finding gaps due to the constant flow of westbound traffic from Traffic Avenue and SR 410.

In the Downtown RGC, there are two failing signalized intersections. 5th Street NW/4th Street NW and W Stewart Street fails with an LOS of E and N Meridian and W/E Stewart Street fails with an LOS of F and over 90 seconds of delay. Both signalized intersections have limited capacity to move north-south volumes due to the railroad crossings to the south. Due to the limited capacity, queues can develop and can impact other intersections. 5th Street SE/NE and E Main is an example of an intersection near failing with limited capacity due to rail operations during the peak hour. N Meridian and W/E Stewart Street has the highest delay of the signalized study intersections.

The 2023–2028 TIP adopted by the City Council includes improvements to address performance needs at both intersections. Corridors with multiple intersections near LOS thresholds include S Meridian/SR 161 by the South Hill Mall, Shaw Road E, and E Pioneer in the downtown area. Corridor and intersection improvements are also planned for some of those locations.

Freight

WSDOT designates strategic freight corridors within the state as part of the Freight and Goods Transportation System (FGTS; WSDOT 2021). The classifications (T-1 through T-5) are based on

annual freight tonnage moved along a corridor. The breakdown of freight corridor classifications is shown in Table 3.6-4.

Table 3.6-4. WSDOT Freight Classifications in Puyallup

Freight Corridor	Description	Example in Puyallup
T-1	More than 10 million tons of freight per year	SR 512, Valley Avenue E, SR 167 east of SR 512 interchange
T-2	4 million to 10 million tons per year	SR 161, SR 167
T-3	300,000 to 4 million tons per year	W Stewart Avenue, E Main Avenue, Fruitland Avenue E, Shaw Road E
T-4	100,000 to 300,000 tons per year	5th Street NE
T-5	At least 20,000 tons in 60 days	No streets classified

Source: WSDOT; Fehr & Peers 2023.

Figure 3.6-4 illustrates the WSDOT FGTS freight corridors and additional truck routes assigned by the City of Puyallup. Within the City-designated routes, Fairview Drive and South Meridian act as north-south truck routes, while 39th Avenue SE serves as a freight connection between South Meridian and Shaw Road.

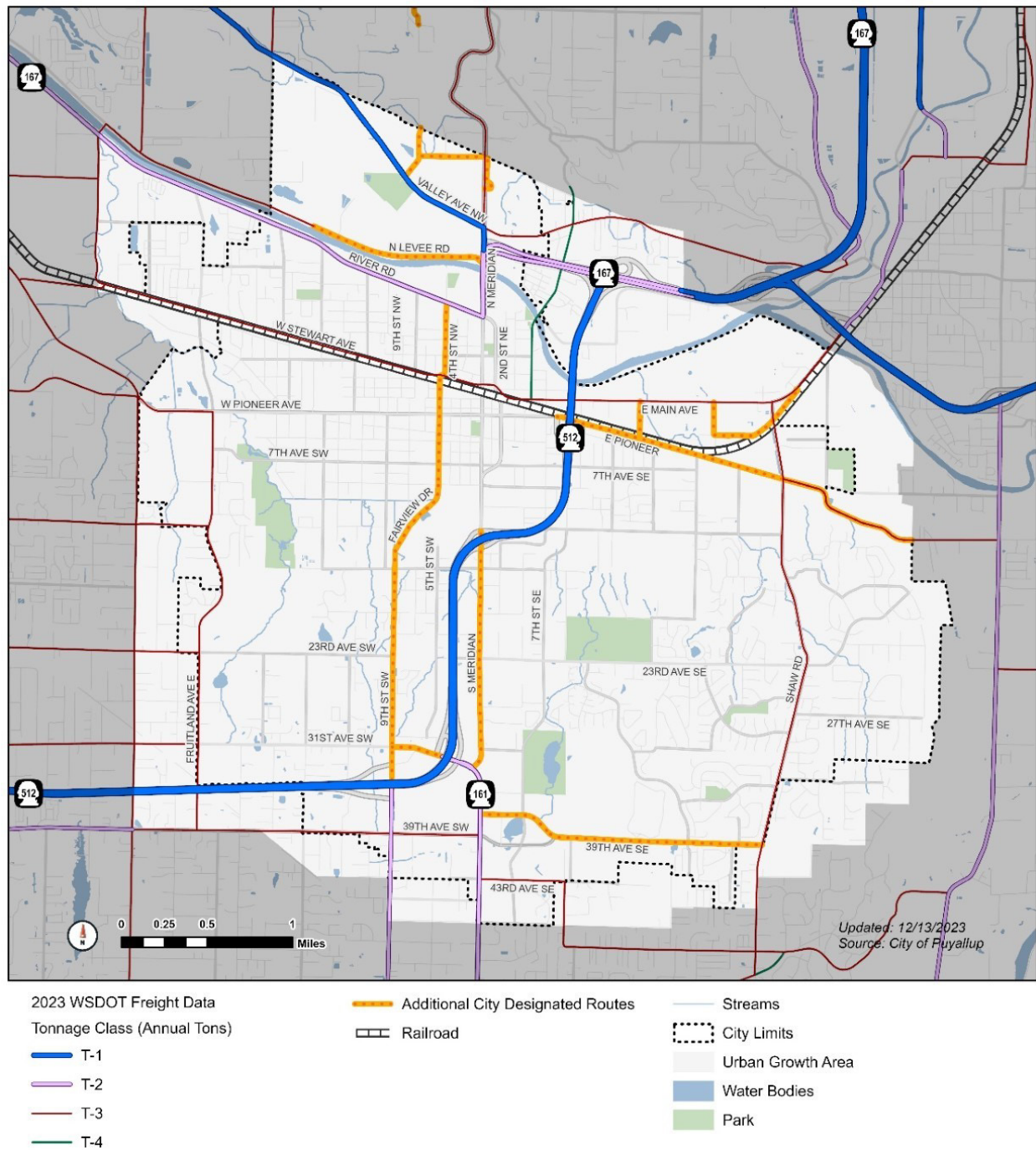


Figure 3.6-4. Existing Freight Routes

Transit

Pierce Transit and Sound Transit jointly provide transit services in Puyallup. Sound Transit facilitates the Sounder S line, connecting Seattle to Pierce County with a stop at Puyallup Station. Pierce Transit operates bus lines, paratransit shuttles, Vanpool, and on-demand transit services within and around the City of Puyallup.

Operating as a commuter train, the S line sustains 5,900 average daily boardings as of 2023, based on Sound Transit data available through September 2023. This figure is considerably lower than the 14,000 daily boardings reported in 2019.

The Puyallup Sounder Station is located on West Stewart north of Pioneer Park. Sound Transit recently built a 680-stall parking garage west of the station with a pedestrian bridge across 5th Street NW to access the platform.

The S line operates from Lakewood Station to King Street Station in Seattle with seven stops between. Trips from Puyallup to Seattle typically last around 49 minutes, while the reverse route takes approximately 42 minutes. Operating primarily on weekdays to align with commuting patterns, the S line sees northbound trips dominating the morning peak hour, and southbound trips prevailing in the afternoon peak hour. On a typical weekday, the northbound S line departs from Puyallup station 10 times, ranging from 5:03 a.m. to 10:38 a.m. In the afternoon, three northbound trains depart between 4:18 p.m. and 5:27 p.m. Southbound S line trips feature three morning departures (6:47 a.m. to 8:37 a.m.) and 10 afternoon trains (3:17 p.m. to 7:12 p.m.).

Currently, Puyallup is served by four bus routes—three from Pierce Transit (400, 402, and 409) and one from Sound Transit (578). Pierce Transit's routes cover distinct areas, including Downtown Tacoma to South Hill Mall (400), Meridian north-south corridor connections (402), east-west routes mainly within 72nd Street and E Pioneer (409). Sound Transit's 578 route, along with the S line, establishes a direct connection between Puyallup and Seattle. Northbound buses run every 20 minutes during peak hours, operating from 7:22 a.m. to 9:08 p.m. The journey from Puyallup Station to various destinations within Seattle takes around 1 hour and 30 minutes. On the southbound route, buses run every 20 minutes during peak PM hours and throughout the day, spanning from 4:56 a.m. to 10:50 p.m. The travel time from Seattle to Puyallup Station is approximately 1 hour and 20 minutes.

As of March 31, 2024, Pierce Transit Route 409 has been shortened and Route 425 is no longer in service. Sound Transit also suspended service of Route 580, which connected Puyallup Sounder Station to the South Hill Park and Ride via SR 512.

Transit service changes and broader travel trends following the COVID-19 pandemic have impacted transit ridership within Puyallup. In spring 2023, the S line at Puyallup Station had average weekday boardings of 650 passengers at Puyallup Station, Route 578 had 27 boardings at Puyallup Station, and Route 580 recorded less than 10 boardings within Puyallup on the average weekday.

Pierce Transit's Vanpool service facilitates ridesharing for groups of 3 to 15 individuals who wish to coordinate a carpool for their daily commutes to and from work. Participants can organize a carpool using Pierce Transit's Vanpool vehicles, which are available for those with similar commutes. Fares are based on daily commute mileage.

In addition to paratransit and Vanpool, Pierce Transit's on-demand transit service, called Runner, started serving the Puyallup area in November of 2023 (Pierce Transit 2024). The Puyallup Runner lets individuals use their app to request a van that will transport them to destinations within the designated Runner service zone. The service is tailored for areas in Puyallup that might not be served by regular bus routes, and it does so by ensuring that its service is provided within a 15-minute window. This service is available every day of the week from 7 a.m. to 10 p.m. The Spanaway Runner zone also overlaps with a small portion of Puyallup city limits, as depicted in Figure 3.6-5.

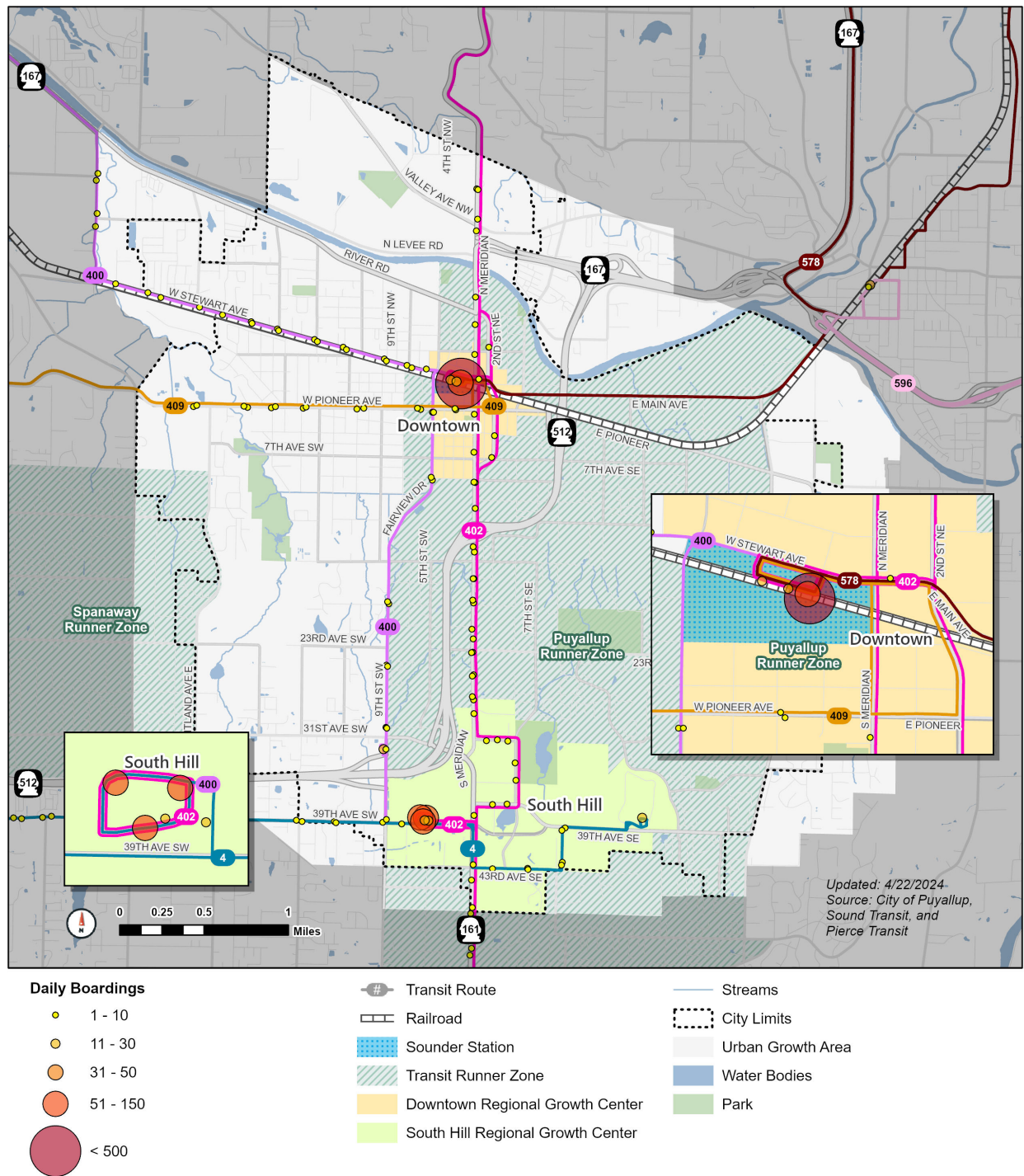


Figure 3.6-5. Existing Transit Facilities

Walking and Biking

Puyallup's pedestrian and bicycle network consists of sidewalks, trails, sharrows, bike lanes, and shared use paths. Generally, sidewalks are available along many arterials, streets within the central business district, and in newer subdivisions. However, older residential areas in Puyallup often feature incomplete or poorly maintained sidewalks. Even along arterials and in the downtown area, sidewalks may not be well maintained or meet current accessibility requirements such as width, cross slope, and curb ramps. A recent City assessment for arterials and collectors calculated approximately 100 miles of missing sidewalk.

The Puyallup Riverwalk Trail is approximately 5 miles long and is located along the southern bank of the Puyallup River. The Riverwalk Trail provides a connection to the Sumner Link Trail. The 21-mile Foothills Regional Trail currently terminates at E Pioneer and Shaw Road within city limits. It extends east and south along SR 167 outside of the city as a commuter and recreational scenic route.

Bicycle infrastructure within the city primarily consists of sharrows, bike lanes, and a shared-use trail. Sharrows are located on 5th Street NE between 4th Street NE and 5th Street NE, as well as 5th Street NE from 5th Avenue NE to 2nd Avenue NE. Bike Lanes exist on 23rd Avenue SE between 9th Street SE to Forest Green Boulevard, and will be implemented soon on W Stewart Avenue and 4th Street NW. The Foothills Trail starts as a shared-use trail on East Pioneer Avenue from Shaw Road East to 33rd Street Southeast. There is also a shared use path on Shaw Road East from 23rd Avenue to Manorwood Drive Southeast.

Despite pedestrian facility coverage on most arterials in the city, bicyclists still encounter challenges navigating Puyallup's street network due to a lack of bicycle facilities or shared-use paths. Figure 3.6-6 provides the locations of pedestrian/bike facilities and trails.

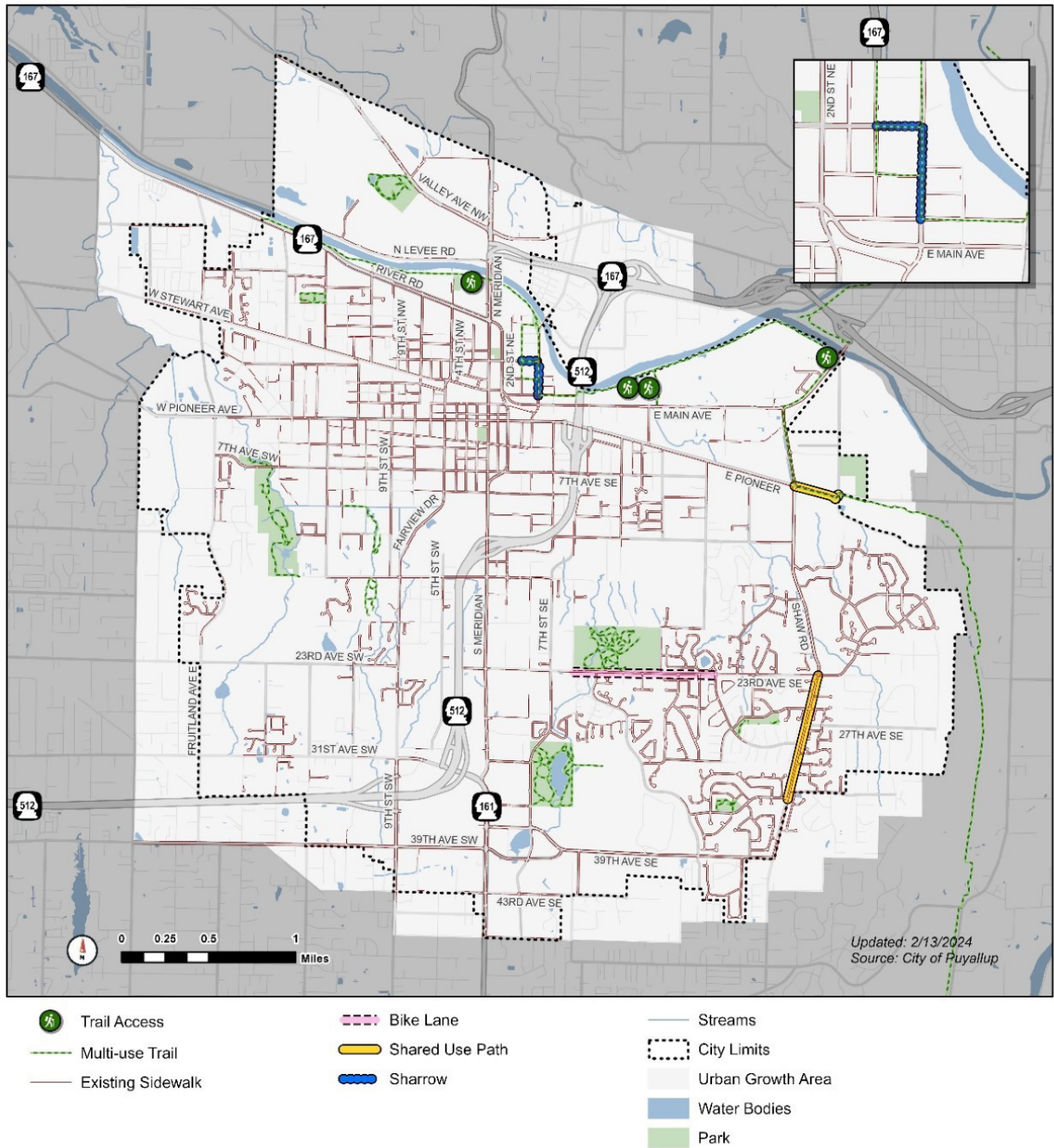


Figure 3.6-6. Existing Bicycle and Pedestrian Facilities

Level of Traffic Stress

Level of traffic stress (LTS) serves as a quantifiable tool used to assess the degree of stress users may encounter while utilizing bicycle and pedestrian infrastructure. The lowest level of traffic stress is classified as LTS 1, where a wide range of users feel safe and comfortable on an active transportation facility. LTS 4 represents the highest level of traffic stress where most users feel uncomfortable when walking or biking. See Figure 3.6-7, which illustrates all four levels. The City of Puyallup has no adopted standards for Bicycle Level of Traffic Stress (BLTS) and Pedestrian Level of Traffic Stress (PLTS), so a set of criteria was developed by the Fehr & Peers team to analyze current conditions and help identify potential future active transportation projects in Puyallup. Given that LTS levels for biking and walking are influenced by slightly different factors, the breakdown for BLTS and PLTS varies slightly.



Figure 3.6-7. LTS Level Breakdown
Source: Fehr & Peers 2023.

Pedestrian facilities in Puyallup consist of sidewalks and shared-use trails. The LTS value assigned to a roadway is based on the roadway classification and presence of pedestrian facilities. Table 3.6-5 illustrates the breakdown of PLTS values. In Figure 3.6-8, major arterials within the city, like Meridian Avenue and 39th Avenue SW, typically receive PLTS 2 given the presence of sidewalks on both sides. Where there are no pedestrian facilities, PLTS 4 is assigned, such as 5th Street SW.

The PLTS value does not account for roadway crossing comfort, sidewalk quality, whether accessibility standards are met, or factors such as landscaping strips and greater horizontal separation from high-speed roadways. When designing pedestrian projects, developers and the City should consider these pedestrian comfort factors in addition to the presence or lack of sidewalks on both sides of the roadway.

Table 3.6-5. Pedestrian Level of Traffic Stress

Roadway Classification	No Pedestrian Facility	Sidewalk on One Side	Sidewalks on Both Sides	Separated Path or Trail
Local	4	2	1	1
Minor Collector	4	3	2	1
Major Collector	4	3	2	1
Minor Arterial	4	3	2	1
Major Arterial	4	3	2	1

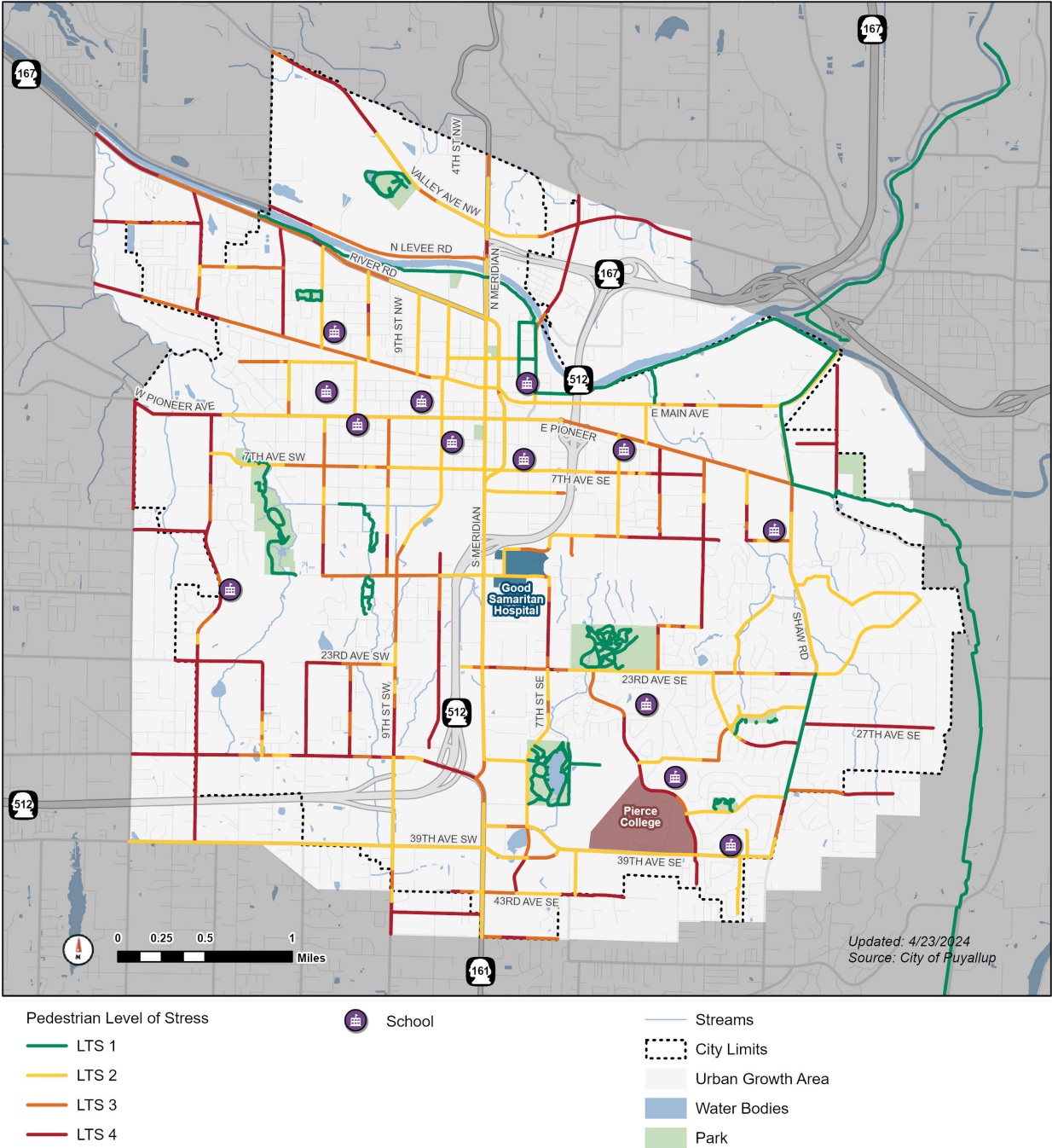


Figure 3.6-8. Existing Pedestrian Level of Traffic Stress

The existing bicycle infrastructure in the city includes significant gaps for cyclists. The breakdown of the BLTS classifications is provided in Table 3.6-6. This breakdown incorporates factors such as speed limit, AADT, and presence of bicycle facilities.

Facilities such as shared-use paths consistently receive BLTS 1, as they are entirely separated from the roadway and are not affected by vehicular traffic. As illustrated in Figure 3.6-9, all roadways in Puyallup, except those with shared-use paths, received LTS 4 due to the absence of bicycle facilities. Even areas with sharrows on the map still received LTS 4, given that speeds of 30 miles per hour are high enough for cyclists to perceive a significant level of discomfort.

The LTS analysis pinpoints the gaps within both the bicycle and pedestrian networks. However, it is crucial to acknowledge that both PLTS and BLTS assessments lack considerations for factors such as maintenance, roadway crossings, and facility width, which are crucial in ensuring optimal user experiences. Thus, any formulation of future bike and pedestrian projects in Puyallup should use the PLTS and BLTS map as a reference and holistically address these additional considerations.

Table 3.6-6. Bicycle Level of Traffic Stress

Roadway Characteristics		Bicycle Facility Component					
Speed Limit (mph)	AADT	No Bicycle Facility	Sharrow	Striped Bike Lane	Buffered Bike Lane (Horizontal)	Separated Bike Lane (Vertical)	Shared-Use Path
25	<1,500	4	1	1	1	1	1
	1,500–7,000	4	2	2	2	1	1
	>7,000	4	3	2	2	1	1
30	<7,000	4	4	2	2	1	1
	7,000–15,000	4	4	3	2	1	1
	15,000–25,000	4	4	3	3	2	1
	>25,000	4	4	3	3	2	1
35	<25,000	4	4	3	3	3	1
	>25,000	4	4	4	3	3	1
>35	Any	4	4	4	4	3	1

Source: Fehr & Peers 2023.

AADT = annual average daily traffic; mph = miles per hour

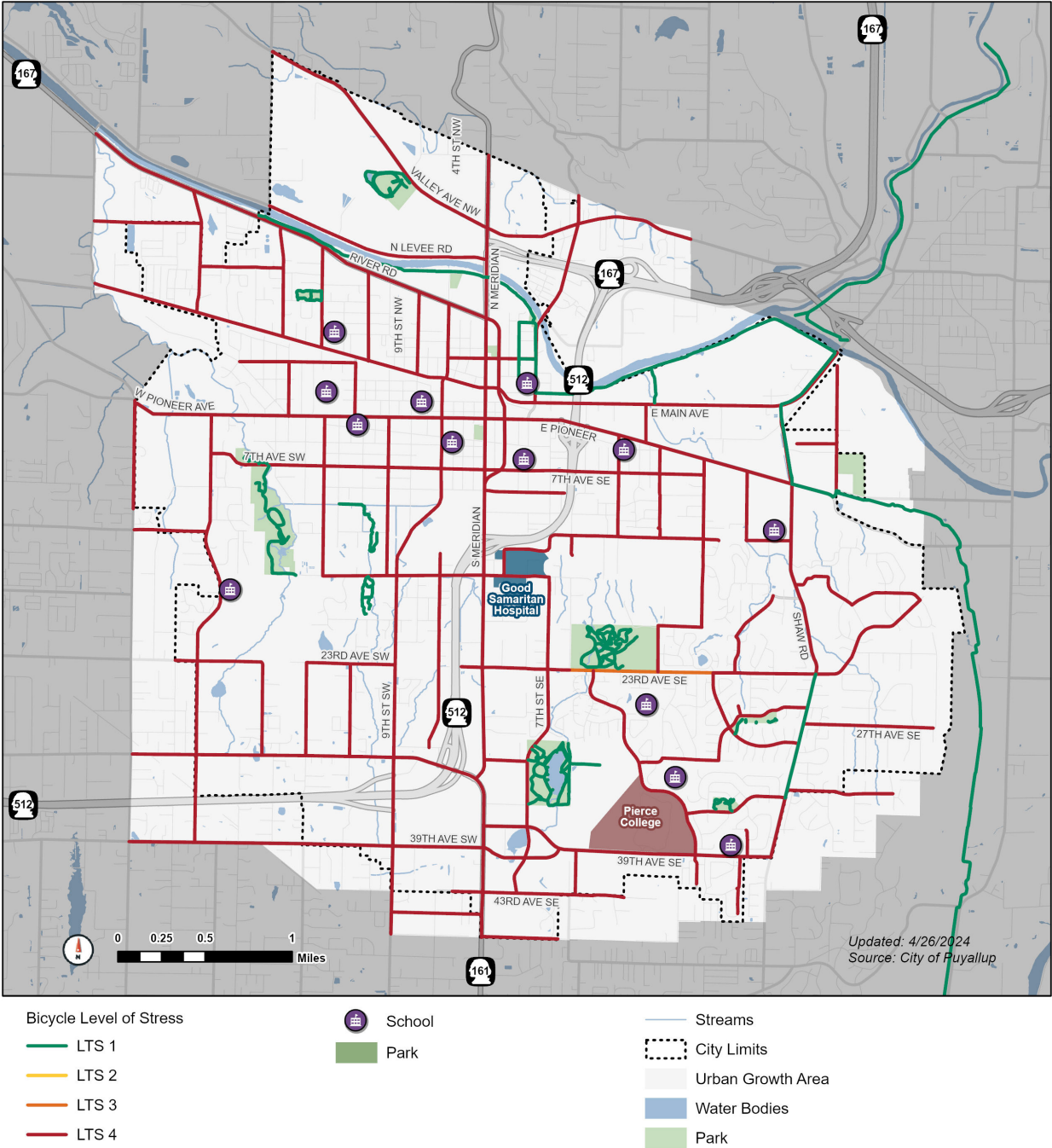


Figure 3.6-9. Existing Bicycle Level of Traffic Stress

Safety

Collision data were obtained from WSDOT (under 23 USC 148 and 23 USC 407, safety data, reports, surveys, schedules, list compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a federal or state court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such report, surveys, schedules, lists, or data.) to identify safety hotspots and overall collision trends for the city of Puyallup. The analysis covered a 5-year period from January 2018 to December 2022, the most recent available data. The analysis revealed a total of 4,364 reported collisions within city limits over the 5-year period. Of these, 76 incidents included pedestrians and 40 involved bicyclists. Within this dataset, 67 cases resulted in serious injuries, with 11 affecting pedestrians and 6 involving bicyclists. Additionally, there were 18 fatalities, with 6 incidents specifically affecting pedestrians. Table 3.6-7 provides a breakdown of collisions by injury severity and a comparison to jurisdiction averages statewide.

Killed or seriously injured collisions make up about 3% of total collisions. However, when vulnerable users (pedestrians and bicyclists) are involved, there is a greater share of minor injury and killed or serious injury resulting from the collision. While the sample size for pedestrians and bicycle collisions are small, the percentages are indicative of these users' vulnerability on the vehicle network.

The percentages of collisions by mode for the city of Puyallup compared to all jurisdictions statewide seem to reflect a demand for protected or separated facilities. Vehicle speeds, facility conditions, active transportation treatments, and other variables can affect safety conditions. Existing plans include projects to add bike lanes, traffic calming treatments, and shared-use paths within city limits.

Figure 3.6-10 displays a heat map illustrating all-modes collisions across the study area, visually representing collision density, with darker regions indicating higher concentrations of collisions. Figure 3.6-11 presents all pedestrians and Figure 3.6-12 presents all bicycle collisions during the same timeframe. Killed or seriously injured collisions are highlighted with separate points.

Table 3.6-7. Collisions by Injury Severity

Severity	Number of Collisions	Citywide	All Washington Cities
All Collisions		Percentage of All Collisions	
Property Damage Only	3,125	72%	68%
Minor injury (Including Possible and Unknown Injuries)	1,154	26%	30%
Serious Injury	67	2%	2%
Fatality	18	<1%	<1%
Total	4,364	-	-
Vehicle-to-Pedestrian Collisions		Percentage of Pedestrian Collisions	
Property Damage Only	0	0%	2%
Minor injury (Including Possible and Unknown Injuries)	59	78%	74%
Serious Injury	11	14%	19%
Fatality	6	8%	5%
Total	76	-	-

Severity	Number of Collisions	Citywide	All Washington Cities
Vehicle-to-Bicycle Collisions		Percentage of Bicycle Collisions	
Property Damage Only	3	8%	6%
Minor injury (Including Possible and Unknown Injuries)	31	77%	83%
Serious Injury	6	15%	11%
Fatality	0	0%	1%
Total	40	-	-

Notes: Does not include SR 512 and ramp from/to SR 167 to/from SR 512

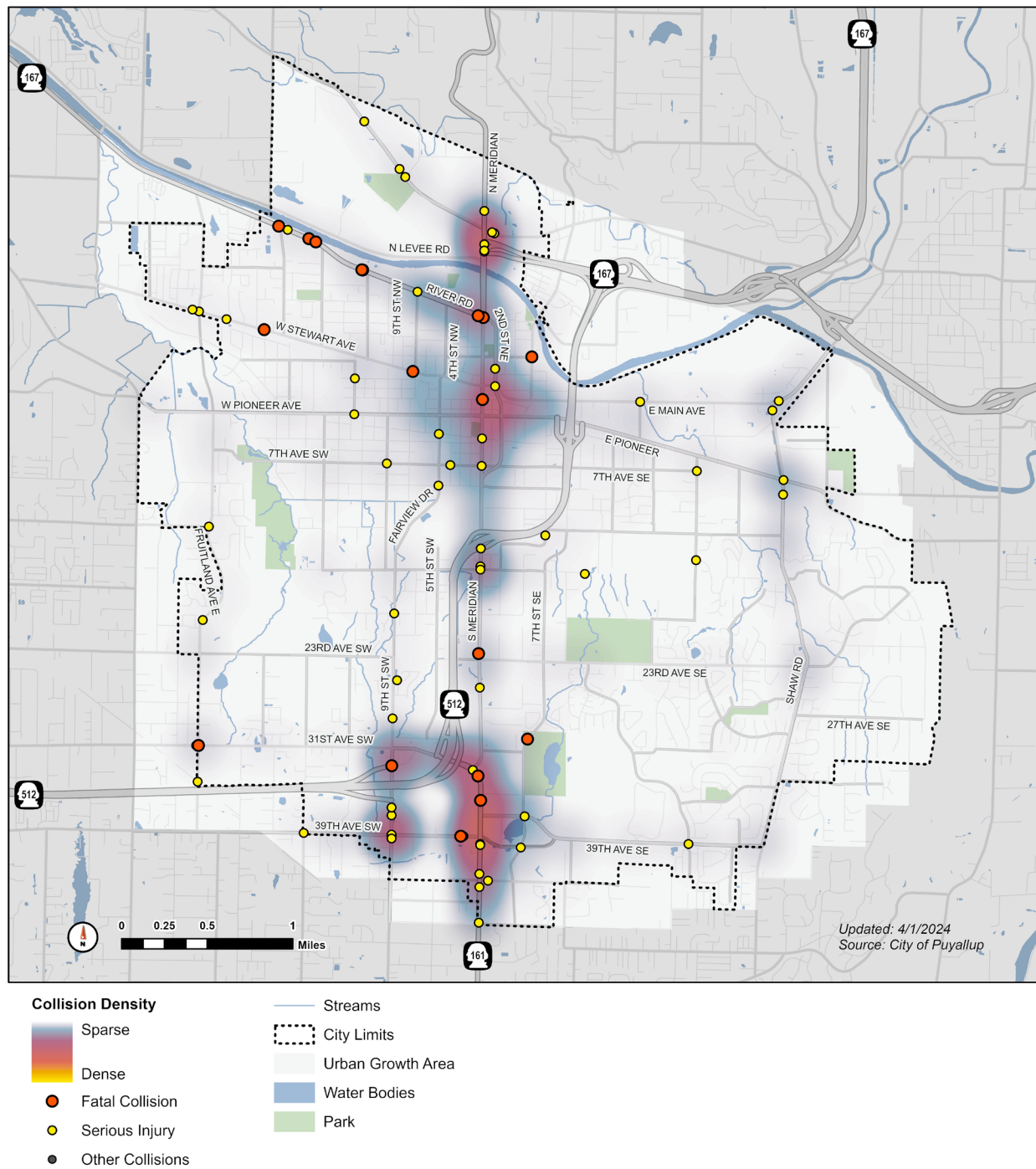


Figure 3.6-10. All-Mode Collisions

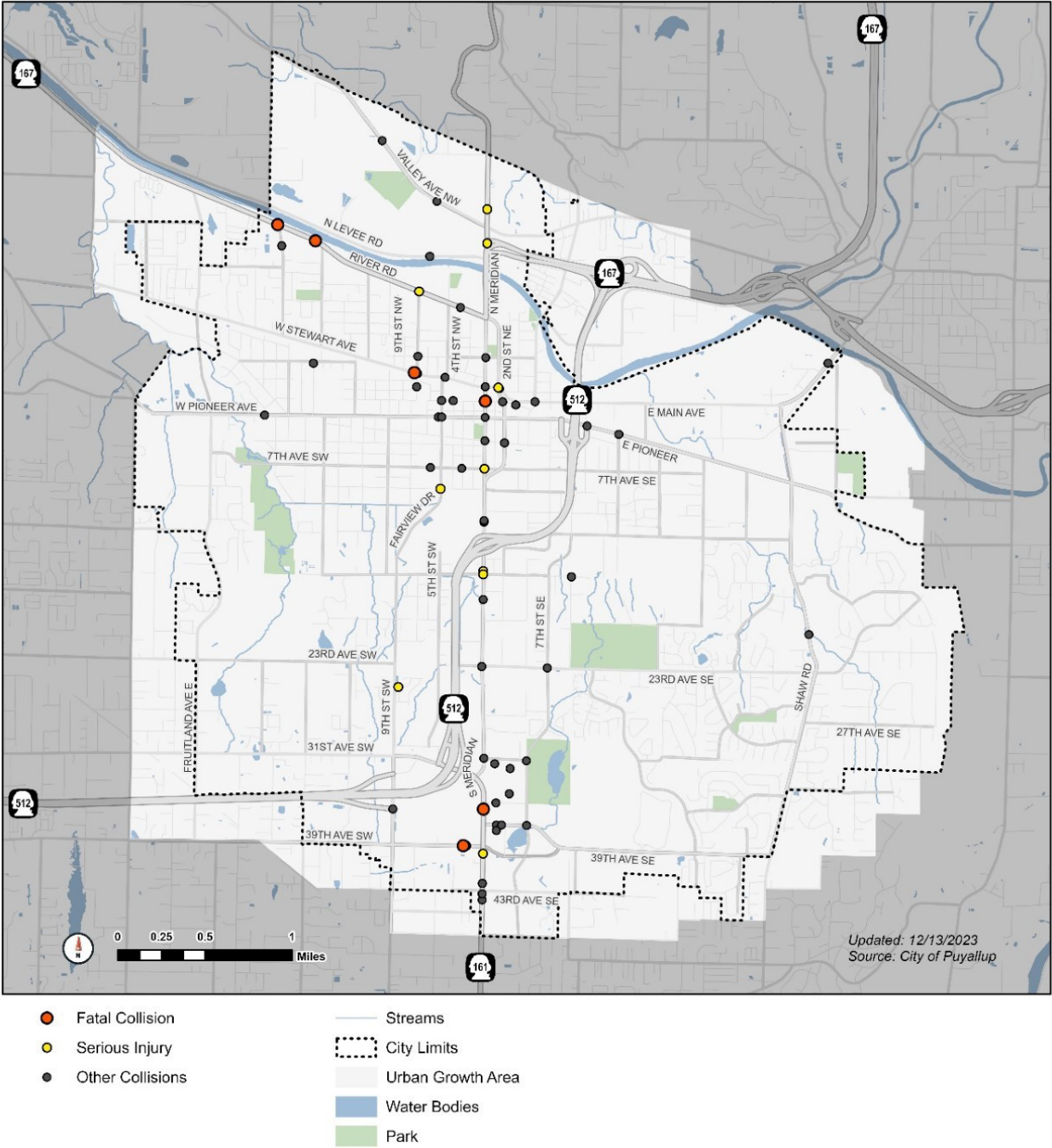


Figure 3.6-11. Pedestrian Collisions

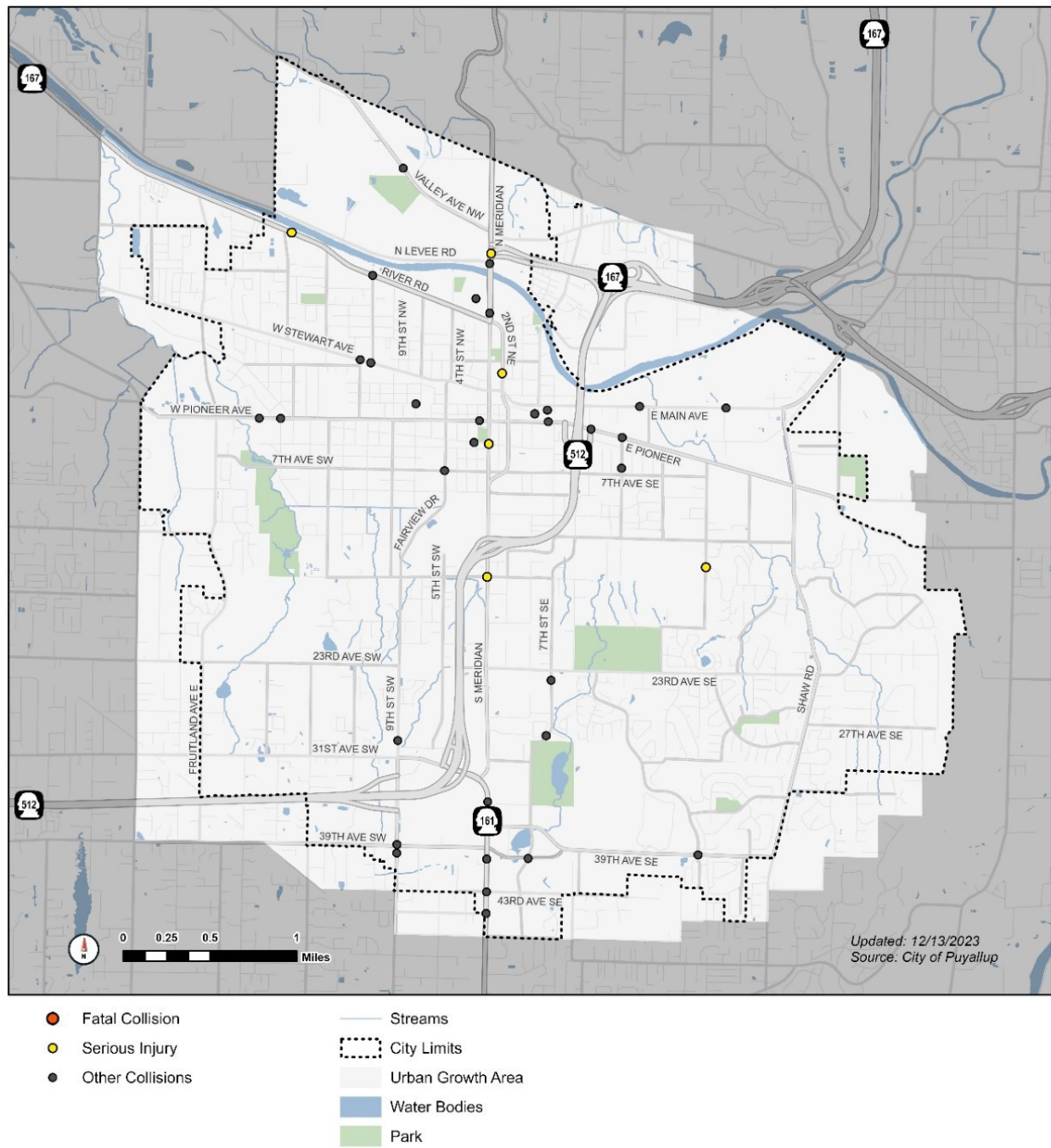


Figure 3.6-12. Bicycle Collisions

3.6.2 Impacts

3.6.2.1 Methodology and Thresholds of Significance

This section describes the methods and thresholds of significance that were used to identify the transportation impacts of each alternative.

The transportation metrics were evaluated both with a quantitative approach where specific standards have been identified and with a qualitative approach where specific standards are not available. Related methodology and policies are described below. For more detail, see Appendix A, Transportation Analysis Support Documentation.

Methodology

Auto and Freight

Traffic Forecasting Model

As part of the process to update the City of Puyallup's Comprehensive Plan, a customized travel demand forecasting model was developed for the City. The City's model was based on edits to the regional travel demand model maintained by PSRC for the SPMCS model. That model was refined so that the geographic traffic analysis zones were increased to provide more land use detail. The model street network was refined to include more realistic access roads to land uses, therefore better representing existing vehicle travel in the city based on local and regional trips. The Base Year 2023 model was updated to reflect current land use and completed street network and transit projects and was calibrated and validated based on traffic counts collected in 2023.

The three alternatives have a 2044 horizon year. PM peak-hour traffic forecasts were developed using the travel model, which was updated to reflect the three different land use alternatives. The future year transportation model network was also modified to include baseline projects, which are transportation improvement projects assumed to be completed by 2044. Significant regional projects such as the SR 167 extension project were already included in the PSRC model. Additionally, baseline projects were identified for the City of Puyallup in coordination with City staff based on existing plans. Table 3.6-8 shows the baseline vehicle capacity and intersection projects assumed to be completed by 2044 within the city limits. These projects are specified as they affect vehicle travel capacity on the street network.

Table 3.6-8. Assumed City of Puyallup Auto Capacity Projects Completed by 2044

ID	Project	Description
1	Shaw Road Widening – Phase 4 (12th to 23rd)	Widen road to five lanes with curb, gutter, sidewalk, bike lane, and street lighting on both sides.
2	9th Street SW Widening - 15th Avenue SW to 31st Avenue SW	Widen road to three lanes with curb, gutter, sidewalk, bike lanes, and street lighting on both sides and additional lane capacity at 31st Avenue SW/9th Street SW intersection. Scoping is underway to more fully define the design including right-of-way needs.
3	Intersection Signal Control: 23rd Avenue SE/7th Street SE	Install new signal as part of the road improvement project 23rd Avenue SE - Meridian to 9th Street SE.
4	23rd Avenue SE Widening - Meridian to 9th Street SE	Widen 23rd Avenue SE to three lanes with curb, gutter, sidewalk, and street lighting and a signal at the 7th Street SE/23rd Avenue SE intersection.

ID	Project	Description
5	Shaw Road Widening - Phase 4a (25th Avenue Court SE to 20th Avenue Court SE)	This project will widen the roadway section to accommodate a four-lane section of roadway to provide two southbound lanes, one two-way left-turn lane, and one northbound lane with a 7-foot-wide sidewalk on the west side of roadway and a dedicated 10-foot shared-use pathway on the east side of the roadway.
6	N Meridian and W Stewart Street Southbound Left Turn Pocket	Construct southbound left-turn pocket as part of the WSDOT improvements for the SR 167 extension.

Traffic Operations Analysis: HCM Methodology

See Section 3.6.1.2, Auto, Delay and Level of Service, for background information on traffic operations methodology.

Delay and LOS were determined for all 40 study intersections under each alternative. Signal timing splits, offsets, and cycle lengths were optimized to serve future year traffic patterns more efficiently if existing parameters did not result in adequate LOS.

Freight

The differences in traffic congestion described in the auto and freight impact description sections under each alternative are relevant to freight mobility. While these results provide an indication of relative delays expected among the alternatives, these effects may be more challenging for freight as traffic congestion is more difficult for large trucks to navigate and trucks typically travel at slower speeds than general purpose traffic. Freight delay is included in the operations analysis via heavy vehicle percentages, and intersection delays include an average of all vehicles, including freight.

Transit, Bicycles, and Pedestrians

Impacts to transit, bicycles, and pedestrians were evaluated qualitatively based on the relative differences between alternatives in the amount and location of population and job growth.

Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on transportation. Impacts were considered significant if they met the following criteria:

- An intersection's LOS falls below the LOS standard.
- An alternative would preclude or fail to implement an identified transit improvement
- An alternative would preclude or fail to implement a City-identified bicycle or pedestrian improvement.

For transit, bicycle, and pedestrian improvements, there is a tradeoff between increased growth/higher density development and comfort for these users as traffic volumes increase. However, this tradeoff typically remains balanced as increased growth and higher density development supports the development of higher quality transit, bicycle, and pedestrian service and facilities.

3.6.2.2 Impacts Common to All Alternatives

The impacts common to all alternatives are described below.

Auto and Freight

As part of the Transportation Element update, the City of Puyallup intends to update its LOS policy to remove the V/C ratio standard and focus on intersection delay. In addition, it is considering replacing the 15% delay buffer with a program requiring a proportional contribution to a future intersection improvement. As such, this analysis focuses on how the alternatives would affect the ability to meet LOS standards, as opposed to the V/C ratio standard.

Traffic volumes are expected to increase across all alternatives compared to existing conditions due to growth in housing units and employment in the region. The three alternatives also assume that the projected growth is achieved by 2044. There are 11 intersections that fail their LOS standards in all three alternatives. These are shown in Table 3.6-9, with delay reported in seconds per vehicle at the intersection. Of the 11 intersections that are below their LOS standard under all alternatives, 5 did not meet their LOS thresholds under existing conditions (see the bold rows in Table 3.6-9).

All alternatives would result in significant adverse impacts to LOS at intersections 17, 18, 19, 22, 33, and 40 and would exacerbate the delay at intersections 8, 9, 21, 28, and 29, which already are below their LOS standard under existing conditions (see Table 3.6-9).

Table 3.6-9. PM Peak-Hour Intersections Exceeding LOS Standards – Existing and All Alternatives

ID	Intersection	Control Type	LOS Standard ^a	Existing LOS (Delay, s/veh)	Alt 1 LOS (Delay, s/veh)	Alt 2 LOS (Delay, s/veh)	Alt 3 LOS (Delay, s/veh)
8^b	S Fruitland & WSU Driveway/7th Ave SW	TWSC	D	F (>180)	F (>180)	F (>180)	F (>180)
9^b	5th St NW/4th St NW & W Stewart St	Signal	D	E (71)	F (143)	F (144)	F (147)
17	5th St NE & 5th Ave NE	TWSC	D	D (31)	F (102)	F (>180)	F (>180)
18	5th St SE/5th St NE & E Main	Signal	D	D (42)	F (137)	F (159)	F (178)
19	5th St SE & E Pioneer	Signal	D	C (34)	F (85)	F (95)	F (102)
21^b	E Main & 5th Ave NE	TWSC	D	F (61)	F (106)	F (109)	F (142)
22	Shaw Rd & E Pioneer	Signal	E	E (71)	F (168)	F (>180)	F (>180)
28^b	Fruitland Ave & 104th St E/31st Ave SW	AWSC	D	F (>180)	F (>180)	F (>180)	F (>180)
29^b	9th St SW & 31st Ave SW	Signal	E	F (99)	F (111)	F (124)	F (128)
33	31st Ave SW & S Meridian	Signal	E	D (52)	F (113)	F (120)	F (126)
40	Shaw Rd E/Shaw Rd & 39th Ave SE	Signal	E	E (76)	F (165)	F (135)	F (>180)

^a See Table 3.6-2, Level of Service Descriptions, for definitions of LOS standards.

^b **Bold text** indicates that the intersection is failing under existing conditions.

Ave = avenue; AWSC = all-way stop-controlled; LOS = level of service; Rd = road; s/veh = seconds per vehicle; St = street; TWSC = two-way stop-controlled; WSU = Washington State University

All three alternatives include growth in housing units and employment, which could temporarily increase traffic volumes related to construction activity. These impacts would be temporary and transitory throughout the city over the course of the 20-year planning period.

Transit

All alternatives assume implementation of planned transit expansions in the city and region. Increased population and employment density assumed under each alternative would support higher levels of transit service. Current transit service in Puyallup is routinely underutilized, but additional demand may require higher funding levels for agencies such as Pierce Transit to be able to deploy additional service.

Bicycles and Pedestrians

New vehicle trips are expected under all alternatives; this could result in an uncomfortable environment for pedestrians and bike riders on high volume streets. However, new development would be required to meet City design standards related to pedestrian and bicycle facilities, which would minimize pedestrian and bicycle impacts under all alternatives. Additionally, increased population and employment density assumed under each alternative may support higher levels of walking and bicycling and the development of more high-quality pedestrian and bicycle facilities.

Safety

The State of Washington has experienced a consistent increase in the number of crashes that result in serious injuries or fatalities every year between 2018 and 2022. There were 227 fatal crashes in 2018, with 1,166 serious injuries, There were 343 fatalities and 1,623 serious injuries in 2022. This highlights the need for urgent attention to safety improvements.

The Comprehensive Plan will include an action to create a citywide systemic safety analysis, consider a Vision Zero goal, and pursue federal, state, and regional grant funds for safety improvements. Additionally, design of all transportation improvements will consider how to increase safety for all users. Therefore, the design and operation of the transportation system is expected to be fundamentally safer than existing conditions.

However, even with a transportation system that is safer in design and operation, all alternatives accommodate more residents, employees, and visitors across the entire city. With more people, there is more opportunity for people to become involved in crashes. Higher shares of people walking, bicycling, and accessing transit also puts people at greater risk of being injured or killed if they are involved in a crash. Therefore, the overall number of severe and fatal injury crashes could increase for all alternatives compared to existing conditions.

Due to the increased housing and employment growth and related increases in people traveling by all modes relative to Alternative 1 (No Action), a potential safety impact is identified under Alternatives 2 and 3. However, at this programmatic level of evaluation and given the potentially counteracting factors influencing safety among the alternatives, the impacts of Alternatives 2 and 3 relative to Alternative 1 are not considered to rise to a level of significance.

This conclusion is based on the fact that Alternatives 2 and 3 provide additional opportunity for the City to implement more safety improvements through a mix of frontage improvements built as part of new development, projects that include safety elements and are funded partially by impact fees, and new safety-oriented capital projects funded through the City's larger tax base. Therefore, no significant safety impacts are expected as a result of any of the alternatives.

3.6.2.3 Impacts of Alternative 1 (No Action)

Auto and Freight

Impacts of Alternative 1 on traffic would be similar to those described under Section 3.6.2.2, Impacts Common to All Alternatives. There are no intersections anticipated to exceed their LOS only under Alternative 1. Table 3.6-9 lists all 11 intersections that would be impacted under Alternative 1. See Figure 3.6-13 for a map of the impacts.

Alternative 1 is expected to result in significant adverse impacts to LOS at intersections 17, 18, 19, 22, 33, and 40 and exacerbate the delay at intersections 8, 9, 21, 28 and 29, which already are below their LOS standard under existing conditions (see Table 3.6-9). **Impacts to the LOS at these intersections are expected to result in a significant impact on traffic, including vehicles and freight, under Alternative 1.**

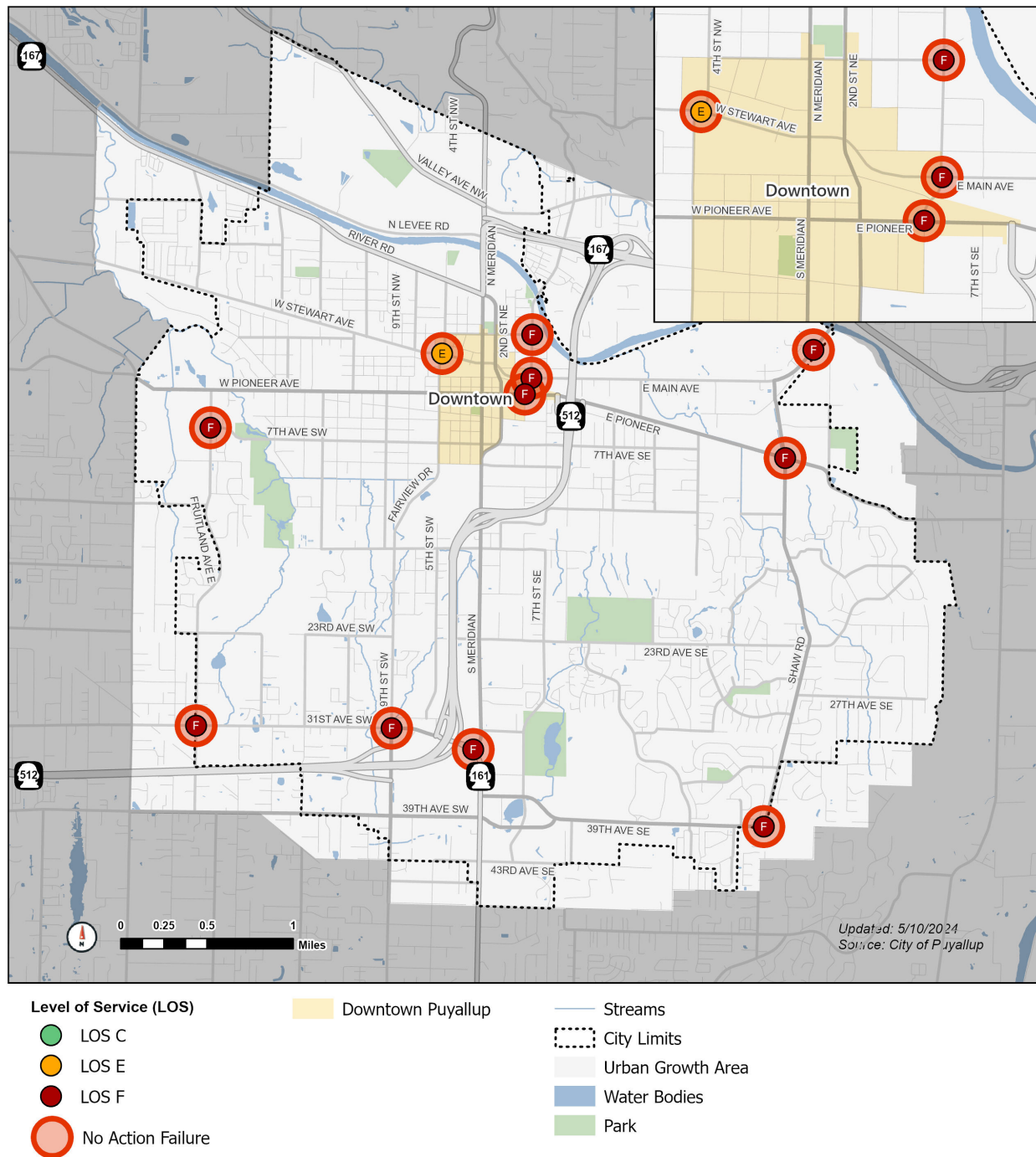


Figure 3.6-13. Alternative 1 Intersections Exceeding LOS Thresholds

Transit, Bicycles, and Pedestrians

Impacts on transit, bicycles, and pedestrians, are anticipated to be similar to those described in Section 3.6.2.2. All planned transit, pedestrian, and bicycle improvements are expected to be constructed by 2044 as part of Alternative 1, resulting in no significant impacts on these modes.

3.6.2.4 Impacts of Alternative 2

Auto and Freight

Table 3.6-10 shows intersections that would exceed their LOS standard under Alternative 2. Alternative 2 anticipates a much greater increase in households and jobs as compared to Alternative 1, which would, in turn, increase traffic volumes.

In addition to intersections failing under Alternative 1 (Table 3.6-9), Alternative 2 is expected to result in significant adverse vehicle impacts at intersections 38 and 39 (see Table 3.6-10), for a total of 13 intersections. Section 3.6.3 identifies mitigation measures that could be implemented at intersections to meet LOS standards. With implementation of these mitigation measures, **impacts to the LOS at these intersections are expected to result in a less than significant impact on traffic under Alternative 2.**

Table 3.6-10. PM Peak-Hour Intersections Exceeding LOS Thresholds – Alternative 1 vs. Alternative 2

ID	Intersection	Control Type	LOS Threshold ^a	Alt 1 LOS (Delay, s/veh)	Alt 2 LOS (Delay, s/veh)
8^b	S Fruitland & WSU Driveway/7th Ave SW	TWSC	D	F (>180)	F (>180)
9^b	5th St NW/4th St NW & W Stewart St	Signal	D	F (143)	F (144)
17	5th St NE & 5th Ave NE	TWSC	D	F (102)	F (>180)
18	5th St SE/5th St NE & E Main	Signal	D	F (137)	F (159)
19	5th St SE & E Pioneer	Signal	D	F (85)	F (95)
21^b	E Main & 5th Ave NE	TWSC	D	F (106)	F (109)
22	Shaw Rd & E Pioneer	Signal	E	F (168)	F (>180)
28^b	Fruitland Ave & 104th St E/31st Ave SW	AWSC	D	F (>180)	F (>180)
29^b	9th St SW & 31st Ave SW	Signal	E	F (111)	F (124)
33	31st Ave SW & S Meridian	Signal	E	F (113)	F (120)
38 ^c	5th St SE & 37th Ave SE	Signal	D	D (49)	E (61)
39 ^c	5th St SE & 43rd Ave SE	Signal	D	D (53)	E (67)
40	Shaw Rd E/Shaw Rd & 39th Ave SE	Signal	E	F (165)	F (135)

^a See Table 3.6-2, Level of Service Descriptions, for definitions of LOS standards.

^b **Bold text** indicates that the intersection is failing under existing conditions.

^c **Bold text** and **gray shading** indicate that the intersection fails under Alternative 2 only.

Ave = avenue; AWSC = all-way stop-controlled; LOS = level of service; Rd = road; s/veh = seconds per vehicle; St = street; TWSC = two-way stop-controlled; WSU = Washington State University

Figure 3.6-14 depicts the location of all intersections that are anticipated to exceed their LOS standards under Alternative 2.

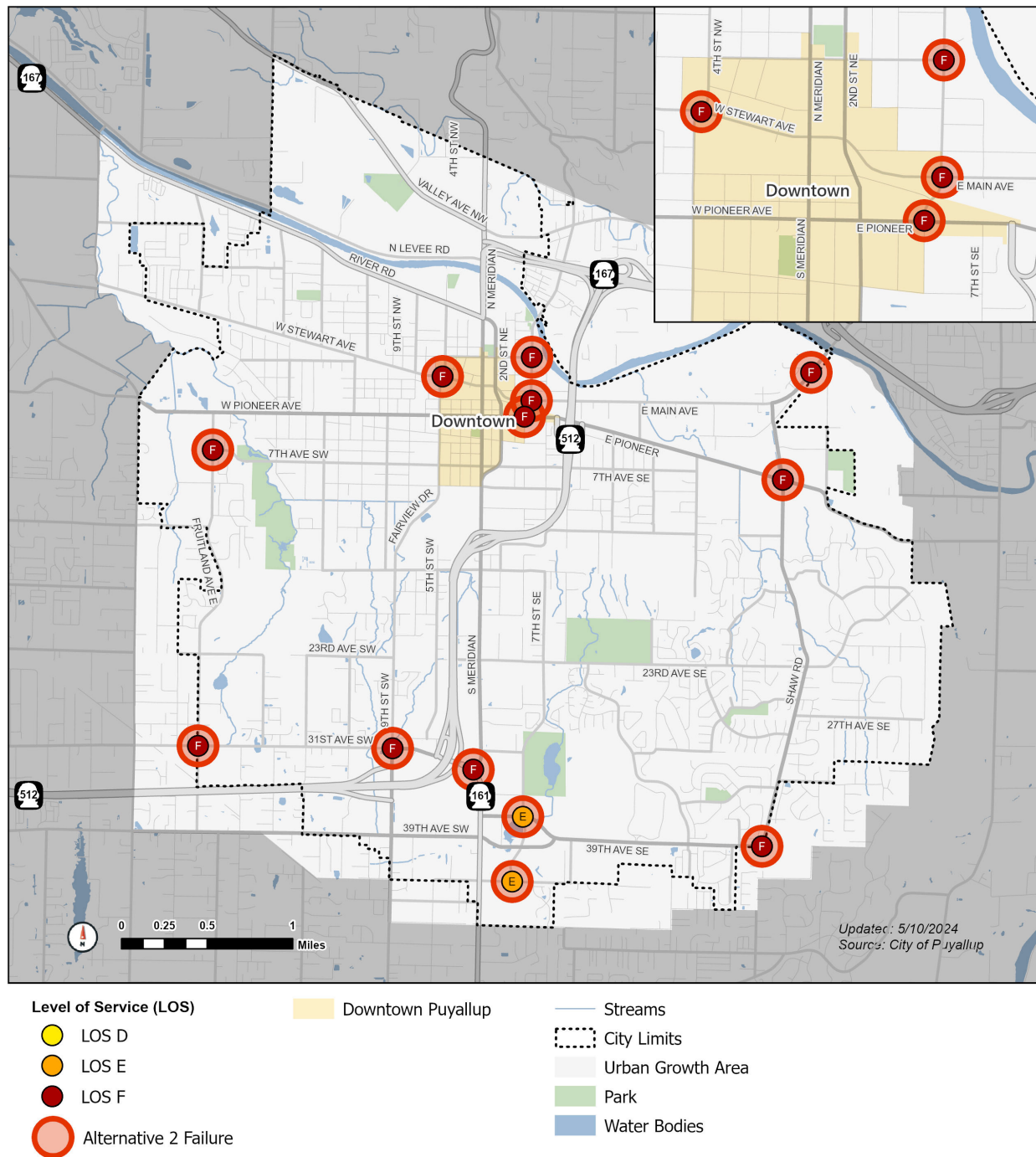


Figure 3.6-14. Alternative 2 Intersections Exceeding LOS Standards

Transit, Bicycles and Pedestrians

Impacts to transit, pedestrian, and bicycle travel under Alternative 2 would be similar to those described in Section 3.6.2.2. Under Alternative 2, growth would be concentrated in fewer locations as compared to Alternatives 1 and 3. This could result in more concentrated auto congestion, but also could support higher volumes of people walking, biking, and taking transit. **All planned transit,**

pedestrian and bicycle improvements are expected to be constructed by 2044 as part of Alternative 2, resulting in no significant impacts on these modes of transportation.

3.6.2.5 Impacts of Alternative 3

Auto and Freight

Table 3.6-11 shows intersections that would exceed their LOS thresholds under Alternative 3. Alternative 3 includes more growth in households and jobs than Alternative 1. Under Alternative 3, growth is spread out in more locations as compared to Alternative 2. This could result in different intersections exceeding their LOS standards, even though overall housing unit and employment growth are relatively similar.

Table 3.6-11. PM Peak Hour Intersections Exceeding LOS Thresholds – Alternative 1 vs. Alternative 3

ID	Intersection	Control Type	LOS Standard ^a	Alt 1 LOS (Delay, s/veh)	Alt 3 LOS (Delay, s/veh)
8 ^b	S Fruitland & WSU Driveway/7th Ave SW	TWSC	D	F (>180)	F (>180)
9 ^b	5th St NW/4th St NW & W Stewart St	Signal	D	F (143)	F (147)
16 ^c	S Meridian & 9th Ave SW/9th Ave SE	Signal	E	E (72)	F (>180)
17	5th St NE & 5th Ave NE	TWSC	D	F (102)	F (>180)
18	5th St SE/5th St NE & E Main	Signal	D	F (137)	F (178)
19	5th St SE & E Pioneer	Signal	D	F (85)	F (102)
21 ^b	E Main & 5th Ave NE	TWSC	D	F (106)	F (142)
22	Shaw Rd & E Pioneer	Signal	E	F (168)	F (>180)
28 ^b	Fruitland Ave & 104th St E/31st Ave SW	AWSC	D	F (>180)	F (>180)
29 ^b	9th St SW & 31st Ave SW	Signal	E	F (111)	F (128)
33	31st Ave SW & S Meridian	Signal	E	F (113)	F (126)
38 ^c	5th St SE & 37th Ave SE	Signal	D	D (49)	E (60)
40	Shaw Rd E/Shaw Rd & 39th Ave SE	Signal	E	F (165)	F (>180)

a See Table 3.6-2, Level of Service Descriptions, for definitions of LOS standards.

b **Bold text** indicates that the intersection is failing under existing conditions.

c **Bold text** and **gray shading** indicate that the intersection fails under Alternative 3 only.

Ave = avenue; AWSC = all-way stop-controlled; LOS = level of service; Rd = road; s/veh = seconds per vehicle; St = street; TWSC = two-way stop-controlled; WSU = Washington State University

In addition to intersections failing under Alternative 1 (Table 3.6-9), Alternative 3 is expected to result in significant adverse vehicle impacts at intersections 16 and 38 (see Table 3.6-11), for a total of 13 intersections. Section 3.6.3 identifies mitigation measures that could be implemented at intersections to meet LOS standards. With implementation of these mitigation measures, **impacts to the LOS at these intersections are expected to result in a less than significant impact under Alternative 3.**

Figure 3.6-15 depicts the location of all intersections that are anticipated to exceed their LOS thresholds under Alternative 3.

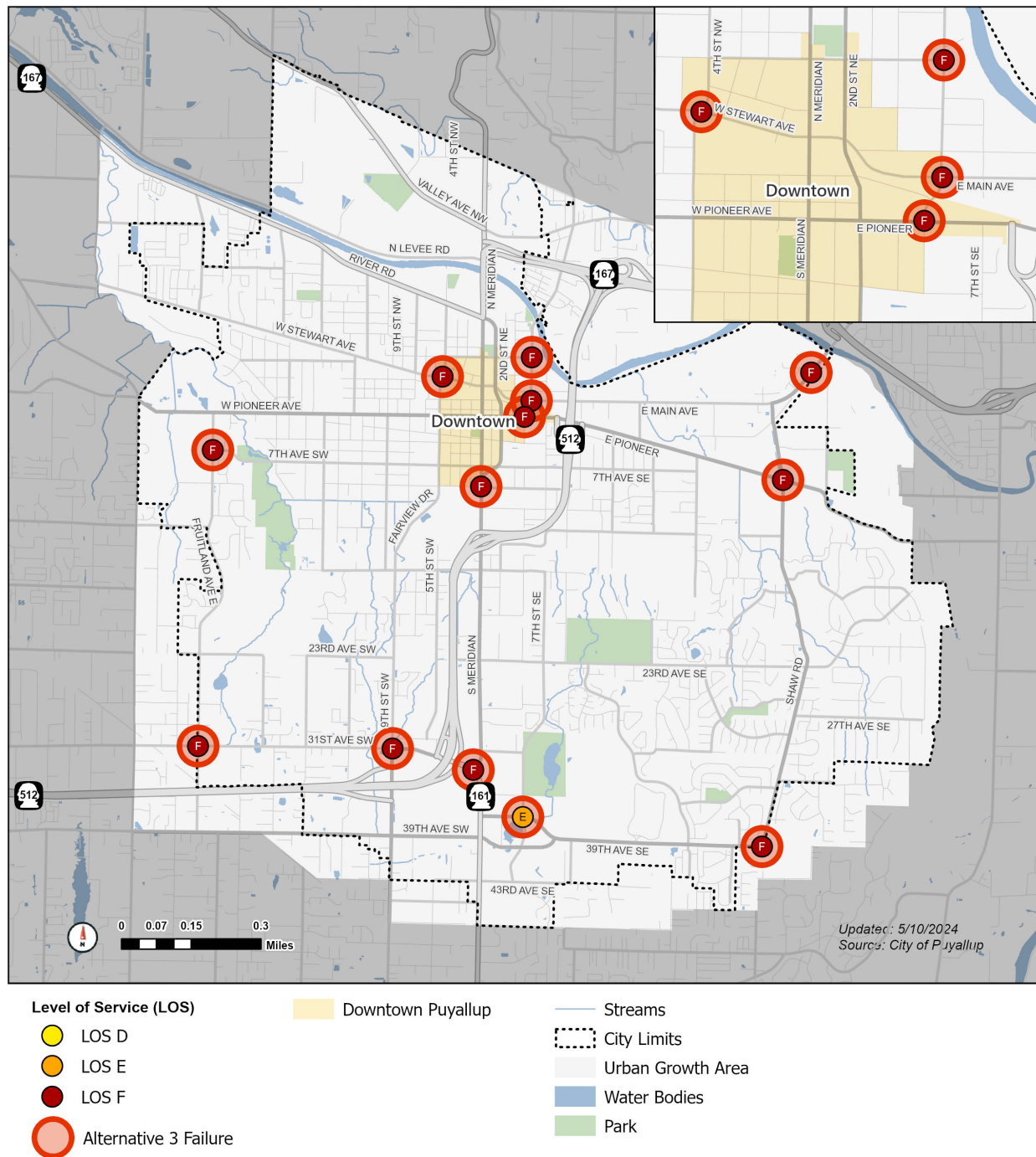


Figure 3.6-15. Alternative 3 Intersections Exceeding LOS Thresholds

Transit, Bicycles and Pedestrians

Impacts to transit, pedestrian, and bicycle travel under Alternative 3 would be similar to those described in Section 3.6.2.2. Compared to Alternative 2, Alternative 3 could be slightly less supportive of more trips taken via transit, biking, or walking, as less dense development is related to longer trips distances that are not conducive to these modes. **All planned transit, pedestrian and**

bicycle improvements are expected to be constructed by 2044 as part of Alternative 3, resulting in no significant impacts on these modes of transportation.

3.6.3 Avoidance, Minimization, and Mitigation Measures

All alternatives assume the vehicle capacity and transit projects identified in Table 3.6-8 would be completed by 2044. For traffic operations, it is assumed all traffic signal timing and cycle lengths would be adjusted in the future as vehicle demand and travel patterns change. Alternatives 2 and 3 would require transportation improvements to mitigate significant impacts to LOS at 13 intersections. Proposed mitigation consists of signal improvements, lane configuration updates, new signals, and roundabouts. The minimum mitigation to eliminate an impact is reported and may be different for each alternative based on the forecast traffic volumes at each intersection for each alternative. See Table 3.6-12 for a summary of the mitigation measures identified for impacted intersections by alternative. Further study will be needed to confirm mitigation as part of preliminary engineering, including right-of-way, environmental, and cost considerations. Some mitigation may not be feasible upon further study, at which point other improvements will need to be identified.

Due to rail crossing impacts that would reduce the capacity of intersections 9 and 18, feasible mitigation cannot sufficiently reduce the LOS to pass the existing standard (D). Capacity improvements such as new turn pockets for every leg of the intersection and additional travel lanes would be required in a space with limited right-of-way between the railroad and existing businesses. Therefore, the mitigation measures include updating the LOS standard to E.

Table 3.6-12. Identified Intersection Impact Mitigation Measures

ID	Intersection	Alt 2 Mitigation	Alt 3 Mitigation
8	S Fruitland & WSU Driveway/7th Ave SW	New signal or roundabout.	See Alt 2.
9	5th St NW/4th St NW & W Stewart St	Signal optimization, new turn pocket, and LOS standard updated to E.	See Alt 2.
16	S Meridian & 9th Ave SW/9th Ave SE	-	Lane configuration update.
17	5th St NE & 5th Ave NE	New roundabout.	See Alt 2.
18	5th St SE/5th St NE & E Main	Adaptive signal group and turn pockets and LOS standard updated to E.	Additional NBR and SBL lane (extra EB receiving lane) and LOS standard updated to E.
19	5th St SE & E Pioneer	Protected SBL signal improvements.	Additional WBR pocket.
21	E Main & 5th Ave NE	Right-out only configuration. Traffic signal is not warranted.	See Alt 2.
22	Shaw Rd & E Pioneer	New SBR pocket.	See Alt 2.
28	Fruitland Ave & 104th St E/31st Ave SW	New signal or roundabout with additional turn pockets.	See Alt 2.
29	9th St SW & 31st Ave SW	New SBTR lane.	See Alt 2.
33	31st Ave SW & S Meridian	Additional SBL and receiving lane.	See Alt 2.
38	5th St SE & 37th Ave SE	Additional SBR pocket.	See Alt 2.

ID	Intersection	Alt 2 Mitigation	Alt 3 Mitigation
39	5th St SE & 43rd Ave SE	Additional WBR pocket.	-
40	Shaw Rd E/Shaw Rd & 39th Ave SE	SB lane configuration update to allow two SBT movements.	See Alt 2.

Ave = avenue; AWSC = all-way stop-controlled; EB = eastbound; LOS = level of service; NBR = northbound right; Rd = road; s/veh = seconds per vehicle; SBL = southbound left; SBR = southbound right; SBT = southbound through; SBTR = southbound through and right; St = street; TWSC = two-way stop-controlled; WBR = westbound right; WSU = Washington State University

3.6.4 Significant Unavoidable Adverse Impacts

All impacts have identified mitigation measures that would reduce impacts to a less than significant level; therefore, there are no significant unavoidable adverse impacts anticipated.

3.7 Parks and Recreation

3.7.1 Affected Environment

The study area for parks and recreation includes all lands within Puyallup’s city limits and UGA boundary. Public parks and recreation facilities and programs in the city are primarily developed and maintained by the City of Puyallup Parks and Recreation Department. Some facilities within the city are owned and maintained by school districts, Pierce County, or the State of Washington.

There are a wide range of parks, trails, and recreational programs and facilities currently available to the community. As urban areas develop, there is a need to both preserve open spaces for the creation of parks and to create new park and recreation facilities to serve an increased population. This section identifies existing park and recreation facilities in the City of Puyallup, the policy and regulatory framework governing park development and operations, and existing and possible LOS benchmarks within the city.

3.7.1.1 Current Policy and Regulatory Framework

State of Washington Growth Management Act (Chapter 36.70A RCW)

The State of Washington Growth Management Act guides cities and counties in the development and adoption of comprehensive plans and regulations. It establishes planning goals that must be the basis of all comprehensive plans. Goal 9, open space and recreation, states that jurisdictions shall “retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.”

The Growth Management Act requires that comprehensive plans include a park and recreation element that estimates park and recreation demands, describes facilities and service needs, evaluates tree canopy coverage within the UGA, and identifies intergovernmental coordination opportunities to provide regional approaches for meeting park and recreational facility demand. Park and recreation facilities are required to be included in the capital facilities plan element.

City of Puyallup Parks, Recreation, and Open Space Plan (2020)

The City of Puyallup *Parks, Recreation, and Open Space (PROS) Plan* was most recently updated in 2020 (City of Puyallup 2020). Objectives of the plan include the following:

- Define the natural and built environment setting within Puyallup.
- Inventory park and recreation assets.
- Forecast demand for future open space, trails, and park facilities.
- Identify appropriate roles and responsibilities for meeting park and recreation needs.
- Develop the elements of a citywide plan for park and recreation facilities.
- Determine the cost of maintaining or improving parks and recreation LOS.
- Define an implementation program to realize the plan.
- Determine public opinion.

Implementation strategies within the plan generally recommend that the City focus resources where the park and recreation needs are most critical and where investment can be most effective (City of Puyallup 2020).

3.7.1.2 Current Conditions

Existing Park and Recreation Facilities

Puyallup has a wide range of parks and recreation facilities within its city limits, including open spaces, parks, trails, and recreation facilities. The Puyallup Parks, Recreation, and Open Space (PROS) Plan inventories all existing park and recreation facilities within the city and categorizes them into the facility types detailed below (City of Puyallup 2020).

Types of Park Facilities

Neighborhood Parks

Neighborhood parks are generally smaller in size, up to 20 acres. They are intended to serve neighborhoods and are generally located within walking distance of residential areas.

Community Parks

These are larger parks that attract community members from multiple neighborhoods. They offer a wide range of amenities and recreation opportunities.

Special Use Facilities

Special use facilities include a wide range of uses and facility types, with some facilities having a single major use. The size of special use facilities varies depending on the needs of the use. Examples of special use facilities include skate parks, community centers, and cemeteries.

Trail

Trails provide recreation opportunities for pedestrians and cyclists and provide active transportation linkages between parks and other local and regional destinations.

Open Space

Open space areas vary in size and are typically lands left in their natural state with unpaved trails or other minor improvements for public access and use.

Other

Other facility types include park maintenance yards and other administrative facilities.

Park and Recreation Facilities Inventory

Existing park and recreation facilities, facility types, facility size, and amenities and features of the facilities within the study area are listed in Table 3.7-1 and shown in Figure 3.7-1.

Table 3.7-1. Park and Recreation Facilities in Puyallup

Park/Facility	Facility Type	Size	Amenities and Features
Brown Community Garden Park	Neighborhood Park	17.3 acres	Silver Creek shoreline, wooded area, 0.57-mile dirt trail, picnic table, benches, garden plots, restroom
DeCoursey Park	Neighborhood Park	8.1 acres	Clarks Creek shoreline, wooded area, pond, 0.34-mile gravel trail, floating dock overlook, playground, picnic shelters, benches, picnic tables, restroom
Grayland Park	Neighborhood Park	2.3 acres	Playground, picnic tables, restroom
Manorwood Park	Neighborhood Park	6.4 acres	Pond, wooded area, wetlands, 0.25-mile dirt trail, playground, benches
Rainier Woods Park	Neighborhood Park	7.6 acres	Wooded area, 0.18-mile asphalt trail, off-leash dog area, basketball courts, playground, picnic tables, benches, restroom
Sam Peach Park	Neighborhood Park	5.6 acres	0.53-mile asphalt trail, picnic tables, benches, playground, t-ball fields, baseball fields
Bradley Lake Park	Community Park	58.1 acres	Fishing lake, 2.6-mile asphalt trail, boat launch, playground, picnic shelter, benches, picnic tables, baseball fields, restrooms
Clarks Creek Park	Community Park	62.8 acres	Wooded area, pond, 1.2-mile gravel trail, off-leash dog area, playground, benches, picnic tables, picnic shelter, tennis courts, baseball field, restroom
Van Lierop Park	Special Use/ Community Park	18.0 acres	Open farm fields, Mount Rainier view, wildflower-planted view corridor, 0.33-mile paved trail, benches
Wildwood Park	Community Park	80.0 acres	Woodlands, wildlife habitat, creek, 0.88-mile exercise trail, 1.65 miles of paved and unpaved trails, playgrounds, picnic shelters, picnic tables, benches, baseball fields, restrooms
Montgomery Park	Special Use Facility	0.5 acres	Home donated to the City and leased to Campfire Girls, basketball hoop
Pioneer Park	Special Use Facility	3.9 acres	Spray park, playground, picnic tables, benches, chess tables, Rotary stage, restroom
Pioneer Park Pavilion	Special Use Facility	8,600 sq ft	Catering kitchen, multipurpose space, portable stage, audio/visual services
Puyallup Activity Center	Special Use Facility	12,500 sq ft	Senior services, classrooms, kitchen, multipurpose room
Puyallup Recreation Center	Special Use Facility	23,000 sq ft	Gymnasium, weight room, exercise machines, racquetball courts, classrooms, multipurpose rooms, administrative offices
Puyallup Skate Park	Special Use Facility	0.5 acres	Lighted and fenced skate park, benches, restroom

Park/Facility	Facility Type	Size	Amenities and Features
Puyallup Valley Sports Complex	Special Use Facility	25.1 acres	1.23-mile asphalt trail, playground, picnic tables, benches, basketball courts, tennis courts, turf soccer fields, T-ball field, baseball fields, restroom
Veteran's Park	Special Use Facility	2.0 acres	Playground, picnic shelter, picnic tables, benches, restroom
War Memorial Center	Special Use Facility	13,200 sq ft	Gymnasium, stage, racquetball courts, classrooms, meeting rooms, kitchen
Woodbine Cemetery	Special Use Facility	29.1 acres	Gravesites, niches for cremated remains, urn garden
Foothills Trail ^a	Trail	30 miles	Located primarily outside of Puyallup city limits, will provide connection to Riverwalk Trail in the future
Loop Trail	Trail	4 miles	Typically unpaved trails, some connections between trails use low volume city streets or sidewalks
Riverwalk Trail	Trail	2.73 acres	4.3-mile paved off-street trail, 0.2-mile paved spur trail, trailhead parking areas, picnic tables, benches, restroom
Sumner Link Trail ^b	Trail	5.75 miles	Located primarily in the city of Sumner, provides link to Puyallup Riverwalk Trail
Cherokee Park Open Space	Open Space	4.1 acres	Wooded ravine
Dead Man's Pond	Open Space	8.7 acres	Pond and surrounding woodlands
Meeker Creek Open Space	Open Space	7.8 acres	Wetlands, woodlands, creek
Silver Creek Restoration Area	Open Space	11.0 acres	Rechanneled creek, 0.5-mile dirt trail, seating areas
SR 512 Open Space	Open Space	4.9 acres	Wetlands, streams, steep slopes, woodlands
Park Maintenance Yard	Other	2.9 acres	Material bins, outdoor vehicle storage, covered vehicle and material storage, warehouses and shops, vehicle maintenance bays, administrative offices

a Owned and maintained by Pierce County;

b Owned and maintained by City of Sumner

sq ft = square feet; SR = state route

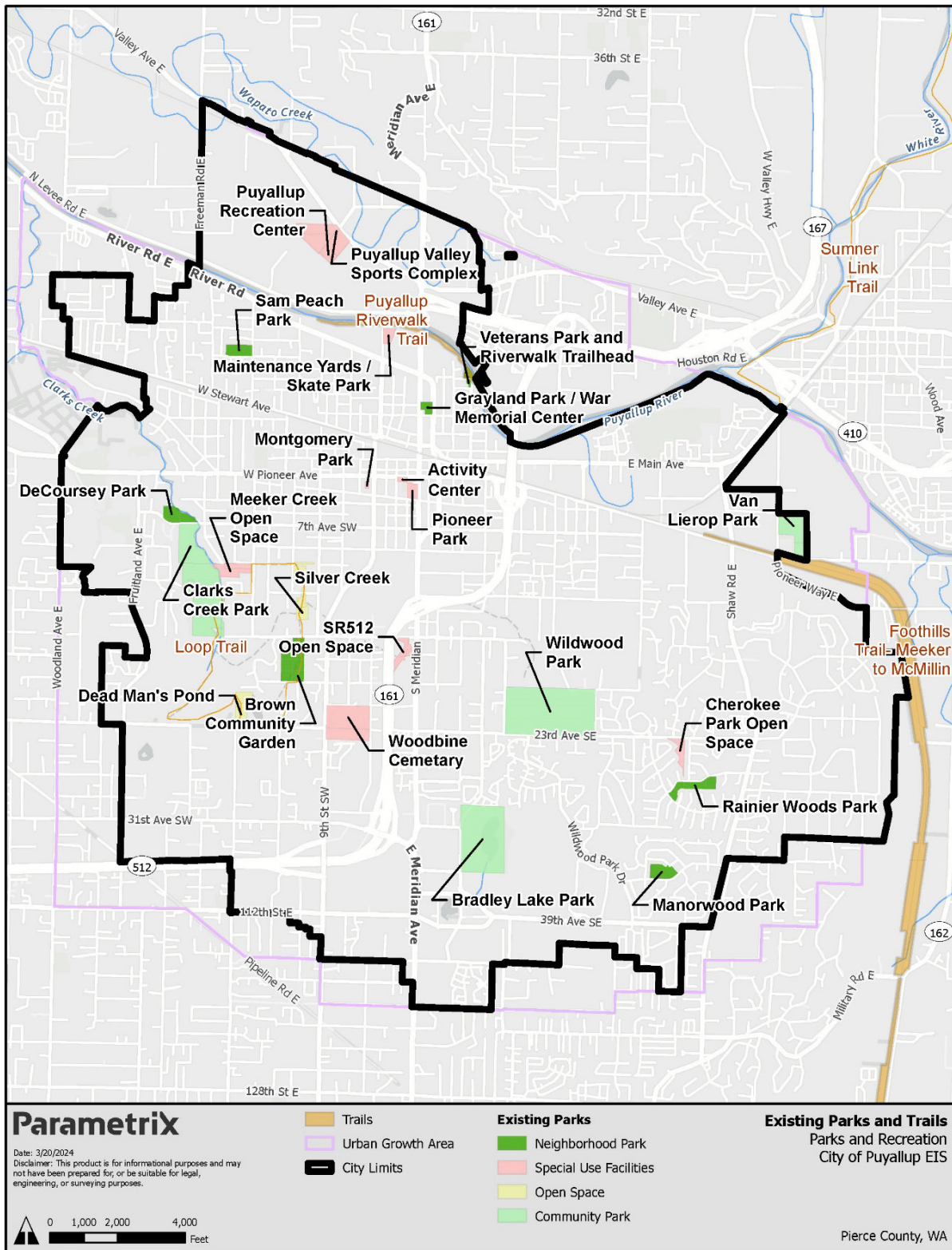


Figure 3.7-1. Existing Parks and Recreation Facilities

Existing parks and recreational facilities are primarily located in the south and west areas of the city. Neighborhoods in the northeast and east areas of Puyallup have fewer parks located within close proximity.

Additional park and recreation facilities in Puyallup include those on school district property. These facilities are not always available for public use. The PROS Plan recommends an inter-local agreement between facility owners and operators to make effective use of the park and recreation facility inventory. School district recreation facilities are listed in Table 3.7-2 and shown on Figure 3.7-2.

Table 3.7-2. School District Park and Recreation Facilities in Puyallup

School	District/Owner	Size (acres)	Amenities and Features
Fruitland Elementary	Puyallup School District	11.0	Playground, basketball court, play shed, soccer field, baseball fields, multipurpose gymnasium
JP Stewart Elementary	Puyallup School District	3.1	Playground, basketball court, play shed, soccer fields, baseball fields, multipurpose gymnasium
Karshner Elementary	Puyallup School District	7.0	Playground, basketball court, play shed, soccer field, baseball field, multipurpose gymnasium
Maplewood Elementary	Puyallup School District	5.0	Playgrounds, play shed, soccer field, baseball field, multipurpose gymnasium
Meeker Elementary	Puyallup School District	2.8	Playground, basketball court, play shed, soccer field, baseball field, multipurpose gymnasium
Shaw Road Elementary	Puyallup School District	14.6	Playground, basketball courts, play shed, soccer field, baseball field, multipurpose gymnasium
Spinning Elementary	Puyallup School District	3.8	Playground, basketball court, play shed, soccer fields, baseball field, multipurpose gymnasium
Sunrise Elementary	Puyallup School District	9.3	Playground, basketball courts, play shed, soccer field, multipurpose gymnasium
Wildwood Elementary	Puyallup School District	10.0	Playground, basketball court, play shed, soccer fields, baseball fields, multipurpose gymnasium
Woodland Elementary	Puyallup School District	9.8	Playground, basketball court, play shed, soccer field, multipurpose gymnasium
Aylen Junior	Puyallup School District	17.7	Soccer fields, football field, field track, gymnasium
Kalles Junior	Puyallup School District	16.0	Soccer fields, football field, field track, gymnasium
Puyallup High	Puyallup School District	8.4	Tennis courts, baseball field, gymnasium
Sparks Stadium	Puyallup School District	10.3	Football field, field track, bleachers, and concessions
Pierce College Puyallup	Washington State	129.4	Basketball court
Northwest Christian School	Private	16.8	Playground, soccer field, softball field
Cascade Christian School	Private	17.1	Soccer field, softball field, baseball field, football field, field track

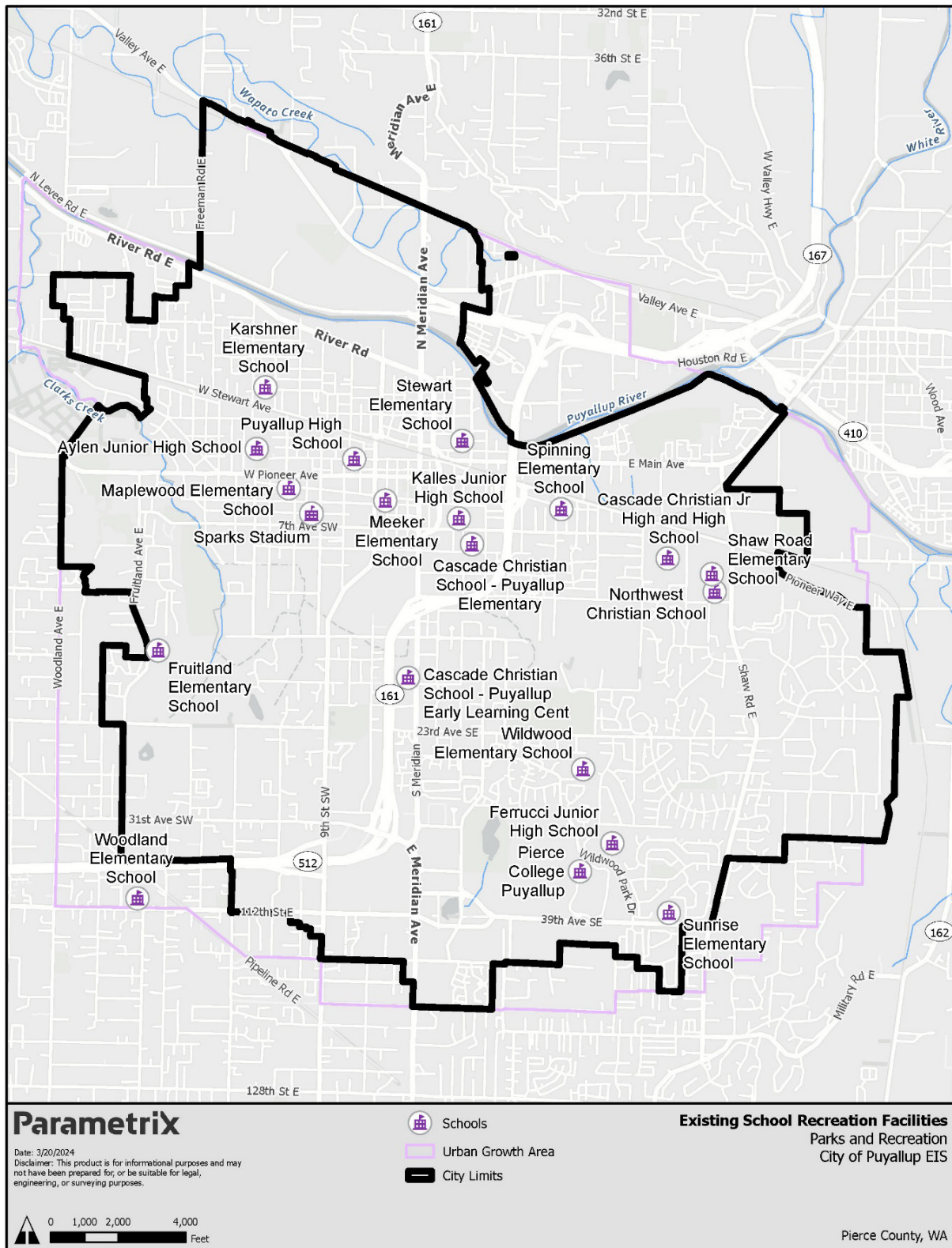


Figure 3.7-2. Existing School Recreation Facilities

Future Parks Projects

The current Capital Improvement Projects list identifies two future and ongoing parks projects (City of Puyallup 2024).

Van Lierop Park Master Plan

The Van Lierop Park Master Plan was adopted in December 2023. It plans for additional amenities and improvements at the existing park, including parking lots, basketball courts, pickleball courts, playgrounds, a pump track, a picnic pavilion, restrooms, picnic tables, seating, landscaping, and trails.

Pioneer Park Restroom Renovation

The Pioneer Park Restrooms were recently upgraded with new interior and exterior features, including family restrooms. Construction was completed in December 2023.

Park and Recreation Programs

The City of Puyallup Parks and Recreation Department offers a wide range of recreation programs including youth sports, preschool, youth programs, day camps, adult sports leagues, and adult fitness classes.

Parks and Recreation Facilities Level of Service

Existing parks and recreation levels of service (LOS) are expressed as a ratio of the supply of existing facilities to the existing population. LOS can be measured for the amount of park and recreation facilities as a whole or for each park and recreation type. The PROS Plan established LOS metrics using guidelines from the Washington State Recreation and Conservation Office (RCO) and the National Recreation and Parks Association (NRPA).

There are 395.4 existing acres of park lands in Puyallup. Based on a 2019 population of 41,570 residents, the existing park lands LOS is 9.51 acres per 1,000 residents. This is slightly less than the benchmark of 9.60 acres per 1,000 residents recommended by the National Park and Recreation Association for communities of a similar size.

There are 78,231 facility units in Puyallup, as calculated in the PROS Plan. Facility units include the sum total of individual park amenities, miles of trail, and square footage of recreation centers, community centers, and maintenance facilities. There is an existing LOS of 1,881.9 facility units per 1,000 residents. RCO and NRPA LOS recommendations for facility units vary based on facility type.

The Parks, Recreation, and Open Space Plan component of the 2015 *Puyallup Comprehensive Plan* adopted geography-based benchmarks for park service areas (parks located within a certain distance of residences). These adopted standards are a community park located within 1.5 miles of each resident and a neighborhood park located within 0.75 miles of each resident.

Puyallup has adopted a park growth impact fee that applies to all proposed residential, commercial, and industrial development in the city. The fee is intended to maintain existing park, recreation, and open space LOS. The fee is based on an estimate of the dollar value of each development's impact to parks and recreation facilities. Developers may offset impacts through any combination of land contribution, cash mitigation, or credit for park and recreation facilities included within the development.

3.7.2 Impacts

This section describes the potential impacts to parks and recreation resources that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.7.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on parks and recreation. Impacts of the alternatives on parks and recreation would be considered significant if they met the following criteria:

- Projected growth would result in a failure to meet the established parks LOS as defined in the PROS Plan.
- Growth would take place in an area that is outside of an existing park service area as defined in the 2015 *Puyallup Comprehensive Plan*.

3.7.2.2 Impacts Common to All Alternatives

Under all alternatives, existing Puyallup parks and recreation facilities would serve more people than they do currently. Current LOS and future LOS under each of the alternatives for total park land and those recreational facilities for which benchmarks have been identified are shown in Table 3.7-3. Future population projections were developed by multiplying the number of new households under each alternative by 2.54: the average household size in Puyallup in the 2021 American Community Survey. City-owned facilities, school district-owned recreation facilities, and private recreation facilities were considered in this analysis. Current LOS is based on the 2023 population of 43,420 residents.

Table 3.7-3. Parks and Recreation LOS – Existing and Alternatives

Amenity	Number or Amount of Existing Facilities	NRPA Benchmark (per 1,000 residents)	RCO Benchmark (per 1,000 residents)	Existing LOS (per 1,000 residents)	Alternative 1 LOS (per 1,000 residents)	Alternative 2 LOS (per 1,000 residents)	Alternative 3 LOS (per 1,000 residents)
Total Park Land (acres)	395.4	9.6	-	9.11	6.54	5.10	4.97
Parks	25	0.53	-	0.59	0.41	0.32	0.31
Community Gardens	2	0.04	-	0.05	0.03	0.03	0.03
Picnic Tables	132	-	1.77	3.04	2.18	1.70	1.66
Park Trails (miles)	10.2	-	0.14	0.23	0.17	0.13	0.13
Off-Leash Dog Parks	2	0.02	-	0.05	0.03	0.03	0.03
Playgrounds	24	0.56	0.53	0.55	0.40	0.31	0.30

Amenity	Number or Amount of Existing Facilities	NRPA Benchmark (per 1,000 residents)	RCO Benchmark (per 1,000 residents)	Existing LOS (per 1,000 residents)	Alternative 1 LOS (per 1,000 residents)	Alternative 2 LOS (per 1,000 residents)	Alternative 3 LOS (per 1,000 residents)
Skateparks/Pump Tracks	1	0.02		0.02	0.02	0.01	0.01
Outdoor Basketball/Sports Courts	24.5	0.14	0.09	0.56	0.41	0.32	0.31
Tennis/Pickleball Courts	18	0.23	0.22	0.41	0.30	0.23	0.23
Soccer/Lacrosse Fields	32	0.47	0.29	0.74	0.53	0.41	0.40
Baseball/Softball Fields	37	0.38	0.49	0.85	0.61	0.48	0.47
Swimming Pools	2	0.03	-	0.05	0.03	0.03	0.03
Indoor Rec Centers	2	0.03	-	0.05	0.03	0.03	0.03
Indoor Community Centers	5	0.03	-	0.12	0.08	0.06	0.06

Source: Puyallup Parks, Recreation, and Open Space Plan 2020; Parametrix 2024.

Notes: Bolded numbers indicate a facility deficit.

LOS = level of service; NRPA = National Recreation and Parks Association; RCO = Recreation and Conservation Office

There is an existing deficiency in the supply of total park land. This deficiency would continue under each of the three alternatives.

All three alternatives would create new deficiencies in the supply of total number of parks, community gardens, and playgrounds.

Existing parks and recreation facilities of all types would experience increased use with an increase in population, and maintenance would need to be conducted more frequently.

3.7.2.3 Impacts of Alternative 1 (No Action)

Under Alternative 1, Puyallup parks and recreation facilities would serve 16,993 more people than they do currently. Additional parks, community gardens, and playgrounds would need to be developed in order to meet LOS benchmarks.

To meet current LOS benchmarks for those types of park and recreation facilities that would experience deficiencies under Alternative 1, additional facilities would need to be developed. The necessary additions are identified in Table 3.7-4. City-owned facilities, school district-owned recreation facilities, and private recreation facilities were considered in this analysis.

Table 3.7-4. Projected Need for Parks and Recreation Amenities – Alternative 1

Amenity	NRPA Benchmark (per 1,000 residents)	RCO Benchmark (per 1,000 residents)	Existing Facilities	Alt. 1 Minimum Facilities to meet LOS	Deficit (Additional Needed)
Total Park Land (acres)	9.6	-	395.4	580	184.6
Total Number of Parks	0.5316	-	25	32	7
Community Gardens	0.0381	-	2	3	1
Playgrounds	0.56	0.53	24	32	8

Source: Puyallup Parks, Recreation, and Open Space Plan 2020; Parametrix 2024.

Alt. = alternative; LOS = level of service; NRPA = National Recreation and Parks Association; RCO = Recreation and Conservation Office

Under Alternative 1, growth patterns and development in Puyallup would remain similar to existing patterns, and some growth would occur outside of existing neighborhood and community park service areas.

Without an increase in the amount of park land, number of parks, number of community gardens, and number of playgrounds, LOS benchmarks for these facilities would not be met under Alternative 1, resulting in a significant impact. In addition, future growth outside of existing park service areas would result in a significant impact.

3.7.2.4 Impacts of Alternative 2

Under Alternative 2, Puyallup parks and recreation facilities would serve 34,087 more people than they do currently. Additional parks, community gardens, playgrounds, picnic tables, park trails, and skateparks and pump tracks would need to be developed in order to meet LOS benchmarks.

To meet current LOS benchmarks for those types of park and recreation facilities that would experience deficiencies under Alternative 2, additional facilities would need to be developed. These additions are identified in Table 3.7-5. City-owned facilities, school district-owned recreation facilities, and private recreation facilities were considered in this analysis.

Table 3.7-5. Projected Need for Parks and Recreation Amenities – Alternative 2

Amenity	NRPA Benchmark (per 1,000 residents)	RCO Benchmark (per 1,000 residents)	Existing Facilities	Alt. 2 Minimum Facilities to meet LOS	Deficit (Additional Needed)
Total Park Land (acres)	9.6	-	395.4	744	348.6
Total Number of Parks	0.5316	-	25	41	16
Community Gardens	0.0381	-	2	3	1
Picnic Tables	-	1.77	132	137	5
Park Trails (miles)	-	0.14	10.2	11	0.8
Playgrounds	0.56	0.53	24	41	17
Skateparks/Pump Tracks	0.02	-	1	2	1

Source: Puyallup Parks, Recreation, and Open Space Plan 2020; Parametrix 2024.

Alt. = alternative; LOS = level of service; NRPA = National Recreation and Parks Association; RCO = Recreation and Conservation Office

Alternative 2 would focus development of new households and jobs in some areas currently outside of the existing parks service area, increasing the number of residents and employees who are not served by a neighborhood or community park within close proximity. The Pioneer Mixed-Use focus area is located entirely outside of the neighborhood parks service area. Approximately 470 new housing units and 960 new jobs are anticipated in this area under Alternative 2; these residents and employees would be outside of the existing neighborhood park service area.

Portions of the South Hill RGC and Meridian Corridor focus areas are located outside of the neighborhood parks service area (Figure 3.7-3). Approximately 7,230 new housing units and 9,160 new jobs are proposed in the South Hill RGC focus area, and 300 new housing units and 340 new jobs are anticipated in the Meridian Corridor focus area under Alternative 2; a portion of these new residents and employees would be located outside of the existing neighborhood parks service area.

The majority of focus areas are within the community parks service area, with the exception of a portion of the River Road Mixed-Use focus area, where 560 new housing units and 960 new jobs are anticipated under Alternative 2, a portion of which would be located outside of the existing community parks service area (Figure 3.7-4).

Without an increase in the amount of park land, number of parks, number of community gardens, number of picnic tables, miles of park trails, number of playgrounds, and number of skateparks/pump tracks, LOS benchmarks for these facilities would not be met under Alternative 2, resulting in a significant impact.

Without the development of new neighborhood and community parks in underserved areas of the city, future growth outside of existing park service areas in the Pioneer Mixed-Use, South Hill RGC, Meridian Corridor, and River Road Mixed-Use focus areas would result in a significant impact.

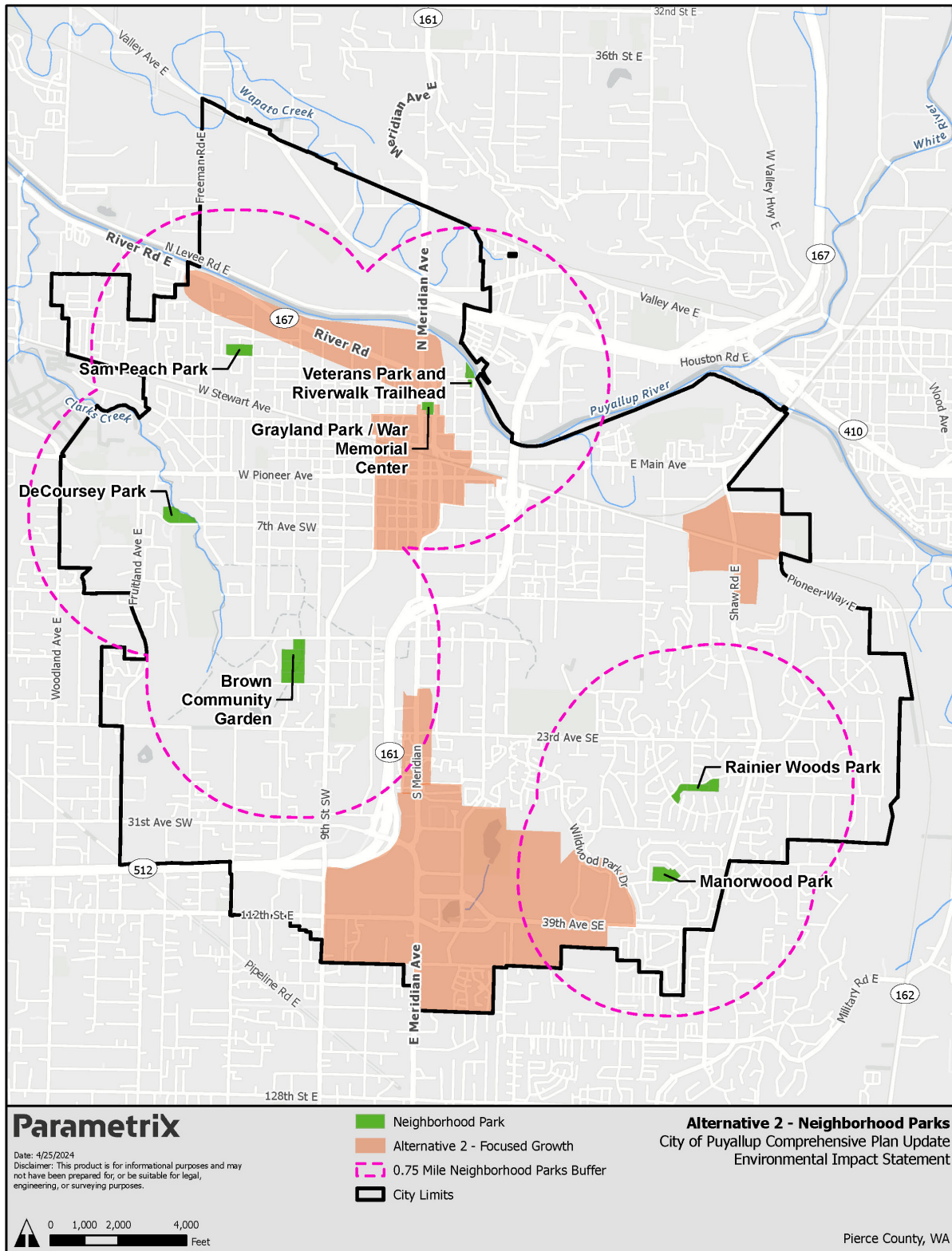


Figure 3.7-3. Alternative 2 and Neighborhood Parks Service Area

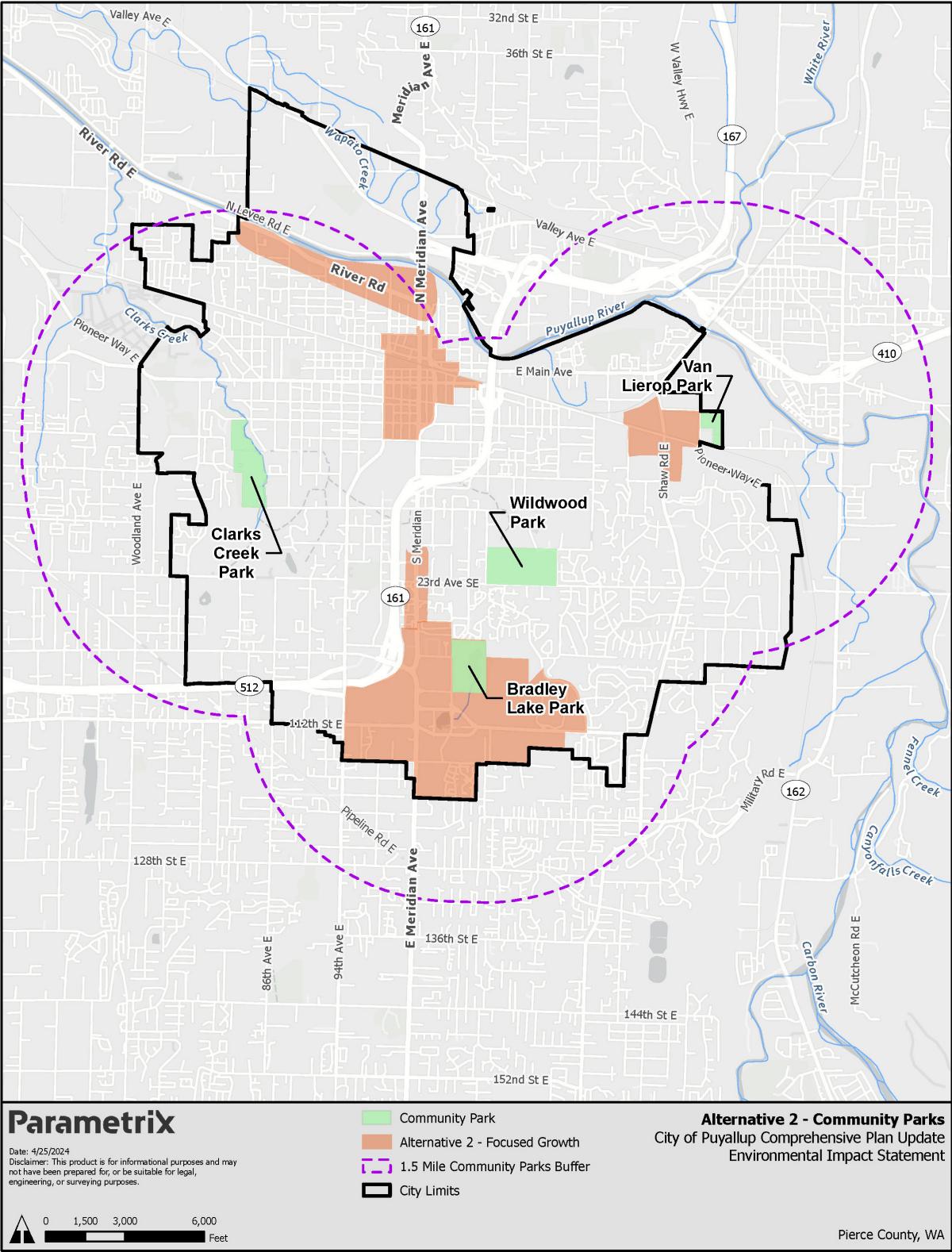


Figure 3.7-4. Alternative 2 and Community Parks Service Area

3.7.2.5 Impacts of Alternative 3

Under Alternative 3, Puyallup parks and recreation facilities would serve 36,093 more people than they do currently. Additional parks, community gardens, playgrounds, picnic tables, park trails, and skateparks and pump tracks would need to be developed in order to meet LOS benchmarks.

To meet current LOS benchmarks for those park and recreation facilities that would experience deficiencies under Alternative 3, additional facilities would need to be developed. These additions are identified in Table 3.7-6. City-owned facilities, schools, and private recreation facilities were considered in this analysis.

Table 3.7-6. Projected Need for Parks and Recreation Amenities – Alternative 3

Amenity	NRPA Benchmark (per 1,000 residents)	RCO Benchmark (per 1,000 residents)	Existing Facilities	Alt. 3 Minimum Facilities to meet LOS	Deficit
Total Park Land (acres)	9.6	-	395.4	763	367.6
Total Number of Parks	0.5316	-	25	42	17
Community Gardens	0.0381	-	2	3	1
Picnic Tables	-	1.77	132	141	9
Park Trails (miles)	-	0.14	10.2	11	0.8
Playgrounds	0.56	0.53	24	42	18
Skateparks/Pump Tracks	0.02	-	1	2	1

Source: Puyallup Parks, Recreation, and Open Space Plan 2020; Parametrix 2024.

Alt. = alternative; LOS = level of service; NRPA = National Recreation and Parks Association; RCO = Recreation and Conservation Office

Alternative 3 would focus development of new households and jobs in some areas currently outside of the existing parks service area, increasing the number of residents and employees who are not served by a neighborhood or community park within close proximity. The Pioneer Mixed-Use and Southwest Node focus areas are located entirely outside of the neighborhood parks service area. Approximately 540 new housing units and 470 new jobs are proposed in the Pioneer Mixed-Use focus area, and 30 new housing units and 340 new jobs are anticipated in the Southwest Node focus area under Alternative 3; all of these new residents and employees would be located outside of the existing neighborhood parks service area.

Portions of the South Hill RGC (7,230 new housing units and 5,300 new jobs), Meridian Corridor (250 housing units and 100 jobs), Medical Mixed-Use (480 new housing units, 5,360 new jobs), Fairground Mixed-Use (980 new housing units, 1,150 new jobs), and South River Employment (30 new housing units, 340 new jobs) focus areas are located outside of the neighborhood parks service area (Figure 3.7-5). A portion of these new residents and employees would be outside of the existing neighborhood parks service area.

The majority of focus areas are within the community parks service area, with the exception of a portion of the River Road Mixed-Use focus area, where a portion of the anticipated 420 new housing units and 720 new jobs would be located outside the existing community parks service area (Figure 3.7-6).

Without an increase in the amount of park land, number of parks, number of community gardens, number of picnic tables, miles of park trails, number of playgrounds, and number of skateparks/pump tracks, LOS benchmarks for these facilities would not be met under Alternative 3, resulting in a significant impact.

Without the development of new neighborhood and community parks in underserved areas of the city, future growth outside of existing park service areas in the Pioneer Mixed-Use, Southwest Node, South Hill RGC, Meridian Corridor, Medical Mixed-Use, Fairground Mixed-Use, South River Employment, and River Road Mixed-Use focus areas would result in a significant impact.

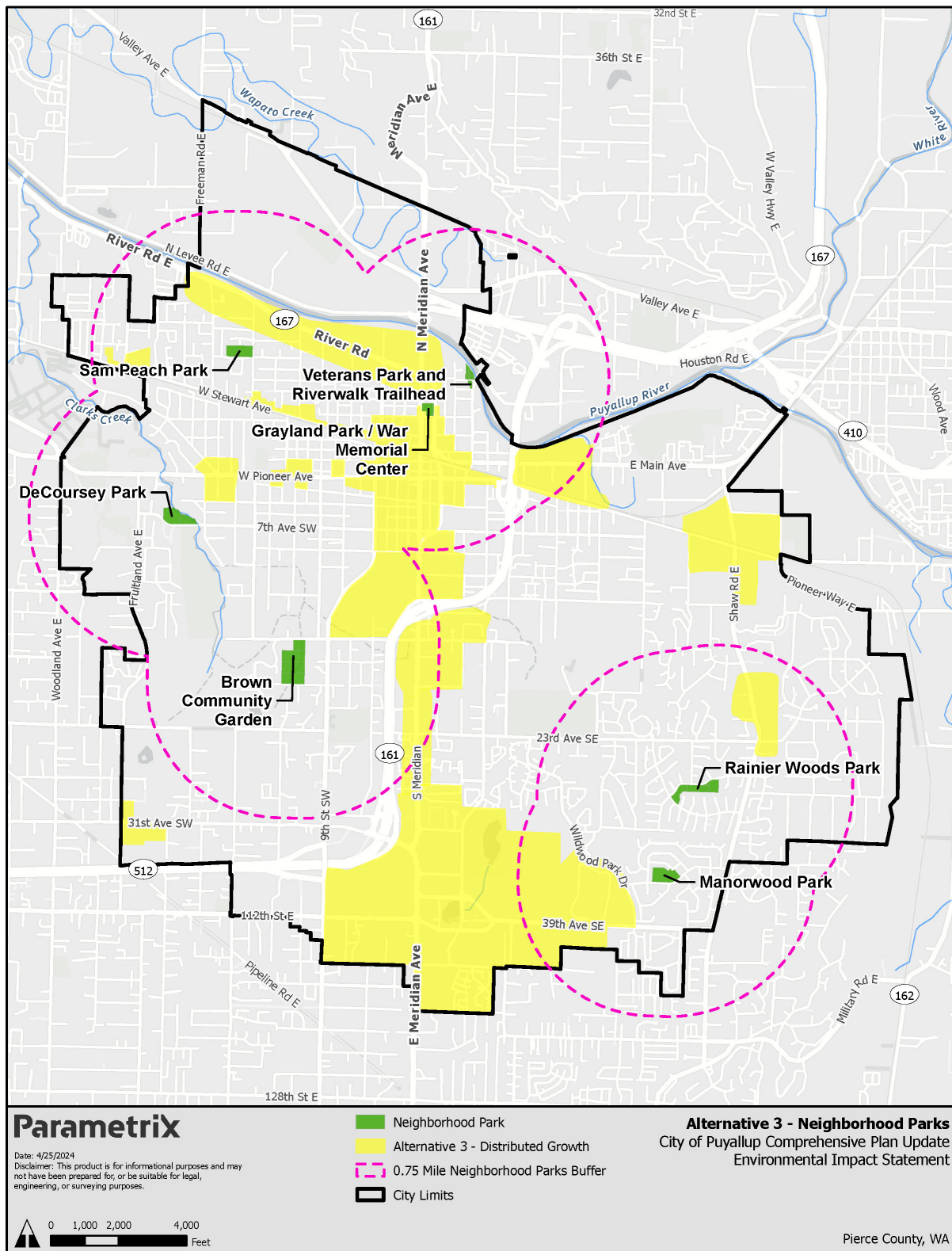


Figure 3.7-5. Alternative 3 and Neighborhood Parks Service Area

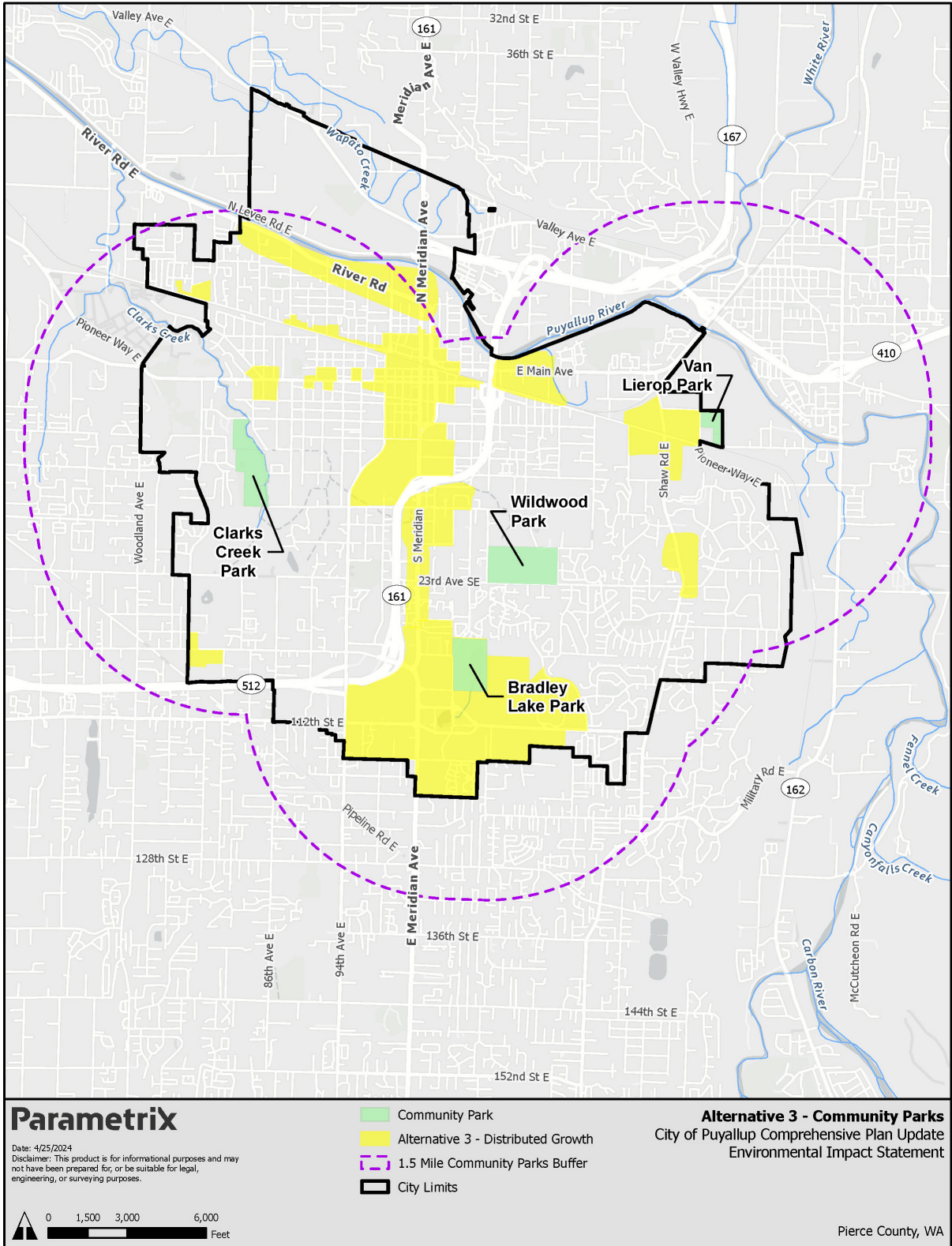


Figure 3.7-6. Alternative 3 and Community Parks Service Area

3.7.3 Avoidance, Minimization, and Mitigation Measures

To meet established LOS benchmarks, new or expanded parks and recreation facilities would need to be developed under all alternatives. Alternative 1 would require the amendment of existing parks plans in order to provide appropriate LOS to serve anticipated growth. Alternatives 2 and 3 would update the Parks, Recreation, and Open Space element of the *Puyallup Comprehensive Plan* to identify and plan for future parks and recreation needs created by anticipated growth and development.

Continued implementation and periodic assessment of Puyallup's existing park growth impact fee would provide funding for the creation and expansion of park and recreation facilities as new residential and non-residential development occurs to support the city's growth.

3.7.4 Significant Unavoidable Adverse Impacts

Increased demand for parks and recreation facilities would occur under all alternatives due to growth. Impacts could be mitigated through the parks planning process and ongoing implementation of the park growth impact fee. No significant unavoidable adverse impacts are expected.

3.8 Public Services

3.8.1 Affected Environment

The following public service providers were included in this analysis:

- Fire (Central Pierce Fire & Rescue)
- Police (Puyallup Police Department)
- Schools (Puyallup School District)
- Health Service Providers

As the city grows, these providers may need to increase or expand their services to serve the increased population. This section identifies the policy and regulatory framework governing public service development, provision, and operations; existing providers in Puyallup; and the potential effects of the three alternatives being considered.

3.8.1.1 Current Policy and Regulatory Framework

Title 9, RCW, Crimes and Punishments

Title 9 defines crimes, establishes punishments, guides legal proceedings, and informs the public about the law in the state of Washington. It covers a wide range of offenses and corresponding penalties. The title helps courts interpret the law and determine appropriate sentences. It also encourages public compliance by clearly defining crimes and potential punishments.

Title 28A RCW, Common School Provisions

Title 28A serves as the legal framework for the operation and administration of public education in the state of Washington. It outlines the rules, regulations, and responsibilities for various aspects of the education system. The purpose of Title 28A is to ensure a standardized, equitable, and high-quality education for all students in the state of Washington. It provides guidelines for

educators, administrators, and other interested parties in the education system to ensure that all students have access to the resources and opportunities they need to succeed. It also provides a legal basis for the enforcement of these provisions and for the resolution of disputes or issues that may arise in the education system.

Chapter 43.70 RCW, Department of Health

Chapter 43.70 establishes the DOH for the state of Washington. The chapter outlines the roles, responsibilities, and powers of the department and its secretary, and it ensures that the department operates effectively and efficiently in promoting and protecting public health.

Title 52 RCW, Fire Protection Districts

Title 52 provides the legal framework for the formation, operation, and administration of fire protection districts in the state of Washington. The purpose of Title 52 is to ensure the provision of fire prevention services, fire suppression services, and emergency medical services for the protection of life and property within the fire protection districts. It also aims to promote uniformity and coordination of fire protection district operation programs.

Puyallup School District Capital Facilities Plan

The Puyallup School District Capital Facilities Plan is a 6-year plan that is reviewed annually. The plan is designed to guide the district in providing new capital facilities to serve projected increases in student enrollment, as well as assisting the district to identify the need and time frame for significant facility repair and modernization projects.

The plan inventories the district's schools, facilities, and undeveloped and underdeveloped properties to ensure good stewardship of public funds and environmental and natural resource areas. It assesses the district's student enrollment growth prospects and identifies the new construction, modernization, and renovation work needed to meet the demands of expanding student enrollment.

Puyallup School District Strategic Plan

The Puyallup School District Strategic Plan is a comprehensive blueprint for the district's future. It was developed through a collaborative process involving teachers, staff, parents, students, community members, and district leaders. This strategic plan aims to position the school district as a leader in education and better serve the needs of students, families, and the community.

Central Pierce Fire & Rescue Capital Facilities Plan

The Central Pierce Fire & Rescue (CPFR) Capital Facilities Plan is a strategic document that outlines the current and future capital facilities projects for CPFR. The plan lists current and future capital facilities projects, and it is required by the state for planning and funding of capital projects. It covers all aspects of infrastructure planning within the district.

Central Pierce Fire & Rescue Strategic Plan

The Central Pierce Fire & Rescue Strategic Plan for 2023 through 2025 is a comprehensive document that outlines the organization's goals and strategies for the next 3 years. The plan contains *strategic anchors*, which are topics, directions, or statements that the leadership team believes must be in front of the district at all times. The various elements of the strategic plan are used by the Board of Fire Commissioners, the Executive Team, and all members to support their work. The strategic plan is linked to the district's policy positions, development and management of

the district's budget, and execution of the expected performance standards within the district's standard of cover.

2021 International Fire Code

The 2021 International Fire Code (IFC) for Washington State, adopted by reference by the City of Puyallup in PMC Chapter 16.04, is a comprehensive set of regulations designed to safeguard life and property from fires and explosion hazards. The 2021 IFC establishes minimum requirements to mitigate the risk to life and property from exposure to fire and to prevent structure fires from spreading to wildland fuels. It focuses on the use of ignition-resistant building materials, creating and maintaining defensible space, and fire service access to structures and water supplies.

3.8.1.2 Existing Providers

Fire and Emergency Medical Services

The city of Puyallup's fire and emergency medical services are provided by CPFR. CPFR was created in 1996 through the merging of Parkland, Midland, Spanaway/Elk Plain, and Summit/South Hill fire districts. In 2009, the Puyallup Fire Department annexed into the CPFR service area, and in that same year, the North Puyallup Fire Department District #11 merged with CPFR. Once the merger took place, District #11 was dissolved. In December 2018, Pierce County Council approved a legal name change from Pierce County Fire Protection District No. 6 to Central Pierce Fire & Rescue.

CPFR operates from 11 fire stations. Stations 70, 71, 72, and 73 are located within the Puyallup city limits (see Figure 3.8-1). The CPFR as a whole serves a population of 230,000 with 13 engines/ladders, eight medics on duty, and one Community Assistance Referral and Education Services program unit. The stations are staffed by 250 uniformed personnel and 37 non-uniformed personnel.

Incident History

In 2021, CPFR responded to approximately 33,822 incidents calls for fire and emergency services. Of these calls, approximately 72% were for emergency services. See Table 3.8-1 for incident data from 2017 through 2021.

Table 3.8-1. 5-Year Central Pierce Fire & Rescue Incident History 2017–2021

Year	Incidents	Increase from the Year		
		Before	EMS/Rescue	Fire
2017	29,774	4%	78%	2%
2018	30,253	1%	78%	2%
2019	31,589	4%	76%	2%
2020	28,943	-8%	76%	2%
2021	33,822	17%	72%	3%

Source: CPFR Annual Report 2019, 2020, 2021, 2022

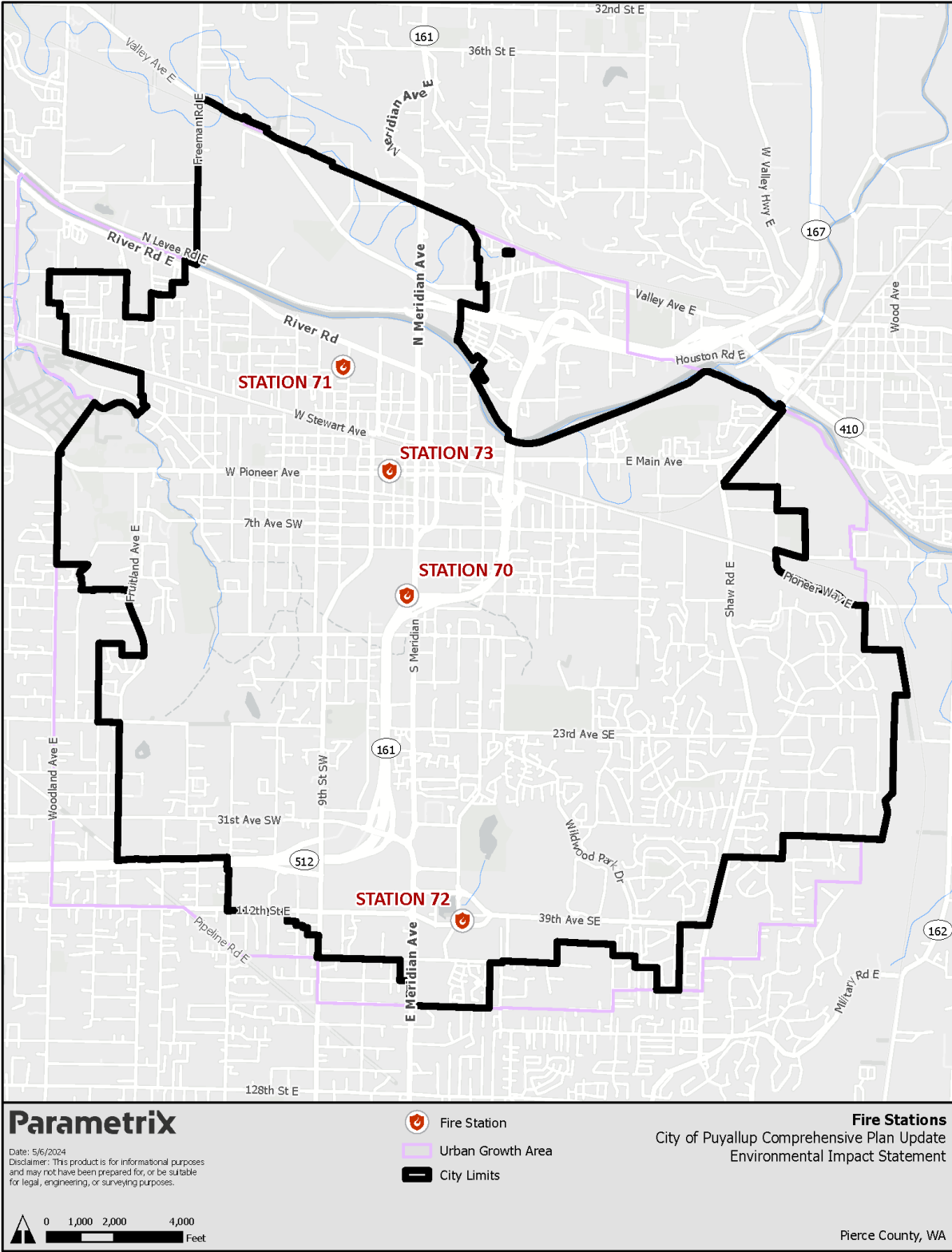


Figure 3.8-1. Puyallup Fire Stations

Level of Service Objectives

The Washington State Fire Departments-Performance Measures (RCW 52.33) contains performance measures for the deployment of fire suppression and emergency operations and encourages fire protection districts to set performance measures for response time objectives (see Table 3.8-2). Per RCW 52.33, CPFR established response time objectives that the commission has adopted as goals (CPFR 2018). According to the CPFR 2020 Capital Facilities Plan, as of 2020 CPFR was meeting or near the target response time objectives for fire-suppression incidents. However, actual times for emergency medical incidents were slower than the response time objective (CPFR 2020).

Table 3.8-2. Response Time Objectives by Major Service Component

Incident Type	Response Time Objective (minutes)
Emergency Medical Incident, Priority Response	
Basic life support travel time for first arriving unit with first responder or higher medical training	7:15
Advanced life support travel time for first arriving unit with paramedic	6:00
Fire Suppression	
Travel time first arriving engine company	6:35
Travel time for having full first alarm assignment on scene	16:00
Hazardous Materials Incident	
Travel time for first arriving unit with operations-level-trained person or higher	9:00
Travel time for first arriving unit with hazardous-materials level A technician	20:00
Special Rescue (Special Operations) Incident	
Travel time for first arriving unit with special operations technician	10:30

Source: CPFR Capital Facilities Plan 2020

Police Services

Police services for Puyallup are provided by the Puyallup Police Department (PPD). PPD headquarters are in the City's Public Safety Building located at 311 W Pioneer in downtown Puyallup, next to CPFR Station 73 (see Figure 3.8-2). A feasibility study has been conducted for a new PPD precinct. The new building would be a modern facility and house the police and jail under one roof, and it would be located at 600 39th Avenue SE next to CPFR Station 72. In 2022, the PPD was staffed with 70 sworn personnel, 16 correction personnel, and 12 civilian support staff members. The PPD is led by the chief of police and includes four divisions: Operations, Criminal Investigations, Professional Services, and Corrections.

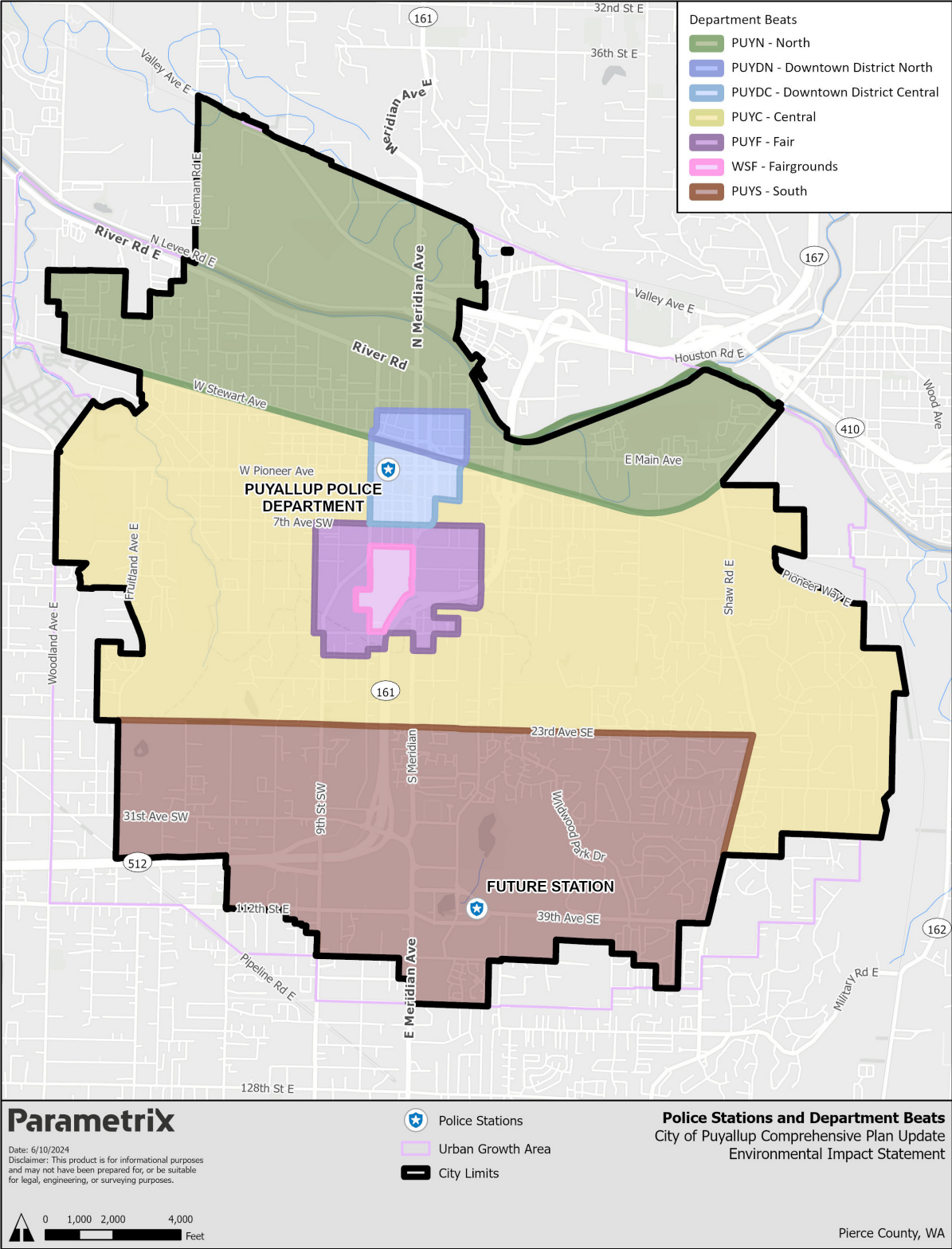


Figure 3.8-2. Puyallup Police Station and Department Beats

The Operations Division (also known as patrol) is made up of six squads who work four, 12-hour shifts, supervised by a sergeant. The PPD Operations Division also includes a K9 Unit, Bicycle Patrol, Tactical Repose Team, and an Honor Guard. The Criminal Investigations Division consists of two units, the Investigative Services Unit and the Crime Suppression Unit which are made up of detectives and officers. The Investigative Services Unit is responsible for investigation of criminal allegations involving crimes against people or property, while the Crime Suppression Unit investigates chronic community issues including emerging crime trends, narcotics enforcement, repeat offenders, organized retail theft, problem houses, public disorder crimes, and auto crimes. Additionally, the Criminal Investigations Division oversees property and evidence for the PPD.

The Professional Services Division supports the day-to-day operations of the PPD with a variety of units including the Traffic Unit, School Resource Officer Team, the Records Unit, a Community Outreach Officer, Police Explorers, Public Affairs/Public Information Officer, Internal Affairs, and Training. The Professional Services Division’s mission also focuses on fostering positive community connections.

The Corrections Division manages the Puyallup City Jail which is a 51-bed misdemeanor facility. In 2022, the Corrections Division was staffed by 1 captain, 4 corrections sergeants, and 12 corrections officers. In 2016, the Puyallup City Jail entered into an interagency agreement with the Yakima County Department of Corrections to incarcerate Puyallup Jail inmates. Puyallup inmates with long-term sentences or special needs are transferred to the Yakima County Jail to complete their court-ordered sentences.

Call History

In 2022, the PPD received 56,672 calls for service, issued 7,520 citations, made 1,838 arrests, filed 8,015 case reports, and made 8,295 traffic stops and 3,598 subject stops. See Table 3.8-3 for the PPD call history from 2018 through 2022.

Table 3.8-3. 5-Year Puyallup Police Department Call History 2018–2022

Year	Calls for Service for Service	Change from Previous Year
2018	54,745	-11%
2019	59,883	9%
2020	50,295	-16%
2021	53,264	5%
2022	56,672	6%

Source: Puyallup Police Department Annual Reports 2022, 2021, 2020, 2019, 2018

In 2011, Pierce County voters approved Proposition 1 that funded the formation of South Sound 911 (SS911), a regional dispatch center intended to improve emergency communications and ensure all police and fire responders can work cooperatively to better serve the community. The City of Puyallup became a partner in SS911 in 2014. In 2022, the responsibilities of the 911 Program Office for Pierce County began transitioning from the Pierce County Department of Emergency Management to SS911. By June of 2022, SS911 was officially designated as the 911 Program Office for Pierce County and 911 calls for police in Puyallup are now dispatched through the SS911 Law Enforcement Communication Center.

In 2022, SS911 received 1,011,270 calls and texts to 911 and a non-emergency line. As of 2024, SS911 employed 263 professionals who provide 24-hour service for 911 dispatch, records management, information technology, and administration.

Level of Service Standards

The Puyallup Police Department has LOS response time standards that it adheres to, including a 3:51-minute response time for priority calls for service (Puyallup Comprehensive Plan 2015).

Schools

The city of Puyallup is served by the Puyallup School District. School district boundaries and school locations are shown in Figure 3.8-5 through Figure 3.8-5. The Puyallup School District was organized in 1854 and is currently the sixth-largest enrolled school district in the state of Washington. In 2023, the district employed 1,560 certificated staff, 1,450 classified staff, and 570 substitute personnel. The district comprises approximately 54 square miles and serves a population of approximately 144,030 residents. The district operates 13 elementary schools (Figure 3.8-3), 5 junior high schools (Figure 3.8-4), 3 high schools (Figure 3.8-5), and an alternative high school (Puyallup Open Doors) with service areas within the study area. Additionally, the district has a digital learning program called Puyallup Digital Learning.

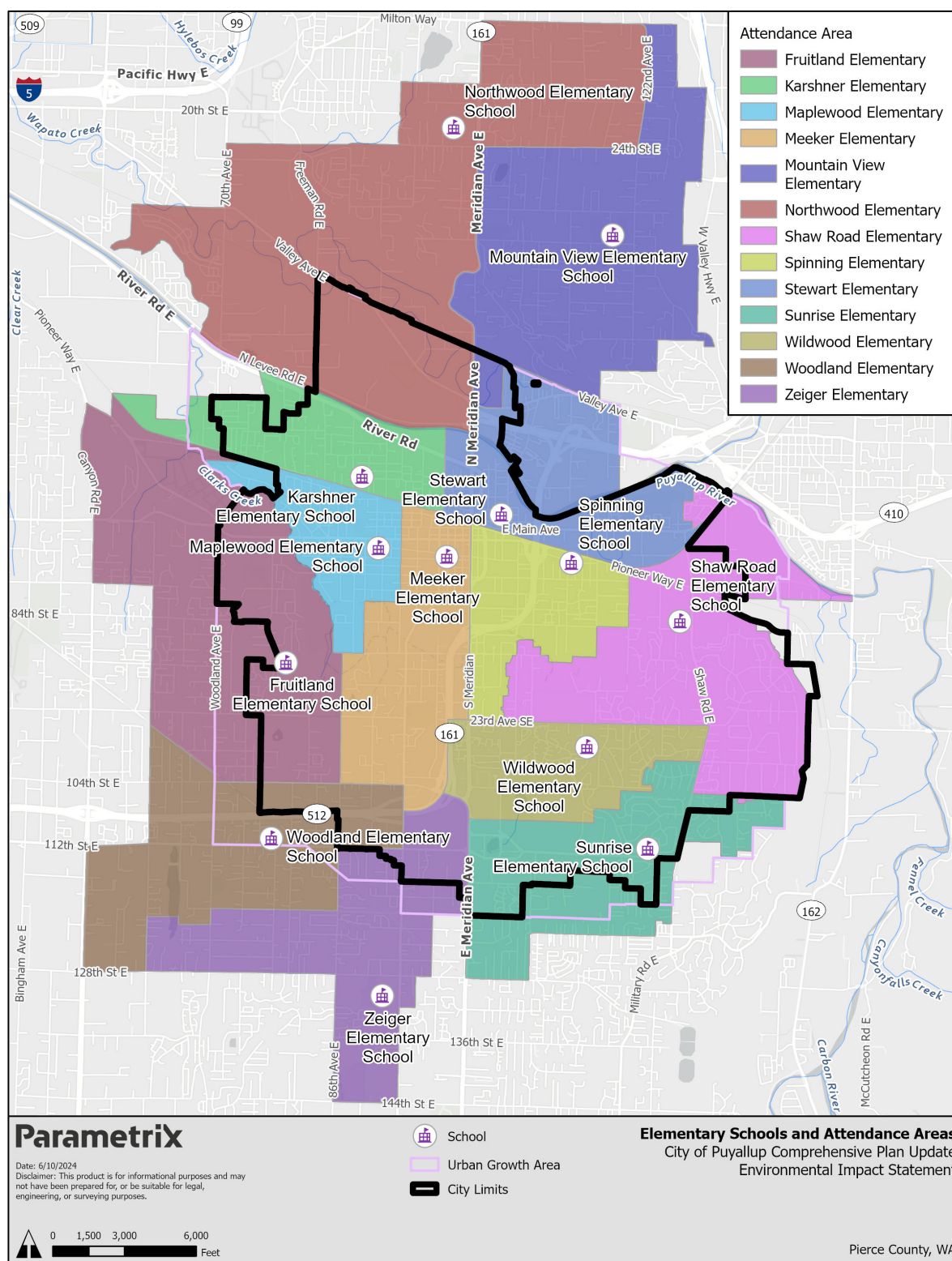


Figure 3.8-3. Elementary Schools and Attendance Areas

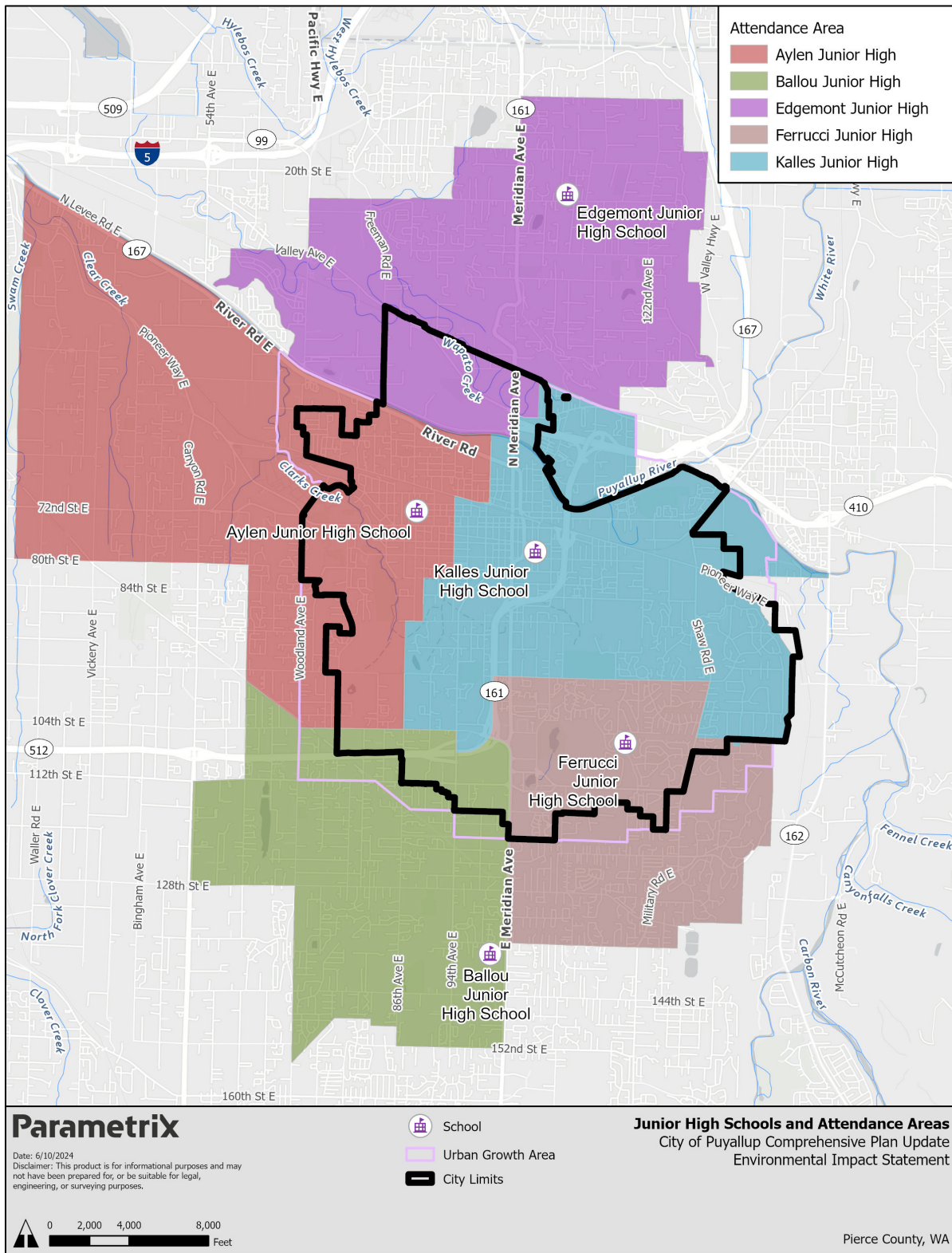


Figure 3.8-4. Junior High Schools and Attendance Areas

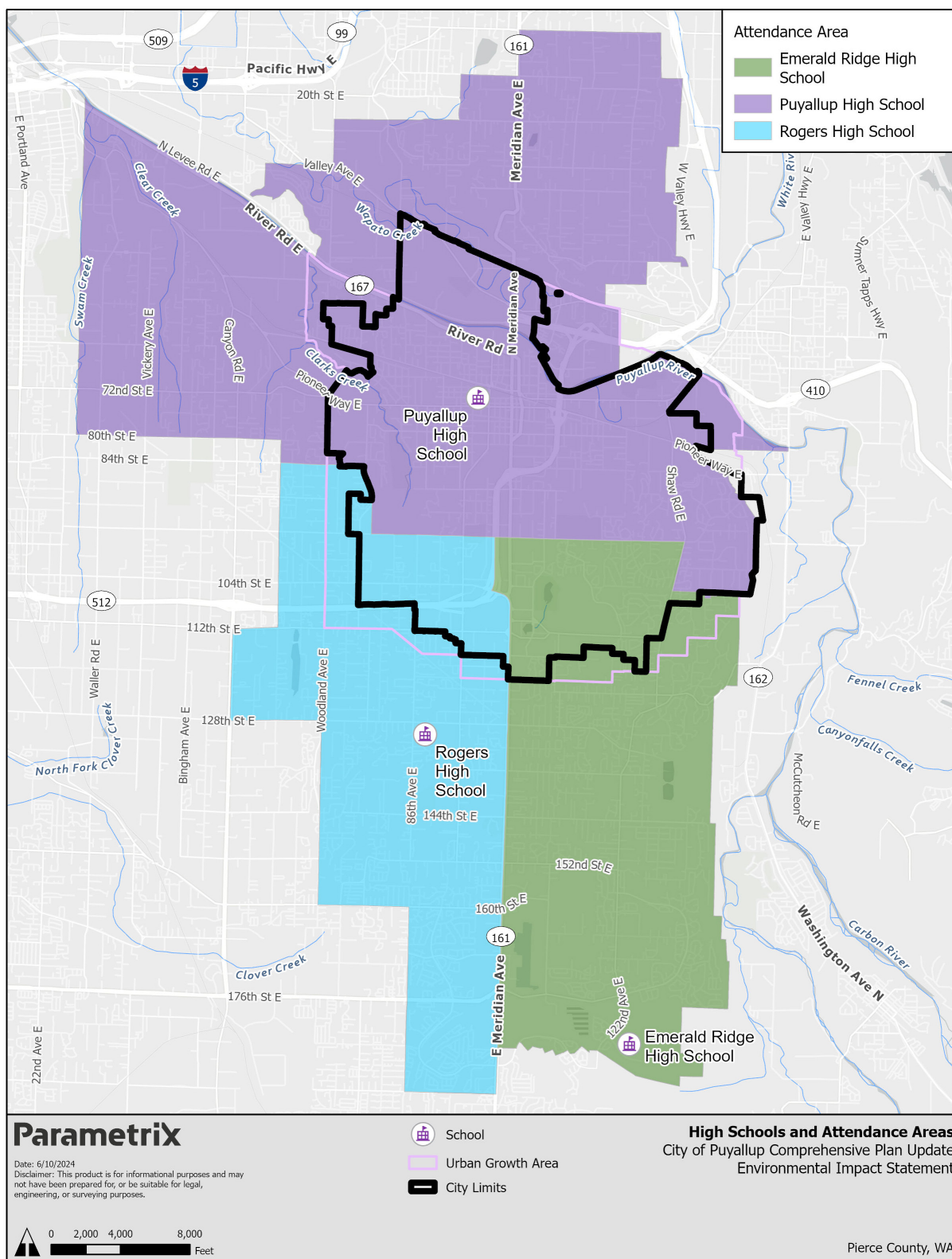


Figure 3.8-5. High Schools and Attendance Areas

Historical and Current Enrollment

According to the Washington State Office of the Superintendent of Public Instruction, the Puyallup School District had a districtwide enrollment of 22,921 students for the 2023–2024 school year. Past and current enrollment and capacity figures are shown in Table 3.8-4 and Table 3.8-5.

Table 3.8-4. Puyallup School District Enrollment History

Year	K-6 Enrollment	Junior High Enrollment (Excludes PDL and P4 Students)	High School Enrollment (Excludes PDL, POD, and Full- Time Running Start Students)
2016–2017	11,514	5,074	5,160
2017–2018	11,824	5,097	4,956
2018–2019	12,154	5,190	4,915
2019–2020	12,450	5,287	4,836
2020–2021	11,547	5,229	4,738
2021–2022	11,255	5,314	4,742
2022–2023	11,701	5,385	4,793
2023–2024	11,768	5,428	5,359

Source: 2023–2024 Enrollment: Office of the Superintendent of Public Instruction Report Card, 2023.

2016–2023 Enrollment: Puyallup School District Capital Facilities Plan 2023.

P4 = Puyallup Parent Partnership Program; PDL = Puyallup Digital Learning; POD = Puyallup Open Doors

Table 3.8-5. Current Enrollment and Capacity

School Year	K-6 Program Capacity	K-6 Current Capacity Surplus/Deficit	Junior High Capacity	Secondary School Current Capacity Surplus/Deficit	High School Enrollment	High School Current Capacity Surplus/Deficit
2023–2024	10,523	(1,245)	5,984	556	4,072	(1,287)

Source: Puyallup School District Capital Facilities Plan 2023

Enrollment Projections

The Puyallup School District maintains student generation rates to determine the number of students that can be expected from new residential construction. These projections are shown in Table 3.8-6. The district's elementary school enrollment is expected to increase to 12,531 students in 2028–2029; this is a 6% increase from the 2023–2024 school year.

Table 3.8-6. Projected Enrollment and Capacity Surplus/Deficit

Enrollment Year	K-6 Projected Enrollment	K-6 Projected Capacity Surplus/Deficit	Junior High Projected Enrollment	Junior High Projected Capacity Surplus/Deficit	High School Projected Enrollment	High School Projected Capacity Surplus/Deficit
2024–2025	12,233	(1,575)	5,418	431	5,069	(997)
2025–2026	12,391	(1,733)	5,459	390	5,103	(1,031)
2026–2027	12,367	(1,709)	5,716	133	5,180	(1,108)
2027–2028	12,538	(1,880)	5,758	91	5,131	(1,059)
2028–2029	12,531	(1,873)	5,984	(135)	5,170	(1,098)

Capital Facilities Planning

Over the next 5 years, bond programs are anticipated to fund upgrades to school facilities and a new, 950-student capacity elementary school in the South Hill East Region. No additional capacity is anticipated to be added for secondary and high schools over the next 5 years of the planning window; however, construction of multiple expansion projects is expected to be underway. Portable classrooms will be used in the interim to accommodate the anticipated increased enrollment until permanent building capacity can be constructed.

Level of Service Standards

Previous LOS calculations adopted by the Puyallup School District were based on facility size and student enrollment. In 2015, the district revised its method for developing LOS and focused on class size. The adopted 2023–2028 LOS for elementary schools in the district are as follows:

- The adopted LOS at K through 6 schools is 22 students per general education classroom.
- The adopted LOS at K through 5 schools is 21 students per general education classroom.

LOS standards at the secondary level also includes a classroom utilization factor. This accounts for some expected inefficiency related to a six-period daily instructional model currently followed by all secondary schools in Puyallup. The adopted 2023–2028 LOS for secondary schools in the district area as follows:

- The adopted junior high LOS is 30 students per general education classroom x 83% utilization factor.
- The adopted high school LOS is 32 students per general education classroom x 83% utilization factor.

Hospital Services

The MultiCare Good Samaritan Hospital, located at 401 15th Avenue SE, is Puyallup’s only acute care facility. It is a member of the MultiCare Health System, which is made up of 12 hospitals and other primary, urgent, and specialty clinics. The next closest hospitals to Puyallup are the St. Francis Hospital in Federal Way and the St. Joseph Medical Center in Tacoma, which are 8.5 miles and 11.5 miles away from Puyallup, respectively. MultiCare Good Samaritan Hospital’s primary and secondary service areas are depicted in Figure 3.8-6. MultiCare Good Samaritan defined these service areas based on data from its fiscal year (FY) 2019 and a combination of other factors (MultiCare Master Plan Update 2023).

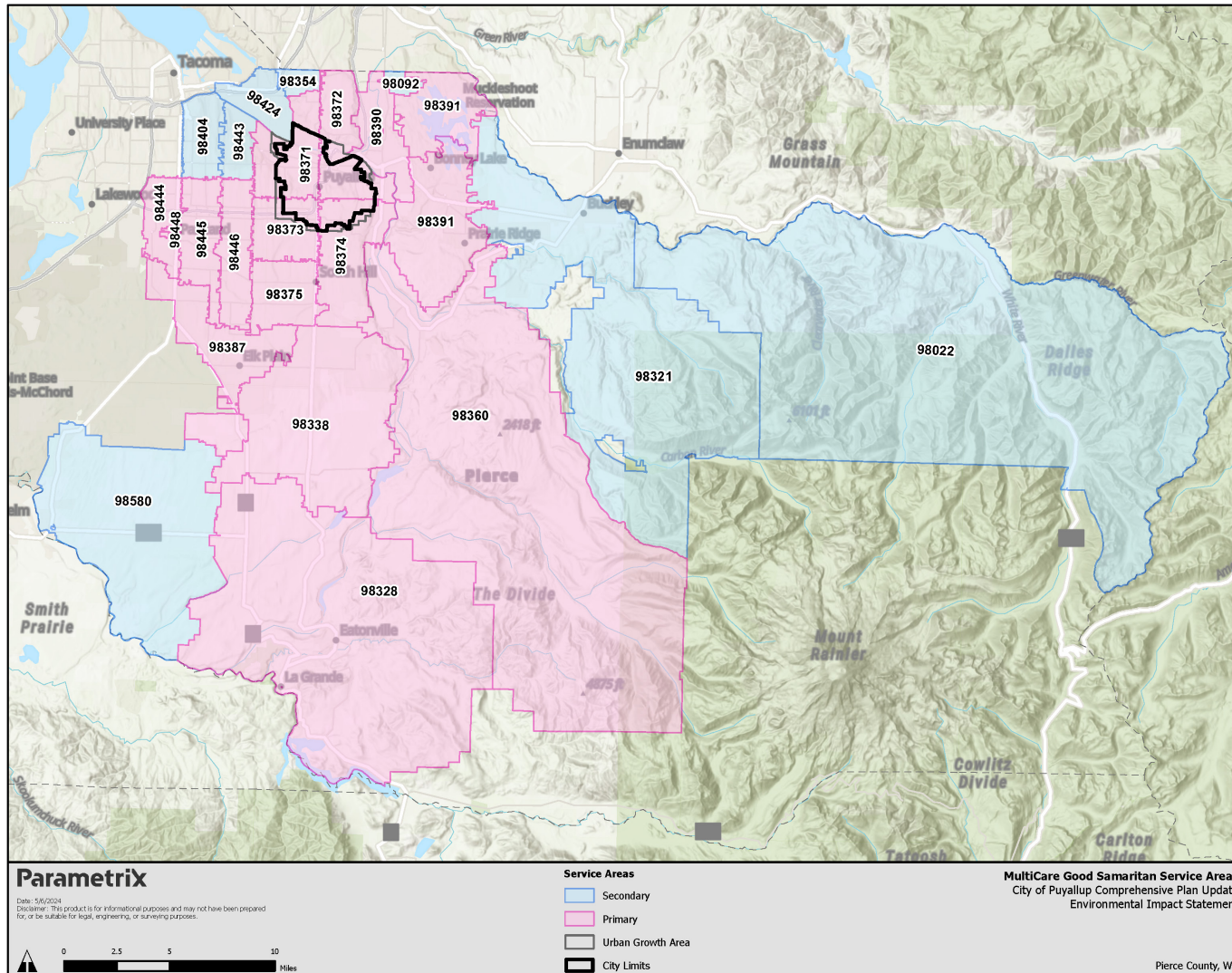


Figure 3.8-6. MultiCare Good Samaritan Service Areas

Source: MultiCare Good Samaritan Hospital Master Plan Proposal 2023

The MultiCare Good Samaritan Hospital provides the following facilities:

- 388 licensed beds
- 36 intensive care unit beds
- Level III trauma center
- Level III neonatal intensive care unit
- 38-bed Level 1 trauma rehabilitation center
- 40 cardiac specialty unit beds
- 2 cardiac catheterization labs
- 10 operating rooms
- 22-bed critical care center with acuity adaptable rooms (combined intensive care unit and progressive care unit)
- 57-bed progressive care unit (step-down from intensive care unit)
- 24-hour emergency services

In 2022, MultiCare Good Samaritan performed 2,804 inpatient surgeries, 5,805 outpatient surgeries, had 162,390 Emergency Department visits, and saw 2,312 births (MultiCare 2024).

MultiCare Good Samaritan is currently applying for a new 10-year Master Plan permit from the City of Puyallup to govern a future build-out and expansion of the hospital campus. Good Samaritan projects that there will be an undersupply of acute care beds in East Pierce County. These projections anticipate a 140-bed deficit by 2028 and a 250-bed deficit by 2036 (MultiCare Master Plan Application 2023).

In the first phase of the master plan, MultiCare Good Samaritan plans to build a new patient care tower. This new patient care tower would be a 240,000-square-foot structure with 190 new beds. The tower would also include a floor which could allow a future build-out of 40 additional licensed beds. Also included in the master plan for Phase 1 and future phases is an expansion of the existing emergency room, new medical office buildings, expansion of an existing tower, and parking and infrastructure to support the new facilities.

A final environmental impact statement is anticipated in the fall of 2024, and City Council action on the master plan is anticipated in the winter of 2024.

3.8.2 Impacts

This section describes the potential impacts to public services that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.8.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on public services. Impacts were considered significant if they met the following criteria:

- Exceed the planned student capacity of the Puyallup School District.
- Affect the ability of the Central Pierce Fire & Rescue to meet its level of service standards.
- Affect the ability of the Puyallup Police Department to meet its level of service standards.
- Affect the ability of the hospital and medical services to provide care to residents within their respective service areas.

3.8.2.2 Impacts Common to All Alternatives

All the alternatives would experience growth with different levels depending upon the alternatives. Alternatives 2 and 3 would provide similar potential for growth, though Alternative 3 is anticipated to create more housing units and jobs than Alternative 2.

Fire and Emergency Medical Services

Under all alternatives, housing and population growth are expected, which could increase fire and emergency medical service dispatches. Alternative 3 would provide the greatest level of housing unit growth and associated population increases. Alternative 2 would also provide development opportunities but on a slightly smaller scale than those under Alternative 3.

Construction of housing units would occur incrementally throughout the 2024–2044 planning horizon of this Comprehensive Plan. During construction, there could be an increase in demand for fire and emergency medical services for inspections and construction-related incidents. Additionally, road closures and construction and traffic delays could increase response times for fire and emergency medical services. The total number of incident calls for fire and emergency services to CPFR is expected to increase correspondingly with an increase in population. The highest level of population increase and potential for construction and associated calls for service to CPFR is anticipated under Alternative 3. The population increase under Alternative 2 would be smaller than those under Alternative 3, and construction of housing units would be concentrated in fewer areas of Puyallup and less likely to impact response times. Alternative 1 would provide the fewest opportunities for residential growth and is the least likely to impact response times or would have the smallest increase in incident calls as a result of facilitated growth.

All new buildings would be constructed in compliance with the 2021 IFC as adopted by the City of Puyallup. The 2021 IFC establishes requirements to mitigate the risk to life and property from exposure to fire and focuses on the use of ignition-resistant building materials, creating and maintaining defensible space, and providing fire service access to structures and water supplies. Adherence to this code when constructing new buildings should reduce fire and emergency medical service dispatches both during construction and after.

As there will be incremental increases in population, it is anticipated that CPFR would continue to analyze incident response data and determine additional needs for staff or equipment. As of 2020, CPFR was meeting or near the target response time objectives for fire-suppression incidents and was not meeting the target response time for emergency medical incidents. The increases in population and construction under all alternatives could exacerbate this problem and create a significant impact without sufficient increases in CPFR staffing and equipment. CPFR regularly evaluates response

times, staffing, and equipment needs to address impacts to its levels of service. This evaluation would continue under all alternatives and is expected to minimize the effects of population growth on fire and emergency services. Tax revenue generated from redevelopment would accrue to the City of Puyallup and fire services to help fund accommodation for future demand.

Police Services

Under all alternatives, the City of Puyallup would see increased employment and housing growth with associated population growth which could impact police services.

While new developments are under construction, there could be an increase in calls for police service related to vandalism, theft, and other incidents. Additionally, construction could create road closures and construction traffic delays which could impact the PPD's 3:51-minute response time standard when responding to calls. However, submittal of a traffic control plan and adherence to the City's traffic regulations would minimize this impact. Police service calls and arrests are also anticipated to increase similarly with increases in population. All alternatives have the potential to impact police services; however, the greatest potential for increases in service calls and delays in response times due to construction for police services would be under Alternative 3.

The PPD is anticipated to continue to review incident response data as part of its annual review to ensure its response time LOS is met and the Corrections Division has sufficient facility space. Based on the data, PPD would identify needs for additional staff, equipment, or facilities to accommodate future growth and development as would occur under all alternatives. Tax revenue generated from redevelopment would accrue to the City of Puyallup and police services to help fund accommodation for future demand.

The new planned PPD precinct would create additional space for police officers, more equipment and evidence storage, and provide upgraded jail facilities with space for rehabilitative services. The project also includes a police substation in downtown Puyallup which would continue to provide downtown residents access to police services. This new precinct would accommodate some, if not all, of the growth at PPD required to accommodate future growth and development under the alternatives.

Schools

Student generation rates projected under the Comprehensive Plan are based on the assumed household development numbers identified in Chapter 2, Table 2.2-1, and the average student generation rates for single-family and multifamily units identified in the Puyallup School District #3 2023–2028 Capital Facilities Plan. Table 3.8-7 summarizes the average student generation rates for residential developments as described in the Puyallup School District Capital Facilities Plan (Puyallup 2023).

Table 3.8-7. Puyallup School District Student Generation Rate

School	Single-Family	Apartment/ Multifamily	Average Student Generation Rate
K through 6	0.379	0.205	0.292
Junior High School	0.158	0.072	0.115
High School	0.132	0.055	0.093
Total Student Generation Rate	0.668	0.332	0.5

Source: Puyallup School District 2023

Under all alternatives, housing growth is expected to result in more students and impact school capacity. Table 3.8-8 shows the estimated new students under each alternative based on the average student generation rate in Table 3.8-7 and the number of housing units anticipated.

Table 3.8-8. Projected Student Generation in the Study Area

School	No Action Alternative	Alternative 2	Alternative 3
K through 6	1,953	3,919	4,149
Junior High School	769	1,543	1,634
High School	622	1,248	1,322
Total	3,344	6,710	7,105

All alternatives would result in a greater number of students in the district. Puyallup School District could see from 3,344 to 7,105 new students, depending on the alternative. This could include between 1,953 and 4,149 elementary school students, 769 and 1,634 junior high school students, and 622 and 1,322 high school students. As described in Section 3.8.1.2, the Puyallup School District is already over capacity for K through 6 and high schools in the 2023–2024 school year and is anticipated to be over capacity for junior high schools by the 2028–2029 school year.

The Future Bond Program for Puyallup School District includes funding for two school building replacements at Spinning Elementary School and Waller Road Elementary which would add additional elementary student capacity beginning in the 2029–2030 school year. Projects are also planned for all Puyallup School District high schools to remodel or expand with a completion date of 2029 for Emerald Ridge and Rogers High School and 2030 for Puyallup High School. Portable classrooms are used in the interim to meet student need until permanent building capacity can be constructed.

Since all alternatives would add new students to the Puyallup School District and planned facilities are not sufficient to accommodate the amount of growth anticipated, it is likely the schools will continue to exceed their capacities. The addition of new students would occur gradually as new housing is constructed, and the Puyallup School District is expected to continue to evaluate student population and capacity through the capital facilities planning process to minimize impacts. Under all alternatives, the Puyallup School District would continue to develop a capital facilities plan to outline future projects to address capacity issues. New residential development in Puyallup would be required to pay school impact mitigation fees in accordance with PMC 21.20.140 to offset some of the costs for additional demand for services in the Puyallup School District identified in the capital facilities plan.

Hospital Services

Population increases under all alternatives are expected to result in an increased need for hospital services. As Puyallup’s only acute care facility, the MultiCare Good Samaritan Hospital is anticipated to receive the majority of hospital patients in Puyallup. New housing and job opportunities under all alternatives are expected; however, Alternative 3 has the greatest potential to increase the population of Puyallup and commuters who would spend working hours in the city. Therefore, Alternative 3 has the most potential for impacts to hospital services, followed closely by Alternative 2.

As described in Section 3.8.1.2, MultiCare Good Samaritan has applied for a new 10-year Master Plan permit from the City of Puyallup which would create enough new beds and facility space to accommodate future population growth in the study area. Assuming approval of the Master Plan in 2024, full build-out of the Master Plan is anticipated in 2034 with phased construction occurring prior. The expansion of the hospital is expected to accommodate population growth in Puyallup with no significant adverse effect.

3.8.2.3 Impacts of Alternative 1 (No Action)

Fire and Emergency Medical Services

Alternative 1 would have the least impact on fire and emergency services in Puyallup as it represents the lowest amount of development opportunity and the least growth of the three alternatives. Impacts would be less than those under Alternatives 2 and 3.

As described in Section 3.8.2.2, it is expected that CPFR would continue to evaluate demands for fire and emergency medical services on a regular basis and would be able to accommodate the increase level of demand under Alternative 1 with minor adjustments to current services. **A less than significant impact is anticipated.**

Police Services

Alternative 1 would have the least impact on police services in Puyallup as it represents the lowest amount of development opportunity and least growth of the three alternatives. Impacts to police services, including increased demand and calls for service, would be less than those under Alternatives 2 and 3. As described in Section 3.8.2.2, it is expected that PPD would continue to evaluate demands for police services on a regular basis and would be able to accommodate the increased level of demand under Alternative 1 with minor adjustments to current services. **A less than significant impact is anticipated.**

Schools

Alternative 1 would have the least impact on schools in Puyallup as it represents the lowest amount of development opportunity and least growth of the three alternatives. Impacts to school capacity would be less than those under Alternatives 2 and 3.

The Puyallup School District is not anticipated to have sufficient capacity within its existing facilities or currently planned facilities to serve the potential population increases under Alternative 1. Planned future upgrades to the high schools in the area have the potential to accommodate some of the new students anticipated under Alternative 1, but it is likely to be insufficient and no currently planned new or expanded schools would serve children in K through 6 or junior high school in the study area. Private schools in the study area would continue to provide additional schooling opportunities and are expected to continue to serve students from Puyallup and likely see an increase in enrollment as the student-age population in Puyallup increases. However, the majority of new students are still anticipated to be enrolled in Puyallup School District schools and private schools are unlikely to relieve capacity issues in the Puyallup School District. As described in Section 3.8.2.2, the Puyallup School District would continue to evaluate capacity and plan for future expansion. However, the current deficit in capacity would require considerable improvements and planned projects to meet current capacity needs and accommodate future new students. Without a substantial increase in new or expanded schools, **the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact.**

Hospital Services

Alternative 1 would have the least impact on hospital services in Puyallup as it represents the lowest amount of development opportunity and least growth of the three alternatives. Impacts on hospital services would be less than those under Alternatives 2 and 3. Planned hospital expansions are anticipated to accommodate the increase in demand for hospital services under Alternative 1. **A less than significant impact is anticipated.**

3.8.2.4 Impacts of Alternative 2

Fire and Emergency Medical Services

Compared to Alternative 1, more housing, job, and population growth would occur under Alternative 2 which would have a greater impact on fire and emergency services. The concentrated residential and employment growth under Alternative 2 in the regional growth centers would result in a smaller area of incidents and would have less impact on response times than a more distributed growth such as that under Alternative 3. The proximity of CPFR Stations 70, 71, 72, and 73 to the regional growth centers could provide faster response times to areas of increased development under Alternative 2. As described in Section 3.8.1, it is expected that CPFR would continue to evaluate demands for fire and emergency medical services on a regular basis and would be able to accommodate the increased level of demand under Alternative 2 with minor adjustments to current services. **A less than significant impact is anticipated.**

Police Services

Under Alternative 2, police services would see a greater impact than under Alternative 1 due to greater amounts of population growth, job opportunities, and construction activity. Police response in Puyallup is determined by patrol district, meaning officers respond to calls for service within their assigned patrol district by patrol car. The Alternative 2 focus areas are distributed throughout the four PPD patrol districts (see Figure 3.8-2) which would potentially reduce conflicts for police response between the growth areas. The current PPD headquarters is located within the Downtown area, and the future PPD headquarters is located within the South Hill area. As described in Section 3.8.1, it is expected that PPD would continue to evaluate demands for police services on a regular basis and would be able to accommodate the increased level of demand under Alternative 2 with minor adjustments to current services. **A less than significant impact is anticipated.**

Schools

Alternative 2 would have greater impacts to schools in the City of Puyallup than Alternative 1 because it would add more residential growth and is anticipated to increase the population of school-age children in the City of Puyallup. Under Alternative 2, the Puyallup School District is anticipated to add approximately 3,366 more students than under Alternative 1. As shown in Table 3.8-5 and Table 3.8-6, Puyallup School District schools are already over capacity for K through 6 and high schools, and they are forecast to be over capacity for junior high schools by 2028. New students under Alternative 2 would likely further exceed the capacity of schools in the Puyallup School District. Portable classrooms would need to continue to be used to address overcrowding and growth issues until permanent building capacity could be constructed.

Puyallup School District schools that serve the focused growth areas under Alternative 2 are described in Table 3.8-9.

Table 3.8-9. Alternative 2 Focus Area Schools 2022–2023 Enrollment and Capacity

School	Program Capacity	2022–2023 Enrollment	Current Capacity Surplus/Deficit	Portable Classroom Capacity ^a
Elementary				
Waller Road Elementary	220	311	(91)	176
Karshner Elementary	286	381	(95)	198
Maplewood Elementary	198	317	(119)	154
Meeker Elementary	328	385	(57)	44
Shaw Road Elementary	668	636	32	66
Zeiger Elementary	420	477	(57)	264
Wildwood Elementary	328	341	(13)	176
Sunrise Elementary	648	661	(13)	88
Junior High				
Aylen Junior High	827	714	113	100
Kalles Junior High	830	834	(4)	125
Ballou Junior High	966	888	78	0
Ferrucci Junior High	906	818	88	100
High School				
Puyallup High School	1,343	1,590	(247)	345
Rogers High School	1,399	1,645	(246)	398
Emerald Ridge High School	1,295	1,445	(150)	345

^a The Puyallup School District does not include portable classrooms as part of its schools' level of service capacities. Portables are not considered to be adequate long-term instructional space for students or staff.

School impact fees collected in accordance with PMC 21.20.140 would be greater under Alternative 2 than Alternative 1, which would provide the Puyallup School District with additional funding for new or expanded classrooms. However, without a substantial increase in new or expanded schools, **the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact.**

Hospital Services

The population and job increases under Alternative 2 would result in greater demand for services and more impacts to hospital services than those under Alternative 1. However, the proposed expansion of the MultiCare Good Samaritan Hospital is anticipated to accommodate for the increase in demand for hospital services. **A less than significant impact is anticipated.**

3.8.2.5 Impacts of Alternative 3

Fire and Emergency Medical Services

Fire and emergency services impacts would be similar to, but greater than, those described under Alternative 2 due to the greater amount of housing units and associated population growth anticipated under Alternative 3. The housing growth distribution under Alternative 3 is focused on a wider range of areas in the city than that under Alternative 2 which could result in more impacts to response time due to construction road closures and the distance fire and emergency services would

need to travel. As of 2020, emergency medical services were not meeting their response time target. An increase in calls for service, as is anticipated with the increased population, would further exacerbate this deficiency. As described in Section 3.8.1, it is expected that CPFR would continue to evaluate demands for fire and emergency medical services on a regular basis and would be able to accommodate the increased level of demand under Alternative 3 with minor adjustments to current services. **A less than significant impact is anticipated.**

Police Services

Police services impacts would be similar to, but greater than, those described under Alternative 2 due to the greater amount of population growth anticipated under Alternative 3 and the correlating increase in calls for service. Additional officers, equipment, and facilities would likely be required under Alternative 3. As described in Section 3.8.1, it is expected that PPD would continue to evaluate demands for police services on a regular basis and would be able to accommodate the increased level of demand under Alternative 3 with minor adjustments to current services. **A less than significant impact is anticipated.**

Schools

Alternative 3 would have a similar, but greater, impact on school services than those described under Alternative 2. Alternative 3 is anticipated to add 395 more students to the already over-capacity Puyallup School District than Alternative 2. Additionally, the distribution of housing under Alternative 3 would result in construction of more single-family homes as compared to Alternative 2. Single-family homes have a greater student generation rate as calculated by the Puyallup School District, and additional students could exceed the estimates in Table 3.8-8. The Puyallup School District has already exceeded its capacity with insufficient new space currently planned. Without new or expanded school facilities, the additional new students to the Puyallup School District under Alternative 3 would further exceed the capacity of Puyallup schools.

Puyallup School District schools that serve the focused growth areas under Alternative 3 are described in Table 3.8-10.

Table 3.8-10. Alternative 3 Focus Area Schools 2022–2023 Enrollment and Capacity

School	Program Capacity	2022–2023 Enrollment	Current Capacity Surplus/Deficit	Portable Classroom Capacity ^a
Elementary				
Waller Road Elementary	220	311	(91)	176
Karshner Elementary	286	381	(95)	198
Maplewood Elementary	198	317	(119)	154
Meeker Elementary	328	385	(57)	44
Shaw Road Elementary	668	636	32	66
Zeiger Elementary	420	477	(57)	264
Wildwood Elementary	328	341	(13)	176
Sunrise Elementary	648	661	(13)	88
Fruitland Elementary	438	613	(175)	154
Spinning Elementary	286	281	5	88

School	Program Capacity	2022-2023 Enrollment	Current Capacity Surplus/Deficit	Portable Classroom Capacity ^a
Stewart Elementary	308	320	(12)	88
Woodland Elementary	472	572	(100)	176
Junior High				
Aylen Junior High	827	714	113	100
Kalles Junior High	830	834	(4)	125
Ballou Junior High	966	888	78	0
Ferrucci Junior High	906	818	88	100
High School				
Puyallup High School	1,343	1,590	(247)	345
Rogers High School	1,399	1,645	(246)	398
Emerald Ridge High School	1,295	1,445	(150)	345

a The Puyallup School District does not include portable classrooms as part of its schools' level of service capacities. Portables are not considered to be adequate long-term instructional space for students or staff.

As described for Alternative 2, school impact fees collected in accordance with PMC 21.20.140 would be greater under Alternative 3 than Alternatives 1 and 2, which would provide the Puyallup School District with additional funding for new or expanded classrooms. However, without a substantial increase in new or expanded schools, **the increase in students would continue to exceed the planned student capacity at Puyallup schools, resulting in a significant adverse impact.**

Hospital Services

Hospital services would be similarly impacted under Alternative 3 as compared to Alternative 2, but the impact would be greater as the population increase is expected to be greater. As described for Alternatives 1 and 2, the MultiCare Good Samaritan 10-year Master Plan is anticipated to accommodate for the expected increase in demand for hospital services under Alternative 3. **A less than significant impact is anticipated.**

3.8.3 Avoidance, Minimization and Mitigation Measures

Impacts to public services can be minimized by adhering to existing policies and regulations. No specific mitigation measures to be implemented as part of the Comprehensive Plan update are identified for public services.

- Continue to update and analyze CPFR incident and response data yearly to evaluate staffing and facilities' needs.
- Continue to construct new buildings in compliance with the 2021 IFC.
- Continue to update and analyze PPD incident and response data yearly to evaluate staffing and facilities' needs.
- Construction of the new PPD precinct.
- Approve the Good Samaritan MultiCare Master Plan to expand hospital capacity.
- Work with the Puyallup School District to update their Capital Facilities Plan to minimize impacts to capacity at Puyallup schools as a result of growth under the Comprehensive Plan.

3.8.4 Significant Unavoidable Adverse Impacts

Fire and Emergency Medical Services

Growth is expected under all alternatives which would result in an increased demand for fire and emergency services in the city. However, the growth would be gradual, and impacts could be mitigated through personnel and equipment planning to meet demand. No significant unavoidable adverse impacts are expected.

Police Services

Development associated with the implementation of the Puyallup 2025 Comprehensive Plan would result in an increased demand for police services in the City. However, with continued regular evaluation of demand and staffing, facility, and equipment needs the increased demand could be accommodated. No significant unavoidable adverse impacts are expected.

Schools

New residential units and associated students expected under all alternatives would impact the Puyallup School District. This impact could be minimized through measures identified in Section 3.8.3; however, an increase in capacity and funding of the magnitude required to avoid a significant impact is unlikely and is not anticipated to be feasible in the 20-year planning horizon of this Comprehensive Plan. A significant unavoidable adverse impact is expected.

Hospital Services

Increased demand for hospital services would occur under all alternatives due to population growth. Impacts could be mitigated through expansion of hospital facilities. No significant unavoidable adverse impacts are expected.

3.9 Utilities

3.9.1 Affected Environment

The following existing utility providers in the city of Puyallup were considered in this analysis:

- Water systems (City of Puyallup, Fruitland Mutual Water Company, Valley Water System)
- Sewer system (City of Puyallup)
- Storm drainage system (City of Puyallup)
- Natural Gas (Puget Sound Energy)
- Electricity (Puget Sound Energy)
- Telecommunications (Lumen)
- Solid waste (DM Disposal)

This section identifies the policy and regulatory framework governing utility development, provision, and operations; existing providers in Puyallup; and the potential effects of the three alternatives being considered.

3.9.1.1 Current Policy, Regulatory Framework, and Plans

Safe Drinking Water Act (SDWA); Chapter 246-290 WAC, Group A Public Water Supplies

The EPA is authorized to develop national drinking water regulations and oversee the implementation of the SDWA. State governments are expected to adopt these federal regulations and accept primary responsibility for administration and enforcement of the SDWA. Public water system purveyors are assigned the daily responsibility of meeting regulations by incorporating monitoring, recording, and sampling procedures into their respective operation and maintenance programs.

More recently, DOH adopted the latest federal standards of the SDWA in its amendments under WAC 246-290 (effective in January 2017) and Group A public community water systems (systems with 15 or more residential connections) must comply with these drinking water standards. Minimum standards for water quality are included in WAC 246-290 and are specified in terms of Maximum Contaminant Levels. Primary Maximum Contaminant Levels are based on chronic and/or acute human health effects. Secondary Maximum Contaminant Levels are based on factors other than health effects, including aesthetics.

Chapter 70A.100 RCW, Public Water Systems Coordination Act of 1977:

Chapter 70A.120 through 70A.140 RCW, which govern public water systems and water quality, was established to support the development of the state's public water systems and ensure the coordination of regional planning and minimum planning and design standards is consistent; to facilitate efficient administration of state financial assistance programs for these systems; and to assist public water systems in providing safe and reliable water services for their communities.

Chapters 290 through 296 WAC, Water Systems

These chapters outline regulations for public water systems in Washington, including establishing and maintaining water system plans and design standards, managing water systems, monitoring water quality, ensuring that recordkeeping and reporting obligations are met, and establishing cross-connection control measures to prevent contamination.

State of Washington Growth Management Act (Chapter 36.70A RCW)

Cities and counties are guided by the GMA in the development and adoption of comprehensive plans and regulations. The GMA establishes planning goals that must be the basis of all comprehensive plans.

Goal 9, open space and recreation, states that jurisdictions shall “retain open space and green space, enhance recreational opportunities, enhance fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.” Goal 10, environment, states that jurisdictions shall “protect and enhance the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.”

City of Puyallup Comprehensive Plan, Utilities Element

The purpose of the Utilities Element is to ensure that the City's utility services will be available to support the projected growth and development for the comprehensive plan planning period. As required in the GMA, the Utilities Element consists of “the general location, proposed location, and capacity of all existing and proposed utilities, including but not limited to, electrical lines, telecommunication lines, and natural gas lines.”

City of Puyallup Comprehensive Plan, Capital Facilities Plan

The Capital Facilities Plan establishes policies to direct the development of the City's capital investment program and guide the actions of public agencies and private development. It assures that capital facility investments are funded, identifies service standards, requires long-term financial capacity, expands the City's sustainability practices, and anticipates capital asset maintenance and replacement.

Puyallup Municipal Code Title 14, Water and Sewers

Title 14 outlines water and sewer utility policies within the city of Puyallup and includes guidelines for utility rates and billing procedures, water regulations and water system development charges, sewer use ordinance, sewer system regulations, sewer system development charges, extension of water and sewer mains, septic tanks, and storm and surface water regulations.

Puyallup Municipal Code Title 21, Chapter 21.10 Storm Water Management

Title 21, Chapter 21.10 outlines minimum requirements for managing stormwater that is produced or affected by development, redevelopment, or construction site activity within the city of Puyallup. The chapter includes design criteria and low impact development strategies, guidance for inspection and maintenance, and enforcement and system protection.

City of Puyallup Water System Plan

The plan analyzes the water system within the retail service area for the existing and future projected capacity needs, system deficiencies, and recommended capital improvement projects. Water purveyors are required to develop and update a water system plan in conformance with WAC 246-290-100, Chapter 70A.100 RCW, and in accordance with DOH every 10 years to reflect the current conditions of the water system.

City of Puyallup Sewer Plan

The sewer plan analyzes the City's collection system for existing and future capacity, identifies system deficiencies for existing and future flow conditions, and provides recommended improvements and cost estimates. An analysis for the City's wastewater treatment plant (WWTP) is generally conducted as part of this plan. Sewer service providers are required to develop a general sewer plan in conformance with WAC 173-240-050.

City of Puyallup Storm Drainage Plan

The drainage plan guides the City's storm and surface water utility with respect to future growth, updates the list of projects for the City's Capital Facilities Plan, addresses annexation area needs, and addresses new regulatory requirements. An analysis of the City's storm and surface water utility's projected revenues is also generally conducted as a part of the drainage plan.

City of Puyallup Rate Study

The rate study developed proposed rates that would collect sufficient revenue to meet the City's level of service for water, sewer, and stormwater utilities and assessed whether rate classifications reflect their impact on the system. The rate study determined the adequacy of existing rates and recommended utility rate adjustments. A financial plan for each utility was also developed to fund needed operation and maintenance costs and capital costs.

Clean Water Act NPDES Stormwater Permits

The NPDES permit program is a requirement of the federal CWA and is intended to protect and restore waters for “fishable, swimmable” uses. The EPA has delegated permit authority to Ecology in Washington.

Phase II of the stormwater NPDES regulation applies to municipalities that operate separate storm sewer systems and allows municipalities to discharge stormwater runoff from their municipal drainage systems into the state’s water bodies (e.g., streams, rivers, lakes, and wetlands). However, municipalities must implement programs to protect water quality by reducing the discharge of nonpoint source pollutants to the maximum extent practicable through application of permit-specified best management practices.

City of Puyallup Stormwater Management Program Plan

Ecology issues the NPDES Western Washington Phase II Municipal Stormwater Permit, which requires the City develop and implement a stormwater management program plan. The plan outlines the activities the City has planned for the coming year to address the current NPDES permit requirements. Permit conditions are phased throughout the permit term, and each year of the permit term adds new requirements and activities to be completed by the City’s municipal staff.

Endangered Species Act

The federal ESA was passed in 1973 to protect species that are endangered or threatened and to conserve the ecosystems on which they depend. Section 9 of the ESA makes it unlawful to “take” or physically harass, kill, or harm “threatened” species or its critical habitat. Thus, the ESA prohibits the City from performing any stormwater management activities that result in take of listed threatened species.

Puget Sound Partnership

The Washington State Legislature created The Puget Sound Partnership in 2007 to develop and oversee the implementation of an Action Agenda to restore Puget Sound by 2020. The Action Agenda identifies stormwater runoff as a key cause of Puget Sound’s water quality problems.

Puget Sound Water Quality Management Plan

The plan guides federal and state agencies in restoring and protecting the marine waters associated with the Puget Sound. Goals include restoring and preserving wetlands and aquatic habitats, preventing increased introduction of pollutants to the sound, and reducing and ultimately eliminating the entry of pollutants to the shorelines, waters, and sediments of the Puget Sound.

Acquisition of Minimum Quantities of Conservation and Renewable Energy as Required by the Energy Independence Act (Chapter 19.285 RCW and Chapter 480-109 WAC)

Chapter 19.285 RCW and Chapter 480-109 WAC establish regulations to reduce the reliance on fossil fuels and compliance with the Energy Independence Act. As part of the Energy Independence Act, large utilities were required to obtain 15% of their electricity from renewable sources—such as wind, solar, or hydroelectric—by 2020 to diversify energy sources and reduce GHG emissions.

3.9.1.2 Water Systems

City of Puyallup

Information in this section is primarily based upon the 2019 City of Puyallup Water System Plan (2019 Puyallup WSP), which is based on projections for a 20-year period ending in 2038; the 2015 Fruitland Mutual Water Company Water System Plan Update (2015 FMWC WSP Update), which is based on projections for a 20-year period ending in 2034; and the 2021 Valley Water District Water System Plan (2021 VWD WSP). These plans are incorporated in this analysis by reference.

City of Puyallup

The water system was originally constructed by the Puyallup Water and Light Company, and the City purchased the system in 1906. The retail service area covers approximately 6,700 acres and includes a majority of the existing corporate city limits. Approximately 400 acres of the retail service area is located outside of the City, north of the Puyallup River, as shown in Figure 3.9-1. Several purveyors that provide water adjacent to or within the city include the City of Tacoma Water Division, Fruitland Mutual Water Company, Valley Water District, Mt. View-Edgewood Water Company, City of Fife, City of Sumner, Summit Water and Supply Company, and other small water systems. Currently, the City's water system consists of seven water sources, nine reservoirs, seven booster pump stations, 18 pressure reducing stations, and over 1,000,000 feet of pipeline, as highlighted in Figure 3.9-2.

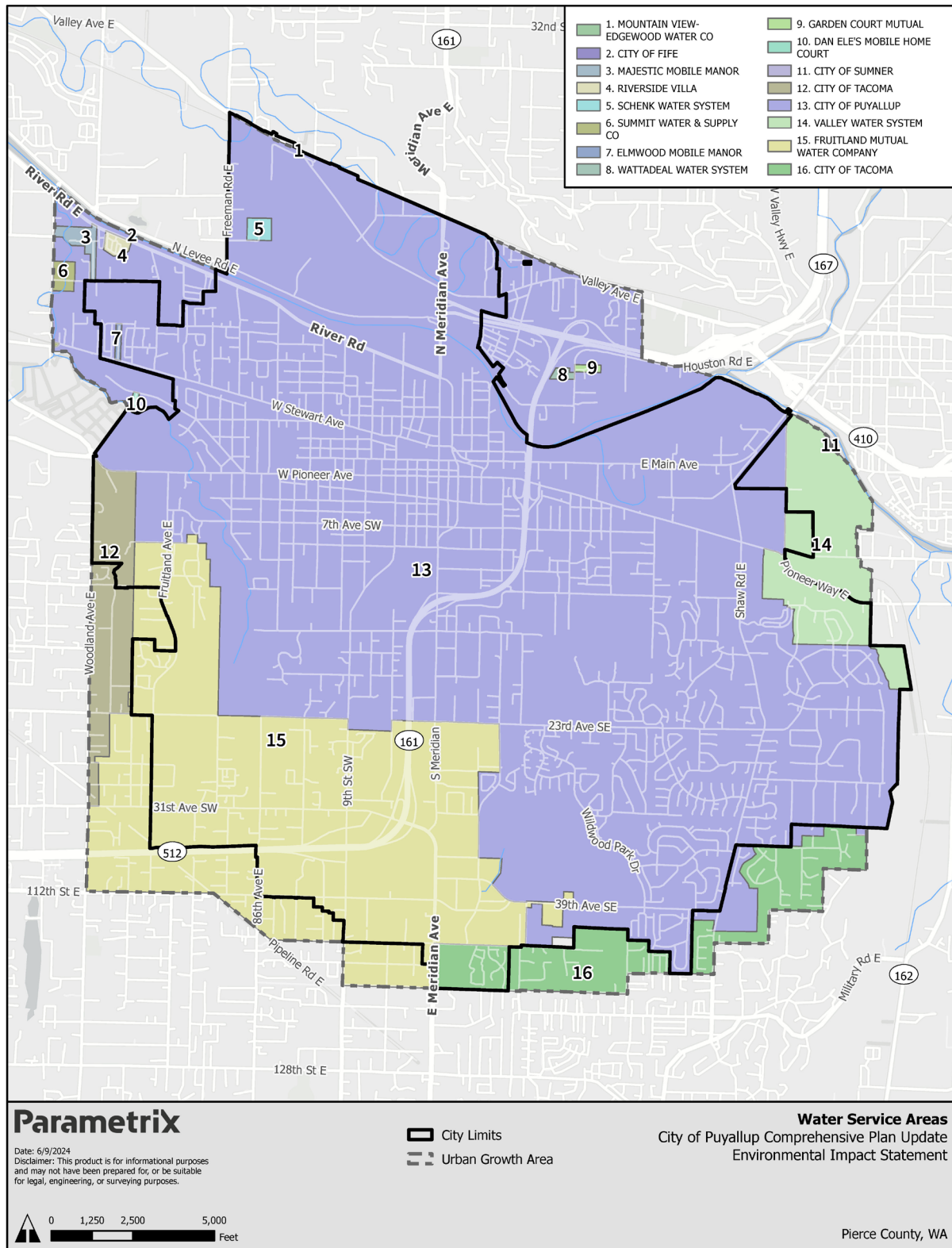


Figure 3.9-1. Water Service Areas

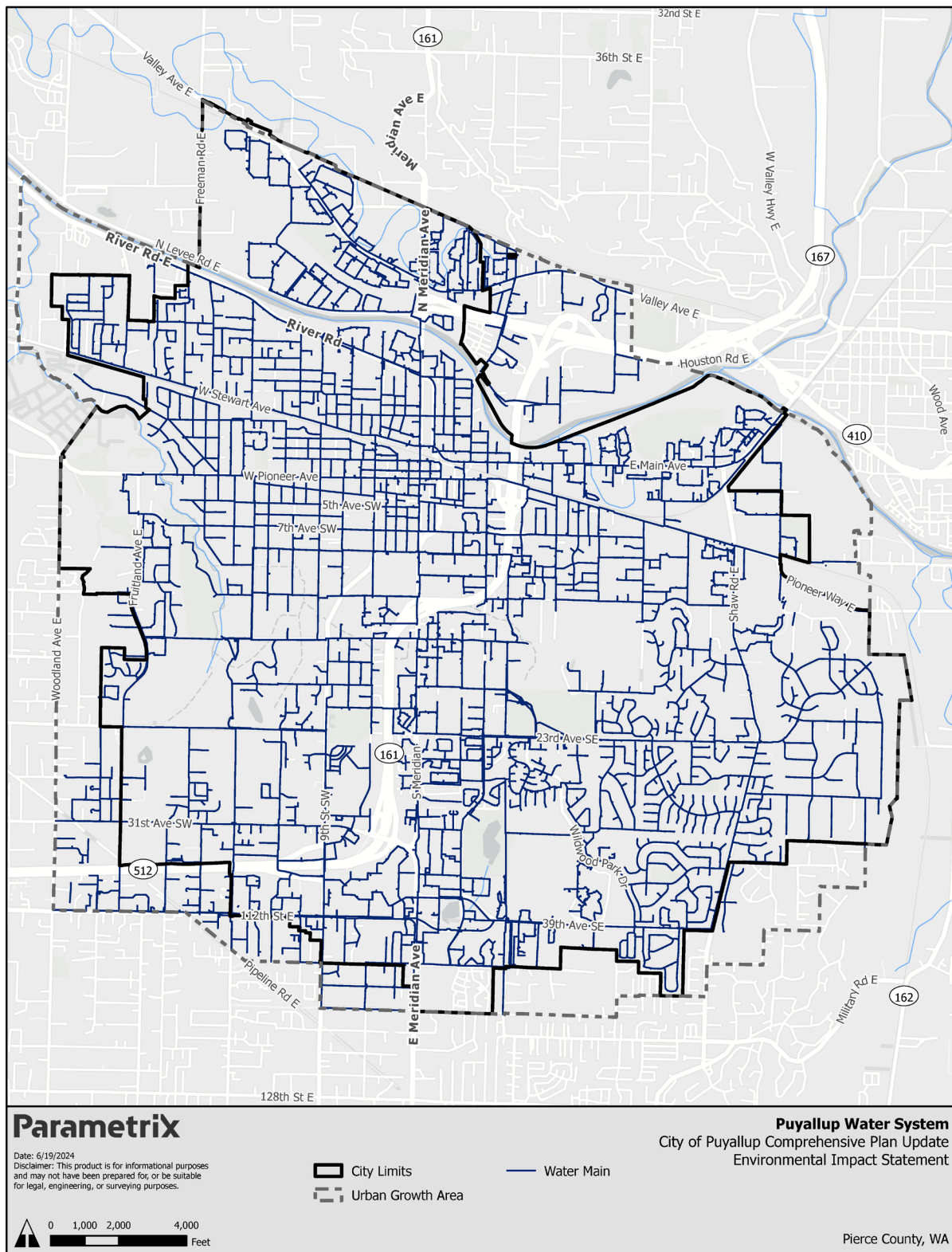


Figure 3.9-2. Puyallup Water System

Fruitland Mutual Water Company

Fruitland Mutual Water Company rose from the collapse of the Woodland Water Company in 1945. Dissatisfied customers on the east side of the service area petitioned Pierce County and formed their own public utility district. Presently, Fruitland Mutual Water Company is a nonprofit corporation mutually owned by its members. The retail service area covers approximately 5.4 square miles and is located within the South Hill area of the city, as shown in Figure 3.9-1. Currently, the company owns 10 well sources and its water system consists of three water reservoirs, two booster pump stations, and approximately 429,000 feet of pipeline.

Valley Water District and Valley Water System

Valley Water District (VWD) is a municipal utility made up of the following eight separate and noncontiguous water systems: Alderwood Estates, Chinook Estates, Country/El Dorado Water System, Valley Water System, View Royal Water System, Winchester Heights, The Buttes, and Sierra. VWD is located in east unincorporated Pierce County, as shown in Figure 3.9-1. VWD was formed in 1993 when customers of the privately owned Alderton-McMillin Water Company did not believe they were receiving reliable water and petitioned Pierce County to put district formation on the ballot of the 1993 general election. The VWD service area within the City's corporate limits is approximately 170 acres, and the service area within the City's UGA is approximately 395 acres. Valley Water System, which currently serves the Puyallup Highlands residential development, consists of one active well, a 190,000-gallon reservoir, an intertie with the City of Tacoma, and approximately 15 miles of distribution pipeline. The Valley Water System also has one emergency intertie with the City of Puyallup.

Equivalent Residential Units

Use of Equivalent Residential Units (ERUs) is a way to express water use by non-residential customers as an equivalent number of residential customers. The ERU value is calculated by dividing the total volume of water used in the single-family residential customer class by the total number of active single-family residential connections. The volume of water used by other customer meter classes can then be divided by the average single-family residential water use to determine the number of ERUs consumed by other customer meter classes.

City of Puyallup

Based on actual usage for years 2010 through 2016, the average daily single-family residential water use for the city ranged from 172 gallons per day per ERU (gpd/ERU) to 184 gpd/ERU. The average ERU value, 176 gpd/ERU, was used to predict future demands on the City's water system in the 2019 Puyallup WSP.

Fruitland Mutual Water Company

The average daily single-family residential water demand significantly decreased from 2007 through 2013, 238 gpd/ERU to 202 gpd/ERU, respectively. Although the average ERU value has since remained near 200 gpd/ERU since 2010, an ERU value of 238 gpd/ERU was used to predict future demands on the City's water system in the 2015 FMWC WSP Update.

Valley Water District and Valley Water System

In the 2021 VWD WSP, the 6-year average daily ERU consumption within the Valley Water System was 288 gpd per ERU. This average was based on actual usage for years 2013 through 2018 and was used to predict future demands on the City's water system in the 2021 VWD WSP.

Water System Evaluation

City of Puyallup

A weighted average of 1.5% was determined using the PSRC 2015 City of Puyallup Population, Household, and Employment Forecasts. This weighted average was used as the projected population growth rate for the City's water service area in the 2019 Puyallup WSP. Based on an average ERU value of 176 gpd/ERU and an occupancy of 2.3 persons per household, the anticipated total population within the water service area in 2038 is 50,388 and 66,700 by build-out. Based on the City's current comprehensive plan and calculations of the water service area's housing capacity, the city is not expected to reach build-out within the water service area during the 20-year planning period.

The 2019 Puyallup WSP considered projected water demands through the year 2038 and build-out and presented water demands as average day demand (ADD) and maximum day demand (MDD). The ADD in 2038 was projected to be approximately 5.6 million gallons per day (mgd) and approximately 8.4 mgd by buildout. MDD was calculated by using a peaking of 2. The MDD in 2038 was projected to be approximately 11.2 mgd and approximately 16.8 mgd by build-out.

Based on the source analysis calculations conducted as part of the 2019 Puyallup WSP, the City had adequate water rights to meet projected annual withdrawal requirements. The City also had adequate instantaneous water rights to meet projected maximum day production requirements beyond 2038. However, the City may need additional water rights to meet projected maximum day production requirements at build-out demand. Furthermore, the City has a current operational source capacity of approximately 7,690 gallons per minute and will have adequate source capacity until 2038 if the Tacoma Intertie is fully utilized to meet peaking demand and the currently active wells are pumped for 24 hours. While the City does not want to rely on the intertie with the City of Tacoma as a regular source of supply to meet system demands, this intertie source can be used as needed to compensate for capacity deficit from the City's sources.

Fruitland Mutual Water Company

At the time the 2015 FMWC WSP Update was developed, two PSRC forecast products were derived from output of the PSRC UrbanSim land use model, the Land Use Baseline (LUB) and Land Use Targets (LUT) forecast models. The LUT model was based on more revised planning documents for the region at the time and was used to project growth for the service area. A growth rate of 1% was used to determine population projections for the FMWC service area in the 2015 FMWC WSP Update.

Water demands for the FMWC service area were projected in the 2015 FMWC WSP Update through the year 2034. Based on an ERU value of 238 gpd/ERU and peak factor of 2.5, the ADD in 2034 was projected to be approximately 1.8 mgd. The MDD in 2034 was projected to be approximately 4.6 mgd.

Based on the source analysis conducted as part of the 2015 FMWC WSP Update, FMWC's existing water rights and source capacity were sufficient to meet projected demand through 2034. However, based on conservative ADD and conservative projected growth rates, both the average annual water rights and the instantaneous source capacity may come close to the projected demand by 2034. However, water supply is not a concern for FMWC as an additional source of supply is readily available through the water purchase agreement with the City of Tacoma.

Valley Water District and Valley Water System

The PSRC and Pierce County Coordinated Water System Plan are two sources for growth projections within the Valley Water System. However, the actual increases in service connections in recent years and available lots within the Valley Water System were considered in developing water demand projections. Based on 9 years of connection data, a population growth rate of 6.92% per year was used up to the year 2020, 1.23% for 2021 through 2030, and 1.10% for 2031 through 2040 in the 2021 VWD WSP. Based on current land use zoning, build-out was not expected to occur within the 20-year planning horizon of the 2021 VWD WSP.

The 2021 VWD WSP considered future water demands with and without conservation savings, which assumed a water production reduction of 2% by 2025 and an additional 5% by 2038. The ADD in 2038 was projected to be approximately 263.2 gallons per minute and 245.0 gallons per minute with conservation savings. The MDD in 2038 was projected to be approximately 526.4 gallons per minute and approximately 490.1 mgd with conservation savings.

Based on the source analysis calculations conducted as part of the 2021 VWD WSP, the current water rights are sufficient for the projected 20-year planning period for the Valley Water System. The Valley Water System has never exceeded the available water rights withdrawal, and the current system configuration limits the system from exceeding that water right. Furthermore, the storage analysis projected an effective storage deficiency within the 2021 VWD WSP 10-year planning horizon.

Level of Service

The EPA is authorized to develop national drinking water regulations and oversee the implementation of the SDWA. State governments are expected to adopt these federal regulations and accept primary responsibility for the administration and enforcement of the SDWA. Public water system purveyors are assigned the daily responsibility of meeting regulations by incorporating monitoring, recording, and sampling procedures into their respective operation and maintenance programs.

City of Puyallup

The 2019 Puyallup WSP summarizes the design criteria and standards that have been developed to maintain a consistent level of water service throughout the city and meet or exceed the minimum standards required by DOH.

Fruitland Mutual Water Company

The 2015 FMWC WSP Update summarizes design and construction standards, developer responsibilities (including fees and charges), and cross connection control guidance that have been developed to maintain a consistent level of water service throughout the FMWC water system.

Valley Water District

The 2021 VWD WSP summarizes the general design standards that have been developed to maintain a consistent level of water service throughout the VWD water system.

Major Recent and Planned Improvements

City of Puyallup

The City adopted the 2022 Comprehensive Water, Sewer, and Stormwater Rate Study (2022 Rate Study; City of Puyallup 2022) that assisted the City in developing rates and a financial plan to fund sufficient revenue to account for the operation and maintenance costs and necessary capital improvement projects to maintain the City's water utility level of service. The study focused on a 5-year rate period from 2022 to 2027.

Funds were also allocated in the City's 2024 Adopted Mid-Biennium Adjustment for water capital improvement Projects (CIPs), including water system improvements and water main replacements (City of Puyallup 2024). The City's 2024 Adopted Mid-Biennium Adjustment also includes funds for recoating the reservoir on 39th Avenue. The primary funding source is the water utility.

Major recent improvements include the following:

- **Manorwood Phases 2 and 3 Water Main Replacement.** This project replaced 3,296 feet of failing water main in the Manorwood neighborhood along 27th Street and 33rd Avenue SE and along 28th Street and 32nd Avenue SE. The project also replaced 65 water services and four fire hydrants with additional work elements that included replacing nonconforming curb ramps and resurfacing roadway. Construction was completed at the end of 2023, and the contract amount was approximately \$1,440,000.
- **Salmon Springs Main Replacement Phase 4.** This transmission main supplies over 50% of Puyallup's drinking water, and the purpose of this project was to replace this main with newer, longer-lasting pipe. This is the final phase of the project, and a total of approximately 2,500 feet of water main will be replaced. Construction began in the winter of 2024, and the contract amount is approximately \$2,600,000.

3.9.1.3 Sewer System

The information in this section is based on the 2016 Comprehensive Sewer Plan (sewer plan) and on projections for a 20-year planning period to 2038. The City initiated its wastewater collection system in 1905 and operated a combined stormwater-wastewater system through 1949. Subsequently, all construction had separated the storm and sewer system. Currently, the City's sanitary sewer service area encompasses approximately 11,900 acres. The sanitary sewer service area includes the city of Puyallup, the majority of the Puyallup UGA, and extends into unincorporated Pierce County in several locations agreed to by mutual consent. The service area is divided into 37 mini drainage basins to analyze capacity needs. Delineation of these mini basins is based on existing sewer service and topography. As of 2016, the City owned and operated a collection system that included approximately 195 miles of pipeline, approximately 3,600 manholes, and 21 active sewer lift stations, as shown in Figure 3.9-3.

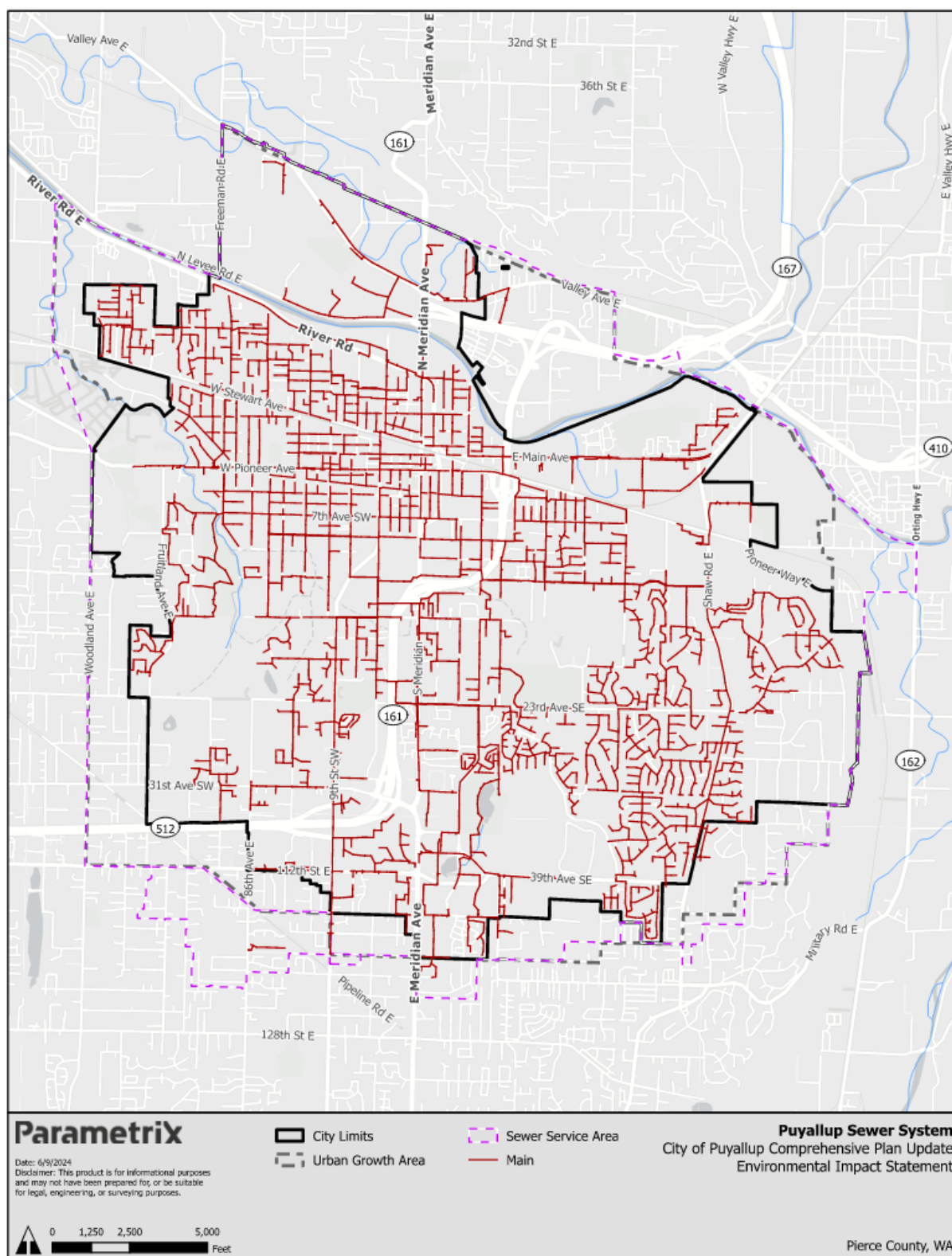


Figure 3.9-3. Sewer System

Wastewater Treatment Plant

The WWTP is located at 1602 18th Street NW off of River Road. The original WWTP was constructed in 1955, and it was upgraded or expanded in 1983 and 2000. The plant presently consists of a lift station, a headworks and fine screens, two of four primary clarifiers, two trains of aeration basins, two aeration basins, and ultraviolet disinfection. In 2000, the secondary process was converted to a nitrogen removal activated sludge process to meet new effluent standards, as effluence is discharged through a 42-inch-diameter outfall into the Puyallup River.

Capacity measurements for treatment plants include wastewater flow (measured in gallons per day) and organic influent loadings (or solids). Per the City's sewer plan, the most common measurements of organic loadings are biochemical oxygen demand (BOD) and total suspended solids (TSS). Additionally, the "Maximum (Max) Month" criterion or the design criterion is the highest monthly average loading in one calendar year.

As of 2016, the permitted capacity of the WWTP is listed below:

- Maximum Month Flow: 13.98 mgd; 85% of permit: 11.88 mgd
- Maximum Month BOD Load: 14,525 pounds; 85% of permit: 12,346 pounds
- Maximum Month TSS Load: 15,550 pounds; 85% of permit: 13,218 pounds

As described in the sewer plan, the City's NPDES permit states that the City needs to submit a plan and schedule to Ecology to maintain the plant's capacity if the influent flow or load reaches 85% of the maximum month or design criteria.

Sewer Plan Population Projections

The City's 2016 sewer plan considered projected wastewater flows through the years 2020, 2034, and build-out and presented population projections for residential, employment, student, and total populations. At the time the plan was developed, population projections were derived from a combined analysis of the PSRC 2013 Land Use Baseline and the 2014 Pierce County Buildable Lands Inventory. The anticipated total population within the sewer service area in 2034 is 64,982, and the projected actual sewered population in 2034 is 53,878. The anticipated total population at build-out, which was estimated to be beyond 2060 in the sewer plan and also assumed that the unsewered population will eventually all connect to the sewer system, is 78,507.

Wastewater Flow Projections

The City's sewer plan analyzed 2008–2013 wastewater flow data recorded at the WWTP to determine current wastewater flow characteristics. Annual average flow from 2008 through 2013 was 4.08 mgd and the average dry weather flow was 3.02 mgd.

Infiltration and inflow (I/I) were also considered in determining flow projections. Inflow is runoff entering the sewer directly, typically from storm sewer connections, basement sump pumps, roof drains, and submerged manholes. Infiltration occurs as groundwater leaks into the sewer system through cracked or broken pipes and manholes or through loose joints and connections. In the City's 2016 sewer plan, I/I was calculated as a function of I/I rates and sewered acreage within the City's service area, adjusted for parks and wetland areas. Table 3.9-1 provides a summary of projected wastewater flows for 2034 and build-out.

Table 3.9-1. Projected Wastewater Flows for 2034 and Build-Out

Projected Wastewater Flow	2034 (mgd)	Build-Out (mgd)
Average Dry Weather Flow	4.04	5.89
Annual Average Flow	5.46	7.96
Maximum Month Flow	8.59	12.52
Peak Day Flow	27.78	47.50
Peak Wet Weather Flow	34.73	59.38

mgd = millions of gallons per day

Level of Service

The City’s sewer plan summarizes the design criteria and standards that were developed to maintain a consistent level of sewer service throughout the city and were created to meet the increased need for sewer service in response to growth and the occasional updates to the land use regulations set forth by the City or County. The following standards are to be followed unless otherwise approved by the city engineer:

- The City’s design and construction standards are presented in the City’s Standard Details and supplemental specifications modifications.
- Plans and design shall meet the *Criteria for Sewage Works Design*, prepared by Ecology and revised in May 2023, except where more stringent City requirements are noted.

Major Recent and Planned Improvements

The City adopted the 2022 Rate Study that established a financial plan and utility rates to fund the revenue for the operation and maintenance costs and required capital improvement projects to maintain the City’s sewer services to their established level of service. The 2022 Rate Study focused on a 5-year rate period from 2022 to 2027.

Funds were allocated in the City’s 2024 Adopted Mid-Biennium Adjustment for Sewer CIPs including sewer system improvements, repairs, and expansion projects; I/I reduction; and replacement projections for aging equipment. The City’s 2024 Adopted Mid-Biennium Adjustment also includes funds for upgrades at the City’s WWTP, including an aeration blower replacement, an aeration basin upgrade, and an effluent filtration alternatives project. The primary funding source is the wastewater utility, which is also known as the sewer utility.

Major recent improvements include the following:

- 9th Avenue NE and 4th Street NE – CIP Number 16-018. Approximately 2,700 linear feet of pipe were replaced due to aging conditions on 9th Avenue NE between South Meridian and 4th Street NE, on 4th Street NE between 9th Avenue NE and 5th Avenue NE, and on 7th Avenue NE between 4th Street NE and 5th Street NE. In addition, the project included roadway resurfacing and replaced approximately 150 square yards (225 linear feet) of damaged sidewalk. The project was completed in 2022 for \$2.3 million.
- Ultraviolet Disinfection Replacement – CIP Number 19-009. The project addressed ongoing maintenance and upkeep of hydraulic and electrical failures of the current ultraviolet disinfection system that was originally installed in 1998 as part of the larger WWTP upgrade. Construction was completed in 2020, and the total approved project budget was approximately \$3,920,000.

- 10th Street SE – CIP Number: 21-008. This project is located south of East Main Street. The goal is to repair deteriorated roadway and replace approximately 250 feet of sewer main and approximately 450 feet of water and stormwater main. Construction began in the spring of 2024, and the contract amount is approximately \$782,000.
- Water Pollution Control Plant – CIP Number: 20-018. This project will install a new Secondary Clarifier No. 3 at the City's water pollution control plant to meet future capacity needs. This project also includes electrical, HVAC, and mechanical work to integrate the new secondary clarifier into the plant's processes. Construction is anticipated to begin in 2024, and the construction budgetary cost is approximately \$7,500,000.

3.9.1.4 Storm Drainage System

The information in this section is based on the City of Puyallup 2012 Comprehensive Storm Drainage Plan (2012 Comprehensive Drainage Plan) and the City of Puyallup 2023 Stormwater Management Program Plan. These plans are incorporated in this analysis by reference.

There are five stormwater main drainage basins located within the city—Clarks Creek, the State Highway System, Shaw Road, North Puyallup, and the Puyallup River—in addition to areas draining to naturally occurring potholes. Runoff from the city ultimately flows to the Puyallup River by way of surface water conveyance or groundwater. Local natural surface water conveyances include Clarks, Silver, Meeker, Wapato, and Deer Creeks.

The City's existing storm drainage system has several known deficiencies. A majority of the City's drainage pipes were installed prior to 1970, and many issues stem from these pipes not having the capacity to convey stormwater flows from the development that has occurred after these pipes were installed. Many pipes are now too small to serve neighborhood trunk lines and are susceptible to drainage problems with many approaching the end of their expected useful lives. Additionally, many of the City's culverts are undersized for current LOS standards.

In 1988, the City formed a public utility to provide the operation, maintenance, and regulation of storm drainage conditions in the city. The City is also responsible for the natural and constructed stormwater facilities and conveyances in all of the city's drainage basins. Since 2012, the City has owned and operated a drainage conveyance of approximately 129 miles of pipe, 553 culverts, and 18 miles of ditches, as shown in Figure 3.9-4. The City also owns approximately 21 stormwater outfalls to the Puyallup River and 37 outfalls to Clarks Creek below Maplewood Springs and/or Meeker Creek.

The City is bordered by the Puyallup River, which has been confined by revetments and levees to reduce flooding and to open the floodplain to rural, industrial, and residential development; the entire reach of the Puyallup River adjacent to the city is confined. The lower Puyallup River levees were accredited as 100-year levees when flood mapping was performed in the area in 1987. The U.S. Army Corps of Engineers decertified the levees in 2004 along the lower 8 miles of the Puyallup River, including some adjacent to the city. These levees were also decertified by FEMA because they no longer met the requirement that the top of the levee be at least 3 feet above the predicted 100-year water levels.

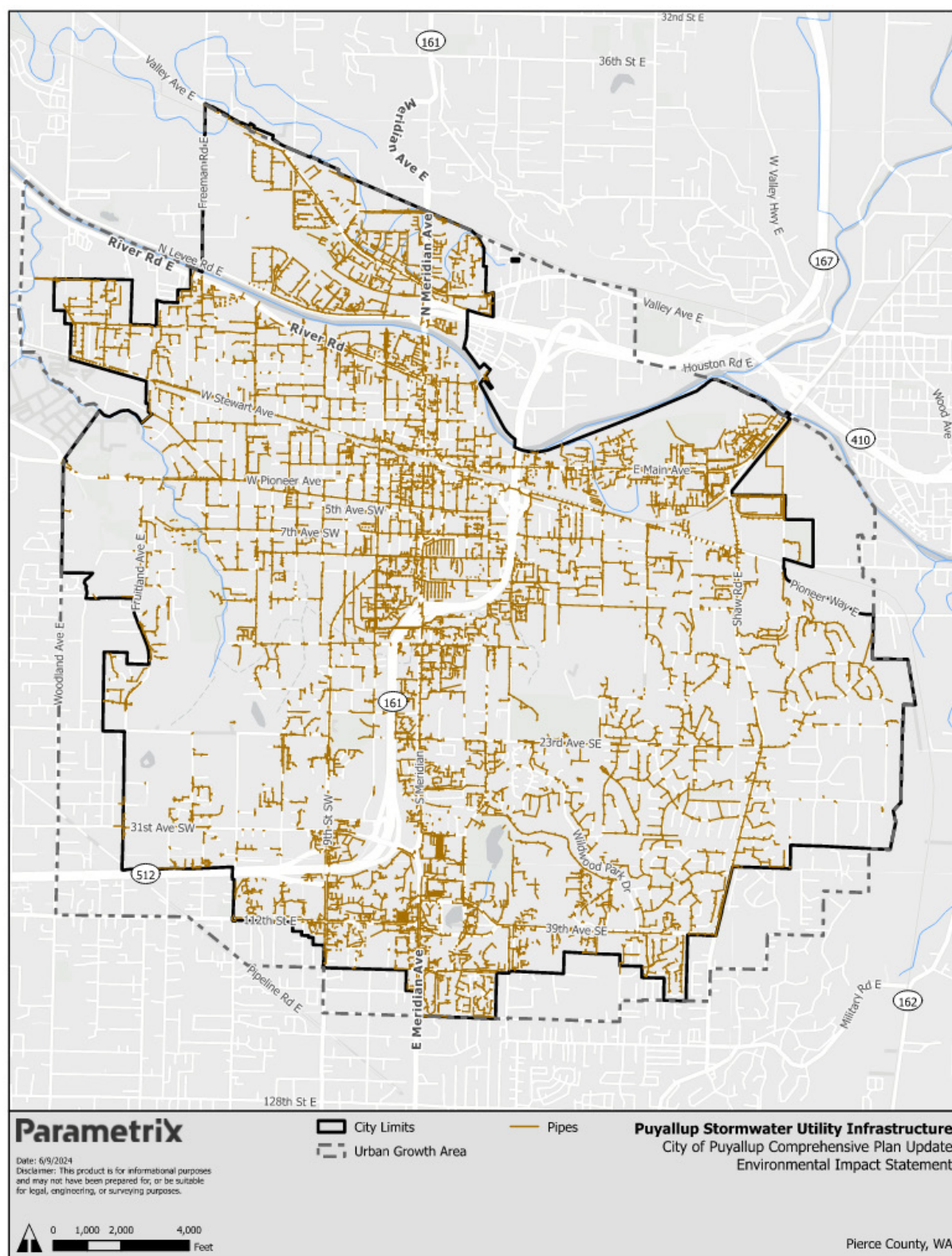


Figure 3.9-4. Stormwater Utility Infrastructure

However, sediments accumulating along the river bottom have raised the water surface levels so that the tops of levees are no longer high enough. The Puyallup River is the subject of many recent studies due to recent flooding, levee decertification, and potential future impacts of anticipated aggradation trends. As part of the 2015/2016 CIP, the City installed backflow protection on a majority of the outfalls along the south bank of the Puyallup River to help mitigate the risk of water backflowing through the stormwater system.

Level of Service

As part of the 2012 Comprehensive Drainage Plan, the City formed an internal committee to review the existing LOS goals and recommended revising several goals. These goals are summarized in the drainage plan.

Capital Improvement Projects

The City's 2012 Comprehensive Drainage Plan notes the additional capacity throughout the stormwater utility. However, there are areas throughout the stormwater system that are generally at capacity and tend to experience localized flooding. The drainage plan presents a summary of stormwater CIPs proposed to address existing stormwater drainage and water quality problems; the summary includes City CIP funds to manage Puyallup River flood hazards with regional CIPs that were developed through the Pierce County Rivers Comprehensive Flood Hazard Management planning effort. Programmatic measures related to current ongoing programs are also recommended and include TMDL implementation activities, design standards and development standards revisions, retrofitting, and other programs needed for managing the existing storm drainage assets.

Major Recent and Planned Improvements

The City adopted the 2022 Rate Study that established a financial plan and utility rates to fund the revenue for the operation and maintenance costs and required capital improvement projects to maintain the City's storm drainage system. The 2022 Rate Study focused on a 5-year rate period from 2022 to 2027. Funds were allocated in the City's 2024 Adopted Mid-Biennium Adjustment for Stormwater CIPs, including system reconstructions, improvements, and upgrades; the Stormwater Comprehensive Plan Update; and TMDL implementation activities. The City's 2024 Adopted Mid-Biennium Adjustment also includes funds for the low-impact development (LID) Retrofit and LID Incentive Program. The primary funding sources include the stormwater utility, the Department of Commerce Grant, and the Flood Control Zone District Opportunity Fund.

Major recent improvements include the following:

- Upper Clarks Creek Channel and Bank Stabilization. This project addressed the severely incised main stem and tributary channel areas just downstream of 23rd Avenue SW by roughening the channel in the incised reach for approximately 1,000 feet to reduce continued channel degradation and downstream transport of sediment into the lower reaches of Clarks Creek. Construction was completed in 2018.
- Washington State University LID Frontage Improvements. This project addressed TMDL requirements of the City's NPDES stormwater permit, which included removing impervious surface and reducing untreated stormwater flows into Clarks Creek. Construction was completed in 2022.
- 11st Street SW Culvert Replacement. This project replaced the aging and failing culvert beneath 11th Street SW at Meeker Creek with a new, fish-friendly concrete box culvert, in addition to roadway improvements, utility relocations, and safety improvements. Construction was completed in 2023.

- **4th Street NW Storm System Upgrade.** This project will install a new large-diameter (36- to 42-inch) stormwater main, rerouting and connecting the downtown drainage basin to the existing outfall to the Puyallup River at 4th Street NW (north of River Road). The existing downtown drainage basin drains to 4th Avenue SW and out to the 15th Street Outfall to the Puyallup River. The existing conveyance is shallow and lacks capacity and water quality treatment features. Construction of the first phase of the project will be completed in 2024.

3.9.1.5 Natural Gas (Puget Sound Energy)

The information in this section is based on the Downtown Puyallup Planned Action Final EIS dated March 2018, Final 2021 Puget Sound Energy (PSE) Integrated Resource Plan (IRP), and 2023 Gas Utility IRP. The Downtown Puyallup EIS details natural gas infrastructure and upgrade plans that are specific and relevant to the entire city of Puyallup. The PSE IRP describes the PSE acquisition contracts for sourcing natural gas production and transportation, storage and distribution assets that serve many cities in Washington State, and general plans to meet population growth.

PSE exclusively provides natural gas as a utility service within the entire city of Puyallup. PSE is an investor-owned private utility company headquartered in Bellevue, Washington.

PSE builds, operates, and maintains an extensive gas distribution system consisting of gas supply lines and pressure regulating stations. This system provides gas to approximately 900,000 customers in western and central Washington.

Natural gas is purchased by PSE from renewable natural gas plants owned by the Klickitat Public Utility District at the H.W. Hill Renewable Natural Gas facility in Roosevelt, Washington. PSE also acquires natural gas through undisclosed contracts from British Columbia and Alberta, Canada, and the Midwest United States.

Purchased gas is then compacted into liquified natural gas (LNG) for storage. PSE co-owns an LNG facility with Puget LNG at the Port of Tacoma that has the capacity to liquify up to 250,000 gallons of LNG per day and store 8 million gallons of LNG for distribution. This is the nearest storage facility to Puyallup. The largest storage facility is the Jackson Prairie Underground Natural Gas Storage Facility in Chehalis, Washington, capable of storing 44 billion cubic feet of natural gas.

Stored LNG is then distributed through over 25,000 miles of gas mains and service lines to customers, including those in Puyallup. In PSE's base demand forecast, there are sufficient natural gas resources to meet peak winter demand until winter 2026. Measures to meet increasing demand included an LNG peaking project near Tacoma in 2018 to 2019 and gas system integrity-maintenance planning projects with DuPont to replace main and service lines starting in 2017.

Existing Level of Service

The capacity of the system is primarily constrained by the volume of gas entering the network. The minimum pressure at which gas can be delivered is 15 pounds per square inch. According to PSE, the average house using natural gas for both heat and hot water consumed 784 therms (78,400 cubic feet) of gas per year in 2022. PSE anticipates residential customers will consume 763 therms (76,300 cubic feet) in 2035. When planning the size of new gas mains, PSE assumes all new households will use natural gas. Households are projected to decrease usage of natural gas over time due to winter temperatures increasing from climate change and increasing regulatory factors to mitigate carbon emissions.

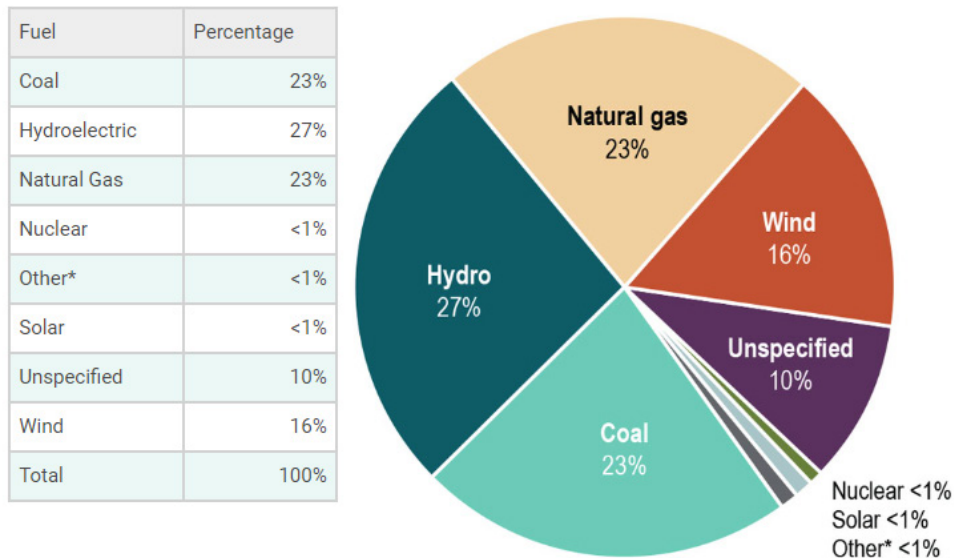
3.9.1.6 Electricity (Puget Sound Energy)

The information in this section is based on the Downtown Puyallup Planned Action Final EIS dated March 2018, Final 2021 PSE IRP, and 2023 PSE Electric Progress Report. The Downtown Puyallup EIS details power utility infrastructure and upgrade plans that are specific and relevant to the entire city of Puyallup. The PSE IRP and Electric Progress Report describes the PSE-owned electrical generation, transmission, and distribution assets that serve many cities in Washington State, and general plans to meet population growth.

It is regulated by the Washington Utilities and Transportation Commission (WUTC) and the Federal Energy Regulatory Commission. Renewable energy annual reporting is also regulated by WUTC per RCW 19.285.070 and WAC 480-109-210. PSE distribution infrastructure adheres to local jurisdiction code and the National Electric Code.

PSE exclusively provides electrical service within the entire city of Puyallup. It is an investor-owned private utility company headquartered in Bellevue, Washington. PSE builds, operates, and maintains an extensive electric distribution system consisting of generation plants, electric transmission lines, distribution system substations, and low power distribution transformers. This system provides electricity to over one million residential, commercial, and industrial customers in portions of western and central Washington.

PSE's sources of energy primarily include hydroelectric, coal, natural gas and wind. Refer to Figure 3.9-5 for all sources¹.



* Biomass, non-biogenic and petroleum.

Figure 3.9-5. 2022 PSE Electricity Fuel Mix

Source: PSE 2023b, Electricity Supply

PSE owns nine natural-gas-fired power plants and is the largest utility producer of wind energy in the Pacific Northwest, operating three large wind farm projects. PSE also owns and operates three hydroelectric power projects in western Washington.

PSE locates and operates electric facilities within public rights-of-way in accordance with local jurisdictions. Facilities are also located on property owned by PSE and easements across private properties.

Puyallup Electrical System

The transmission system that covers Puyallup is a grid which provides a link between the high-voltage bulk transmission system and the medium- to low-voltage local distribution system that connects with customers. The bulk transmission system is operated by the Bonneville Power Administration, which operates a regionwide interconnecting transmission system transmitting power to utilities from federal hydroelectric projects throughout the Northwest.

All major transmission lines supplying electricity to Puyallup substation primaries are 115 to 230 kilovolts (kV). These lines supply power into the Puyallup distribution system. The Alderton switching station between Puyallup and Bonney Lake receives power from the White River transmission substation in Bonney Lake in both 115 and 230 kV. Alderton went through upgrades to increase power transmission and reliability. The Frederickson generation station located in the Frederickson industrial area of Pierce County also transmits power to Puyallup substations.

Transmission line voltages are then stepped down to medium-voltage distribution at substations located in Puyallup. These substations feed several distribution circuits throughout the city. The downtown area is fed via two overhead distribution circuits out of the existing Stewart substation. Stewart substation circuits have ties to surrounding Puyallup substations including Cederhurst substation to the north, Fruitland and Woodland substations to the south, and Gardella substation to the east. Tacoma Power borders the Stewart substation circuits on the west.

Existing Level of Service

PSE files reliability reports once a year to the WUTC; the reports distinguish between sustained interruptions and power quality. PSE uses two main metrics to describe reliability of service: the System Average Interruption Duration Index (SAIDI) and the System Average Interruption Frequency Index (SAIFI). SAIDI describes the average length of a power outage in minutes and SAIFI describes the average number of outages a customer experiences. As of 2022, PSE's overall SAIDI and SAIFI indicate that an average customer experiences a 196-minute outage 1.09 times per year.

As of 2023, PSE's annual energy production is estimated to be 20 million megawatt-hours (MWh), with production forecast to increase to over 25 million MWh in 2030. Refer to Figure 3.9-6 for energy production and source projections from 2023 to 2045.

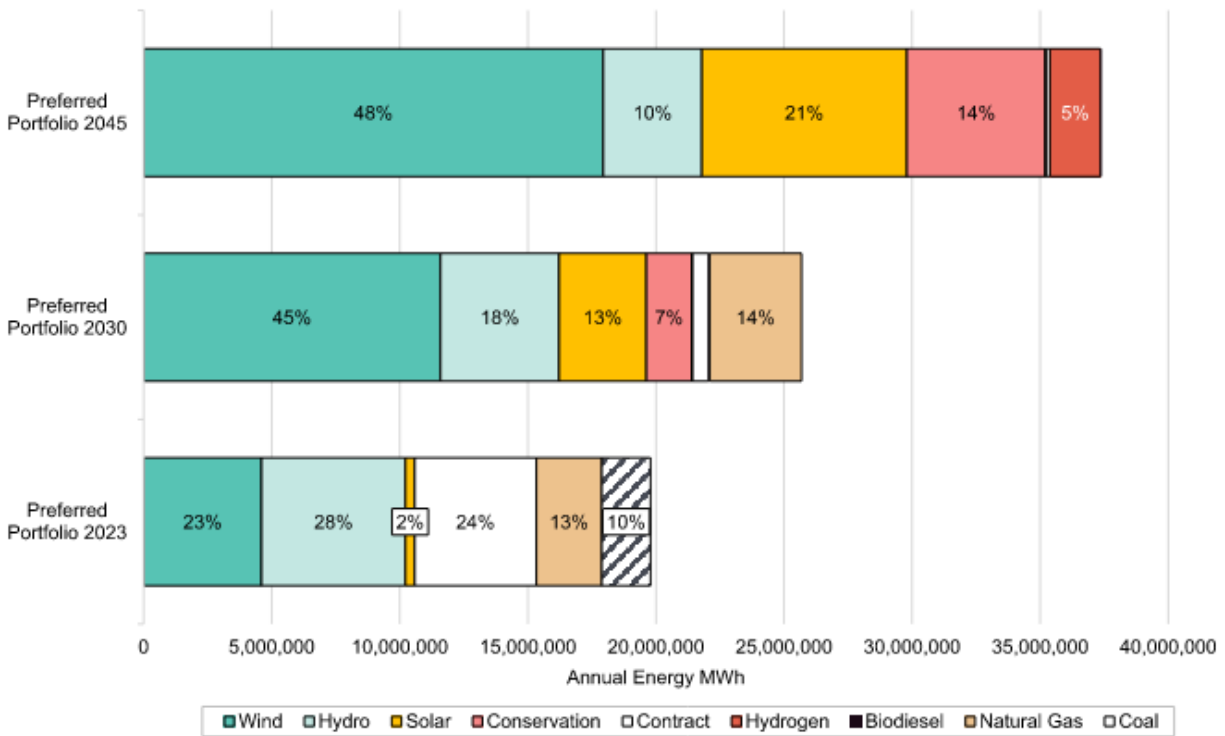


Figure 3.9-6. Forecast Annual Energy Production (Excluding Storage Dispatch)

Source: PSE 2023a, 2023 Electric Progress Report

The nameplate capacity of the entire PSE generation, transmission, and distribution grid in 2023 is 6,717 megawatts (MW), exceeding the 3,093 MW summer peak demand and 2,769 MW winter peak demand, meeting 2030 demand targets. PSE does not disclose the capacity and demand of the city of Puyallup. PSE does not list meeting any transmission or local distribution demand as a priority. A long-term priority (2030–2045) includes investment in renewable power sources to both meet future peak demand and replace non-renewable resources.

PSE estimates that a single residential customer consumed 10.3 MWh in 2022 and will consume 10.7 MWh in 2035. Future projections assume more multifamily housing will decrease consumption and more electric vehicle charging will increase consumption. Electric vehicle charging consumption increases will outweigh any conservation from multifamily housing increases.

3.9.1.7 Telecommunications (Lumen)

The information in this section is based on the Downtown Puyallup Planned Action Final EIS dated March 2018.

Telecommunications consist of telephone service, personal wireless, cable video, and high-speed data service. Telephone and internet service are provided via the internet service provider (ISP) Lumen (formerly CenturyLink). Lumen also maintains analog telephone lines. There are multiple cellular towers within the city limits with a multitude of pole-mounted and tank-mounted antenna services for multiple cellular providers. Comcast provides cable television and high-speed internet services.

Lumen is a private for-profit corporation providing voice, video, and data services to customers in Washington State and is regulated by WAC, WUTC, and various federal laws and regulations administered by the Federal Communications Commission. Lumen is headquartered in Monroe, Louisiana, and it has a central communication office in downtown Puyallup. Facilities include overhead and underground lines that are typically co-located with PSE medium-voltage distribution lines.

Existing Level of Service

WUTC requires Lumen to provide adequate telecommunications services on demand. Lumen will provide facilities to accommodate growth as it occurs. Lumen construction planning is driven by the needs of its customers. As communities grow, facilities are upgraded to ensure adequate service levels, and as technological advances occur and are made available, service will include fiber optic connectivity projects. Lumen, however, will not provide new connections to analog telephone lines.

Lumen does not estimate the amount of data a residential household consumes. According to a 2020 report by Allconnect, the average household broadband consumption was 344 gigabytes per month; 587 gigabytes per month was estimated for 2023.

3.9.1.8 Solid Waste (DM Disposal)

The information in this section is based on the Downtown Puyallup Planned Action Final EIS dated March 2018 and the Tacoma-Pierce County Solid and Hazardous Waste Management Plan: 2021–2040.

Solid waste, recycling, and organics (food scrap) collection service in the city is provided under contract by DM Disposal.

Refuse collection in Puyallup is mandatory at occupied residential properties per PMC 6.12.030. Residential refuse collection occurs weekly, on a variety of days throughout the city limits. Recycling service and yard waste service are collected every other week.

Food and yard waste services for composting are offered by Pierce County. Regular curbside pickup is offered for collection by DM Disposal for additional fees, or the waste can be unloaded at a Pierce County transfer station. Electronic-waste collection is offered by DM Disposal through an annual City-sponsored e-waste drop-off event where the public can bring eligible electronics to a central location and have them collected at no charge.

Commercial service offerings include refuse and recycling. Commercial service frequencies in Puyallup are available based on the customer needs, with frequencies up to five times per week regardless of container size.

Residential and commercial collections are ultimately disposed of at the 304th Street Waste Connections Landfill, located at 30919 Meridian Street E, Graham, WA. Recycling materials are processed at Tacoma Recycling on S Tacoma Way, Tacoma, Washington.

DM Disposal does not operate any hazardous materials facilities, nor is it a hazardous material hauler. There are two facilities in Pierce County that can accept household hazardous wastes from Pierce County residences free of charge: the Hidden Valley Transfer Station at 17925 Meridian Street E in Puyallup or the Tacoma Hazardous Waste Collection Facility at 3510 S Mullen Street, Tacoma, Washington.

Existing Level of Service

In 2021, Pierce County collected 762,016 tons of municipal solid waste for a population of 902,714, amounting to 0.84 tons per person. It is projected in 2030 for there to be 836,449 tons of solid waste for a population of 1,018,507, amounting to 0.82 tons per person.

3.9.2 Impacts

3.9.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on utilities. Impacts of the alternatives on utilities were considered significant if they met the following criteria:

- Affect the ability of the City of Puyallup, the FMWC, or VWD to meet their LOS standards in maintaining a consistent level of water service throughout their water system.
- Affect the ability of the City of Puyallup to meet its LOS standards in maintaining a sustained level of sewer service throughout its sewer system.
- Affect the ability of the City of Puyallup to meet its LOS goals in maintaining a consistent level of sewer service throughout its stormwater drainage system.
- Affect the ability of PSE to meet its LOS standards in maintaining a sustained power and natural gas service throughout the city.
- Affect the ability of Lumen to meet its LOS standards in sustaining telecommunications service throughout the city.
- Affect the ability of Pierce County to meet its LOS standards in maintaining solid waste service throughout the city.

3.9.2.2 Impacts Common to All Alternatives

Water Systems

Information in this section is primarily based upon the 2019 Puyallup WSP, which is based on projections for a 20-year period ending in 2038; the 2015 FMWC WSP Update, which is based on projections for a 20-year period ending in 2034; and the 2021 VWD WSP. These plans are incorporated in this analysis by reference.

City of Puyallup

The 2019 Puyallup WSP notes that the City's existing sources of supply are sufficient to meet ADD even with the largest source out of service. However, the City's existing sources of supply are not sufficient to meet the projected MDD by 2038, assuming the City of Tacoma intertie is used only in emergencies, in which the agreement with the City of Tacoma guarantees a supply of 2.0 mgd. The City of Puyallup has applied for additional water rights or water rights transfer from Well 14 to a new well near Well 17 which would provide an increased source capacity of 1,000 gpm. Under all alternatives, increased development would result in an increased demand for water service, placing an additional load on the current water supply system. Overall demand placed on the City's water system would be similar regardless of where the growth occurs.

Fruitland Mutual Water Company

The 2015 FMWC WSP Update noted that the FMWC existing sources of supply are sufficient to supply enough water to customers through 2034 based on conservative ADD and growth rates. If FMWC were to experience greater than anticipated growth or was not able to draw supply from an existing source, FMWC has a water purchase agreement with the City of Tacoma, as well as existing emergency interties with Summit Water and Supply Company and Firgrove Mutual Water Company. Increased development would result in increased demand for water service under all alternatives, placing an additional load on the current water supply system. Overall demand placed on the FMWC's water system would be similar regardless of where the growth occurs.

Valley Water District and Valley Water System

The 2021 VWD WSP noted that the Valley Water System has never exceeded the available water rights withdrawal limitation, and based on the source analysis, the water system's current sources are sufficient to supply enough water to customers through 2038. However, the storage analysis indicated a deficiency within the 10-year planning period, and a reservoir project was recommended to address this concern. Additional development would lead to increased demand for water services across all scenarios, adding strain to the existing water supply during peak-hour demands.

Sewer System

As noted in the City's 2016 Comprehensive Sewer Plan, projections for future flow and loads to the Puyallup WWTP were made based on predicted population growth for the sewer service area. The maximum monthly flow of 7.40 mgd was projected for 2020, and 8.59 mgd was projected for 2034. The overall rated capacity for the WWTP is 13.98 mgd and is not projected to exceed the 85% criterion (11.88 mgd) within the 20-year planning period of the 2016 Sewer Plan.

The projected TSS lbs/day maximum month loading for the WWTP is 10,532 and 13,092 lbs/day for the years 2020 and 2034, respectively. The projected TSS load in the year 2034 is slightly under the 85% criterion.

Additionally, the projected maximum month BOD loadings for the plant are 9,968 lbs/day and 12,392 lbs/day for the years 2020 and 2034, respectively. The projected maximum month BOD loading for the year 2034 is under the permit limit, but slightly above the 85% criterion, so planning for plant expansion is anticipated to begin around the year 2030.

Storm Drainage System

Additional growth and development will increase the amount of impervious surfaces, reduce the amount of vegetation, and increase the level of stormwater runoff under all of the alternatives. Increases in impervious surfaces will result from the development and redevelopment of underutilized and vacant parcels and development that increases building footprints or parking on existing lots, such as additions to existing buildings or middle housing. Impacts will be especially pronounced in areas where current land use is predominantly vacant or vegetated. See Section 3.2.2.2 for further details regarding the effects of increased impervious surfaces and stormwater runoff.

The City has a number of known deficiencies within its existing storm drainage system. Many of the capacity-limited pipes are susceptible to drainage problems and are approaching the end of their expected useful lives. Hydrologic models were developed to better understand the City's stormwater drainage system as part of the 2012 Comprehensive Drainage Plan, particularly around the Downtown and South Hill Regions. As noted in the 2012 Comprehensive Drainage Plan, the modeled

25-year runoff event indicated a potential for flooding in multiple locations throughout the Downtown area corresponding to known problem areas within the City's drainage system within the hydrologic model. However, further flow-monitoring data were recommended to further refine the model and to reevaluate the simulated flooding problem areas. Additional development would lead to increased demand for stormwater drainage service, adding strain to the existing system during the 25-year runoff event. The hydrologic model indicated adequate capacity within the City's drainage system and no flooding during the modeled 100-year runoff event.

Natural Gas and Electricity

Under all alternatives, development within the City would increase the consumption of natural gas and electricity, though the precise level of consumption would vary based on the specific uses developed. Population increases in mixed-use or multifamily developments would have a marginally lower impact toward energy consumption compared to population increases in single-family housing. PSE also assumes there would be a net increase in electrical demand from electric vehicle charging, which will have an impact regardless of the alternatives taken. Additionally, natural gas and electricity consumption may vary or decrease based on changes to the energy codes, particularly changes to laws on electrification and HVAC standards.

Both natural gas and electricity are readily available in the study area, and PSE conducts yearly resource planning to ensure adequate energy supply within the service area with a 20-year outlook on power generation and demand changes. Per Figure 3.9-7, PSE projects an average residential customer will consume 11.2 MWh/year of electricity by 2045, an increase of 0.9 MWh from 2022. PSE projects a residential customer will consume 765 therms/year of natural gas by 2041, a decrease of 19 therms/year.

2021 IRP ELECTRIC USE PER CUSTOMER, BASE DEMAND FORECAST (MWh/CUSTOMER)							
Type	2022	2025	2030	2035	2040	2045	AARG 2022-2045
Residential	10.3	10.4	10.5	10.7	11.0	11.2	0.4%
Commercial	63.1	63.1	63.0	63.9	65.1	66.6	0.2%
Industrial	321.9	330.5	333.6	337.3	341.4	344.7	0.3%

Figure 3.9-7. PSE Electrical Demand Forecast per Customer

Source: PSE 2021, 2021 PSE Integrated Resource Plan

Telecommunications

Under all alternatives, data consumption would increase. While development under all alternatives would likely require additional installation of telecommunication infrastructure—such as copper lines, fiber optic cables, and cellular receivers—these are private facilities owned and operated by private service providers.

Regardless of the alternative taken, telecommunications infrastructure would be improved as new technologies are implemented. Currently, copper telephone line service and cell networks older than 4G are being phased out in favor of fiber broadband and 5G service. It is anticipated this trend will continue as new telecommunications technologies become available and in demand.

The cost for these system improvements would be borne by the service providers.

Solid Waste

Under all alternatives, development, job, and population growth would increase waste management demand, though the precise level of demand would vary based on the specific uses developed. Commercial development from mixed-use and employment areas would produce more waste than housing.

Waste management services are readily available in the study area, and Pierce County keeps a solid waste management plan up to date with a 20-year outlook on waste increases.

3.9.2.3 Impacts of Alternative 1 (No Action)

Water Systems

City of Puyallup

Alternative 1 would have the least impact on the City of Puyallup water system, as it represents the lowest amount of development opportunity and least growth of the three alternatives. Alternative 1 impacts are also consistent with those described in Section 3.9.2.2 for the City of Puyallup water system. Growth under Alternative 1 assumes no changes in zoning or land use policies. However, repairs or upgrades to the existing water system infrastructure may be anticipated to support anticipated growth within the existing land use designations. Generally, overall demand placed for the City's water system would be similar regardless of where the growth occurs, and the City of Puyallup is anticipated to have capacity to meet future demands; this assumes the City's application for additional water rights or water rights transfer from Well 14 to a new well near Well 17 is approved or the City relies on the City of Tacoma as a stable water source to meet deficient demands. **The increased growth and development of Alternative 1 would result in a significant impact on the City of Puyallup water system.**

Fruitland Mutual Water Company

Under Alternative 1, impacts would be consistent with those described in Section 3.9.2.2 for the FMWC water system. Alternative 1 would have the lowest amount of development opportunity compared to Alternatives 2 and 3; therefore, this alternative would have the least impact on the FMWC water system. Growth under Alternative 1 assumes no changes in zoning or land use policies and repairs or upgrades to the existing FMWC water system infrastructure may be anticipated. **The impacts of growth and development of Alternative 1 would result in a significant impact on the FMWC water system.**

Valley Water District and Valley Water System

Alternative 1 would have the least impact to the Valley Water District and Valley Water System. This alternative would have the least amount of growth of the three alternatives, and impacts would be consistent with those described in Section 3.9.2.2 for the Valley Water District and Valley Water System. Assuming there would be no changes in zoning or land use policies under Alternative 1, minimal additional development would be anticipated within the Puyallup Highlands. Repairs or upgrades to the existing water system infrastructure would be needed to maintain the system. **The increased growth of Alternative 1 would result in a less than significant impact on the Valley Water District and Valley Water System.**

Sewer System

There would be fewer impacts to the sewer system with Alternative 1 than there would be with Alternatives 2 or 3, and Alternative 1 impacts would be consistent with those described in Section 3.9.2.2. Although repairs or upgrades are anticipated to maintain the existing system for growth under Alternative 1, the overall demand placed on the City's sewer system would be similar regardless of where the growth occurred. The City anticipates there would be capacity to meet the future demands on the City of Puyallup sewer system, assuming that planning for plant expansion begins around the year 2030. **The impacts of growth and development of Alternative 1 would result in a less than significant impact on the City of Puyallup sewer system.**

Storm Drainage System

Under Alternative 1, impervious surfaces would increase due to continued development and growth primarily in the regional growth centers. The amount of vegetation would decrease due to development, increasing runoff. The majority of the development under Alternative 1 is anticipated to occur in areas that already consist of mostly impervious surfaces, which have been previously developed. Additional development would lead to increased demand for storm drainage. Improvements and upgrades to the existing drainage system infrastructure would be needed to maintain the existing system and support continued growth. **Growth and development anticipated in Alternative 1 would result in a significant impact on the City of Puyallup's drainage system.**

Natural Gas and Electricity

Impacts for Alternative 1 would be consistent with those described in Section 3.9.2.2. Increases in housing units, population, and employment would result in increased demand for electricity and natural gas, placing additional demand on the PSE infrastructure. It is expected that PSE would continue to provide utility services on demand and would upgrade distribution equipment as demand required. **Growth and development anticipated in Alternative 1 would result in a less than significant impact on the PSE electrical and natural gas distribution systems.**

Telecommunications

Alternative 1 impacts on telecommunications would be consistent with those described in Section 3.9.2.2. The increases in population and employment anticipated under Alternative 1 would result in a commensurate increase in demand for telecommunications, placing an additional burden on telecommunication infrastructure. Overall, telecommunication demand would be similar regardless of where the growth occurred, and Lumen is expected to upgrade infrastructure as demand or technology requires. **Growth and development anticipated in Alternative 1 would result in a less than significant impact on the Lumen telecommunications network.**

Solid Waste

Impacts for this alternative would be consistent with those described in Section 3.9.2.2. The increases in population and development under Alternative 1 would result in increased demand for solid waste services, placing additional demand on solid waste services. DM Disposal would continue to provide hauling and transfer station services. **Growth and development anticipated in Alternative 1 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.**

3.9.2.4 Impacts of Alternative 2

Water Systems

City of Puyallup

Alternative 2 would have a greater impact than Alternative 1 and would have less impact than Alternative 3. The City of Puyallup is anticipated to have the capacity to meet future water demands, assuming the City's application for additional water rights or water rights transfer from Well 14 to a new well near Well 17 is approved or the City relies on the City of Tacoma as a consistent water source to meet deficient demands. Additionally, considerable repairs or upgrades to the existing water system infrastructure could be required to support the concentrated residential and employment development within the Downtown area and along the major commercial corridors. **The additional water demand from the anticipated growth from Alternative 2 would result in a significant impact to the City of Puyallup water system.**

Fruitland Mutual Water Company

Impacts to the FMWC water system in Alternative 2 would be similar to those in Alternative 3, and greater than those in Alternative 1. The FMWC water system could have to supplement its existing water supply through a water purchase agreement with the City of Tacoma, as well as through existing emergency interties with Summit Water and Supply Company and Firgrove Mutual Water Company. The FMWC water system is anticipated to have the capacity to meet future water demands, but considerable repairs or upgrades to the existing water system infrastructure could be required to support the concentrated residential and employment development within the South Hill RGC. **The FMWC water system would be significantly impacted by the additional growth and development under Alternative 2.**

Valley Water District and Valley Water System

Alternative 2 would have a greater impact on the Valley Water District and Valley Water System than Alternative 1, but the impact would be similar to that of Alternative 3. The impacts of residential and employment growth in Alternative 2 near the E Pioneer and Shaw Road intersection and the Puyallup Highlands could increase water service demand from the Valley Water District and Valley Water System. Additionally, improvements or upgrades to the existing water system infrastructure could be needed to support the development and growth under Alternative 2. **The growth and development from Alternative 2 would result in a significant impact to the Valley Water District and Valley Water System.**

Sewer System

Alternative 2 impacts to the sewer system would be greater than with Alternative 1 and fewer than with Alternative 3. Concentrated residential and employment growth are anticipated to increase sewer system demand, as well as flows and loads at the WWTP. Overall growth and demand placed on the City's sewer system would be similar regardless of where the growth occurred. However, considerable repairs or upgrades to the existing sewer system infrastructure could be required to support the concentrated growth in the City's designated regional growth centers and along the major commercial corridors. Additionally, the increased flows and loads due to the anticipated development in Alternative 2 could require the City to plan for the WWTP expansion sooner than the year 2030 that is anticipated under Alternative 1. **The growth and development from Alternative 2 would result in a significant impact to the City of Puyallup sewer system.**

Storm Drainage System

Alternative 2 impacts would be more significant than those with Alternative 1 and less significant than those with Alternative 3. As compared to Alternative 1, increased quantities of impervious surface as a result of increased levels of development are anticipated. Increased development anticipated with the mixed-use focus areas—particularly near River Road and the E Pioneer and Shaw Road intersection—could exacerbate the existing problems with the City’s drainage system identified in the 2012 Comprehensive Drainage Plan. Reduced vegetation due to the additional development would increase runoff. Additional development, particularly around the Downtown RGC, River Road, and the E Pioneer and Shaw Road intersection, would put a larger strain on the City’s storm drainage system during large storm events than under Alternative 1. Considerable improvements and upgrades to the existing drainage system infrastructure would be required for Alternative 2. **Additional growth and development under Alternative 2 would result in a significant impact to the City’s storm drainage system.**

Natural Gas and Electricity

More growth and development is projected to be focused within regional growth centers and mixed-use focus areas under Alternative 2 than with Alternative 1. The increased population and employment would result in increased demand for natural gas and electricity. This increased demand could require more infrastructure than would be needed for Alternative 1. PSE would continue to provide utility services on demand under Alternative 2.

Alternative 2 would implement new GHG emission-reduction policies, including policies to expand access to electric vehicle charging infrastructure. This would place more demand on the power utility infrastructure.

Compared to Alternative 3, Alternative 2 would concentrate population growth in mixed-use areas and regional growth centers. Natural gas and electricity demand is lower in mixed-use areas than in single-family housing, therefore Alternative 2 could have less utility demand than Alternative 3. However, higher-capacity distribution could be required for regional growth centers and mixed-use focus areas due to the high concentration of population and employment. **Growth and development anticipated in Alternative 2 would result in a less than significant impact on the PSE electrical and natural gas distribution systems.**

Telecommunications

Under Alternative 2, more housing growth would occur than under Alternative 1. This greater growth would result in more demand on telecommunication infrastructure with Alternative 2 than with Alternative 1. Lumen would be expected to upgrade infrastructure as demand or technology requires to accommodate this increased demand. **Growth and development anticipated in Alternative 2 would result in a less than significant impact on the Lumen telecommunications network.**

Solid Waste

Under Alternative 2, there would be more growth in housing than under Alternative 1. This greater growth would result in more demand on solid waste services with Alternative 2 than with Alternative 1. Housing growth would occur in the regional growth centers and mixed-use focus areas and require higher-capacity solid waste pickup and multifamily recycling programs in those concentrated areas. DM Disposal would be expected to regularly evaluate capacity and would make accommodations to meet the demand. **Growth and development anticipated in Alternative 2 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.**

3.9.2.5 Impacts of Alternative 3

Water Systems

City of Puyallup

Alternative 3 would have similar but greater impacts on the City of Puyallup water system than Alternative 2. Residential and employment development at key locations throughout the city, particularly the increased middle housing throughout neighborhoods within the city, would put an increased strain on the system. Considerable repairs or upgrades would be required throughout the existing water system infrastructure to support the distributed development and growth. **The additional water demand from the anticipated growth from Alternative 3 would result in a significant impact to the City of Puyallup water system.**

Fruitland Mutual Water Company

The impacts with Alternative 3 would be similar to those with Alternative 2 for the FMWC water system. Considerable repairs or improvements to the existing water system infrastructure would be required to support the distributed residential—particularly the increased middle—housing throughout neighborhoods within the city and additional employment development. **The FMWC water system would be significantly impacted by the additional growth and development under Alternative 3.**

Valley Water District and Valley Water System

The impacts would be similar to those with Alternative 2, but they would be greater under Alternative 3. The increased residential and employment development—particularly the increased middle housing in residential neighborhoods—would require improvements or upgrades to the existing water system infrastructure to support the distributed development and growth. **The growth and development from Alternative 3 would result in a significant impact to the Valley Water District and Valley Water System.**

Sewer System

Alternative 3 would have similar but greater impacts on the City of Puyallup sewer system than Alternative 2. Residential and employment development at key locations throughout the city, particularly the increased middle housing throughout neighborhoods within the City, would put an increased strain on the system. Considerable repairs or upgrades would be required throughout the existing water system infrastructure to support the distributed development and growth. **The City of Puyallup sewer system would be significantly impacted by the additional growth and development under Alternative 3.**

Storm Drainage System

The wider range of middle housing types anticipated with the more distributed growth in Alternative 3 would result in more impervious surfaces than under Alternative 2. This increase in impervious surface area throughout the city would decrease the amount of vegetation, increase runoff, and increase storm drainage needs throughout the city, further contributing to the existing problems within the City's drainage system identified in the 2012 Comprehensive Drainage Plan. Similar to Alternative 2, additional growth—particularly around Downtown, River Road, and the E Pioneer and Shaw Road intersection—may put a larger strain on the City's storm drainage system during large storm events. Without significant improvements and upgrades to the existing drainage system

infrastructure to support the additional growth and development, **Alternative 3 would significantly impact the City's drainage system.**

Natural Gas and Electricity

Under Alternative 3, impacts are expected to be similar or marginally higher to those described under Alternative 2. With growth more distributed under Alternative 3, there would be less need for capacity upgrades in regional growth areas and mixed-use focus areas than under Alternative 2. However, under Alternative 3, growth is anticipated to include more single-family housing, which would have a higher natural gas and electricity demand per capita compared to Alternative 2. **Growth and development anticipated in Alternative 3 would result in a less than significant impact on the PSE electrical and natural gas distribution system.**

Telecommunications

Impacts on telecommunications services under Alternative 3 are consistent with those described under Alternative 2. **Growth and development anticipated in Alternative 3 would result in a less than significant impact on the Lumen telecommunications network.**

Solid Waste

Impacts on solid waste services under Alternative 3 are consistent with those described under Alternative 2. **Growth and development anticipated in Alternative 3 would result in a less than significant impact on DM Disposal operations and Pierce County solid waste transfer stations.**

3.9.3 Avoidance, Minimization, and Mitigation Measures

3.9.3.1 Water Systems

- Implement Capital Improvement Plan recommendations of the 2019 City of Puyallup Water System Plan to correct existing deficiencies in the 6-year planning period.
- Identify additional improvements in the 2019 City of Puyallup Water System Plan Capital Improvement Plan recommendations for the 20-year planning period to address deficiencies projected in the long term.
- Implement an aggressive water conservation program—including water reuse and recycling or demand management measures—for residential, commercial, and industrial users.
- Fund more public education and outreach to water conservation programs.

3.9.3.2 Sewer System

- Implement Capital Improvement recommendations of the 2016 Comprehensive Sewer Plan to correct existing deficiencies in the 6-year planning period.
- Identify additional improvements in the 2016 Comprehensive Sewer Plan capital improvements recommendations for the 20-year planning period to address deficiencies projected in the long term.

3.9.3.3 Storm Drainage System

- Update the 2012 Comprehensive Storm Drainage Plan with hydrologic modeling to ensure that development allowed under land use alternatives demonstrates compliance with the standards outlined in the Ecology 2019 Stormwater Manual as adopted by the City.

- Implement stronger code and design incentives for LID, such as bonuses for pervious surfaces and green roofs.
- Fund more public education on water quality for residents and businesses.

3.9.3.4 Natural Gas, Electricity, and Telecommunications

- Provide annual updated population, employment, and development projections to PSE so it can evaluate actual patterns and rates of growth and compare these patterns to electricity and natural gas demand forecasts.
- Coordinate and cooperate with other jurisdictions to implement multijurisdictional electric utility facility additions and improvements.
- Fund more public education and outreach to promote renewable energy technologies.

3.9.3.5 Solid Waste

- Follow the Pierce County Solid and Hazardous Waste Management Plan of mitigation through education and outreach.

3.9.4 Significant Unavoidable Adverse Impacts

3.9.4.1 Water Systems and Sewer System

Additional development throughout the City's service area would result in increased demands on water and sewer services. Advance planning for the sewer and water system and capital facility improvements should minimize the possibility of unavoidable impacts. **No significant unavoidable adverse impacts are expected.**

3.9.4.2 Storm Drainage System

Increased development under all alternatives would increase impervious surfaces, resulting in increased runoff and storm drainage needs. These changes would impact the stormwater system and could further contribute to existing problems within the City's drainage system, particularly during large storm events. **Significant unavoidable adverse impacts are expected.**

3.9.4.3 Natural Gas, Electricity, and Telecommunications

Additional development would increase the demand for natural gas, electricity, and telecommunication services. The City's coordination with service providers along with mitigation measures identified in Section 3.9.3 would allow for increased demand to be met. **No significant unavoidable adverse impacts are expected.**

3.9.4.4 Solid Waste

Additional development and employment would increase the demand for solid waste services. The City's coordination with service providers along with mitigation measures identified in Section 3.9.3 should allow for increased demand to be met. **No significant unavoidable adverse impacts are expected.**

3.10 Cultural Resources

This section discusses cultural resources in the city of Puyallup and evaluates potential impacts that may be associated with the proposed alternatives reviewed in this EIS. Potential mitigation measures that could reduce potential impacts are also identified.

3.10.1 Affected Environment

This section provides an overview of relevant federal, state, and local historic preservation laws, regulations, and programs. This section also delineates the cultural resources study area, describes the cultural context for the City of Puyallup, and reviews previously identified cultural resources within the study area and the general geoarchaeological sensitivity of the study area. For the purposes of this EIS, cultural resources are defined as built environment resources at least 45 years of age, archaeological sites, traditional cultural properties, cemeteries or human burials, and landmarks, features, or other evidence of use or occupation by Native Americans or in the historic period.

3.10.1.1 Current Policy and Regulatory Framework

Federal

Although this EIS is not subject to federal environmental review laws and regulations, federal historic preservation laws and regulations inform state and local historic preservation laws and regulations and may govern specific future developments allowed under the proposed alternatives. As such, this section is included for informational purposes only.

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects on historic properties from federal undertakings. Undertakings are defined as a project, activity, or program assisted, funded, permitted, licensed, or approved by federal agencies (36 CFR 800.16.y). Under Section 106 of the NHPA, historic properties are defined as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP), as well as properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the NRHP criteria (36 CFR 800.16(l)(1)). Historic properties are considered eligible for listing in the NRHP provided they are at least 50 years of age and have been determined to have significance based on at least one of four NRHP criteria (National Park Service 1995):

- Criterion A – Association with events that have made a significant contribution to the broad patterns of history.
- Criterion B – Association with the lives of significant individuals.
- Criterion C – Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D – Have yielded, or may be likely to yield, information important to prehistory or history.

In addition to significance, a property must also retain historic integrity in a majority of the following seven aspects (National Park Service 1995):

- Location – The place where a historic property was constructed or the place where the historic event occurred.

- Setting – The physical environment of a historic property.
- Design – The combination of elements that create the form, plan, space, structure, and style of a property.
- Materials – The physical elements that were combined or deposited during a particular period of time or in a particular pattern or configuration to form a historic property.
- Workmanship – The physical evidence of the crafts of a particular cultural or people during any given period in history or prehistory.
- Feeling – A property’s expression of the aesthetic or historic sense of a particular period of time.
- Association – The direct link between an important historic event or person and a historic property.

Additionally, projects involving National Historic Landmarks (NHL) are required to comply with Section 110(f) of the NHPA, which provides procedures for consultation with the Advisory Council on Historic Preservation and the Department of Interior and the implementation of planning actions necessary to minimize harm to any NHL that may be directly and adversely affected by a federal undertaking (36 CFR 800.10).

Three other federal regulations provide protection for archaeological resources: (1) the Archaeological and Historic Preservation Act of 1974; (2) the Archaeological Resources Protection Act of 1979; (3) and the Native American Graves Protection and Repatriation Act of 1990.

State

The Washington State Environmental Policy Act (SEPA) requires that all planned projects assisted, funded, permitted, or approved by state and/or local agencies consider the effects of those projects to cultural resources (RCW 43.21C). SEPA considers cultural resources as properties over 45 years old that are listed in or eligible for listing in national, state, or local historic registers. This may also include cemeteries or human burials, and landmarks, features, or other evidence of use or occupation by Native Americans or in the historic period. In addition to SEPA, projects may trigger cultural review under a Washington Governor’s Executive Order 21-02 if a project uses state funds or is located on state land. Three other state laws provide further protection for archaeological resources: the Indian Graves and Records (RCW 27.44); Archaeological Sites and Resources (RCW 27.53); and Abandoned Historic Cemeteries and Historic Graves (RCW 68.60).

Local

The City of Puyallup is a participant in the Certified Local Government (CLG) program. The CLG program is administered nationally by the National Park Service (NPS) and in Washington by the Washington Department of Archaeology and Historic Preservation (DAHP). CLG participants are eligible for financial and technical assistance provided by NPS and DAHP to local governments for historic preservation purposes. CLGs are required to adopt a local ordinance that creates a local historic preservation commission and empowers the commission to establish a local register of historic places, institute procedures and design guidelines for projects that may affect historic properties within its jurisdiction, conduct local historic property survey, review property nominations to the NRHP, and provide for public participation in historic preservation-related educational and interpretive activities (DAHP 2024a).

The City of Puyallup’s historic preservation ordinance, Puyallup Municipal Code (PMC) 21.22 Historic Preservation, provides for the establishment of the City of Puyallup’s historic preservation program

and local commission and prescribes processes for the review of projects or actions that involve historic resources. PMC 21.22.020 designates the Puyallup Design Review and Historic Preservation Board (DRHPB) as the City's local review board, as provided for in RCW 84.26 and WAC 254-20. The composition, powers and duties, and administrative procedures of the DRHPB are outlined separately in PMC 2.29, Design Review and Historic Preservation Board. PMC 21.22.025 defines the criteria for the listing of historic properties, defined as "real property together with improvements thereon, except property listed in a register primarily for objects buried below ground, which is listed in a local register of a certified local government or the National Register of Historic Places," (PMC 21.22.015(12)) in the City of Puyallup Register of Historic Places (PRHP), which is consistent with those established for the NRHP. PMC 21.22.030 establishes the procedures for DRHPB review of projects involving the rehabilitation or demolition of historic properties listed in the PRHP. Privately funded projects involving properties listed in the NRHP and/or Washington Heritage Register (WHR) but not the PRHP are not subject to review (City of Puyallup 2016, 54).

The City of Puyallup *Historic Preservation Plan* (City of Puyallup 2016) provides further guidance for historic preservation activities in the city. The purpose of the historic preservation plan is to define the City's goals, policies, and actions to promote and implement historic preservation activities in Puyallup. The plan contains five goals:

- Goal 1. Identify, register, and protect historic buildings, places, landscapes, and trees.
 - Goal 1 includes policies for continued survey throughout the city, the maintenance of local and state inventory records for Puyallup cultural resources and increasing the public availability of these records, and encouraging the designation of historic properties to the NRHP, WHR, and PRHP.
- Goal 2. Encourage building rehabilitation and heritage projects downtown and in neighborhoods.
 - Goal 2 includes policies for encouraging and targeting the rehabilitation of historic properties by coordinating with local historic preservation organizations, providing financial assistance programs for rehabilitation projects, and updating existing and/or developing new neighborhood-specific design guidelines.
- Goal 3. Integrate historic preservation into Puyallup's growth and development strategies.
 - Goal 3 includes policies for integrating historic preservation goals and policies into other municipal processes by maintaining historic preservation as a citywide priority, increasing consideration of historic properties in all local permitting procedures, promoting the compatibility of historic preservation and sustainability goals and policies, eliminating inconsistencies between local historic preservation processes and required review documentation, and increasing efficiencies in local historic preservation review procedures.
- Goal 4. Clarify and strengthen the DRHPB role and functions.
 - Goal 4 includes policies for supporting and promoting DRHPB through increased availability of local historic preservation process trainings for DRHPB members, city staff, and the public; assigning city staff to assist DRHPB activities; and updates to the City of Puyallup's Historic Preservation website.
- Goal 5. Promote broad awareness and appreciation of Puyallup's heritage.
 - Goal 5 includes policies for the promotion of Puyallup's history, including continued outreach to the Puyallup Tribal Historic Preservation Office, the development of

interpretive programs and materials, and fostering partnerships with and among local heritage organizations. (City of Puyallup 2016, 7–16).

3.10.1.2 Cultural Resources Study Area

The cultural resources study area includes all lands within the limits of the City of Puyallup and the City of Puyallup UGA.

3.10.1.3 Methods

The affected environment for cultural resources was established through historic and ethnographic research and review of available cultural resource inventories. Background research informed the cultural context for the city of Puyallup and identified known traditionally important place names within the study area. The following cultural resource inventories were reviewed to establish the existing inventory of historic built environment resources, archaeological resources, and cemeteries within the study area:

- DAHP Washington Information System for Architectural and Archaeological Records Data (WISAARD). WISAARD is an online database and GIS map tool that contains Washington’s inventory of cultural resources listed in the NRHP, WHR, and Washington Heritage Barn Register. WISAARD also includes an archaeological sensitivity model (Predictive Model) that serves as a basis for archaeological sensitivity analysis (DAHP 2024b).
- NPS NRHP NPGallery Digital Asset Search. This database contains digital records for historic properties listed in the NRHP, which is held on file by the National Archives and Records Administration (National Park Service 2024). This database was reviewed to identify NRHP-listed resources in the cultural resource study area that are not included in WISAARD.
- PRHP. PRHP is a register of historic buildings and historical museums and exhibit centers that have been locally designated by Puyallup City Council (City of Puyallup 2022).

3.10.1.4 Cultural Context

Human cultural developments in the Puget Sound region prior to contact with European Americans have been summarized by a number of reviewers including Kidd (1964), Greengo and Huston (1970), Nelson (1990), Matson and Coupland (1995), and Ames and Maschner (1999). Ames and Maschner (1999) divide the precontact cultural sequence into five periods from about 12,500 to 225 before present (BP) based on changes in patterns of land use, subsistence resource types and methods of collection, and tool types:

1. Paleo-Indian (earlier than 12,500 BP)
2. Archaic (12,500 to 6,400 BP)
3. Early Pacific (6,400 to 3,800 BP)
4. Middle Pacific (3,800 to 1800/1500 BP)
5. Late Pacific (1800/1500 to 225 BP)

The archaeological record reflects three general trends in human cultural development across these five periods: (1) the gradual movement of peoples from upland and riverine locations to littoral and subalpine areas; (2) the diversification of subsistence resources and resource collection technologies; and (3) an increasing degree of sedentism and intensified reliance on salmon and other aquatic and marine resources compared to previous periods, which is indicated by an

increased frequency of village sites, long-term food storage constructions and technologies, and a higher relative proportion of fish remains in the faunal record. Importantly, these delineated periods and cultural development trends are academic constructs and do not necessarily reflect tribal viewpoints.

The city of Puyallup is located on the traditional territory of the Puyallup peoples. The Puyallup peoples inhabited areas along the Puyallup River from its mouth on Commencement Bay to the foothills of Mount Rainier, as well as areas to the west in present-day Tacoma and on Point Defiance, in western Pierce County across the Tacoma Narrows, and on Vashon Island and Murray Island (Smith 1940, 6–14). Other Native American peoples inhabited areas in the vicinity of the Puyallup area and likely also used areas within the territory of the Puyallup; these peoples include the Squamish to the north, Muckleshoot to the east, Nisqually and Steilacoom to the south, and Squaxin Island people to the west (Ruby et al. 2010, xxvii). The Puyallup peoples spoke Lushootseed, a dialect of the Salish language (Puyallup Tribe of Indians 2024; Ruby et al. 2010, 237, 320). The Puyallup, like other Coastal Salish peoples, practiced a seasonal settlement pattern, inhabiting different areas for varying periods during the year to take advantage of seasonally available resources (Haeberlin and Gunther 1942). Today, descendants of the Puyallup are members of the Puyallup Tribe of Indians and live on the Puyallup Reservation and in communities throughout the region (Puyallup Tribe of Indians 2024).

In 1854, Washington Territorial Governor Isaac Stevens organized a treaty council at Medicine Creek—located in present-day Thurston County—with representatives of the Puyallup, Nisqually, Steilacoom, and Squaxin Island tribes to obtain land in exchange for allotted reservation and trust land; payment; and retention of the right to use usual and accustomed fishing, hunting, and gathering places. The Treaty of Medicine Creek, signed in 1855, established the Puyallup Reservation for the Puyallup people, originally a 1,280-acre tract along the Puyallup River east of Tacoma. Following the Puget Sound War—a military conflict spanning 1855 to 1856 between U.S. Army and Washington Territory forces and a coalition of Puget Sound tribes over the terms of the various Puget Sound treaties—the Puyallup Reservation was enlarged by a Presidential executive order in January 1857. It was enlarged again by executive order in September 1873 to over 18,000 acres. However, beginning in the late 1880s, allotted lands of the Puyallup Reservation were increasingly removed from restriction through acts of Congress including the Dawes Act of 1877, as well as individual statutes passed in 1890 (26 Stat. 354), 1893 (27 Stat. 612, 613), and 1899 (30 Stat. 990). By 1909, nearly all the acreage included in the 1873 Puyallup Reservation boundary had been sold to railroad, lumber, and land development companies, as well as to individual European American settlers. A series of court decisions in the 1970s and early 1980s—including *United States v. Washington* (1974), *Andrus v. City of Tacoma* (1978), and *Puyallup Indian Tribe v. Port of Tacoma* (1983)—legally affirmed the rights of tribal members and tribal claims to reserved lands provided in the 1850s Puget Sound treaties. These rulings resulted in negotiations between the Puyallup Tribe, the City of Tacoma, Port of Tacoma, the State of Washington, and the federal government over claims for former reservation lands from the mouth of the Puyallup River to the city of Puyallup. In 1984, the Puyallup Tribe won a major judgement in its complaint, receiving \$162 million in compensation for reservation lands taken from the tribe. This settlement package, known as the Puyallup Land Claims Settlement, was accepted and signed by the Puyallup Tribe in 1990. (HistoryLink.org 2003; Ruby et al. 2010:237-240; Douglas 2016).

European American settlement of the Puyallup valley began in the 1850s, with the donation land claims of settlers such as B. Franklin Wright, James P. Stewart, Willis and Mary Boatman, Jacob Meeker, John Valentine Meeker, and Ezra Meeker encompassing much of the land now within the city of Puyallup. The Puyallup River valley supported a thriving agricultural economy in the nineteenth century, allowing the early settlement of Puyallup to grow around these original homesteads. Hops

were the principal commercial crop grown until the 1890s, when an infestation of hop lice eliminated much of the industry across the Pacific Northwest. In place of hops, berries, flower bulbs, and stone fruit orchards became predominant among commercial farms. Numerous dairies, poultry farms, and beef cattle ranches were also established during this period. This agricultural production supported early urban growth in Puyallup (incorporated as a city in 1890) and incentivized the construction of a North Pacific Railroad line to Puyallup in 1877 and 1878 and lines of the Great Northern; Union Pacific; and the Chicago, Milwaukee, and St. Paul railroads in the early twentieth century. These developments further supported related industries in Puyallup, including feed mills; hay and feed supplies; slaughterhouses; canneries; meat and fruit packing; box, crate, and barrel manufacturers; and rail freight companies. The valley's reputation for agriculture led to Puyallup's selection in 1895 as the site of Western Washington Experiment Station (also known as the Ross Station or Puyallup Agriculture Experiment Station, now the Washington State University Puyallup Research and Extension Center). (City of Puyallup 2016, 18–22; Chelsey 2008).

Puyallup's nineteenth century and early twentieth century urban development was concentrated along S Meridian Street and its intersection with the North Pacific Railroad rail line. The original town plat filed by Ezra Meeker in the late 1870s and the six additions made over the next decade comprise the majority of the land within the current Puyallup city limits. The city experienced its most substantial period of population growth in the first two decades of the twentieth century, increasing 141% and 39% from 1900 to 1910 and 1910 to 1920, respectively. Urban growth first spread west on each side of W Stewart Avenue and then east along E Pioneer Street within the historic boundaries of the city. This rapid growth reflected not only opportunities for employment in Puyallup, but its increasing connectivity to Tacoma and Seattle by electric passenger rail and road, which allowed workers to commute between Puyallup and these regional centers. The Puget Sound Electric Railroad (also known as the Interurban) began operation in 1902 and serviced Puyallup on its Tacoma-Seattle route. The Puget Sound Transit Company began offering intercity bus service between Tacoma and Puyallup along Highway 5 (now SR 167) in 1913. Puyallup shared in the economic decline of the region's agricultural and timber industries in the 1920s and 1930s, demonstrated by its population growth rate declining to 12% and 11% for the next two decades, respectively. The city's population growth rebounded in the early 1940s and has steadily increased at rates in the mid-20s since. (City of Puyallup 2016, 24–27; Nationwide Environmental Title Research 2024).

This gradual population growth, as well as changing political trends in municipal land use policy and regional shifts in the Puget Sound agricultural sector over the second half of the twentieth century, resulted in the increasing urbanization of Puyallup. In the 1970s and 1980s, Puyallup's municipal land use policies began to trend toward housing and business development over farmland preservation, culminating in an unsuccessful ballot campaign to secure municipal support for farmland preservation in 1985. The local agricultural sector was further diminished as flower bulb cultivation—one of Puyallup's principal commercial agricultural industries in the first half of the twentieth century—became increasingly supplanted by production in Skagit County during this period. Former agricultural areas were annexed in the city's southwest in the 1960s and 1970s and north and south in the 1980s and 1990s and gradually filled with residential neighborhoods. The SR 512 highway was constructed along the southeast side of Puyallup's downtown in the early 1970s, resulting in further residential development in the city's south and east and the development of a southern commercial corridor along its intersection with SR 161 in the 1980s. (Nationwide Environmental Title Research 2024; City of Puyallup 2016, 24–27; Chelsey 2008).

3.10.1.5 Records Review

WISAARD, NPGallery Database, and PRHP were reviewed to identify the total number and disposition of historic built environment and archaeological resources within the study area to determine whether these resources are present within the Alternative 2 focus areas and Alternative 3 focus areas. Information pertaining to the precise location and nature of archaeological resources is confidential and available only to qualified cultural resource professionals (RCW 42.56.300). As such, the information presented for archaeological resources is limited only to their eligibility for listing in the NRHP and general location in relation to the Alternative 2 focus areas and Alternative 3 focus areas as described in Sections 2.2.2.2 and 2.2.2.3, respectively.

A total of 59 cultural resources surveys have been conducted in the study area. These surveys were completed between 2002 and 2022. Fifty-four of the survey reports were combined built environment and archaeological cultural resources surveys, and three were for archaeological monitoring. The remaining two surveys were historic built environment inventories completed by the City of Puyallup: the Puyallup Historic Survey Report (City of Puyallup et al. 2007), which focused on the Puyallup downtown, and the Puyallup Northwest Residential Survey (City of Puyallup et al. 2007), which surveyed residential areas north of W Main Street to W 2nd Avenue and west of N Meridian to W 12th Street (City of Puyallup 2016, 38).

In total, 16 individual historic built environment resources listed in the NRHP, WHR, and/or PRHP are located within the study area. Table 3.10-1 provides a summary of these individual historic resources and their respective listings, as well as their relationship to the Alternative 2 focus areas and Alternative 3 focus areas of the proposed alternatives. Additionally, 15 individual historic built environment resources that have been determined eligible for listing in the NRHP are located within the study area.

Table 3.10-2 provides a summary of these individual historic resources and their respective listings, as well as their respective relationships to the Alternative 2 focus areas and Alternative 3 focus areas of the proposed alternatives. The study area does not contain historic districts listed or determined eligible for listing in the NRHP, WHR, and/or PRHP.

Five archaeological resources have been identified within the study area. None of these five resources have been determined eligible for listing in the NRHP. Two of the five resources have been determined not eligible for listing in the NRHP, both of which are located within an area included in both the Alternative 2 focus areas and Alternative 3 focus areas. The remaining three resources have not been evaluated for listing in the NRHP. One of these resources partially overlaps with an area included in both the Alternative 2 focus areas and Alternative 3 focus areas, while the other two resources are located outside the Alternative 2 focus areas and Alternative 3 focus areas. These archaeological resources are summarized in Table 3.10-3.

One historic cemetery, the Woodbine Cemetery (WISAARD ID 1079), has been identified in the study area. Woodbine Cemetery has not been evaluated for listing in the NRHP. The cemetery is not located within an Alternative 2 focus area or Alternative 3 focus area.

A review of ethnographic literature for the Puyallup Tribe identified eight ethnographically named places in the vicinity of the study area. Village names and approximate locations were obtained from Smith (1940) and Hilbert et al. (2001):

- *tsawqéqabc* – A Puyallup village at the confluence of Clarks Creek and the Puyallup River.
- *stáxabc* – A Puyallup village at the confluence of the White and Puyallup Rivers.
- *sq'wádabc* – A Puyallup village at the confluence of Simons Creek and Wapato Creek.

- *ts'uwádiabc* – A Puyallup village on the Puyallup River upstream of its confluence with the Carbon River near present-day Orting.
- *xax'txEt* – Meaning “firm, hard,” a small pond that formerly existed south of the Puyallup Research and Extension Center.
- *klaca'xad* – Meaning “seagulls,” a knoll at the Puyallup Research and Extension Center where seagulls would gather.
- *qwatc* – Meaning “dogfish,” the site of soft ground caused by springs near the confluence of the east and middle forks of Clark Creek. Named for the belief that a dogfish lives below the ground causing it to shake.
- *st'lagwats* – Meaning “where wild strawberries grow,” a gathering site in present-day Puyallup.

This list is not intended to be considered comprehensive. The City of Puyallup is committed to consulting with the Puyallup Tribe of Indians to identify ethnographic places or traditional cultural properties within the study area.

Table 3.10-1. Individual Historic Built Environment Resources within the Study Area Listed in the NRHP, WHR, and PRHP

Property Name	Listing(s)	Alternative 2 Focus Area	Alternative 3 Focus Area
Benkovich Home	PRHP	N/A	N/A
Christ Episcopal Church - Puyallup	NRHP, WHR	Downtown RGC	Downtown RGC
Harris Building	PRHP	N/A	South River employment area
Karshner Building	PRHP	Downtown RGC	Downtown RGC
Karshner Memorial Museum	PRHP	N/A	N/A
Knight Building	PRHP	Downtown RGC	Downtown RGC
J.H. Lotz House	NRHP, WHR	N/A	N/A
Ezra Meeker Mansion	NRHP, WHR, PRHP	Downtown RGC	Downtown RGC
Peace Lutheran Church – Puyallup	WHR	Downtown RGC	Downtown RGC
Phil Brothers Building	PRHP	Downtown RGC	Downtown RGC
Puget Sound Electric Railway Puyallup Substation	PRHP	Downtown RGC	Downtown RGC
Puyallup Assembly Center	WHR	N/A	N/A
Puyallup Fish Hatchery	NRHP, WHR	Downtown RGC	Downtown RGC
Stewart – Brew House	WHR	Downtown RGC	Downtown RGC
Transit Building	PRHP	Downtown RGC	Downtown RGC
Tribune (Montgomery) Building	PRHP	Downtown RGC	Downtown RGC

N/A = not applicable; NRHP = National Register of Historic Places; PRHP = Puyallup Register of Historic Places; RGC = regional growth center; WHR = Washington Heritage Register

Table 3.10-2. Individual Historic Built Environment Resources within the Study Area Eligible for Listing in the NRHP

Property Name	Alternative 2 Focus Area	Alternative 3 Focus Area
George Milroy Bridge No. 18204-A	N/A	N/A
1941 House of Tomorrow	N/A	N/A
Residence at 7022 River Road E	N/A	N/A
Spokane, Portland and Seattle Railway	Downtown RGC	Downtown RGC
Northern Pacific Railroad Crossing	Downtown RGC	Downtown RGC
J.W. Kalkus Hall	N/A	N/A
Chehalis-Covington No. 1 230 kV transmission line	South Hill RGC	South Hill RGC
Wildwood Park Elementary School	N/A	N/A
Puyallup Valley Hospital	N/A	Medical Mixed-Use
Residence at 502 14th Avenue SE	N/A	Medical Mixed-Use
Puyallup Armory Motor Vehicle Storage Building	N/A	N/A
Milwaukee Bridge – Puyallup	N/A	N/A
House at 6020 Milwaukee Avenue E	N/A	N/A
House at 6007 Milwaukee Avenue E	N/A	N/A
Puyallup Elks Lodge #1450	N/A	N/A

N/A = not applicable; NRHP = National Register of Historic Places; RGC = regional growth center

Table 3.10-3. Archaeological Resources within the Study Area

Smithsonian No.	NRHP Eligibility	Alternative 2 Focus Area	Alternative 3 Focus Area
PI01360	Unevaluated	Pioneer Mixed-Use/Shaw Road Mixed-Use	Pioneer Mixed-Use
PI01406	Unevaluated	N/A	N/A
PI01582	Not Eligible	Downtown RGC	Downtown RGC
PI01581	Not Eligible	Downtown RGC	Downtown RGC
PI01595	Unevaluated	N/A	N/A

N/A = not applicable; NRHP = National Register of Historic Places; RGC = regional growth center

3.10.1.6 Geoarchaeological Sensitivity

The WISAARD Predictive Model was reviewed to provide a general sense of archaeological sensitivity within the study area. Based on geographic factors such as slope, distance to water, soils, geology, and the distribution of known archaeological sites, the Predictive Model categorizes archaeological sensitivity into five levels of risk: low, moderately low, moderate, high, and very high. Depending on the level of risk, conducting a cultural survey may be contingent on project parameters (low/moderately low), recommended (moderate), or highly advised (high/very high). The study area includes areas across all five risk levels. Areas adjacent to bodies of water, such as the Puyallup River and Clarks Creek, have very high sensitivity for archaeological resources. Lowland areas not directly adjacent to these bodies of water within the cultural resource study area generally have high archaeological sensitivity. Upland areas, such as in the southeast portions of the study area, have moderate and moderately low archaeological sensitivity due to their distance from water bodies and

geographic factors. Similarly, only limited areas on the bluffs along the eastern boundary of the study area have low archaeological sensitivity.

3.10.2 Impacts

This section describes the potential impacts to historic built environment and archaeological resources that could result from the implementation of the alternatives. This analysis considered the three alternatives developed by the City of Puyallup, including the possible geographic distribution of future development based on existing conditions and the alternatives through 2044 consistent with growth targets. The alternatives illustrate possible future conditions and general locations where future development could occur, including identification of the types and magnitude of development anticipated under the alternatives.

3.10.2.1 Thresholds of Significance

The thresholds of significance identified below were used to determine whether the alternatives would have a significant impact on cultural resources. Impacts of the alternatives on cultural resources would be considered significant if they met either of the following criteria:

- A specific development encouraged under either Action Alternative would result in the demolition of historic built environment resources listed in local, state, or federal inventories.
- A specific development encouraged under either Action Alternative would result in the disturbance of archaeological resources.

3.10.2.2 Impacts Common to All Alternatives

All three alternatives would result in continued residential and employment development within the study area and vary only in their degree of intensity and allowed building types. Increased developmental pressure has the potential to impact historic built environment resources either physically, through alterations or demolition and redevelopment, or visually, through the introduction of new buildings within their significant viewsheds. Ground disturbance associated with new development has the potential to impact known and unknown archaeological resources.

3.10.2.3 Impacts of Alternative 1 (No Action)

New developments under Alternative 1 would reflect existing land use designations without modification, as described in Section 2.2.2.1. Under Alternative 1, new development throughout the city of Puyallup is likely to continue under current trends, with no changes to the intensity of development and allowed building types that are currently allowed under existing land use regulations and policies. As a result, the potential for impacts to historic built environment resources and unknown archaeological resources in the city of Puyallup would be consistent with current conditions.

No significant impacts are expected from Alternative 1.

3.10.2.4 Impacts of Alternative 2

Alternative 2 would concentrate residential and employment development in the Alternative 2 focus areas and allow a wider range of middle housing in residential areas, as described in Section 2.2.2.2. Under Alternative 2, the degree of development in Alternative 2 focus areas is expected to increase compared to what is currently allowed under existing land use regulations and

policies. As a result, the potential for impacts under this alternative on the 12 NRHP-, WHR-, or PRHP-listed historic built environment resources in the Downtown RGC and each of the NRHP-eligible historic built environment resources located in the Downtown and South Hill RGCs would be greater than under current conditions, while the potential for impacts to the four NRHP-, WHR-, or PRHP-listed and 12 NRHP-eligible resources located outside Alternative 2 focus areas would be consistent with current conditions.

Two identified archaeological resources are located in an Alternative 2 focus area; however, both have been determined not eligible for listing in the NRHP. One archaeological resource that has not been evaluated for listing in the NRHP is partially located within an Alternative 2 focus area. Additionally, there remains the potential that previously unidentified archaeological resources may be impacted by the increased development encouraged under Alternative 2.

No significant impacts are expected from Alternative 2.

3.10.2.5 Impacts of Alternative 3

Alternative 3 would target growth in Alternative 3 focus areas and allow a wider range of middle housing in residential areas, as described in Section 2.2.2.3. Under Alternative 3, the degree of development in Alternative 3 focus areas would increase compared to what is currently allowed under existing land use regulations and policies. However, as growth would be encouraged in a greater range of areas under Alternative 3, it is assumed that new development would be less intense than under Alternative 2 in areas common to both the Alternative 2 focus areas and Alternative 3 focus areas such as regional growth centers. As a result, the potential for impacts to the 12 NRHP-, WHR-, or PRHP-listed historic built environment resources in the Downtown RGC and each of the NRHP-eligible historic built environment resources located in the Downtown and South Hill RGCs, would be greater compared to current trends but lower than under Alternative 2. The potential for impacts for the one PRHP-listed historic built environment resource in the South River employment area, and the two NRHP-eligible resources located in the Medical Mixed-Use focus area would be greater compared to current trends as well as under Alternative 2. The potential for impacts for the four NRHP-, WHR-, or PRHP-listed historic built environment resources and 12 NRHP-eligible resources located outside Alternative 3 focus areas would be consistent with current conditions.

Two identified archaeological resources are located in an Alternative 3 focus area; however, both have been determined not eligible for listing in the NRHP. One archaeological resource that has not been evaluated for listing in the NRHP is partially located within an Alternative 3 focus area. Additionally, there remains the potential that previously unidentified archaeological resources may be impacted by the increased development encouraged under Alternative 3.

No significant impacts are expected from Alternative 3.

3.10.3 Avoidance, Minimization, and Mitigation Measures

The City of Puyallup Historic Preservation Plan (2016) includes the previously described goals, policies, and actions that promote the identification, preservation, and protection of cultural resources in the city. These goals, policies, and actions are actively implemented and will help to identify, analyze, and avoid, minimize, or mitigate potential impacts to cultural resources in Puyallup as they arise from development encouraged by the selected alternative. Impacts to cultural resources from the selected alternative, as well as any subsequent development or code updates, would be partially addressed through the existing framework of local, state, and federal cultural resources regulations. For those elements not caught through that framework, impacts could be

addressed through the following measures to enhance the identification, documentation, and protection of cultural resources:

- Updates to the building permitting process to more fully consider impacts to cultural resources, including archaeological sites and historic built environment resources.
- Updates to the City's demolition permit application process and/or building code to encourage construction salvage to address an anticipated increase in the waste stream resulting from increased demolition of historic built environment properties.
- Conducting architectural and cultural resource surveys in previously unsurveyed or under-surveyed areas within the Alternative 2 focus areas and Alternative 3 focus areas. Such surveys could be targeted to areas with high concentrations of unevaluated historic built environment resources recorded in WISAARD. This may include historic built environment resources derived from Pierce County Assessor-Treasurer data, which captured properties 50 years or older when the dataset was shared with DAHP in 2011.
- Updates to the WISAARD inventory of Pierce County Assessor-Treasurer data to capture current historic-age built environment resources not previously included in 2011 dataset.
- Preparation of historic context statements for themes identified in the *City of Puyallup Historic Preservation Plan*, including non-European American populations such as Native American tribes inhabiting the Puyallup River valley prior to and after contact with European Americans, or the city's historic Chinese and Japanese populations; specific periods of development such as exploration and settlement, nineteenth century agricultural and industrial development, or patterns of neighborhood development associated with the city's increased urbanization in the twentieth century or architectural or engineering trends associated with specific concentrations of property types such as industrial, commercial, residential, or transportation-related properties (City of Puyallup 2016, 17-23).

On a project-by-project basis, local regulation of impacts to cultural resources in the form of the DRHPB review process and design guidelines for historic properties listed in the PRHP ensure that impacts to historic built environment resources are considered and mitigated. Specific project-based mitigation may also be implemented for new developments that impact cultural resources. However, the processes by which mitigation measures may be determined and implemented would be subject to the relevant local, state, or federal cultural resource laws and regulations governing a specific project. Additionally, the financial incentives and technical assistance offered by the City of Puyallup's well-established historic preservation program are effective tools for reducing development pressures that could impact cultural resources and supplement the Federal Historic Preservation Tax Incentives program, state-level property tax valuation adjustments for NRHP-listed historic built environment resources, and available state and Pierce County grant programs for historic property rehabilitation projects (RCW 84.26; National Park Service 2023; City of Puyallup 2013; City of Puyallup 2016, 90-97).

3.10.4 Significant Unavoidable Adverse Impacts

Typically, significant adverse impacts to cultural resources include demolition of historic built environment resources listed in local, state, or federal inventories or the disturbance of archaeological resources. The alternatives themselves would have no direct significant adverse impacts to cultural resources. However, significant adverse impacts could occur as a result of a specific development encouraged under either Alternative 2 or Alternative 3. All project-specific actions would be governed by relevant local, state, or federal historic preservation laws and regulations, which are intended to avoid, minimize, or mitigate significant adverse impacts to cultural resources.

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Appendix A

Transportation Analysis Support Documentation

Appendix A: Transportation Analysis Support Documentation

1. Travel Demand Model Memorandum, May 2024
2. Traffic Operations Analysis Memorandum, June 2024
3. City of Puyallup Existing Conditions Memorandum, June 2024

These documents are provided separately on the City of Puyallup's Comprehensive Plan update website at <https://bit.ly/Puyallup2044>.