

1.1 Purpose of the Proposal

To accommodate future population and employment growth, the City of Sumner (City) is proposing the following actions as part of its Comprehensive Plan update and amendments:

- Plan for a new comprehensive plan horizon year of 2030.
- Incorporate updated population and employment growth allocations for year 2030.
- Determine appropriate land use patterns to accommodate future growth within the city limits and the Sumner Urban Growth Area (UGA).
- Consider logical UGA boundaries to the south and east of the Sumner city limits.
- Recognize Pierce County’s designated agricultural lands and opportunities for purchase of development rights and transfer of development rights.
- Determine if docket applications should be approved, including:
 - TA-1: Amendment to the Manufacturing/Industrial Center Map Boundary—Fleishmann’s Industrial Park, LLC, applicant;
 - MA-1: Amendment to the UGA boundary (Orton Junction Amendment) and application of commercial and mixed use land uses—City, applicant; and
 - MA-2: Amendment to the UGA boundary (Reducing East Hill Area)—City, applicant.
- Revise City Comprehensive Plan elements and development regulations to address plan horizon and growth, land use plan and zoning changes, and housekeeping and consistency amendments.

To analyze the proposal, the Draft Environmental Impact Statement (EIS) studies alternatives including the No Action Alternative and two action alternatives—UGA Expansion Alternative (Orton Junction) and UGA Modification Alternative.

1.2 SEPA Procedures and Public Involvement

This section describes the State Environmental Policy Act (SEPA) and the use of the Draft EIS to solicit public input.

1.2.1 Purpose of the EIS

The purpose of this Draft EIS is to assist the public and local government decision makers in considering future growth and land use patterns as well as goals, policies, and development regulations as part of the Sumner comprehensive plan update. These broad decisions will provide direction and support for more specific actions by the City, such as capital improvements and implementing regulations.

1.2.2 Programmatic and Integrated Analysis

This Draft EIS provides a qualitative and quantitative analysis of environmental impacts as appropriate to the general nature of a comprehensive plan update. The adoption of comprehensive plans or other long-range planning activities is classified by SEPA as a nonproject (i.e., programmatic) action. A nonproject action is defined as an action that is broader than a single site-specific project and involves decisions on policies, plans, and programs. An EIS for a nonproject proposal does not require site-specific analyses; instead, the EIS discusses impacts and alternatives appropriate to the scope of the nonproject proposal and to the level of planning for the proposal (Washington Administrative Code [WAC] 197-11-442).

The City has elected to integrate SEPA and the Washington State Growth Management Act (GMA) in both the process and the document. Integration of the environmental analysis with the planning process informs the preparation of GMA comprehensive plan amendments and facilitates coordination of public involvement activities. The information contained in this Draft EIS will assist the City in refining a preferred alternative, related comprehensive plan amendments, and implementing regulations. This Draft EIS will supersede the 2005 EIS, prepared for the current City Comprehensive Plan, and will support the City Comprehensive Plan as it may be amended through this update process.

1.2.3 Phased Review

SEPA encourages the use of phased environmental review to focus on issues that are ready for decision and to exclude from consideration issues already decided or not yet ready for decision making (WAC 197-11-060(5)). Phased review is appropriate where the sequence of a proposal is from a programmatic document, such as an EIS addressing a comprehensive plan, to documents that are narrower in scope, such as those prepared for site-specific, project-level analysis. The City is using phased review in its environmental review of the City Comprehensive Plan update with a programmatic review of the proposal and alternatives. Examples of proposals that may require more area-specific or site-specific SEPA review when more details are known include, but are not limited to, capital improvement projects and private development applications.

1.2.4 EIS Scoping and Public Comment

In accordance with the requirements of SEPA and GMA, the City has provided for continuous public review and comment over the course of the planning process. First, the City conducted scoping, including an opportunity for written and oral comments. See Section 2.3.2 of this EIS for additional description of the scoping process. In addition, a 60-day comment period has been initiated with issuance of this Draft EIS, and public meetings will be held as identified in the fact sheet at the front of this document.

1.2.5 Study Area

For the purposes of this Draft EIS, the study area consists of the area within the city limits and current UGA boundary, referred to herein as the current plan area, and the area considered for inclusion in the UGA under the action alternatives, the Orton Junction expansion area. See Chapter 2 for an illustrative map.

As part of the programmatic environmental review, the City is also considering a site-specific map amendment that would address the Old Fleischmann Yeast property located at 1115 Zehnder Street, including property on the east and west sides of Fryar Avenue. The request is to include the approximately 22-acre property on the Comprehensive Plan Manufacturing/Industrial Center Map. See Chapter 2 for a map.

1.3 Proposed Action, Alternatives, and Objectives

To analyze the proposal, the Draft EIS studies alternatives including the No Action Alternative and two action alternatives—UGA Expansion (Orton Junction) Alternative and UGA Modification Alternative.

1.3.1 Objectives of the Proposal

As part of describing proposed actions and alternatives, SEPA requires the description of proposal objectives and features. Agencies are encouraged to describe a proposal in terms of objectives, particularly for agency actions to allow for consideration of a wider range of alternatives and measurement of the alternatives alongside the objectives. The following objectives apply to the alternatives reviewed in this EIS:

- Accommodate the City's fair share of population and employment forecasts to meet GMA requirements and the City vision.
- Reinforce Sumner's role as a job center serving south King County and east Pierce County. Provide a variety of employment opportunities and commercial services for the community.
- Provide a range of housing types in the community in an efficient pattern that also recognizes environmental constraints and community character.
- Define a UGA that is part of the Sumner community character.
- Define a UGA that can be served with appropriate public services and utilities.
- Fulfill the Pierce County *Alderton-McMillin Community Plan* policies regarding transfer and purchase of development rights to recognize the transitional nature of lands along State Route (SR) 410 and agricultural lands of long-term commercial significance in the valley.
- Consider location-specific amendment requests consistent with the annual comprehensive plan review cycle.
- Ensure that the comprehensive plan and development regulations are consistent with a new horizon year and desired growth patterns.

The degree to which each alternative accomplishes the objectives is addressed in this Draft EIS, particularly in Section 3.9, "Relationship to Plans and Policies."

1.3.2 UGA Expansion (Orton Junction) Alternative

The UGA Expansion (Orton Junction) Alternative would extend the current UGA boundary by adding a 188-acre area south of SR 410 in the vicinity of 166th Avenue E and Riverside Drive E. Proposed comprehensive plan land use designations would include General Commercial (GC; approximately 113 acres) and Interchange Commercial (IC; approximately 11 acres)—with a Planned Mixed Use

Development (PMUD) Overlay to ensure master planning—and Low Density Residential-1 (LDR-1; approximately 64 acres) on either side of the commercial areas. City zoning would be applied if/when the area is annexed to the city; it is assumed that comparable Pierce County urban zoning would apply prior to annexation.

To address Pierce County policies for agricultural land preservation as well as allowances for transfer and purchase of development rights, this alternative would require a determination that 131 acres of land currently designated Agricultural Resource Land (ARL) no longer meet the ARL criteria and would also require designation of a commensurate number of acres of land as ARL accompanied by conservation easements to ensure long-term agricultural production to satisfy the policy requirements in the *Alderton-McMillin Community Plan Objective 7A*. No urban land use development permits would be approved until the development rights are purchased.

To ensure that the area designated GC is not used for an extensive amount of multifamily residential, which is allowed in the GC zone, the City proposes that the PMUD overlay include a provision that requires a minimum percentage of commercial uses and a maximum percentage of residential uses.

This alternative would approve the request to add the Old Fleischmann Yeast property on the Comprehensive Plan Manufacturing/Industrial Center (MIC) Map.

1.3.3 UGA Modification Alternative

The UGA Modification Alternative would extend the UGA boundary to include only the commercial portion of the Orton Junction expansion area, described under the UGA Expansion (Orton Junction) Alternative, and would reduce the extent of the UGA boundary in the East Hill area, between 158th Avenue E extended on the west, Forest Canyon Road to the north, the present UGA boundary on the east, and the City's watershed to the south. The combination of these UGA boundary modifications would result in a net reduction in the total area of UGA of 126 acres. The UGA territory in the East Hill reduction area would revert to Pierce County rural residential designations.

The modified Orton Junction expansion area under this alternative would include GC and IC designations with a PMUD overlay to ensure master planning. No LDR-1 designations would be applied. City commercial zoning would be applied if/when the area is annexed to the city; it is assumed that comparable Pierce County urban zoning would apply prior to annexation.

Similar to the UGA Expansion Alternative, the UGA Modification Alternative would include:

- De-designation of 104 acres of ARL lands with the proposed UGA expansion together with designation of a commensurate amount of acreage with conservation easements to ensure long-term agricultural production.
- PMUD overlay with a provision that requires minimum amount of commercial uses and a maximum percentage of residential uses.
- Approval of the request to add the Old Fleischmann Yeast property on the Comprehensive Plan MIC Map.

No Action Alternative

For the purpose of this analysis, the No Action Alternative represents the continuation of the City's current Comprehensive Plan and retention of the 2022 planning horizon and growth allocations. The No Action Alternative would not include any amendments to the City Comprehensive Plan Land

Use Map, Comprehensive Plan policies, or development regulation, or consideration of any location-specific amendment requests to the City Comprehensive Plan or zoning.

1.4 Summary of Impacts

This section describes impacts that are common to the three alternatives studied in this Draft EIS. For a complete discussion of the elements of the environment considered in the Draft EIS please refer to Draft EIS Chapter 3. Section 1.4.2 summarizes the environmental impacts unique to each alternative for each element of the environment evaluated in Chapter 3 of the Draft EIS. Section 1.5 summarizes potential mitigation measures to reduce impacts.

1.4.1 Impacts Common to All Alternatives

Natural Environment

Natural environment impacts cover earth, air quality, flooding, water quality, and plants and animals subjects. Natural environment impacts would be associated with future development that would be allowed by land use plans and regulations under all alternatives. Impacts would be similar under all alternatives, because growth levels are similar; however, geographic location of impacts would vary. Impacts common to all for each natural environment subject are summarized below. Unique impacts of each alternative are addressed in Section 1.4.2, "Summary of Impacts by Alternative."

Earth

Volcanic hazard: A mud or debris flow from Mount Rainier (volcanic hazard) could cause a range of impacts from lowland flooding in recognized floodplains to catastrophic destruction from a major mudflow. The inundation area for the most severe type of event (called a Case II mudflow) has a probability of occurring in any given year of 1% for the entire mountain (recurrence interval at the low end of the 100- to 500-year range). These flows have historically extended into the current plan area, and overall impacts could vary from damage of public and private investment to loss of life. Monitoring mountain activity, prediction of events, and emergency notice are keys to reducing loss of life. Any development in the volcanic hazard area would have an increased risk of damage from mudflows.

Earthquake Hazard: The risk of earthquake is most severe on the valley floor where soil conditions could facilitate liquefaction. Without proper soil preparation and structural design, building failures and possible collapse could occur. Roadways and other infrastructure are subject to damage and failure. Any construction, particularly critical facilities such as hospitals and schools, increases risk of severe problems. Community warning systems can reduce the loss of life and injury.

Erosion and Landslide Hazard: The greatest erosion and landslide potential exists along the valley sides. However, all alternatives assume implementation of the City's critical area regulations, which would limit the potential for these hazards.

Mining Hazard Areas: New development in the vicinity of the mining operations could result in increased risk from offsite impacts, such as erosion, sedimentation, noise, truck traffic, and dust.

Air Quality

Air quality impacts common to all alternatives includes emissions from construction, commercial and industrial operations, and vehicle travel.

Construction: Construction emissions include dust from excavation and grading activities, diesel-powered engine emissions from construction vehicles and equipment, odors detectable to people in vicinity of construction activities (such as paving operations), and increases in general traffic-related emissions due to delays caused by construction equipment and material hauling activity. Construction activity and equipment must comply with relevant Puget Sound Clean Air Agency (PSCAA) regulations. However, despite compliance with such regulations, local construction-related emissions could cause temporary, localized impacts to air quality. No slash burning would be permitted in association with any of the studied alternatives.

Commercial and Industrial Operations: As a result of commercial and industrial growth under all alternatives, emissions from these operations could cause air pollution issues at adjacent residential properties, unless properly controlled. Sources of such emissions include station equipment (such as gas stations), mechanical equipment (such as heating units), and trucks at loading docks at office and retail buildings. However, all new commercial and industrial facilities would be required to register pollutant-emitting equipment with PSCAA and comply with PSCAA standards to minimize emission. Therefore, it is unlikely that new commercial and industrial operations would cause significant air quality issues.

Vehicle Emissions: Tailpipe emissions from vehicles traveling on public roads would be the major source of air pollutant emissions associated with any of the studied alternatives. Potential air quality impacts caused by increased tailpipe emissions are divided into two general categories: CO hot-spots caused by localized emissions at heavily-congested intersections; and regional photochemical smog caused by combined emissions throughout the Puget Sound region. With respect to localized hot-spot air quality, it is unlikely that increased vehicle travel on existing public roads would cause significant localized air pollutant concentrations at local intersections, forming a hot-spot. PSCAA has not indicated any exceedances over the past several years, and EPA's ongoing motor vehicle regulations have provided steady decreases in tailpipe emissions from vehicles, which possibly could more than offset the increase in vehicle traffic.

In terms of regional impacts, although population and vehicle travel in the study area would increase under all alternatives, the increase in tailpipe emissions would be very small relative to the overall regional tailpipe emissions within the Puget Sound air basin. Based on the Puget Sound Regional Council's (PSRC's) air quality conformity analysis, forecasted regional emissions for its 2030 planning year are far below the allowable budgets. None of the studied alternatives would cause a substantial percentage increase in regional vehicle miles traveled VMT throughout the Puget Sound air basin. Therefore, it is concluded none of the alternatives would result in a significant impact to regional air quality.

Flooding

Flooding is the leading cause of losses from natural disasters in the United States, accounting for 90% of all such damage. General human activity often increases the frequency and magnitude of flooding. Increased impervious surfaces such as pavement and rooftops increases the amount and speed of runoff by preventing infiltration into the ground. Structures and fill within floodplains reduce the ability of the floodway to carry water resulting in a raised base flood elevation.

Destruction of wetlands and riverside vegetation reduces the ability of plants to slow storm surges and waves. Bankside improvements, often intended to improve localized flood conditions, can create secondary problems such as erosion of other stream banks, increased downstream flooding, and decreased water quality and loss of habitat for fish and wildlife.

Development in the floodway that would increase the base flood elevation would be prohibited, and more recent FEMA requirements may limit the extent of development such as by limiting the extent of impervious surfaces. This may have the effect of reducing development capacity of the industrial area below what has been estimated for the alternatives.

Water Quality

Increased population, development, and human activity would increase the potential for water quality degradation. Surface water runoff from new development in aquifer recharge areas may contribute to groundwater contamination, if it reaches the City's spring collection areas without the benefit of filtration. Chemicals and other contaminants can directly affect groundwater supplies. Potential sources of groundwater contamination include residential septic systems; automobile-related petroleum products; pesticides, fertilizers, and herbicides; and agricultural, commercial, and industrial activities.

Removal of vegetation and creation of impervious surfaces would reduce groundwater recharge rates and increase the quantity and rate of surface water runoff delivered to local streams. Without adequate stormwater detention, stream channel responses may include increased scour of the streambed; decreased bank stability; loss of gravels/cobbles that would otherwise provide aquatic habitat in more confined reaches; deposition of fine sediment in the gravels/cobbles that may provide habitat in flatter or less confined reaches; loss of physical channel structure that would provide energy dissipation for streams and habitat for aquatic life; and degradation of water quality by sediments and other pollutants.

All of these development-related impacts would occur under all alternatives; however, any new development would be subject to applicable regulations governing building and stormwater management limiting the intensity of these impacts (see "Applicable Regulations and Commitments," under Section 3.4 "Water Quality").

Plants and Animals

Although the territories vary with the alternatives, all alternatives would focus development and impacts to biological resources within UGA boundaries, which would reduce these impacts of outside of the UGA boundaries. Growth and development activity under all alternatives could have both direct and indirect impacts on vegetation, wetlands, wildlife habitat, and aquatic habitat.

Vegetation: Direct impacts would primarily involve the physical removal of vegetation, while indirect impacts would include changes in permeability to infiltrate water. Increased impervious surfaces generally result in increased peak rates and volumes of surface water runoff, which may impact the viability of certain vegetation types. Any increases in development could also result in both temporary and permanent impacts to vegetation communities from construction activity. Nonnative invasive plant species may invade and colonize areas where vegetation has been removed and the soils disturbed.

Wetlands: Potential impacts on wetlands include increasing sedimentation from adjacent land use activities, which reduces storage volume and limits opportunities for flood moderation, groundwater exchange, and sediment stabilization. Direct impacts on wetlands from increased development could be avoided by implementation of the federal, state, and local rules and ordinances that regulate the filling of wetlands. Alterations consistent with those allowed by these regulations could occur under all alternatives, although no-net-loss of functions and values must be demonstrated. Additional losses could still occur if required efforts to restore, enhance, or create wetlands as mitigation are not fully successful. Increased development could also result in direct temporary impacts from construction.

Wildlife Habitat: Direct impacts including loss or conversion of habitat to either unsuitable or less suitable types for many wildlife species currently occupying those habitats. Development of currently vacant or underdeveloped parcels could lead to fragmentation of wildlife habitat, potentially altering habitat connectivity. Indirect effects could include a reduction in wildlife habitat quality and function due to increased human disturbance and associated factors in areas adjacent to existing wildlife habitat. Alterations in habitat due to introduction of nonnative plant species could occur. All of these factors lead to a decrease in biodiversity and habitat.

Aquatic Habitat: All alternatives could result in a reduction in the quality and quantity of aquatic habitat. Development could cause higher water temperatures, sedimentation, increased peak flows, reduced low flows, reduced groundwater, erosion, scour, pollution, streambank armoring, channelization, and reduced riparian and wetland areas all of which affect sensitive salmonid fish species in fish-bearing streams. Development activities can pollute water, degrade instream and riparian habitat, and alter the natural flow regime of rivers and streams. Direct impacts on fish and fish habitat are expected to be minimal because of current buffer requirements for salmon-bearing streams and the timing of instream work window periods, which protect fish, streams, and/or adjacent vegetation. Indirect impacts on aquatic habitats could result from increased stormwater runoff from impervious surfaces associated with development which prevent water from soaking into the ground. As impervious surfaces increase, so do stream volume, peak flows, and velocity in rivers and streams, causing greater erosion and sedimentation, disruption of spawning and resting areas, scouring out redds. Increased water volumes and velocities could displace juvenile salmonids and/or their habitats and make fish passage through culverts more difficult. Current state and City regulations require the inclusion of stormwater treatment facilities in most projects that create new or expand existing impervious surface area. These regulations require that stormwater be treated or detained before it is released to local streams to help minimize its detrimental effects on aquatic species and their habitats.

Built Environment

Built environment impacts cover noise, risk of explosion, land use, plans and policies, population and employment, housing, cultural resources, and transportation subjects. Built environment impacts would be associated with future development that would be allowed by land use plans and regulations under all alternatives. Impacts of the alternatives are similar because growth levels are similar; however, geographic location of impacts would vary by alternative. Impacts common to all for each built environment subject are summarized below. Unique impacts of each alternative are addressed in Section 1.4.2, "Summary of Impacts by Alternative."

Noise

For all alternatives, construction of infrastructure and buildings over time would result in noise impacts. Long-term noise is associated with traffic levels generated from Sumner homes and businesses as well as from regional sources and is predicted to continue. In addition, existing, stationary sources of noise could remain and would continue to contribute noise.

Construction Noise: Construction of infrastructure, housing, and business facilities is usually accompanied by temporary increases in noise due to the use of heavy equipment and hauling of construction materials. Noise impacts depend on a variety of factors, but noise may still have a temporary, localized impact on nearby residences and businesses, although construction noise is exempt from environmental noise regulations during the day.

Operational Impacts and Traffic Noise: Increased development in the current planning area would result in increased ambient noise levels. Noise from commercial uses could be noticeable to nearby residents at certain times, particularly near commercial/industrial facilities with truck loading areas or outdoor machinery. Noise from commercial and industrial facilities would be subject to Environmental Designation for Noise Abatement (EDNA) standards.

For most residents, increased traffic would result in the greatest increase in noise levels. Traffic noise is typically dominant within 300 feet of major roadways. Current planning area population and vehicle miles travelled will increase under all alternatives at similar levels, likely resulting in homes exposed to traffic noise. Future traffic noise impacts caused by increased development could occur as a result of a number of possible events, including but not limited to increases in traffic volume on existing and improved roads; widening of roads which brings traffic closer to existing homes, construction of new roadways, and construction of new homes close to arterials or freeways.

Noise levels will increase over existing levels on most roadways as development occurs. The magnitude of the traffic noise impact near any given roadway would depend on the traffic volume, traffic speed, and number of lanes. The area of greatest change among the alternatives in future conditions is on roadways south of SR 410, as described under impacts specific to each alternative.

Risk of Explosion

Additional commercial and industrial activity, as well as increased truck and rail traffic, increases the sources for explosions. Residential development located near existing natural gas lines raises the risk that an explosion would affect a greater number of residents. Demands on the fire and police departments for manpower, equipment, and support increase with the increased risk.

Land Use

Land Conversions: As development occurs over time existing land uses will convert to land uses consistent with the Comprehensive Plan. The current plan area has the same land conversion impacts under all alternatives, with only the Orton Junction expansion area providing differences in the conversion of land by alternative. The East Hill reduction area would mostly remain a single-family residential area under all alternatives, although intensity and amount of residential development would vary by alternative. Major conversions of land use common to all alternatives include:

- Approximately 1,075 acres of vacant land would convert to other uses within the current plan area under all alternatives. Most of the vacant land conversions in the current plan area would convert to industrial uses within the city limits, followed by residential and commercial uses.
- An estimated 366 acres currently in resource lands (e.g., agricultural, mining, or timber) could be converted to non-resource uses under all alternatives. Of that amount, an estimated 208 acres would convert to residential uses. Remaining resource land conversions include conversion to industrial and mixed uses. Approximately 83 acres of City-owned agricultural lands within the city limits are expected to remain in an agricultural use under all alternatives.
- Approximately 234 acres of land currently under single-family residential use would convert to other uses under all alternatives. Approximately 74 acres would convert to multifamily use, with the remainder converting to mixed uses, industrial, commercial, and public uses.
- Around 61 acres of multifamily land within the current plan area would convert to other uses. Most of this conversion would occur on the approximately 36 acres of land converting to single-family uses. The remainder would convert to mixed uses, commercial and industrial uses.
- Overall, there are expected to be small amounts of conversion of commercial lands to other uses in the current plan area, including approximately 43 acres converting to industrial uses while lesser amounts would convert to mixed uses and residential uses when properties redevelop.
- Approximately 35 acres of industrial land in the current plan area is expected to be converted to other uses as redevelopment occurs that more closely aligns existing uses with their underlying zoning. About 62% of this land would be converted to commercial uses with the remainder to public, mixed-use, or residential designations.

Land Use Compatibility: Areas where residential uses abut commercial or industrial uses in the city limits would be the same under all alternatives. Principal areas where land use compatibility between residential and commercial or industrial uses occurs are generally along East Valley Highway from the northern city limits to Elm Street and along an east-west line where commercial uses in Downtown meet with residential neighborhoods to the south. In addition to these areas, smaller pockets of residential-industrial adjacency occur in the north valley area, and residential-commercial adjacency occurs in the southern part of the city limits.

Surrounding Land Uses: Generally, very little conflict exists between planned land uses in the current plan area and surrounding jurisdictions. Land uses in the cities of Auburn, Bonney Lake, Pacific, and Puyallup are compatible with adjacent uses in the current plan area. Compatibility with unincorporated Pierce County is addressed under impacts specific to each alternative.

Although residential uses, and in some cases future land use designations, in the City of Edgewood abut industrial and commercial designations along the western city limits, a steep hillside provides a natural buffer. In the remaining area where existing residential uses in Edgewood directly abut Sumner's commercial and industrial designations at the bottom of the hill, the City Edgewood has designated this area as commercial, and therefore, uses can be expected to transition from residential to more compatible commercial uses in the future.

Plans and Policies

GMA Goals and Policies, VISION 2040, and Countywide Planning Policies for Pierce County: All alternatives provide for growth in urban areas or adjacent to urban areas that are capable of being served by urban services. However, existing large lot zoning, private and unpaved streets,

developments primarily on septic systems in the East Hill area makes it difficult to efficiently infill and provide services. City land use designations and centers concepts (e.g., Town Center, MIC, and other designations) provide for urban densities and efficient use of land, and housing and employment opportunities. City critical area, shoreline management, resource land, cultural resource, and open space policies and regulations would apply to all alternatives. Policies and regulations regarding government permit process and reasonable use of property would apply to all alternatives. Healthy lifestyles are promoted through policies and development regulations that promote pedestrian and transit oriented design, connected-gridded street pattern, mixed use development, and pedestrian amenities. All alternatives have the potential to increase greenhouse gas emissions through added growth and vehicle miles travelled, though some alternatives have lesser impacts than others; all would be subject to mitigation measures to reduce impacts. With any studied alternative, procedures regarding fiscal analysis should be defined through the addition of goals and policies.

Adjacent Jurisdictions' Plans: Studied alternatives would generally be compatible with adjacent city plans. Public service and transportation impacts would either be reduced from current plans or can be mitigated. Regarding Pierce County plans, under all alternatives the City would need to address the conclusions of the 2007 Buildable Lands Report for Pierce County (Pierce County 2007) to monitor conditions and amend as appropriate City policies for planned growth in selected Low Density Residential and Neighborhood Commercial zones (LDR-6, LDR-8.5, LDR-12, and NC). For some zones, the City proposes to monitor conditions because it is expected that the remaining designated land can be more efficiently developed, and for others environmental or other constraints may be limiting factors that should be accounted in the planned densities. See Table 1-4 regarding ARL designation which varies by alternative.

Population and Employment

Population and employment would increase under all alternatives, though locations of growth would differ (Table 1-1), and as noted under Section 1.4.2, "Summary of Impacts by Alternative." Secondary, indirect impacts of growth under each alternative would likely include potential encroachment near natural environmental resources and increases in demand for facilities and infrastructure, as described under Natural Environment and Public Services sections of this document.

The City is required by GMA to accommodate forecasted population and employment for the community to a horizon year of 2022. The City appears to be able to accommodate its 2022 population and housing allocations under all alternatives. In addition, the City has capacity to exceed its 2022 employment allocations under all but the No Action Alternative, where it would fall short by approximately 177 jobs in 2022.

The City's allocations for population, dwelling units, and jobs are being updated through a multi-jurisdictional, regional process, under the Pierce County Regional Council, that will result in allocations for year 2030. Although the City falls short of meeting its 2030 housing allocations under all alternatives, it comes closest under the UGA Expansion Alternative.

Table 1-1. Land Capacity under Alternatives Compared to 2022 and 2030 Growth Allocations

	UGA Expansion	UGA Modification	No Action	2022 Allocation	2030 Allocation
Population Capacity (persons)	16,459	14,706	15,495	14,350	16,254
Housing Capacity (dwelling units)	7,238	6,564	6,799	6,523	7,301
Employment Capacity (jobs)	20,975	20,975	19,072	19,143	19,249

Housing

Under all studied alternatives, the population and number of housing units would increase over time, particularly single-family dwellings as well as multifamily dwellings. It is likely that trends such as increasing elderly population, shrinking household sizes, and need for housing at all affordability levels will continue over the planning period. Having a mix of housing types will allow different housing choices and needs to be met. All alternatives would require that the City amend its Comprehensive Plan to address new growth allocations and, as appropriate, goals for fair-share housing.

Cultural Resources

All studied alternatives accommodate different levels of growth and development in coming years. The likelihood that any of this development would affect cultural resources is dependent on the proximity of the proposed development to any identified cultural resources. Any future development projects located on or in the proximity of known cultural resources in the study area could have impacts on the cultural resource. Section 3.12 identifies a range of impacts that could disrupt or adversely affect cultural resources. The level of significance for an impact is dependent on the existing integrity and nature of contributing elements to a property's historic or cultural significance and the sensitivity of the current or historic use of the resource.

Within the city limits, all alternatives call for a variety of uses in areas near designated historic resources: the Williams' homes and vicinity are shown as industrial or commercial, the Ryan House as Public/Quasi-Public, and Dieringer School as light industrial. The protection of non-designated historic resources would primarily be left to the market place. City design guidelines could provide some protection in terms of compatibility of new development near historic resources. It is possible that there are other unidentified historic resources and also that over the 20-year planning period some structures may reach ages that would require some review as to whether they meet criteria as eligible historic structures.

Development over the planning period in the study area also has the potential to disturb archaeological resources. It is possible that intact buried deposits remain in areas not yet tested, particularly those areas in the vicinity of the Stuck/White or Puyallup Rivers.

Transportation

Traffic Volumes: Traffic forecasts on SR 167 and SR 410 near the City of Sumner are generally comparable (within 110 vehicles per hour [vph]) between the three alternatives. On other streets in

and near the City of Sumner, the forecast PM peak-hour traffic volumes are generally similar (within 20 vph) among the alternatives, except in the immediate vicinity of the proposed Orton Junction expansion area.

Vehicle Miles Travelled: Vehicle miles travelled would increase with each alternative studied, and are within 2% difference of one another.

Traffic Operations: The two action alternatives do not generally result in changes in the forecast PM peak-hour levels of service at citywide intersections compared to the No Action Alternative. The intersection of Main Street at 160th Avenue E is forecast to operate at level of service (LOS) F under all three alternatives. The poor LOS is due to the potential removal of the free-flow east-to-south right-turn lane, which is desired by the city to improve the safety of pedestrians crossing the street. The City may consider leaving the free-flow east-to-south right-turn lane to maintain the LOS or consider installation of a traffic signal which would resolve the LOS issues. This would require signal warrants to be met.

Access and Circulation and Safety: Existing roadways (identified in the mitigation section) would be upgraded to accommodate the additional traffic demands of all the alternatives. Local roads would need to meet the City of Sumner street design standards. The street design standards are intended to provide a safe and efficient system and include minimum sight distance requirements, intersection spacing requirements, and roadway cross-sections.

Alternative Modes: All of the alternatives would allow for growth that would need to provide urban street standards including curb, gutter, and sidewalk for pedestrian connectivity as well as provisions for bike lanes for a well rounded and balanced transportation system. With additional growth under all alternatives, it is anticipated that a small amount of transit and rail ridership would be generated that would primarily use the Sumner Station facility.

Public Services and Utilities

Public services and utilities impacts cover parks and recreation; city facilities; fire, police, and court services; libraries and schools; water supply, sanitary sewer; storm sewer; solid waste; and utilities. Public services and utilities impacts would be associated with development that would occur under all alternatives in accordance with land use plans and development regulations. Impacts would be similar under all alternatives, because growth levels are similar; however, geographic location of impacts would vary. Impacts common to all for each subject are summarized below. Unique impacts of each alternative are addressed in Section 1.4.2, "Summary of Impacts by Alternative."

Parks and Recreation

Under all alternatives, the population of the current plan area is anticipated to grow during the planning period. Increases in population would result in an increased demand for parks and recreational facilities. Impacts on these facilities would be proportionate to the amount of population increase, and each alternative would result in some LOS deficiencies if additional parks and recreation resources are not acquired. Table 1-2 identifies the estimated amount of additional parks and recreation facilities that would be needed if the current City Parks and Recreation Standards were applied to future population projections for the alternatives. Alternatively, the City could adjust its LOS standards for parks and recreation. Detail on both additional parks and recreation needs and potential changes to LOS standards can be found in Section 3.14.

Table 1-2. Parks and Recreation Level of Service Deficiencies

Activity	Required Level of Service	Additional Facilities Required with Current LOS Standard		
		UGA Expansion	UGA Modification	No Action
Softball	1/2,000	1.2	0.4	0.7
Soccer Fields	1/2,000	5.2	4.4	4.7
Basketball Courts	1/1,000	3.5	1.7	2.5
Volleyball Courts	1/5,000	1.3	0.9	1.1
Community Parks	1 acre/1,000	7.5 acres	5.7 acres	6.5 acres
Urban Trails	0.95 mile/1,000	15.6 miles	14.0 miles	14.7 miles
Picnic Shelter/ Gazebo	1/8,500	0.9	0.7	0.8
Picnic Tables	1/250	47.8	40.8	44.0
Children's Play Areas	1/1,700	4.7	3.7	4.1
Regional Park	1 acre/710	12.2 acres	9.7 acres	10.8 acres

City Facilities

The City of Sumner has the following City Facility LOS standards:

- General Government: 1.13 square feet per capita
- Police: 0.44 square feet per capita
- City shops (buildings only): 1.8 square feet per capita

Table 1-3 indicates that there are no existing deficiencies. Space within City Hall is projected to be adequate for the Planning Horizon. Space at the City Shops could become insufficient in the next 5 years, and a detailed study of Public Works related space is warranted in the coming 5 years

Space allocated for Police is anticipated to be adequate through both the planning horizon and under all alternatives. Both General Government (City Hall) and the City Shops experience deficits through the planning horizon and under all alternatives. The amount of surplus or deficit varies based upon alternative considered.

Table 1-3. City Facility Space—Existing and 2030 Demand (Square Feet)

	Existing Space	Existing Demand	Surplus/Deficit				
			2022 Allocation	2030 Allocation	UGA Expansion	UGA Modification	No Action
General Government	14,577	10,238	-1,639	-3,790	-4,022	-2,041	-2,932
Police	7,654	3,986	1,340	502	412	1,183	836
City Shops	17,700	16,308	-8,130	-11,557	-11,926	-8,771	-10,191

Source: City of Sumner 2005.

Because there are no established Levels of Service for Cemetery or the Multi-Purpose Center, there is no analysis of these facilities in this EIS. However, it is expected that demand for these services will increase as the population grows.

Fire, Police, and Courts

All alternatives accommodate growth in Sumner with the primary difference in the distribution and location of that growth. It is anticipated that additional growth accommodated within the current plan area under all alternatives would result in increased demand for public safety services. In particular, additional police and fire services would likely require additional personnel compared to existing conditions to meet demand. New development would likely enhance assessed valuation, tax base, and revenues available to the affected jurisdictions and special districts for providing emergency services. Availability of services will be dependent on allocated budgets. As portions of the City's UGA are annexed to the City, fire providers remain the same, but police service would transfer from Pierce County Sheriff's Office to the Sumner Police Department.

Fire: The City's LOS standards relating to fire contained within the Comprehensive Plan Capital Facilities Element are standards developed for the City fire department before it joined East Pierce Fire & Rescue in 2008. Since East Pierce Fire & Rescue has its own LOS standards and is embarking upon a comprehensive capital facility planning process, under all alternatives, the City should amend its LOS standards for fire service in coordination with East Pierce Fire & Rescue.

New development and population growth associated with the update of City Comprehensive Plan population allocations and extending them to 2030 will result in an increased demand for fire protection and related services. The specific need for services, equipment, and facilities would be determined through ongoing planning by East Pierce Fire & Rescue and would be based on response time goals and/or the timing and location of future development that would be allowed under the current comprehensive plan (No Action Alternative), the UGA Expansion Alternative, or the UGA Modification Alternative. Greater infill development in urban areas will allow for greater efficiency of fire protection service as compared to UGA expansion or rural growth, which could increase driving distance and response time to the larger population. See Impacts by alternative below for how the location of future development and anticipated infill affects fire and EMS service provision.

New development will need to meet International Fire Code and International Building Code requirements, as referenced in Title 15 of the Sumner Municipal Code.

Police: The Capital Facilities Element contains a LOS standard of 1 officer per 500 residents. Using the City's established LOS standard for police, a total of 29 officers would be required to provide police services to the 2022 population allocation for the current plan area. This represents an increase of 10 commissioned officers over the current staffing level (not counting the 3.5 limited commission officers currently on staff), and assumes the City will annex land within its UGA and provide police service to those areas. If the population increases in the UGA are not taken into account, the demand for police services within existing city limits would require a total of 25 officers or 6 over the existing staffing level.

When applying the City's Police LOS standard to its 2030 population allocation, the City should plan for 33 officers by 2030, an increase of 14 over existing conditions. When only considering existing city limits for 2030 population allocation, the City should plan for 28 officers in 2030, an increase of 9 commissioned officers over current staffing levels.

Sumner Municipal Court: It is anticipated that the Municipal Court's caseload will increase as population growth occurs. An increase in the court's caseload may require additional staffing as necessary to ensure prompt and responsive processing.

Libraries and Schools

Schools: Population growth in the current plan area would result in increased enrollment at Sumner and Dieringer school districts. Additional students would, in turn, place increased demand on school facilities and services. However, the Washington State Office of the Superintendent of Public Instruction (OSPI) forecasts a slight decrease in student enrollment over the next 6 years for the Sumner School District (decrease from 8,071 to 7,879 students). For Sumner School District schools in the current plan area, student population would likely grow slightly as a result of the anticipated increase in households under all alternatives.

OSPI estimates that the student population in the Dieringer School District will increase by an estimated 550 students over the next 6 years. Although the majority of the Dieringer School District provides education within unincorporated Pierce County, it does provide instruction to students in the northern portions of the city limits and the northeastern portions of the UGA. It is likely that most of the Dieringer student population growth would occur outside of the current plan area.

Because there is not a breakout of population forecasts by school district, projections of future student population are provided for both school districts within the current plan area. However, under all alternatives, most of the projected student population growth would occur in the Sumner School District.

When student population within the current plan area is projected to 2022, based on the net increase in dwelling units studied in this document for the 2022 allocation (2,038 net new dwelling units in current plan area) and an average student factor of 0.1397, approximately 285 net new students are anticipated within the current plan area between 2010 and 2022. When projected new students are extended to the 2030 allocation using the same average student factor, approximately 393 net new students are anticipated between 2010 and 2030.

Library: Projected population growth would result in greater demands on the library system. The existing library facility can serve approximately 23,556 persons while still meeting the existing Pierce County Library System (PCLS) LOS standard (0.45 square foot per capita). Under PCLS's proposed LOS standard (0.61 to 0.71 square foot per capita), the Sumner Library can serve between 14,930 and 17,377 people. The 2022 population allocation for the current plan area (14,350 persons) would increase the demand for services, but is not anticipated to result in a significant impact on library services. The Sumner Library meets existing and proposed LOS standards for 2022 allocation. By 2030, population growth in the current plan area would result in a potential net deficit of library facility space, if PCLS adopts an LOS standard in the range of 0.61 and 0.71 square foot per capita. Library space would either have a net reserve of 685 square feet (at 0.61 square foot per capita), or a net deficit of 940 square feet (at 0.71 square foot per capita). However, if the planned Sumner Library relocation and expansion occurs that is anticipated in *Pierce County Library 2030* then it is likely that the expanded Sumner library would be able to meet LOS standards being considered under all alternatives. The existing Sumner Library would meet the existing LOS standard in 2030.

This analysis does not account for the regional population outside of the current plan area, which currently uses this regional library, nor does it account for any trends that may occur at other libraries in the PCLS.

For all alternatives, the Sumner Capital Facility Element policy describing the library LOS as 0.60 square foot per capita should be updated to reflect the PCLS's revised LOS standard, when Pierce County Library 2030 is updated and adopted.

Water Supply

Under all alternatives, increased population and employment would result in increased demand for water service, placing additional load on the current water supply system. As a result of this increased demand, distribution lines in the Orton Junction expansion area may need to be installed or resized to deliver adequate water flow. Based on the water demand projection methods described in Section 3.18, the City's water plan estimates daily demand at an average of approximately 171 gallons per capita for the period 2009–2029. This number includes non-residential uses such as commercial establishments, industrial facilities, schools, and system loss.

Implementation of the planned source improvements, well construction, and additional water rights, described under in Section 3.18 would increase source capacity to 7.03 mgd, resulting in a 2030 surplus of 2.25 mgd.

Demand for water service would exceed supply when peak daily demand is greater than the current water supply capacity of 3.72 mgd. Based on a per capita demand of 171 gallons daily and a peaking factor of 2.0, demand would exceed supply at a service area population of 10,877. The eastern portion of the UGA, including the East Hill reduction area, lies within the service area for the City of Bonney Lake. This area is not included in the City's future water service plans under all alternatives. The City's estimated 2009 service area population was 9,881, which results in a demand of approximately 1.69 mgd and peak demand of 3.38 mgd. Based on current supply, the system has demand surplus of approximately 0.34 mgd.

Section 3.18 of this document describes planned water source improvements, well construction, and additional water rights, described which would increase the City's future water source capacity to 7.03 mgd under all alternatives.

Sanitary Sewer

All alternatives would increase demand for wastewater treatment and collection. With the construction of planned improvements, the wastewater treatment plant (WWTP) will be capable of handling flows and loads anticipated by 2028 for all alternatives studied. Collection and conveyance infrastructure would require upgrades per adopted plans.

Storm Sewer

Additional growth and development will increase the amount of impervious surfaces and the level of stormwater runoff. This effect will be especially pronounced in areas where the current land use is predominantly agricultural, vacant, or natural (vegetated). The Salmon Creek drainage area (Basin T), which includes the southern portion of the East Hill reduction area and most of the Orton Junction expansion area, has a history of drainage problems, and several locations within this

watershed were identified in the *1992 City of Sumner Stormwater Comprehensive Plan* as existing problem areas.

Under all of the alternatives, new development of a primarily commercial nature would occur within the Salmon Creek drainage area. A 2005 review of development data by the Sumner Public Works Department found that commercial parcels in the city had a median impervious surface percentage of 75%. As a result, future commercial development is anticipated to consist of a high degree of impervious surface, which will generate additional stormwater runoff. However, it should be noted that this citywide commercial impervious surface assumption, as well as other standard impervious surface assumptions described in Section 3.20, may be conservative since the City now requires low impact development practices through its stormwater regulations. In addition, uses in the northern valley may also have reduced impervious surfaces due to future floodplain regulation changes (described in Section 3.3 “Flooding”).

Solid Waste

Solid waste planning is conducted regionally in Pierce County in coordination with cities and towns. Under all the alternatives, the overall population of Pierce County is projected to increase over the next 20 years, and with it, the demand for solid waste disposal services. The demand for disposal services would differ by alternative; however, because these differences would result from adding or removing land from the Sumner UGA, and because solid waste would be generated by territories that are within or outside of the alternative boundaries, the overall demand for disposal services within Pierce County would remain consistent with the County’s adopted demand projections.

Utilities

Population growth under any of the alternatives will result in increased demand for utility services. However, the alternatives differ with regard to the location and magnitude of increased demand as described in Section 1.4.2, “Summary of Impacts by Alternative.”

1.4.2 Summary of Impacts by Alternative

Table 1-4 summarizes unique impacts of each alternative by environmental topic. The discussion is intentionally brief, and the reader is encouraged to read the full discussion of impacts in Chapter 3 in the context of the affected environment and impact analysis. Mitigation measures would be applied as noted in Section 1.5 and Chapter 3.

Table 1-4. Summary Comparison of Impacts Unique to Each Alternative

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.1 Earth	<p>This alternative would allow development in most of the Orton Junction expansion area, which would be subject to the elevated risks of volcanic mudflows and seismic hazards associated with the area. Commercial and residential development in the Orton Junction expansion area would result in an increase in impervious surface cover and the loss of agricultural soils.</p>	<p>This alternative would reduce the population that may locate in areas with geologic risks. Development in portions of the East Hill reduction area with steep slopes would continue to be subject to Pierce County zoning and development standards though at rural densities.</p> <p>Above the No Action Alternative, commercial development in Orton Junction would be located in an area subject to volcanic mudflows, though less than the development planned in the UGA Expansion Alternative. Development in the Orton Junction expansion area would result in an increased impervious surface cover and loss of agricultural soils compared to the No Action Alternative, but would affect a smaller area than the UGA Expansion Alternative.</p>	<p>Earth impacts under the No Action Alternative would be similar to those described under “Impacts Common to All Alternatives.” The territory in which urban development would occur would be in the range of the action alternatives and would not extend into the Orton Junction expansion area.</p>
3.2 Air Quality	<p>This alternative would generate the highest increases in population and square footages of mixed-use development, resulting in greenhouse gas (GHG) emissions higher than found in the other alternatives.</p> <p>GHG calculations for this and other alternatives are presented for the assumed 60-year life cycle, and as annualized emissions. Under the UGA Expansion Alternative, city-wide</p>	<p>This alternative would generate increases in population and square footage of development lower than the UGA Expansion Alternative, but higher than the No Action Alternative. Likewise, annual GHG emissions in the study area would fall between those for the other alternatives. This alternative would cause a GHG emission increase of 9,860 metric tons per year compared to the No Action</p>	<p>The No Action Alternative represents the future “business as usual” scenario that is typically used as the basis of comparison to evaluate future GHG emissions. The No Action Alternative would generate increases in population and square footage of mixed use compared to existing conditions. This would result in annual study area GHG emissions higher than existing conditions. The No Action</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	<p>emissions would show an increase of 23,531 metric tons per year compared to the No Action Alternative. There is no practical method to assign a significance determination to this GHG increase. Regardless, the City acknowledges the need for all communities to develop in a manner that minimizes fuel consumption, single-occupancy vehicle usage, and GHG emissions.</p> <p>The alternative would have a slight increase in vehicle miles travelled (VMT) above the No Action, but would have a negligible impact on regional air quality.</p>	<p>Alternative.</p> <p>Similar to the UGA Expansion Alternative, there is no practical method to assign a significance determination to this GHG increase, but the City acknowledges the need for all communities to develop in a manner that minimizes fuel consumption, single-occupancy vehicle usage, and GHG emissions.</p> <p>In terms of VMT, the UGA Modification Alternative would have similar but slightly greater levels than the UGA Expansion Alternative because the UGA Modification Alternative has slightly higher volumes on the highways due to longer trip lengths associated with less internalization of trips in the broader study area. The alternative would have a negligible impact on regional air quality.</p>	<p>Alternative would generate an estimated 135,163 metric tons per year of GHG emissions, of which 695 tons per year would be “soil carbon” emissions generated by conversion of agricultural and mineral (forest) land.</p> <p>The No Action Alternative would produce 102,656 VMT, less than 1% of the Puget Sound regional VMT forecast, and is not expected to have regional air quality impacts as PSRC has emission budgets far below what is allowed for tailpipe emissions.</p>
3.3 Flooding	<p>Because no floodways or floodplains are located in the Orton Junction expansion area, flood impacts would be the same under this alternative as described under “Impacts Common to All Alternatives.”</p> <p>The inclusion of the Fleishmann Yeast property in the MIC would not increase or decrease potential flood hazard for the property. However, inclusion of the property in the MIC may lead to changes in development allowances for residential uses in favor of employment only uses,</p>	<p>Because no floodways or floodplains are located in the Orton Junction or East Hill areas, flood impacts would be the same under the UGA Modification Alternative as described under “Impacts Common to All Alternatives.”</p> <p>The potential for flooding effects on the Fleishmann Yeast property is the same as for the UGA Expansion Alternative.</p>	<p>Flooding impacts under the No Action Alternative would be the same as described under “Impacts Common to All Alternatives.”</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	reducing the potential for residents to be located in proximity to the flood hazard.		
3.4 Water Quality	<p>The change from agricultural to residential and commercial land uses in the Orton Junction expansion area would result in the types of impacts described for all alternatives.</p> <p>An increase in impervious surface area would occur, potentially resulting in an increase in pollutant loading of vehicle related pollutants and peak stormwater runoff, as well as decreased infiltration to groundwater. However, there would also be a potential reduction in agricultural pollutant loading.</p> <p>These effects would apply to Salmon Creek, the Puyallup River and the South Well and Elhi Springs wellhead protection areas. The extent of these impacts would be greatest under this alternative since territory is added beyond the No Action Alternative and results in the greatest urban area of the studied alternatives.</p>	<p>The change from agricultural to commercial land uses in the Orton Junction expansion area would result in the types of impacts described for all alternatives. See UGA Expansion (Orton Junction) column for impacts to water quality that would potentially occur. These effects would apply to the Puyallup River and the South Well and Elhi Springs wellhead protection areas.</p> <p>Potential impacts would be lower than for the UGA Expansion Alternative, because the added area would be approximately 64 acres smaller in the Orton Junction area.</p> <p>Reducing the UGA by removing the East Hill reduction area would reduce the potential for these impacts in the County, Weber, and Sumner Springs wellhead protection areas, and in the White River and its tributaries that drain from this area. The net reduction of the UGA by nearly 124 acres would result in less development and a lower potential for impervious surfaces of the studied alternatives.</p>	<p>Impacts on water resources under the No Action Alternative would be the same as described under “Impacts Common to all Alternatives.” The territory in which urban development would occur, and potential for impervious surfaces, would be in the range of the action alternatives for the current plan area, and would not extend into the Orton Junction expansion area.</p>
3.5 Plants/Animals	<p>Impacts on plants and animals would be the same as those described under “Impacts Common to All Alternatives,” but would occur over a larger area. New commercial and residential</p>	<p>Impacts on plants and animals would be the same as those described under “Impacts Common to All Alternatives.” However, removing the East Hill reduction area from the UGA would</p>	<p>The UGA would be larger under this alternative than under UGA Modification Alternative and smaller than under the UGA Expansion Alternative. However, because the</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	development in the Orton Junction expansion area would reduce agricultural land use and associated habitat in this area. Several animal species, primarily birds and small mammals, would lose habitat as farmland is converted to commercial and residential land uses.	reduce the future density of residential development in this area and result in an incrementally smaller loss of backyard habitat for birds and other suburban adapted wildlife. New commercial development in the Orton Junction expansion area would reduce agricultural land use and associated wildlife habitat in this area, as described for the UGA Expansion Alternative, but over a smaller area.	UGA would not be expanded to include the Orton Junction expansion area, no agricultural habitat would be lost.
3.6 Noise	Commercial uses would increase in proximity to rural residential areas compared to the No Action Alternative. The potential impacts noted in Impacts Common to All Alternatives regarding increased noise due to activities such as commercial loading would apply to the UGA Expansion Alternative. The level of traffic volumes and potentially noise would increase on roadways in the eastern portion of the current plan area as well as in the Orton Junction expansion area compared to the No Action Alternative, including SR 410 between SR 167 and just east of 166th Avenue East, 74th Street East, just east of SR 162; Riverside Drive, south of 78th Street East; and 166th Avenue East south of SR 410. Depending on the sensitivity of noise receptors, the City may require site specific noise studies along the more	Impacts are similar to the UGA Expansion Alternative in terms of commercial increases and traffic volume increases. However, under this alternative the Orton Junction expansion area would be smaller and would not include urban residential designations. Therefore, fewer residents would locate in the vicinity of major highway noise sources. In addition, with the UGA reduction in the East Hill area, fewer dwellings would be constructed near major roadways such as Sumner-Tapps Highway East, reducing sensitive receptors near roadway noise in that location.	Traffic volumes and associated roadway noise are expected to increase the least under this alternative compared to the action alternatives.

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	major routes. Future residents of the Orton Junction expansion area may be subject to noise from SR 162 and SR 410, given the greater traffic volumes.		
3.7 Explosion Risk	This alternative would allow commercial and additional residential development in the Orton Junction expansion area. Allowing additional residential development in an area near a natural gas pipeline, as well as adding commercial activity, would increase the risk of the loss of life, injury, or loss of property from an explosion.	This alternative would allow commercial development in the Orton Junction area, while removing residential land from the UGA on East Hill. Overall risk of explosion associated with the UGA Modification Alternative would be only slightly lower than under the UGA Expansion Alternative.	Under the No Action Alternative, no amendments would be made to Sumner’s UGA Boundaries. Development is anticipated to occur in a manner similar to what is currently planned for under the 2004 Comprehensive Plan, at a similar level of risk of explosion as under currently forecast build-out conditions
3.8 Land Use	This alternative includes an additional 166 acres of land conversions in the Orton Junction expansion area. Most land conversions in Orton Junction are expected to be from agricultural to commercial and residential uses. The land use compatibility boundary where commercial abuts residential would move further south and west in comparison to the No Action Alternative. The new boundary for commercial-residential transition would follow the new General Commercial designation boundary within the Orton Junction expansion area.	The same amount of land conversions from other uses to commercial occurs within Orton Junction expansion area under this alternative as under the UGA Expansion Alternative. However, under this alternative, no additional land in the expansion area would be converted to urban residential uses. The transition between commercial and residential uses under this alternative would be the same as the UGA Expansion Alternative, and south and west in comparison to the No Action Alternative.	Less land conversion would occur in the Orton Junction expansion area, because much of the land in this area is characterized by existing agricultural and residential uses that are similar to the corresponding Pierce County land use designations. However, small amounts of vacant and agricultural land would be converted to rural residential use under this alternative. The City’s existing transition between commercial and non-commercial uses abutting the Orton Junction expansion area would be unchanged, and this alternative provides the smallest commercial to non-commercial transition in the Orton Junction area of all the alternatives.

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.9 Plans/Policies	<p>The inclusion of the Orton Junction expansion area into the current plan area would result in increased land capacity. It would exceed the 2022 allocations for population but meet the proposed 2030 allocations.</p> <p>It would exceed the proposed 2022 and 2030 employment allocation.</p> <p>The additional employment acreage associated with Orton Junction expansion area (approximately 2% of the total) would contribute to a supply that would allow market forces to operate.</p> <p>A joint planning agreement would be required due to the UGA expansion in the Orton Junction area that includes ARL lands.</p> <p>The UGA Expansion Alternative proposes 131 acres of ARL acreage be included within the UGA and 57 acres of other, rural lands. This alternative would, therefore, require 131 acres of lands within the <i>Alderton-McMillin Community Plan</i> planning area to be combined and re-designated to agricultural lands of long-term commercial significance and protected by a conservation easement. Section 3.9 contains an analysis of ARL lands and whether ARL designation criteria are met. A discussion of soils notes that site-specific discrepancies with soil type, combined with the subclass limitations due to wet conditions</p>	<p>This Alternative allows growth that is approximately 2% above the 2022 population allocation, and would ensure a net reduction in UGA (-126 acres). It would not accommodate the proposed 2030 population allocation. It would exceed the proposed 2022 and 2030 employment allocation.</p> <p>The additional employment acreage associated with Orton Junction expansion area (approximately 2% of the total) would contribute to a supply that would allow market forces to operate.</p> <p>The alternative would provide a more efficient pattern of service delivery with the reduction of the East Hill area and expansion of the UGA to the south.</p> <p>A joint planning agreement would be required due to the UGA expansion in the Orton Junction area that includes ARL lands.</p> <p>The UGA Modification Alternative proposes that approximately 104 acres of ARL land be included within the UGA and approximately 19 acres of other rural lands. Similar to the UGA Expansion Alternative this would require approximately 104 acres of land outside of the UGA be designated ARL and protected with a conservation easement. Less designated ARL land would be converted to urban uses. The description of criteria is the same as</p>	<p>This Alternative would retain the current UGA boundary and year 2022 population allocation, and would not be updated to address pending 2030 growth allocations.</p> <p>The Alternative would include the East Hill area that is a less efficient area to service.</p> <p>The Alternative would not expand into the ARL designated lands in the Orton Junction area, and thus there would be less potential agricultural land conversion.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	<p>raises some doubts regarding the productivity of the soil class, even though the area is mapped by agencies as having prime farmland soils. Though portions of the ARL lands are being farmed, they are in proximity to intense urban uses.</p>	<p>for the UGA Expansion Alternative.</p>	
3.10 Population/ Employment	<p>This alternative extends the UGA boundaries by approximately 188 acres in the Orton Junction Area south of the current plan area, adding about 64 acres of housing and 124 acres of commercial land to the UGA. Additional employment and population growth would occur at urban intensities in the Orton Junction expansion area. Compared to adopted 2022 allocations, this alternative would exceed the population, dwellings, and employment allocation. Additional land capacity would allow the City to exceed slightly the proposed 2030 population and employment allocations. This alternative comes closest to meeting 2030 dwelling allocations, falling short by 63 housing units.</p> <p>The Fleischmann Industrial Park LLC proposal to add the property to the MIC would eliminate the possibility of residential uses and focus solely on employment uses, manufacturing in particular.</p>	<p>The net UGA reduction would result in a lower population and fewer housing units than the other alternatives studied, but includes the same number of employees as the UGA Expansion Alternative. Similar to the UGA Expansion Alternative, this alternative exceeds the 2022 population and housing allocation slightly (by 2%), but with a smaller surplus of population and dwellings compared to the UGA Expansion Alternative.</p> <p>This alternative would be below the proposed 2030 allocations regarding population and housing, but would exceed 2030 employment allocations. The Fleischmann Industrial Park LLC proposal to add the property to the MIC is the same as described in the UGA Expansion alternative.</p>	<p>The No Action Alternative would provide population and housing within the range of the other alternatives considered, but would provide fewer jobs. Although this alternative would result in surplus population and housing compared to the 2022 allocations, it falls short of meeting the 2022 employment allocation.</p> <p>In addition, this alternative falls short of meeting population, housing, and employment allocations for 2030. The Fleischmann Industrial Park LLC sites would retain current Comprehensive Plan designations and would not be assigned to the MIC, allowing a focus on both employment and housing in the Town Center.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.11 Housing	<p>This alternative would provide the highest dwelling capacity of the alternatives over the largest geographic area. Total dwelling capacity would exceed the adopted 2022 allocation, but would be slightly under the proposed 2030 allocation. This alternative would also provide for 75% of new dwellings as low density, with approximately 25% in zones allowing for attached dwellings. Attached dwellings tend to be more affordable and the capacity for these units would exceed Sumner’s 2022 fair-share allocation and nearly provide the full amount of the 2030 estimate considering the advisory method prepared in 2007. It would meet the new Countywide Planning Policy goal of 25% of new dwellings whether at 2022 or 2030 horizons.</p>	<p>This alternative would provide the lowest dwelling capacity of the studied alternatives. The capacity would meet the 2022 dwelling allocation and be below the 2030 dwelling allocation. This alternative would also provide for 68% of new dwellings as low density, with approximately 32% being attached dwellings. Attached dwellings tend to be more affordable and would exceed Sumner’s 2022 fair-share allocation and nearly provide the full amount of the 2030 estimate considering the advisory method prepared in 2007. The alternative would meet the 25% goal-based fair share allocations in either 2022 or 2030.</p>	<p>The No Action Alternative is within 5% of the 2022 dwelling allocation and below the 2030 allocation. About 72% of the dwelling capacity would be low density and 28% in moderate and higher density categories, which would allow the City to meet the 2022 advisory fair-share allocations and almost meet the 2030 estimate using the 2007 advisory method. Under either horizon the No Action Alternative would meet the new Countywide Planning Policy goal of 25% of new dwellings.</p>
3.12 Cultural	<p>This alternative would add the most urban area, includes most capacity for new growth, and the most opportunity for redevelopment. Consequently, this alternative has a higher likelihood of impacts on cultural resources than other alternatives studied. This alternative extends urban zoning to the Orton Junction expansion area including the Orton House, listed on federal, state, and county historic registers. Specific development plans would be subject to site-specific SEPA review.</p>	<p>This alternative would have lower growth levels than the UGA Expansion Alternative and a smaller urban boundary than either the UGA Expansion Alternative or the No Action Alternative. Thus, of the studied alternatives there is an overall lower potential of cultural resource disturbance. However, the UGA Modification Alternative does expand urban boundaries to include the Orton House. Potential impacts on the house itself would be similar to those described for the UGA Expansion</p>	<p>Within the current plan area, the No Action Alternative would have impacts as described under Impacts Common to All Alternatives. The Orton House is not included in the current plan area, and thus there would be a lower likelihood of change from its present rural residential use to another use. Additionally, the context of the area surrounding the listed structure would remain agricultural and rural in nature.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	<p>However, with the more urban zoning proposed for the site, a greater range of possible uses exist for the site and home. Some of these uses could affect the Orton House to varying degrees. Future commercial development surrounding the listed property could also change its context from agricultural and rural to urban.</p> <p>If the Orton House were demolished, or in some other way changed, the future development would be subject to local historic commission review, permit review, and depending on the action, environmental documentation, including possible consultation with DAHP and the National Park Service.</p>	<p>Alternative.</p>	
3.13 Transportation	<p>The UGA Expansion (Orton Junction) Alternative would result in slightly higher traffic volumes on SR 410 between SR 167 and just east of 166th Avenue E. These volumes reflect the increased trip generation in the Orton Junction subarea. The increase in volumes would be generally unnoticeable (less than 3%) compared to the No Action Alternative.</p> <p>This alternative results in an increase of approximately 725 vph (340 entering and 385 exiting) with the UGA Expansion (Orton Junction) area compared to the No Action Alternative.</p> <p>At the SR 162/74th Street E intersection, construction of a west-to-</p>	<p>Similar to the UGA Expansion Alternative, the UGA Modification Alternative would result in slightly higher traffic volumes on the SR 167 and SR 410 freeways compared to the No Action Alternative.</p> <p>Total forecast PM peak-hour traffic volumes entering and exiting the UGA Modification Alternative via 74th Street E, Riverside Road, and 166th Avenue E are expected to be 60 vph lower than the UGA Expansion (Orton Junction) Alternative and 645 vph higher than the No Action Alternative.</p> <p>The boundary change to exclude the East Hill reduction area from the UGA and associated lower number of housing units are estimated to reduce</p>	<p>Traffic forecasts under the No Action Alternative would generally be similar to or lower than the other alternatives. They would be consistent with the City's current Transportation Plan.</p> <p>At most study intersections, the resulting forecast levels of service for the No Action Alternative are similar to the other alternatives. Where there are differences, the levels of service for the No Action Alternative are better than the other alternatives.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	north right-turn lane may be desirable to reduce delays caused by west-to-south left-turns blocking right-turn movements.	<p>the PM peak-hour traffic volume forecasts on Forest Canyon Road by approximately 70 vph compared to both of the other alternatives.</p> <p>Forecast PM peak-hour traffic volumes on Sumner-Tapps Highway north of 64th Street E would be slightly (20 to 45 vph) lower under this alternative compared to the other alternatives.</p> <p>At the SR 162/74th Street E intersection, construction of a west-to-north right-turn lane may be desirable to reduce delays caused by west-to-south left-turns blocking right-turn movements.</p> <p>In the East Hill reduction area, the projected growth and allowable land use densities would be reduced and in turn would reduce the need for additional access and circulation roads. Future developments in this area would need to meet Pierce County’s road standards related to access and circulation streets.</p>	
3.14 Parks/Recreation	As found in Table 1-2, this alternative results in the largest parks and recreation facility needs of all alternatives. If the City were to adjust LOS Standards to meet future population projections, this alternative would provide the lowest LOS standards for Parks and Recreation of the three alternatives studied.	This alternative results in the lowest parks and recreation facility needs of all alternatives studied (see Table 1-2). If the City were to adjust LOS Standards to meet future population projections, this alternative would provide the highest LOS standards for Parks and Recreation of the three alternatives studied.	This alternative results in the parks and recreation facility needs within the range of other alternatives studied (see Table 1-2).

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.15 City Facilities	<p>The addition of the Orton Junction expansion area to Sumner’s UGA would mean that the City would need to plan to serve a larger area with its city facilities than under other alternatives.</p> <p>Applying the established city LOS standards to city facilities under this alternative shows that the City would experience its largest deficits in General Government and City Shops.</p>	<p>This alternative provides for a smaller population and geographic area that would need to be served when compared with other alternatives (net reduction of 126 acres compared to No Action). The adjustments to the UGA boundaries under this alternative would mean less residential area, in particular.</p> <p>The City would its smallest deficits for General Government and City Shops under this alternative.</p>	<p>The No Action Alternative provides for population land capacity between the other two alternatives within the existing current plan area boundaries.</p> <p>The deficits in General Government and City Shops space experienced under the No Action Alternative fall within the range of deficits found under the other two alternatives.</p>
3.16 Fire/Police/Courts	<p>This alternative would have higher calls for fire and police service when compared to other alternatives. Under this alternative, an increased demand for fire and police services can be anticipated in the Orton Junction expansion area compared to other alternatives, as this area would develop with commercial and residential at urban intensities.</p> <p>Demands for police and fire services in the other parts of the current plan area would be similar to the No Action Alternative. Based on the City’s LOS standard for police, it would need to plan for 33 police officers by 2030.</p>	<p>This alternative would have the lowest demand for fire and police services when compared to other alternatives studied. Demands for fire and police service in the Orton Junction expansion area under this alternative would be within the range of other alternatives considered. Calls for fire and police service could also be lower in the East Hill UGA under this alternative compared to other alternatives since this area would develop at rural residential intensities.</p> <p>Based on the City’s LOS standard the city will need to plan for 29 police officers by 2030.</p>	<p>This alternative would result in future calls for service in the range of the other alternatives as it retains the East Hill but excludes the Orton Junction expansion area. Demands for fire and police service in the Orton Junction expansion area would be the lowest under this alternative, as the area would develop at rural intensities, with fewer residences and jobs than other alternatives. When applying the City’s LOS standard for police, the city will need to plan for 31 police officers by 2030.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.17 Libraries/Schools	<p>Schools: This alternative provides the greatest potential increase in student generation among all alternatives. This alternative would add an estimated 385 additional students in the Sumner and Dieringer school districts. In addition, this alternative would see a greater number Sumner School District students coming from the Orton Junction expansion area compared to other alternatives. There would also be more students in Dieringer School District coming from East Hill compared to the UGA Modification Alternative.</p> <p>Library: The Sumner Library has a net reserve of 3,193 square feet using the existing PCLS LOS standard under this alternative. However, depending on the LOS standard that results from Pierce County Library 2030 plans, the library could experience a net reserve of 560 square feet or a net deficit of 1,086 square feet in 2030.</p>	<p>Schools: This alternative provides the lowest potential increase in student generation among all alternatives. This alternative would add an additional 290 additional students in the Sumner and Dieringer school districts. There would be a smaller number of Sumner School District students coming from the Orton Junction Expansion Area compared to the UGA Expansion Alternative. There would also be fewer Dieringer School District students in the East Hill reduction area compared to all other alternatives.</p> <p>Library: Existing Sumner Regional Library meets both existing and proposed LOS standards under the UGA Modification Alternative. Net facility reserves range from 3,982 to 159 square feet.</p>	<p>Schools: This alternative provides for an increase in students in the Sumner and Dieringer school districts within the range of other alternatives (323 additional students). This alternative would see smallest number of Sumner School District students coming from the Orton Junction expansion area compared to other alternatives. There would also be a similar number of Dieringer School District students in the East Hill reduction area as found in the UGA Expansion Alternative.</p> <p>Library: The Sumner Library has a reserve within the range of alternatives studied when applying the existing PCLS LOS standard. However, depending upon the LOS standard that results from Pierce County Library 2030 capital planning process, the library could experience a larger net reserve or a smaller net deficit in 2030 than the UGA Expansion Alternative.</p>
3.18 Water Supply	<p>This alternative would include the largest 2030 service area population, estimated at 13,970 (including the Orton Junction expansion area). The growth associated with this alternative would result in a 2030 demand of 2.39 mgd and a peak daily demand of 4.78 mgd. Based on current supply, this would result in a supply deficiency of 1.06 mgd. Implementation of the planned</p>	<p>This alternative would result in a 2030 service area population within the range of alternatives considered (estimated at 13,307). Estimated 2030 demand under this alternative would be 2.28 mgd, with a peak daily demand of 4.55 mgd. Based on current supply information, this would result in a supply deficiency of 0.83 mgd. Implementation of the planned improvements described in Section</p>	<p>This alternative would result in a 2030 service area population of approximately 13,009. Estimated demand under this alternative would be 2.22 mgd, with a peak daily demand of 4.45 mgd. Based on current supply information, this would result in a supply deficiency of 0.73 mgd. Implementation of the planned improvements described in Section 3.18 would result in a 2030 surplus of</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	<p>improvements described in Section 3.18 would result in a 2030 surplus of 2.25 mgd.</p> <p>Development under this alternative would require additional water system infrastructure to be installed in the Orton Junction expansion area to serve new development.</p>	<p>3.18 would result in a 2030 surplus of 2.48 mgd.</p> <p>Development under this alternative would require additional water system infrastructure to be installed in the Orton Junction expansion area to serve new development.</p>	<p>2.58 mgd.</p>
3.19 Sanitary Sewer	<p>The projected population of 16,459 would produce loads of approximately 3,292 pounds per day. This is less than the estimated loading capacity for the Sumner service area of 4,095 pounds per day, resulting in an excess loading capacity of 803 pounds per day. Therefore, no further expansion of the WWTP would be necessary, only improvements to collection and conveyance infrastructure.</p> <p>Under the UGA Expansion Alternative, sewer collection and treatment services would be extended to the Orton Junction expansion area, which would result in additional peak flows of between 500 and 600 gpm. These additional flows would require new wastewater facilities to be installed, as well as upgrades to existing infrastructure.</p>	<p>Under the UGA Modification Alternative, the service area's population would increase to 14,706 producing loads of approximately 2,941 pounds per day. This is less than the estimated loading capacity for the Sumner service area of 4,095 pounds per day, resulting in an excess loading capacity of 1,154 pounds per day. Therefore, no further expansions to the WWTP would be necessary, only improvements to collection and conveyance infrastructure.</p> <p>Service to the Orton Junction expansion area would be extended to accommodate future commercial development, which would result in additional wastewater flows of approximately 110 gallons per minute lower than under the UGA Expansion Alternative. However, as no City sewer facilities currently exist in the Orton Junction expansion area, new infrastructure construction would be the same under both alternatives.</p>	<p>Under the No Action Alternative, no changes would be made to the City's wastewater service area, and the City would incur no expenses for wastewater conveyance and treatment facilities beyond those already planned. No further expansions to the WWTP would be necessary beyond the currently planned upgrades, only improvements to collection and conveyance infrastructure per adopted functional plans.</p>

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
3.20 Storm Sewer	In addition to increases in impervious surfaces and need for the stormwater regulations and capital facilities associated with the No Action Alternative, this alternative would result in the addition of approximately 112 acres of impervious surface from commercial and residential development in the Orton Junction expansion area. As the City's two existing stormwater projects for the Orton Junction area were designed for the current low intensity land uses, increased commercial and residential development may adversely affect drainage conditions in the area by generating stormwater flows beyond the planned capacity of these facilities.	This alternative would result in a net increase of 18 acres of impervious surface, which would generate less stormwater drainage than the UGA Expansion Alternative. The increase would come from additional impervious surfaces added in Orton Junction and offset by reduction in impervious surface in the East Hill UGA reduction area. Similar to the UGA Expansion Alternative, increased commercial development in the Orton Junction expansion area may adversely affect drainage conditions in that area by generating stormwater flows in excess of planned infrastructure capacity.	Under this alternative, the UGA boundary would not be amended, and no changes in land use would be approved. Overall stormwater flows would gradually increase over time as land within the City's drainage basins builds out and redevelops. The City would implement planned stormwater improvements based on adopted plans.
3.21 Solid Waste	Under this alternative, the 2030 daily waste stream would be 37 tons, or 13,517 tons per year.	Under this alternative, the 2030 daily waste stream would be 33.1 tons, or 12,077 tons per year.	Under this alternative, the 2030 daily waste stream would be 34.9 tons, or 12,725 tons per year.
3.22 Utilities	Additional residential and commercial development in the Orton Junction expansion area under this alternative would require the extension of electric, natural gas, and telecommunications connections to serve new homes and businesses. Although this alternative would result in increased demand for electricity, natural gas, and telecommunication services, the increase is not significant in the regional context in which service providers plan for growth, and planned facility improvements in the	Removal of the East Hill Reduction Area from the Sumner UGA would limit the amount and density of development that could occur in this area in the future. Thus, future requests for new service from this area would remain low, and additional infrastructure would not be necessary. In the Orton Junction expansion area, impacts would be similar to the UGA Expansion Alternative, though to a lesser degree, because this alternative does not include a residential	Under this alternative, the study area would develop as currently allowed under City of Sumner and Pierce County development regulations, and extension of utility services would be in accordance with current provider plans. No significant adverse impacts on utility services are anticipated under this alternative.

Topics	Alternatives		
	UGA Expansion (Orton Junction)	UGA Modification	No Action
	Sumner area should be adequate to accommodate increased demand.	development component.	

1.5 Mitigation Measures

This EIS includes incorporated plan features and applicable regulations and commitments for each topic covered within the EIS. In addition, other mitigation measures are proposed which are summarized in Table 1-5.

Table 1-5. Summary of Potential Mitigation Measures in addition to Incorporated Plan Features and Applicable Regulations and Commitments

Topics	Other Mitigation Measures
<p>3.1 Earth</p>	<ul style="list-style-type: none"> • The City could expand the emergency notification or warning system, which would provide notice to residents to seek immediate information about a pending emergency. • The City could develop an expanded Emergency Management Program including training, mock-disasters, education, and coordination with the public and other jurisdictions. • The City could further limit development in the moderate volcanic hazard zone to a lower density and prohibit construction of critical facilities.
<p>3.2 Air Quality</p>	<p>General</p> <ul style="list-style-type: none"> • The City could develop environmental policies specific to addressing air quality protection and impacts. • The City could require air quality impact analyses of major developments in its planning area. • The City could limit or prohibit the use of wood stoves. • The City could encourage the use of fuels other than gasoline and diesel. <p>Construction Emission Control</p> <ul style="list-style-type: none"> • The City should require all construction contractors to implement air quality control plans for construction activities in the study area. The air quality control plans should include best management practices (BMPs) to control fugitive dust and odors emitted by diesel construction equipment. • During construction, dust from excavation and grading could cause temporary, localized increases in the ambient concentrations of fugitive dust and suspended particulate matter. The following BMPs would be used to control fugitive dust. <ul style="list-style-type: none"> ○ Use water sprays or other non-toxic dust control methods on unpaved roadways. ○ Minimize vehicle speed while traveling on unpaved surfaces. ○ Prevent trackout of mud onto public streets. ○ Cover soil piles when practical. ○ Minimize work during periods of high winds when practical. • Mobile construction equipment and portable stationary engines would emit air pollutants including NO_x, CO, and diesel particulate matter. These emissions would be temporary and localized. It is highly unlikely that the temporary emissions would cause ambient concentrations at adjoining parcels to approach the federal limits. Typical mitigation measures to minimize air quality and odor issues caused by tailpipe emissions include the following: <ul style="list-style-type: none"> ○ Maintain the engines of construction equipment according to manufacturers'

Topics	Other Mitigation Measures
	<p>specifications.</p> <ul style="list-style-type: none"> ○ Minimize idling of equipment while the equipment is not in use. ● Burning of slash or demolition debris would not be permitted without express approval from PSCAA. No slash burning is anticipated for any construction projects in the study area. <p>Greenhouse Gas Reduction Measures</p> <p>Neither Ecology nor EPA is likely to adopt any GHG emissions standards or GHG reduction requirements in the near future. It is the City’s responsibility to implement its GHG reduction requirements for new developments.</p> <p>GHG emissions reductions could be provided by using prudent building design and construction methods to use recycled construction materials, reduce space heating and electricity usage, and reduce water consumption and waste generation. Table 3.2-7 in Section 3.2, “Air Quality,” lists a variety of mitigation measures that could reduce GHG emissions caused by transportation facilities, building construction, space heating, and electricity usage. The table lists potential GHG reduction measures, and indicates where the emissions reductions might occur. The City could require development applicants to identify the reduction measures in their projects, and explain why other measures are not included or are not applicable. See Section 3.2 for more detail.</p>
<p>3.3 Flooding</p>	<ul style="list-style-type: none"> ● The City could work with the Pierce County Water Programs and state and federal agencies to determine additional measures to protect property along the Puyallup and White (Stuck) rivers and strive to accomplish those improvements in conjunction with new development. ● The City could adopt a zero-rise floodplain standard, which would allow new development in the floodplain only if the developer can show that the new construction would not increase the base flood elevation. ● The City could work to change the operational mandate for Mud Mountain Dam to ensure that it will function as a flood-control structure, thus reducing the area covered by the 100-year flood. ● As a result of NMFS (2008) biological opinion regarding FEMA flood management, future development in the 100-year floodplain will require mitigation to address loss of habitat function associated with that development. To ensure that permit applications meet the requirements of the Federal Endangered Species Act, the City would have the following choices: <ol style="list-style-type: none"> 1. Prevent all development in the floodplain and the protected Area. 2. Enact regulations that allow development that meet the criteria specified in the biological opinion by either: <ol style="list-style-type: none"> a. Adopting a model ordinance (currently in draft form), or b. Enforcing the same requirements in other ordinances, such as through growth management, zoning, or critical areas regulations. 3. Require applicants to submit applications for a permit in the Protected Area to National Marine Fisheries Service for review.
<p>3.4 Water Quality</p>	<p>No other mitigation measures to maintain water quality are recommended at this programmatic level of analysis beyond incorporated plan features and applicable regulations and commitments which already include standards equivalent to the Washington State Department of Ecology’s 2005 stormwater management manual and application of low impact development requirements.</p>
<p>3.5 Plants/ Animals</p>	<p>Best Management Practices</p> <ul style="list-style-type: none"> ● Temporary impacts can be reduced through the use of appropriate best management

Topics	Other Mitigation Measures
	<p>practices. Permanent conversions can be mitigated through the planting of native plant species and control of invasive, nonnative species.</p> <p>Habitat and Shoreline Protection or Restoration</p> <ul style="list-style-type: none"> • The City could use the WDFW Priority Habitat and Species map and habitat management recommendations to identify and protect habitat networks. This could be accomplished in conjunction with neighboring communities such as Edgewood and Bonney Lake, which border area hillsides, and Puyallup, which shares a shoreline. • The City could participate in ongoing regional watershed planning and implementing activities such as the <i>Lower Puyallup Watershed Action Plan</i> and the Shared Strategy for Puget Sound. The <i>Lower Puyallup Watershed Action Plan</i> contains recommendations for reducing non-point sources of pollution. According to the Shared Strategy for Puget Sound, major policy or physical changes needed to recover salmon in the Puyallup and White rivers include improving access to high quality habitat, as well as protection and restoration of floodplain habitat. Major recovery projects completed and slated for action include levee setbacks and oxbow restoration while simultaneously continuing to provide for flood control. • The City could continue to implement shoreline and stream restoration projects as recommended in its Shoreline Master Program (City of Sumner 2003), which is currently undergoing revisions, and its Stream Inventory (ESA Adolfson 2010). This involves acquiring, protecting, or enhancing properties of value for fish and wildlife habitat as well as evaluating enhancement actions and making adjustments, as necessary, to achieve intended habitat gains.
<p>3.6 Noise</p>	<ul style="list-style-type: none"> • The City could review setback standards in potentially noise-sensitive areas. • The City could require review of noise impacts for new developments and require mitigation as appropriate through the SEPA process. The City could develop a SEPA policy specifically addressing noise for the purposes of mitigating impacts of new development. • The City could work with transit service providers to reduce noise associated with busses. • The City could collaborate with the railroads to create a "quiet zone" through downtown Sumner that would reduce the need for train whistles at crossings. This may include signals with individual alarms/horns that are activated when the crossing arms go down. • The City could also implement the following measures to reduce impacts of additional noise that results from new development from <i>The Audible Landscape: A Manual for Highway Noise and Land Use</i> (FHWA 1974): <ul style="list-style-type: none"> ○ Acoustical site planning such as requiring buffers between the noise source and noise-sensitive activities, using buildings as barriers, orienting noise-sensitive buildings to face away from noise sources, and placing noise compatible uses adjacent one another. ○ Acoustical architecture that incorporates noise-reducing design through window and room placement, etc. ○ Acoustical construction methods such as improved airspace and insulation for walls, using windows that are designed for noise-sensitive buildings, etc. ○ Noise barriers between noise sources and noise-sensitive areas. Barriers could be constructed of earth berms, walls, dense landscaping, etc.
<p>3.7 Explosion</p>	<ul style="list-style-type: none"> • The City could develop and maintain a program for mapping and monitoring the locations of explosive materials.

Topics	Other Mitigation Measures
Risk	<ul style="list-style-type: none"> • The City could develop land use policies regulating development around existing sources of potential explosions. • The City could adopt more restrictions on the “manufacturing, refining or storage of noxious, volatile, toxic or explosive products” as an accessory use by limiting quantities and areas of buildings and sites allowed to contain these types of uses.
3.8 Land Use	<ul style="list-style-type: none"> • The City could review zoning and subdivision regulations to ensure that adequate setbacks, landscaping, and buffering are required where land use conflicts may occur. • The City should work with Pierce County in a joint planning agreement to address potential incompatibility between the commercial use in the Orton Junction expansion area and the surrounding agricultural and low density residential uses to the west, south, and east. • While topography and vegetation will minimize some of the conflicts between industrial and residential uses along West Valley Highway, the City could jointly plan this area with the City of Edgewood as the area between the steep hillside and the West Valley Highway converts to business use.
3.9 Plans/ Policies	<p>The City could implement the following measures to reduce impacts:</p> <ul style="list-style-type: none"> • Evaluate existing ARL acreage for continued ARL designation consistent with the requirements of PCC 19A.30.070 before adding any of these lands to the Sumner UGA under either action alternative. Parcels that do not meet the ARL criteria could be de-designated and added to the UGA. Parcels that still meet the ARL criteria should not be added to the UGA. • Acquire and protect commensurate ARL acreage to compensate for any acreage currently designated as ARL that would be added to the Sumner UGA under either action alternative. Concentrate acquisition efforts on parcels with the greatest potential for long-term commercial significance and with potential to prevent additional UGA expansion further south in the future. • Acquire or make a contribution to the Pierce County TDR/PDR program for the increased density proposed for any rural lands added to the Sumner UGA under either action alternative. • Implement development standards and the PMUD overlay designation to ensure pedestrian orientation, to accommodate transit and to satisfy other development standards specified in the <i>Alderton-McMillin Community Plan</i> Objective 7A. • Implement the reasonable measures identified in the Buildable Lands Report (Pierce County 2007) to ensure urban densities within the existing Sumner UGA. • Execute a joint planning agreement with Pierce County that specifies the development standards required by the <i>Alderton-McMillin Community Plan</i> and identifies the specific parcels to be acquired and protected with ARL conservation easements. • Execute an interlocal agreement with the City of Bonney Lake to address shared needs/responsibilities for waste water treatment facility improvements. • Implement policy amendments addressing observed densities for the LDR-8.5 zone and NC zone. • Monitor the LDR-6 zone as large parcels are developed into subdivisions, and take measures if appropriate to achieve the zoned capacity. • Consider a minimum density of eight dwelling units per acre to increase the potential for greater density in the HDR zone and discourage the use of small lot single family uses in this particular zone. • Require a certain percentage of new units in the Orton Junction expansion area to be

Topics	Other Mitigation Measures
	<p>affordable low to moderate income households.</p> <ul style="list-style-type: none"> • To address Countywide Planning Policies, with any studied alternative, procedures regarding fiscal analysis should be defined through the addition of goals and policies.
<p>3.10 Population and Employment</p>	<ul style="list-style-type: none"> • The City could monitor the growth allocation levels that are exceeded under the action alternatives and determine if adjustments to the City Comprehensive Plan, capital facility and service plans, or other supporting plans or regulations are warranted to ensure that all Comprehensive Plan Elements and implementing plans and regulations are consistent and in balance. The Washington State Growth Management Act and City regulations allow for annual review and amendment of City plans, as appropriate. • The City could consider if there is an acceptable margin of error regarding land capacity analysis to recognize its use as a predictive planning tool rather than as a precise method. For example, Kitsap County has established a margin of error of 5% and UGA land capacity results within +/-5% of the growth allocation are considered in balance. The UGA Modification Alternative is within 2% of the population allocation for the year 2022, and thus would fall within the acceptable margin of error if a similar provision were applied to Sumner. • To create a balance in employment allocations and land capacity, the City could: <ul style="list-style-type: none"> ○ Reallocate land from employment to other land uses, or reduce the proposed amount of land designated for commercial and industrial employment use. However, this would change the community vision for the current plan area where the land use pattern has largely been established. ○ Request a higher employment allocation, for example, to recognize demand for other employment types such as commercial and service uses serving eastern Pierce County, in order to reach a corresponding level of jobs as the employment forecast. ○ Amend its land capacity analysis to recognize the effect of forthcoming changes to 100-year floodplain regulations, which would limit impervious surfaces in many circumstances. This would reduce the land capacity for employment, particularly industrial employment. See Section 3.3, “Flooding,” for additional information.
<p>3.11 Housing</p>	<ul style="list-style-type: none"> • The UGA Expansion Alternative would exceed the 2022 allocation and come in below the proposed 2030 allocation. The UGA Modification Alternative and No Action Alternative provide similar growth to the 2022 allocations, but provide capacities below the 2030 allocation. Depending on the horizon year and the growth allocation ultimately approved, the City could alter its proposed land use mix and/or request alternative UGA boundaries to address consistency with housing allocations. • The City could consider if an acceptable margin of error exists regarding land capacity analysis to recognize its use as a predictive planning tool rather than as a precise method. For example, Kitsap County has established a margin of error of 5% and UGA land capacity results within +/-5% of the growth allocation are considered in balance. The UGA Modification Alternative is within 2% of the population allocation for the year 2022. • The City could monitor growth levels and determine if adjustments to its Comprehensive Plan, capital facility and service plans, and or other supporting plans or regulations are necessary. This will ensure that all of its Comprehensive Plan elements and implementing plans and regulations are consistent and in balance. GMA and City regulations allow for annual review and amendment of City plans as appropriate. • Since Sumner currently has housing affordable to all ranges, it is important that the

Topics	Other Mitigation Measures
	<p>existing housing stock is preserved to the greatest extent feasible.</p> <ul style="list-style-type: none"> • Alternative housing types, such as small-lot single-family, multifamily development, and senior housing will help to create a wider range of housing options. • The City could coordinate with the Pierce County Housing Authority and local non-profit agencies that provide affordable and transitional housing in the Sumner area. • State law allows cities to attract housing to urban centers that lack sufficient residential uses by offering a multifamily tax exemption (MFTE) (RCW 84.14. When a city defines residential target areas within an urban center, and allows for applications for the exemption, approved project sites are exempt from ad valorem property taxation for a period of 8 to 12 years. A greater number of exempt years is possible where a certain percentage of low-income housing is provided. The City could adopt MFTEs for market-rate and affordable dwellings in the Town Center to promote the compact development form in the area of the community that is well served by transit and a range of public services. • The City could implement other funding and regulatory measures, such as; potential development of an inclusionary housing program; fast track permit processing; fee waivers; and reduction in development standards (e.g., density bonus, reduced parking requirements) for affordable housing. These implementation measures will require detailed review if, for example, development regulations are revised subsequent to this Comprehensive Plan update. • The City could take further action to meet its affordable housing targets by providing affordable housing incentives and supporting affordable housing programs sponsored by Pierce County Housing Authority and/or other regional housing agencies. • The City should amend its Housing Element to account for a new fair-share housing distribution. • The City could provide materials for public use that describe federal non-profit housing programs such as the Federal Housing Administration’s homebuyer programs, community development block grants, and Section 8 Housing Assistance Program can help Sumner residents with access to affordable housing. • The City could provide information to citizens about State programs and general assistance for financially needy families, pregnant women, and unemployable persons can also help Sumner residents with access to affordable housing. • The City could coordinate with nonprofit programs or provide information about location programs such as those administered by the Pierce County Housing Authority and partner non-profit agencies such as Mi Casa, Helping Hand, and Phoenix Housing Network provide assistance at the local level to help Sumner residents with access to affordable housing.
<p>3.12 Cultural</p>	<ul style="list-style-type: none"> • The City could implement its new historic preservation regulations to promote historic and cultural education and recognition, and potentially include regulatory measures on such landmarks. • The City could work with other groups to acquire and/or restore key historic properties or their development rights. • The City could require buffers and apply special design standards for new development that are compatible with the Charles W. Orton home in the Orton Junction expansion area to provide a compatible context for the historic property. • The following mitigation measures are recommended for all future development projects located on or in proximity to properties containing known archaeological and historic resources:

Topics	Other Mitigation Measures
	<ul style="list-style-type: none"> ○ To the extent feasible, the preservation, rehabilitation, restoration, reconstruction or adaptive reuse of historic resources should meet the U.S. Secretary of the Interior’s Standards for the Treatment of Historic Properties. ○ Proposed new construction, exterior alterations, and demolition that could impact properties listed in the NRHP, the WHR, or the Sumner Historic Register should comply with the City’s Design and Development Guidelines. ○ In the event that a future development project is proposed on a site containing a property listed in local historic inventories that is not listed in the NRHP, WHR, or the Sumner Historic Register, the project would be required to undergo SEPA review to determine whether the property is considered an historic resource. ○ In addition to the archaeological resources already known to exist in the study area, it is possible that intact buried deposits remain in areas not yet tested, particularly those areas in the vicinity of the Stuck/White or Puyallup Rivers. Archaeological testing should be completed for proposed projects that involve significant excavation or any changes made to the vegetation and landforms near these rivers. Archaeological project monitoring is suggested for subsurface excavation and construction in these high probability areas. ○ In the event that a future development project in the study area is proposed on or immediately surrounding a site containing an archaeological resource, the potential impacts on the archaeological resource should be considered and, if needed, a study conducted by a qualified archaeologist to determine whether the proposed development project would materially impact the archaeological resource. If the project would disturb an archaeological resource, the City would impose any and all measures to avoid or substantially lessen the impact. If avoidance of the archaeological resource is not possible, an appropriate research design should be developed and implemented with full data recovery of the archaeological resource prior to the development project. The avoidance of archaeological resources through selection of project alternatives and changes in design of project features in the specific area of the affected resource(s) would eliminate the need for measuring or mitigating impacts. ○ Non-site-specific mitigation could involve finding other opportunities in the community for mitigation measures that are not specific to the affected site(s). Some of the options for non-site-specific mitigation include developing an educational program, interpretive displays, design guidelines that focus on compatible materials, and professional publications.
<p>3.13 Transportation</p>	<p>In addition to the adopted Comprehensive Plan Transportation Element and regulations such as concurrency, consider the following mitigation measures:</p> <ul style="list-style-type: none"> ● Main Street and 160th Avenue E: Either install a traffic signal or continue to provide the free-flow right-turn movement. Another option would be to change the standard at this intersection to LOS F and not make additional improvements. ● Although the forecast levels of service will be adequate at the intersection of SR 162 at 74th Street E, construction of a west-to-north right-turn pocket could be considered to alleviate potential queuing impacts. ● Other potential mitigation includes upgrading access roadways such as 74th Street E, Riverside Road that are under Pierce County’s jurisdiction. The upgrades will include wider travel lanes and potentially urban features such as curb, gutter, and sidewalks based on coordination with Pierce County and the adjoining neighborhoods. ● Currently Riverside Drive E turns into 74th Street E to access SR 162; however, there have been previous considerations to divert Riverside Drive E to the south of the 74th Street E alignment and provide a connection to SR 162 at Rivergrove Drive

Topics	Other Mitigation Measures
	<p>where a traffic signal exists. Although this is not necessary to meet the minimum operational requirements it could be considered to provide for improved operations and safety for access to the west side of the Orton Junction UGA Expansion Area. This would also be an improvement to consider if much of the density were to occur along the western portion of the Orton Junction UGA Expansion Area, which may increase the distribution of traffic to and from the west. If this were to occur access to 74th Street E could be restricted to right-in/right-out, or completely closed.</p> <ul style="list-style-type: none"> • In addition to many of the planned transportation improvements for the surrounding area, the UGA Expansion (Orton Junction) Alternative and the UGA Modification Alternative would require development of an internal roadway system to serve the proposed land use densities. Action alternatives would also require updating the City’s pedestrian and bicycle system plans within the Comprehensive Plan.
<p>3.14 Parks/ Recreation</p>	<ul style="list-style-type: none"> • The City could pursue more aggressive grant and bond financing for parks and trails projects. • The City could develop a policy and corresponding program to protect estate properties from development. • The City could voluntarily revise the <i>Sumner Parks and Open Space Plan</i> to comply with RCW 36.70A.070(8).
<p>3.15 City Facilities</p>	<ul style="list-style-type: none"> • The City should update its Capital Facilities Plan to help plan for future city capital facilities needs. • The City should initiate a study of space at the Public Works Shops, including a review of LOS, to determine if changes to LOS are warranted or if planning for additional space for Public Works, Parks, and Police departments would be needed. • The City could continue to monitor space utilization for City facilities as the City grows. As utilization increases, the City should seek additional space to maintain LOS. • The City should initiate review of city facilities, growth, and demand to calibrate the analysis of space needs.
<p>3.16 Fire/Police/ Courts</p>	<p>General</p> <ul style="list-style-type: none"> • Specific impacts of future development proposals should be assessed and appropriate mitigation measures imposed through the City’s SEPA authority. • The City should determine capital facilities needs and cost of new equipment and facilities to accommodate demand for services. • The City should continue to monitor demand for services and review ability to achieve the City’s LOS standards such as through the budgeting process. • Expanded fire/emergency medical services and police protection services should be provided concurrent with new development. <p>Fire</p> <ul style="list-style-type: none"> • Sumner should consider revisions and updates to its LOS standard for fire/emergency services in coordination with EPF&R’s capital facility planning process to create consistent LOS standards that address fire protection and emergency response. In particular, LOS standards relating to staffing per population or assessed value, or number of firefighters per vehicle should be replaced with LOS standards that address response time and effective first alarm response staffing. • EPF&R should use updated population and employment allocations and land capacity in this EIS as part of their ongoing capital facility planning process. • The future development pattern may require the need for satellite fire stations and review of the current fire station capacity. The City and EPF&R should investigate the need for future satellite stations locations as part of future capital facility planning

Topics	Other Mitigation Measures
	<p>that accounts for updated population and employment forecasts in the fire service area.</p> <ul style="list-style-type: none"> • The City and EPF&R could consider an agreement that implements impact fees for capital improvements in city limits and revises the SEPA mitigation fees to help pay for other needs and services. <p>Police</p> <ul style="list-style-type: none"> • Due to the increase in calls to the north industrial area, which is disproportionate to population growth in that portion of the City, the Department should consider revisions to the current LOS standards to include a standard for officers per \$1,000 assessed valuation or other methods that account for non-residential demands for police services. • The City should consider a “calls for service per year per officer” standard as a means of monitoring officer workload to allow adequate time for community crime prevention programs. • The City should consider establishing response time standards (annual average) for “Priority One” calls. • The City should consider monitoring street miles and/or square miles of service to assist with documenting response times. • The future development pattern may require the need for a satellite police station to maintain low response times and enhance service coverage. Investigate the need for a future satellite station as the City grows. • Continued efforts with community crime prevention programs could also help mitigate some of the impact of increased demand for police services. • The City should consider integration of Crime Prevention through Environmental Design techniques into development regulations and development application reviews to reduce opportunities for crimes. • The City could consider implementing or revising SEPA mitigation fees to help pay for other needs and services.
<p>3.17 Libraries/Schools</p>	<ul style="list-style-type: none"> • Consistent with City policies, the City should coordinate with the Sumner and Dieringer School Districts and PCLS to ensure timely exchange of growth information; allowing services to expand as demand for library services increases. • The Capital Facilities Element Policy 1.4 statement should be revised to reflect a different LOS standard based upon upcoming changes to the PCLS LOS standard resulting from Pierce County Library 2030 planning effort.
<p>3.18 Water Supply</p>	<ul style="list-style-type: none"> • The City could implement an aggressive water conservation program for residential, commercial and industrial users. • The City could expand the watershed protection by acquiring additional land around the existing watershed. • The City could implement an impact fee or other financial methods to finance improvements as recommended in the <i>2009 Water System Plan Update</i>. • The City could establish a policy for new and/or existing businesses to use water at the average per capita employee level. Those not able to meet the goal should be encouraged to conserve, reuse water, or develop new sources. • In conjunction with developing additional sources, the City could develop a more detailed well head and groundwater protection program. • The City should continue efforts to complete the planned improvements to long-range water supply, including construction of physical source improvements, additional wells, and the acquisition of additional water rights.

Topics	Other Mitigation Measures
3.19 Sanitary Sewer	<ul style="list-style-type: none"> • The City could implement recommendations of the <i>City of Sumner Sanitary Sewer Comprehensive Plan</i> to correct existing deficiencies in the 6-year planning period. • The City could update the <i>City of Sumner Sanitary Sewer Comprehensive Plan</i> subsequent to adoption of the Comprehensive Plan Update to ensure consistency. • The City could require and implement sewer improvements for the Orton Junction expansion area as identified in Appendix I.
3.20 Storm Sewer	<ul style="list-style-type: none"> • Subsequent to amendment of its Comprehensive Plan, the City could either update its Stormwater Comprehensive Plan to account for the additional impervious surfaces allowed under the action alternatives or, based on its adopted stormwater regulations, the City could ensure that development allowed under land use alternatives demonstrates compliance with the standards set forth in the Ecology's 2005 Stormwater Manual as adopted by the City. • The City could fund more public education on water quality for residents and businesses.
3.21 Solid Waste	The City could support added public outreach efforts to increase awareness of recycling programs.
3.22 Utilities	<ul style="list-style-type: none"> • Consistent with City policies, the City should provide annual updated population, employment, and development projections to Puget Sound Energy so they can evaluate actual patterns and rates of growth, and compare these patterns to electrical demand forecasts. • The City could coordinate and cooperate with other jurisdictions in the implementation of multi-jurisdictional electric utility facility additions and improvements.

1.6 Significant Unavoidable Adverse Impacts

This section describes whether there are any residual impacts after application of mitigation measures, and whether these are significant, unavoidable, and adverse.

1.6.1 Natural Environment

Earth

Expansion of the UGA to include the Orton Junction expansion area, under both action alternatives, would facilitate development of agricultural land. Agricultural soils would be lost through excavation, compaction, and paving associated with development. Less agricultural soil conversion would occur under the UGA Modification Alternative compared to the UGA Expansion Alternative.

Because almost the entire study area is in at least one geologic hazard area, no alternative completely restricts development in areas that have potential for seismic, landslide, volcanic or erosion hazards. Even sites that are covered by the City's existing critical areas regulations may be developed to some extent. Development on sites with geologic hazards will always pose some risk, however slight.

Air Quality

No significant unavoidable adverse impacts on regional or local air quality are anticipated. Temporary, localized dust and odor impacts could occur during the construction activities. The regulations, incorporated plan features, and other mitigation measures described above are adequate to mitigate any adverse impacts anticipated to occur as a result of study area growth increases.

Flooding

New development and creation of paved and covered areas could increase impervious surfaces and the quantity of runoff. New construction in the floodplains in the current plan area will expose some persons and public and private improvements to risk of water and other related damages. The expansion of the UGA in the Orton Junction considered in the Action Alternatives is not located in the 100 year flood hazard area.

Water Quality

Direct impacts would be minimized to less than significant through the implementation of federal, state, and City regulations, including critical area and stormwater regulations.

Plants and Animals

In the context of the existing biological conditions and with the implementation of mitigation measures identified, no significant unavoidable adverse impacts on plants and animals are anticipated as a result of any of the alternatives.

1.6.2 Built Environment

Noise

Noise levels will likely increase in the study area from short-term and long-term noise sources.

Risk of Explosion

Increased residential and commercial development and its associated infrastructure and transportation sources such as rail and trucks could increase growth in proximity to facilities that have a risk of explosion. This impact can be reduced by proper application of fire codes and ongoing monitoring. No significant unavoidable adverse impacts are anticipated with implementation of mitigation measures.

Land Use

All alternatives result in new construction to accommodate population and employment growth. New construction will result in changes of use and the characteristics of parcels of land, including potential demolition and displacement. These impacts could be mitigated by buffers and design guidelines to some degree.

Plans and Policies

With implementation of mitigation measures, plan and policy consistency could be achieved under any of the alternatives.

Expansions of the Sumner UGA into the Orton Junction area under either action alternative have the potential to irreversibly commit lands that are currently designated as agricultural lands of long-term commercial significance to urban uses. However, this would be offset by compliance with County policies such as transfer and purchase of development rights and protection of a commensurate acreage not currently designated ARL or not currently protected with conservation easements to ensure long-term protection of the agricultural industry in the Orting Valley.

Population and Employment

Population and employment would increase under the alternatives, although the location of residential and employment growth and the extent of that growth would vary by alternative. Additional population growth would increase the demand for housing. Additional population and employment growth would result in secondary impacts on the natural and built environment and on the demand for public services. These impacts are addressed in other sections of this document.

Housing

The number of housing units would increase under all alternatives to differing degrees. Additional population growth anticipated under all alternatives would increase the demand for housing. The need for affordable housing would increase as well. Additional population and housing growth would result in secondary impacts on the natural and built environment and on the demand for public services. These impacts are addressed in other sections of this document.

Cultural Resources

The impacts on cultural resources caused by new development associated with the proposed alternatives could be significant and unavoidable, depending on the nature of the proposed development project. Implementation of mitigation measures set forth in Section 3.12 would address potential impacts on cultural resources, reducing them to less-than-significant levels.

Transportation

Although the effects of additional vehicles on traffic congestion can be mitigated to varying degrees through the proposed transportation improvements, the actual increase in traffic volume may be considered a significant unavoidable adverse impact. A significant adverse impact could also result if one or more mitigation measures that have been identified to address expected impacts are not implemented. The combination of recommended roadway improvements that the City selects will reflect a balance between desired improvement in traffic operations, policy decisions, and available revenue.

1.6.3 Public Services and Utilities

Parks and Recreation

With the increase in population and urbanization of Pierce County under any of the alternatives, there would be a greater demand for parks, recreational facilities, and programs. Under all alternatives, population increases would result in LOS deficiencies for softball fields, soccer fields, basketball courts, volleyball courts, community parks, urban trails, picnic shelters, picnic tables, children's play areas, and regional parks. It would be necessary for the City to either acquire additional parks and recreation resources or expand current facilities to meet its adopted LOS standards. With application of mitigation measures, impacts can be mitigated to be less than significant.

City Facilities

Growth within the city limits will continue to increase the demand for city services, consequently increasing the demand on most city facilities. With advanced planning through the City Comprehensive Plan, Capital Facilities Plan, and the annual budget, significant unavoidable adverse impacts are not anticipated.

Fire, Police, and Court Services

Future population growth and development will continue to increase the need for fire, police, and municipal court services and facilities under all alternatives. Regular capital facility and staffing need planning can minimize impacts and meet future demand.

Libraries and Schools

Under each Alternative, future population growth and development will continue to increase the need and demand for public services such as libraries and schools. Coordination with service providers and regular review of capital plans by the City, school districts, and the Pierce County Library District will help avoid impacts.

Water Supply

Future growth in the City of Sumner and its UGA will lead to increased demand for water services, though water reuse and recycling or demand management measures could partially reduce the need for additional water supply. With the implementation of the City's planned improvements to water source capacity, no significant unavoidable adverse impacts would occur.

Sanitary Sewer

Additional population, employment, and industrial/commercial growth throughout the city's service area would result in increased demands on sanitary sewer facilities. Advanced sewer system planning and capital facility planning should minimize the possibility of unavoidable impacts.

Storm Sewer

Increased development under all alternatives would increase impervious surface and reduce vegetation. These changes would have impacts on the stormwater system in the study area and the

natural recharge of groundwater. Aggressive implementation of LID measures and application of NPDES-compliant stormwater standards and improvements would reduce impacts and meet City LOS standards.

Solid Waste

As population growth occurs, the amount of solid waste generated will increase, resulting in increased demand on the County's disposal system. Unavoidable impacts are not anticipated due to the countywide coordination of solid waste and recycling programs.

Utilities

Additional population and employment growth will increase the demand for electricity, natural gas, and telecommunication services. The City's coordination with service providers along with mitigation measures should allow for increased demand to be met. Significant, unavoidable, adverse impacts are not anticipated.

1.7 Major Issues, Significant Areas of Controversy and Uncertainty, and Issues to be Resolved

All alternatives result in growth of community population and employment with some variation in location and amount. Long-term local impacts resulting from any alternative include increased urbanization and increased demand for infrastructure and facilities. Key environmental issues and options facing decision-makers include:

- Distribution of growth particularly in relation to the Orton Junction and East Hill areas and potential effect on earth, air quality, noise, cultural resources, public services, and utility topics;
- Potential policy changes needed to accommodate the new horizon year and proposed growth allocations, such as housing and public service policies; and
- Consistency of the proposed land use plan amendment requests with the City and Pierce County comprehensive plans, particularly UGA expansion policies and ARL policies.

Prior to preparation of the Final EIS, the following issues are anticipated to be resolved:

- Identification of the City's preferred growth patterns in East Hill and Orton Junction;
- Selection and refinement of corresponding Comprehensive Plan Land Use Map amendments; and
- Refinement of Comprehensive Plan goals, objectives, and policies and development regulations.

