

# Summary

***Please note that this is an excerpt of chapter 1 of the Draft Environmental Impact Statement.***

## Summary of Description of Alternatives

### Alternatives

Alternatives are different ways of achieving a project's purpose and need and serve as the basis for environmental analysis relative to elements of the environment. Environmental analysis is the process of studying each alternative and forecasting impacts on different elements of the environment such as air quality, noise, or transportation.

EISs must include an alternative that represents "no action" and one or more alternatives that includes changes in land use or policies, called the "Action Alternatives." Action Alternatives allow the County to understand the impacts of a range of growth scenarios and test ideas, implications, benefits, and impacts, and compare them to the impacts of the No Action Alternative.

In 2023, Pierce County conducted a UGA analysis to craft the range of EIS alternatives considering state and regional planning guidance and scoping comments received. As part of this analysis, the County conducted a review of housing and employment

## Centers and Corridors Planning Concepts

The Centers and Corridors concept builds on the historic land use pattern and supports the development patterns described in the community plans.

Promoting growth in these areas helps preserve and protect the existing single-family residential neighborhoods from incompatible uses.

The concept designates areas for growth along existing transportation corridors that could benefit from higher densities to attract more transit and other modes of transportation with the goal of creating more local and regional transportation connections.

In 2015, the Comprehensive Plan adopted overarching language regarding compact communities and transit-oriented corridor development. It is important to be consistent between plans and look at the central urban growth area as a whole rather than separated by each community.

capacity. These initial capacity results may differ slightly compared to the analysis presented in Chapter 4, *Population, Housing, and Employment*, but do not change the conclusion or results of the analysis.

This EIS analyzes three alternatives, including a No Action Alternative and two Action Alternatives. They are listed below and described in greater detail in Draft EIS Chapter 2, *Alternatives*:

- **Alternative 1: No Action** – The No Action Alternative considers what would happen if the county grew without making changes to the County’s current approach to land use, transportation, capital facilities, and environmental planning.
- **Alternative 2: Centers and Corridors Implementation** – Alternative 2 would build on strategic moves to “bend the trend” of growth in alignment with regional objectives, which was started by the Centers and Corridors planning initiative adopted in 2021. It would also update Countywide Planning Policies to make the community more resilient to climate change, offer different modes of transportation, and improve housing affordability.
- **Alternative 3: High-Capacity Transit (HCT) Focus** – Alternative 3 proposes investments and changes intended to “end the trend” of existing land use and growth patterns by rapidly shifting growth, transportation, and climate policies in alignment with the Comprehensive Plan Update objectives. This would create a high-density, multi-modal core in the high-capacity transit (HCT) area. HCT is defined in Section 1.4.1, *Land Use Terminology*.

Analyzing different alternatives, and especially the differences between them, allows decision-makers and the public to compare the effects of different options and ultimately to select a Preferred Alternative. Additional information on Alternatives is provided in Chapter 2, *Alternatives*.

## Areas of Focus

The primary study area for analysis in this Draft EIS is unincorporated Pierce County. The analysis also provides additional information on three “areas of focus” based on the regional geographies established by PSRC:

1. The unincorporated high-capacity transit (HCT) communities area.
2. Urban unincorporated areas (UUAs), which are not HCT areas.
3. Rural areas.

## Equity Analysis

The Comprehensive Plan Update must lead with equity to ensure that the County’s vision and implementing policies, codes, investments, and programs support Black, Indigenous, and People of Color (BIPOC) communities. This Draft EIS integrates performance metrics that allow current conditions and future alternatives to be screened for their environmental impacts and advancement of, or hurdles to, equity and health. **Appendix C, *Equity Indicators***, is the resource used to set the performance metrics. The indicators are used to inform the thresholds of significance and consider how each alternative affects the elements of the environment and equitable outcomes across all EIS topics. This effort will provide a cohesive evaluation framework for equity and health while analyzing EIS topics in the context of SEPA requirements.

Proposed indicators were informed by an equity review related to the Pierce County Equity Note process, which was adopted in 2023.

## Summary of Key Findings, Impacts, and Potential Mitigation Measures

One of the most important functions of an EIS is to identify potential impacts associated with a proposal and identify appropriate mitigation measures. The following sections describe how the EIS

analyzed each element of the environment, what impacts have been identified, how the alternatives differ from one another, and what measures are proposed to mitigate impacts. The analysis contained in the EIS will be used to guide County decision-makers in developing and selecting the appropriate Preferred Alternative.

**Table 0-1** summarizes the results of the environmental evaluation of alternatives further detailed in Chapter 2, *Alternatives*, and Chapters 3 through 12. Where impacts are identified, mitigation is provided in the form of incorporated plan features (e.g., components of the alternatives that self-mitigate, such as design standards addressing height and bulk); regulations and commitments (e.g., critical areas regulations); and other potential mitigation measures that the County may consider applying through policies or other strategies to address potential impacts.

The reader is encouraged to review this summary section to find areas of interest, and to read the more-detailed analysis in the following EIS chapters to have the full context of the affected environment, impact analysis, detailed mitigation measures, and overall findings.

**TABLE 0-1 Summary of Impacts and Mitigation Measures**

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
	<p><i>This alternative retains policies that make up the County's current approach to land use, transportation, capital facilities, and environmental planning without major changes. Under current policies, higher density is allowed in the Centers and Corridors area, but the rest of the urban area is at low urban densities. Rural densities are typically one unit per 5 acres or lower with allowed density bonuses. Analysis of the no action alternative is required by SEPA.</i></p>	<p><i>Pierce County's Centers and Corridors planning effort, adopted in October 2021, was the County's first step to "bend the trend" of growth in alignment with VISION 2050's Regional Growth Strategy. Alternative 2 would continue implementing the Regional Growth Strategy with strategic moves to manage growth, make the community more resilient to climate change, and improve housing affordability consistent with changes made to the Growth Management Act (GMA) in 2021. This alternative would increase density moderately throughout the urban growth area (UGA) and makes no changes to the rural area.</i></p>	<p><i>This alternative proposes investments and policy changes intended to "end the trend" of existing land use and growth patterns by rapidly shifting growth, transportation, and climate policies in alignment with the regional objectives. This would create a higher density, multi-modal core in the high-capacity transit area, but keep low urban densities in the rest of the urban area and eliminate density bonuses in the rural area.</i></p>	
CHAPTER 3. Land Use	COUNTYWIDE IMPACTS	COUNTYWIDE IMPACTS	COUNTYWIDE IMPACTS	IMPACTS COMMON TO ALL ALTERNATIVES
	<p><i>Growth Management Act (GMA):</i></p> <ul style="list-style-type: none"> <li>The No Action Alternative does not meet new GMA requirements for affordable housing across income bands and a range of housing types, which is an adverse impact.</li> <li>The No Action Alternative would retain current critical area standards for buffers and regulations inconsistent with GMA and best available science (BAS) requirements. These areas may be more susceptible to impacts from redevelopment, which is an adverse impact.</li> </ul> <p><i>VISION 2050 and MPPs:</i></p> <ul style="list-style-type: none"> <li>The No Action Alternative would not update the Pierce County Comprehensive Plan to meet Puget Sound Regional Council's (PSRC) VISION 2050 Multicounty Planning Policies (MPPs), which is an adverse impact.</li> <li>Per the Buildable Lands Report (BLR), existing large excess capacity within the Urban Unincorporated Areas (UUAs) allows significant opportunity for growth outside of High-Capacity Transit (HCT) areas—as a result, projected growth under the No Action Alternative or Alternative 2 (despite policy revisions) could result in population growth inconsistent with the Regional Growth Strategy, which is an adverse impact.</li> </ul> <p><i>Land Use Compatibility:</i> Significant adverse impacts could include increased visual contrast in building scale, potential for increased shadowing, and an incremental change in local intensity from rural or suburban to urban in character.</p>	<p><i>GMA:</i></p> <ul style="list-style-type: none"> <li>The Action Alternatives could increase development pressure and the cost of land in the Urban Growth Area (UGA), leading to reduced capacity to conserve urban open space in areas already underserved by open space, which is an adverse impact.</li> </ul> <p><i>VISION 2050 and MPPs:</i></p> <ul style="list-style-type: none"> <li>Per the Buildable Lands Report (BLR), existing large excess capacity within the UUAs allows significant opportunity for growth outside of HCT areas—as a result, projected growth under the No Action Alternative or Alternative 2 (despite policy revisions) could result in population growth inconsistent with the Regional Growth Strategy, which is an adverse impact.</li> <li>The Action Alternatives could increase development pressure and the cost of land in the UGA, leading to reduced capacity to conserve urban open space in areas already underserved by open space, which is an adverse impact.</li> </ul> <p><i>Land Use Patterns and Conversion of Uses:</i> The same as <i>Impacts Common to All Alternatives</i>. Plus, growth in the UGA under Alternative 2 would likely be characterized by development at higher densities than the No Action Alternative, which is an adverse impact. Cumulative adverse impacts would include increased urban activity (such as traffic, noise, glare, and pedestrian activity).</p> <p><i>Land Use Compatibility:</i> The same as Alternative 1, plus projected growth has the potential to create compatibility issues with existing lower density residential, agriculture, and open space uses, particularly during the transition</p>	<p><i>GMA:</i></p> <ul style="list-style-type: none"> <li>Alternative 3 does not provide sufficient capacity for affordable housing across all income bands, which is an adverse impact.</li> <li>The Action Alternatives could increase development pressure and the cost of land in the UGA, leading to reduced capacity to conserve urban open space in areas already underserved by open space, which is an adverse impact.</li> </ul> <p><i>VISION 2050 and MPPs:</i></p> <ul style="list-style-type: none"> <li>The Action Alternatives could increase development pressure and the cost of land in the UGA, leading to reduced capacity to conserve urban open space in areas already underserved by open space, which is an adverse impact.</li> </ul> <p><i>Land Use Compatibility:</i> Generally the same as Alternative 1, but overall, Alternative 3 would result in greater increases in activity levels over a slightly smaller area due to the net decrease in UGA size compared to the No Action Alternative and Alternative 2, which is an adverse impact. Cumulative adverse impacts would include increased urban activity (such as traffic, noise, glare, and pedestrian activity).</p> <p><i>HCT Areas and UUAs:</i> Generally the same as <i>Impacts Common to All Alternatives</i>, but adverse impacts on land use patterns, conversion of vacant or underutilized land, activity levels, and compatibility would be more pronounced in the HCT areas than under the No Action Alternative or Alternative 2.</p>	<p><i>Housing and Employment Growth:</i></p> <ul style="list-style-type: none"> <li>Conversion of undeveloped land for new residential, commercial, and/or industrial uses.</li> <li>Increased intensity of use on developed parcels through redevelopment or infill development on underutilized parcels.</li> </ul> <p>Land use compatibility issues resulting from the encroachment of new urban development patterns on current uses often are more rural in nature. Encroachment could also include two or more urban uses—such as industrial and residential uses—that are likely to have more conflicts, and this would be an adverse impact. Encroachment could occur primarily within the existing UGAs.</p> <p><i>County's Countywide Planning Policies (CPPs):</i> Under all alternatives, redevelopment and increased density of the urban environment could promote gentrification in some areas and increase the risk for displacement of people with low incomes, which is an adverse impact.</p> <p><i>Rural Areas:</i> Growth within the UGA under any of the alternatives could create conflicts with rural uses on the other side of the UGA boundary or put additional development pressure on vacant and underutilized parcels near the boundary, which is an adverse impact.</p> <p><i>Land Use Patterns and Conversion of Uses:</i> Localized areas would experience adverse impacts under all of the alternatives from conversion of vacant or less-dense/intense current land uses to uses designated by the Future Land Use Map. Cumulative adverse impacts</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
		<p>from semi-developed, suburban uses to urban uses, which is an adverse impact.</p> <p><i>HCT Areas and UUAs:</i> The same as <i>Impacts Common to All Alternatives</i>.</p> <p><i>Activity Levels:</i> Alternative 2 would result in increased activity levels associated with increases in allowed development intensities, which is an adverse impact.</p>		<p>would include increased urban activity, such as traffic, noise, glare, and pedestrian activity.</p> <p><i>HCT Areas and UUAs:</i> Future housing and employment growth in the HCT areas and UUAs under all alternatives could result in compatibility issues with existing lower density development—infill and redevelopment would likely increase the frequency of different land use types locating close to one another and the frequency of land use patterns that contain mixes of land uses with differing levels of intensity, which is an adverse impact.</p>
	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION COMMON TO ALL ALTERNATIVES
	Existing policies and regulations mitigate potential inconsistencies with adopted plans and policies or land use incompatibilities and would continue to apply.	<p>Alternative 2 includes incorporated planned features that mitigate adverse impacts on land use plans and policies, patterns, and compatibility.</p> <ul style="list-style-type: none"> <li>Alternative 2 would adopt updates to all elements of the Comprehensive Plan—including an updated Capital Facilities Plan—to support growth to the year 2044 consistent with GMA, VISION 2050, and the CPPs.</li> <li>Alternative 2 provides for efficient use of urban areas and services.</li> <li>Alternative 2 downzones 796 acres in the UGA from Moderate Density Single-Family (MSF) and Single Family (SF) to Residential Resource (RR) to better reflect reduced capacity near flood hazard areas.</li> <li>Alternative 2 implements strategies recommended in the Pierce County Climate Vulnerability Assessment (ESA and BERK 2023) to reduce climate change-related land use impacts.</li> </ul>	<p>Alternative 3 includes planned features that mitigate adverse impacts on land use plans and policies, patterns, and compatibility.</p> <ul style="list-style-type: none"> <li>Alternative 3 would adopt updates to all elements of the Comprehensive Plan—including an updated Capital Facilities Plan—to support growth to the year 2044 consistent with GMA, VISION 2050, and the CPPs.</li> <li>Alternative 3 provides for additional efficient use of urban areas and services.</li> <li>Alternative 3 downzones 796 acres in the UGA from MSF and SF to RR to better reflect reduced capacity near flood hazard areas.</li> <li>Alternative 3 includes 3,234 acres of UGA retraction and rezoning to rural zones in areas not likely to be served by urban infrastructure (water, sewer, or existing or planned transit) or annexed by 2044.</li> <li>Alternative 3 implements strategies recommended in the Pierce County Climate Vulnerability Assessment (ESA and BERK 2023) to reduce climate change-related land use impacts.</li> </ul>	See mitigation under each alternative.

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<b>CHAPTER 4. Population, Housing, and Employment</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<p><i>Population and Housing:</i> Estimated growth in the HCT areas would be below the adopted housing unit target, and estimated growth in the UUAs would be above the adopted housing target, which is inconsistent with the Growth Management Act (GMA) and the Regional Growth Strategy and an adverse impact. Alternative 1 also does not have enough zoning capacity or housing unit variety to meet the adopted housing targets by income for households with 80% Area Median Income (AMI) or less or to meet GMA requirements for a range of housing types, which is an adverse impact.</p> <p><i>Displacement:</i> Alternative 1 directs the least amount of growth to the HCT areas and would thus likely result in the lowest displacement risk in these areas. However, Alternative 1 does not provide enough housing capacity at all affordability levels. Alternative 1 also does not include any additional anti-displacement or affordable housing policies and so areas currently at risk of residential displacement would continue to be at risk, including those with higher rates of eviction and cost-burden.</p> <p><i>Access to Services:</i> Rural areas typically have less access to services, including in the areas of employment growth under the alternatives, which is an adverse impact.</p>	<p><i>Population and Housing:</i> Alternative 2 would add more capacity for growth in the UUAs than is needed to accommodate housing unit targets by income level, which is inconsistent with the Regional Growth Strategy and an adverse impact.</p> <p><i>Exposure to Environmental Risks:</i> Similar to <i>Impacts Common to All Alternatives</i>. However, Alternative 2 prioritizes future population growth in the HCT areas (particularly within ½ mile of HCT routes), which could expose more residents to existing environmental health disparities, particularly within 500 feet of heavy traffic roadways.</p> <p><i>Displacement:</i> Alternative 2 encourages housing production throughout the urban areas, with more growth in the HCT areas than Alternative 1 and provides increased capacity for new housing units at all affordability levels. Increased maximum densities within the new consolidated MSF/ SF and High Density Single-Family (HSF)/ High Density Single-Family (MHR) zones and the SEPA infill exemption would likely increase the risk of residential displacement throughout much of the unincorporated UGA, including areas already at high risk of residential displacement and/or with high eviction rates, which is an adverse impact.</p> <p><i>Access to Services:</i> Alternative 2 expands sewer capacity within the UGA to reduce environmental impacts and health risks associated with septic systems. This would support new housing growth within the UGA overall but may put additional financial burdens on homeowners if they are required to join a sewer system, which could be an adverse impact.</p>	<p><i>Population and Housing:</i> Alternative 3 would not meet the housing affordability by income band requirements of GMA, which is an adverse impact.</p> <p><i>Exposure to Environmental Risks:</i> Similar to Alternative 2, but Alternative 3 prioritizes future population growth in the HCT areas more than Alternative 2.</p> <p><i>Displacement:</i> Alternative 3 would encourage the most growth in the HCT areas, particularly within ½ mile of HCT routes, where existing residential displacement risk is already high.</p>	<p><i>Exposure to Environmental Risks:</i> In all alternatives, 90% of population and housing growth for unincorporated Pierce County is in urban areas and 10% in rural areas. The urban areas of the county have more exposure to heavy traffic roadways and hazardous materials (including hazardous waste treatment, storage, and disposal facilities; Superfund sites; and risk management plan facilities), which results in an adverse impact related to population growth under all alternatives. Areas of the Key Peninsula and Anderson Island could be exposed to sea level rise.</p>
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<p><i>Housing:</i> The Housing Action Strategy identified suggested incentives including focusing fee waiver programs specifically on affordable housing and with greater County budget allocations.</p> <p><i>Displacement:</i> Integrate the Equity Index and community-based planning and anti-displacement strategies with capital facility and system planning, climate adaptation investments, and other efforts to further reduce displacement risk.</p>	<p><i>Displacement:</i> The Action Alternatives implement additional anti-displacement policies to balance accommodating new housing at all income levels with preservation of existing households.</p>	<p><i>Housing:</i> Adjust Alternative 3 to meet the targets for 80% AMI or below. Mitigation measures could include applying changes to the MSF and SF densities areas or removing density limits in the HCT ½-mile corridor in favor of a form-based approach that limits height and building footprint rather than densities.</p>	See mitigation under each alternative.

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<p><b>CHAPTER 5. Public Services</b></p>	<p align="center"><b>COUNTYWIDE IMPACTS</b></p> <p><i>Environmental Health of Parks and Open Corridors:</i> Alternative 1 does not include additional policy support to prioritize accessibility to parks in urban areas. This could lead to inadequate access to parks and greater health disparities for urban residents, particularly those without the resources to travel to access recreation elsewhere, which is an adverse impact.</p> <p><i>Parks in General:</i> Alternative 1 does not include policy changes in support of parks access within 0.5 miles of residents in the UGA, which is inconsistent with the Multicounty Planning Policies. As the population increases in the UGA, an increased number of residents may not have a park within walking distance under Alternative 1, which is an adverse impact.</p> <p><i>Law Enforcement, Rural:</i> Growth in rural areas would increase demand for sheriff services over a more distributed area, resulting in a loss of coverage efficiency that occurs in more urban areas with denser development.</p> <p><i>Fire and Emergency Medical Services (EMS) General:</i> Future growth under all alternatives would increase demand for fire and EMS, which is an adverse impact.</p>	<p align="center"><b>COUNTYWIDE IMPACTS</b></p> <p><i>Environmental Health of Parks and Open Corridors:</i> See <i>Impacts Common to All Alternatives</i>. Although policies would support increasing parks and open spaces in the urban area, gaps in supporting infrastructure (such as sidewalks) for residents to safely access those parks could persist under Alternative 2 without additional coordinated investment in active transportation facilities, which is an adverse impact.</p> <p><i>Parks in General:</i> Similar to Alternative 1. However, under Alternative 2, areas of the county with an increased variety of housing types may better meet the needs of a diversity of incomes, ages, and household sizes. Depending on life stages, this could lead to changes in community preferences and needs in some areas, resulting in demand for more diverse amenity types (such as more playgrounds and playfields in areas with households having younger children), which is an adverse impact. Alternative 2 may see more demand than Alternative 1 in the HCT areas as it places more growth in these areas.</p> <p><i>Parks in HCT Areas and UUAs:</i> Urban areas with particularly high population growth include the Tacoma Potential Annexation Area (PAA), South Hill, Parkland-Spanaway-Midland, and Tehaleh. These areas are therefore likely to see the highest new urban demand for parks and recreation in the UGA, which is an adverse impact.</p> <p><i>Schools in HCT Areas and UUAs:</i> Similar to <i>Impacts Common to All Alternatives</i>. Compared to Alternative 1, increased anticipated growth in the HCT areas under Alternative 2 would likely increase student growth in the school districts of Bethel, Fife, and Puyallup (although all of these districts also serve portions of the UUAs as well). The Bethel and Puyallup School Districts are already showing deficit levels and will need capacity increases to maintain services for future student enrollment.</p> <p><i>Law Enforcement, Urban:</i> Similar to <i>Impacts Common to All Alternatives</i>. Growth under Alternative 2 would adversely increase service demand overall by directing more growth to the HCT areas.</p> <p><i>Law Enforcement, Rural:</i> Similar to Alternative 1.</p> <p><i>Fire and EMS General:</i> Similar to Alternative 1. Alternative 2 guides a larger share of growth in the UGA to areas served by existing or planned HCT and would increase allowed residential densities throughout much of the UGA. As a result, Central Pierce Fire and Rescue (CPFR) would likely</p>	<p align="center"><b>COUNTYWIDE IMPACTS</b></p> <p><i>Environmental Health of Parks and Open Corridors:</i> Same as <i>Impacts Common to All Alternatives</i>. Policies that support increasing parks and open spaces in the urban area would be more effective than Alternative 2 due to coordinated investment in active transportation, but some gaps could persist outside of the HCT areas.</p> <p><i>Parks in General:</i> Similar to Alternative 2.</p> <p><i>Parks in HCT Areas and UUAs:</i> Similar to Alternative 2. Alternative 3 would place more growth in HCT areas and less in UUAs than the other alternatives. This difference in population growth distribution in Alternative 3 is particularly pronounced in the Tacoma PAA. Therefore, demand for parks will be higher in HCT areas and lower in UUAs in this alternative than in the other two.</p> <p><i>Schools in General:</i> Franklin Pierce would likely see about 2.8 times as much student growth under Alternative 3 as the other alternatives and, unlike the other alternatives, would be above existing capacity by 2044, which is an adverse impact.</p> <p><i>Schools in HCT Areas and UUAs:</i> Similar to <i>Impacts Common to All Alternatives</i>. However, under Alternative 3, more student growth is expected at schools serving the HCT areas and less at those serving the UUAs than under the other alternatives (corresponding to the shifting proportions of growth). Compared to Alternative 2, expected student growth in the HCT areas would have slightly less of an impact on the Bethel, Puyallup, and Sumner-Bonney Lake school districts (each of which also serves portions of the UUAs) and more of an impact on the Franklin Pierce and Orting school districts.</p> <p><i>Law Enforcement, Urban:</i> Similar to Alternative 2.</p> <p><i>Law Enforcement, Rural:</i> Similar to Alternative 1.</p> <p><i>Fire and EMS Unincorporated, HCT Areas and UUAs and Rural:</i> Similar to Alternative 2.</p>	<p align="center"><b>IMPACTS COMMON TO ALL ALTERNATIVES</b></p> <p><i>Demand for Services:</i> Future housing and employment growth under all alternatives would increase demand for public services in unincorporated Pierce County.</p> <p><i>Environmental Health of Parks and Open Corridors:</i> All alternatives will see population growth, which is expected to result in more Vehicle Miles Traveled (VMT) and likely greater vehicle emissions, depending on investments in vehicle electrification. This could impact air quality throughout unincorporated Pierce County, particularly in urban areas where growth is concentrated, which is an adverse impact.</p> <p><i>Parks in General:</i> Under all alternatives, the population of unincorporated Pierce County is expected to grow by 79,215 residents, which will result in a greater demand on the park system (an adverse impact). As the population grows, existing parks will see heavier use and more pressure on facilities, which is an adverse impact. Increased land costs could result in smaller new parks than needed or larger new parks being sited farther from denser neighborhoods, affecting access for urban residents, and reducing neighborhood walkability and resulting in an adverse impact. This could also lead to more spending on the development of parking lots, which is expensive and limits funds available to spend on other park amenities, resulting in an adverse impact. Increased park usage will likely add to maintenance and capital costs as County facilities need to be repaired and replaced more frequently, which is an adverse impact.</p> <p><i>Schools in Rural Areas:</i> As land costs increase in the UGA, some districts serving a combination of urban and rural areas may choose to locate new schools in rural areas where land costs are lower but other services and facilities are more limited (such as connected sidewalks or transit), resulting in an adverse impact.</p> <p><i>Schools in HCT Areas and UUAs:</i> Growth in the UGA under all alternatives will likely result in growth in student enrollment. The HCT areas are primarily served by the Bethel, Franklin Pierce, and Puyallup school districts. Nearly all school districts in the county serve some portion of the UUAs (with the exception of the Yelm and University Place school districts), but the UUAs are primarily served by the Bethel School District as well as the Dieringer, Orting, Peninsula, Puyallup, and Sumner-Bonney Lake school districts. Student enrollment is</p>



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		<p>experience more demand for fire and EMS services, and East Pierce Fire and Rescue (EPFR) would likely experience less demand for fire and EMS services under Alternative 2 than Alternative 1 (the HCT areas are primarily served by CPFR, and the UUA are primarily served by EPFR).</p>		<p>projected to exceed existing permanent capacity in many of these districts by the 2027–2028 school year, which is an adverse impact, and would likely require additional capital facility improvements to support the anticipated student generation through 2044.</p> <p><i>Law Enforcement, Urban:</i> Future growth under all alternatives would increase demand for law enforcement services, which is an adverse impact. Alternative 1 may result in a loss of service efficiencies that arise from denser development, which is an adverse impact.</p>
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<p>See <i>Mitigation Common to All Alternatives</i>.</p>	<p><i>General:</i> Same as mitigation common to all alternatives, but Alternative 2 includes integrated plan features.</p> <p><i>Parks:</i> Same as mitigation common to all alternatives. Under Alternative 2, the County could add policies to support coordination with the existing Transportation Improvement Plan (TIP) safe routes to school and traffic safety programs (similar to Tacoma’s Safe Routes to School and neighborhood greenway programs) and consider adopting similar programs.</p> <p><i>Fire and EMS:</i> Under Alternative 2, the County could implement recommendations in the 2023 Climate Vulnerability Assessment to increase its adaptive capacity and reduce exposure to climate stressors such as extreme heat, wildfire smoke, and natural hazards, particularly for public buildings. Under Alternative 2, the County could adopt fire impact fees to support increased demand for fire services as a result of new growth and development.</p>	<p><i>General:</i> Same as Alternative 2 with different integrated plan features.</p> <p><i>Parks:</i> Same as Alternative 2.</p> <p><i>Fire and EMS:</i> Same as Alternative 2.</p>	<p><i>General:</i> Under all alternatives, specific impacts of future development proposals should be evaluated through the County’s SEPA authority to identify appropriate mitigation measures and ensure that adequate public services—including parks, schools, and emergency services—are available.</p> <p><i>Parks:</i> The County’s Parks, Recreation, and Open Space (PROS) Plan discusses multiple methods for financing parks, including real estate excise tax, sales tax, general funds, development impact fees, and grants. Under all alternatives, the County should continue to pursue state and federal grants and could form partnerships with local cities, park districts, and non-profits to share acquisition and operation costs to efficiently improve shared park service delivery. Under all alternatives, if funds are not readily available for acquisition of new parks or improvement of existing parks to meet the needs of new development, the County could regularly review and update the impact fee schedule established in <a href="#">PCC 4A.20</a> to require additional developer payments.</p> <p><i>Schools:</i> Individual school district Capital Facilities Plans (CFPs) discuss multiple methods for financing school construction, improvements, and maintenance, including real estate excise tax, general funds, bonds, levies, grants, and impact fees. The County should continue to work with the school districts under all alternatives to pursue these financing options to support the growth and maintenance of school facilities to support anticipated growth.</p> <p><i>Fire and EMS:</i> Under all alternatives, individual fire districts may request facility bonds and updates to maintenance and operations levies to support costs</p>

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				associated with growth. Under all alternatives, updates to the <a href="#">2020–2025 Pierce County Region 5 Hazard Mitigation Plan</a> (planned for 2025/26) could include additional policies to support climate hazard planning required by 2029 for Pierce County as part of HB 1181.
<b>CHAPTER 6. Utilities</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<i>See Impacts Common to All Alternatives.</i>	<i>See Impacts Common to All Alternatives.</i>	<i>See Impacts Common to All Alternatives.</i>	<p><i>Impacts Common to All Alternatives:</i> As growth occurs in the planning area, demand for water will increase under any of the alternatives.</p> <p><i>Water:</i> Since most water systems (including individual, single-family systems) in the county use groundwater as their main water source, increases in demand will require more groundwater to be produced. Increases in groundwater production can lead to local declines in aquifer water levels due to drawdown interference (drawdown in a well due to production in a nearby well), which have the potential to impact the production capacity of some existing wells.</p> <p><i>Wastewater:</i> Growth will increase the need for additional wastewater management and treatment. The channeling of growth to already developed areas will require upgrades to sewer collection capacity and increase the volume of wastewater that requires treatment.</p>
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<p><i>Water:</i> Water supply is the responsibility of the specific water purveyors throughout Pierce County. These purveyors are required to plan for growth-related supply need increases. Through planning efforts, including the County’s Coordinated Water System Plan, an equitable and efficient approach to meeting water supply needs will be facilitated.</p> <p><i>Wastewater:</i> Planning for growth-related wastewater volume increases and implementing projects to service the increased volume will be critical. These efforts include the Pierce County Unified Sewer Plan, the Pierce County Sewer Improvement Program, and the Pierce County Capital Facilities Plan.</p>	<p><i>Water:</i> Similar to Alternative 1 but the policies in Alternative 2 address permit exempt wells consistent with the Streamflow Restoration Act, which limits withdrawal to specific gallons per minute in specific Water Resource Inventory Areas (WRIAs).</p> <p><i>Water in HCT Areas:</i> Similar to Alternative 1 but under Alternative 2, the HCT areas will absorb a larger portion of the population growth which means the water supply infrastructure would require infrastructure upgrades.</p> <p><i>Water in UUAs:</i> Similar to Alternative 1 but the growth in the UUAs has the potential to require more complex infrastructure projects than those needed in the HCT areas so planning for more complex infrastructure is needed in UUAs.</p> <p><i>Wastewater in HCT Areas:</i> Similar to Alternative 1 but the wastewater infrastructure but concentrated population growth may require infrastructure upgrades.</p>	<p><i>Water:</i> Similar to Alternative 2.</p> <p><i>Water in HCT Areas:</i> Similar to Alternative 2.</p> <p><i>Water in UUAs:</i> Similar to Alternative 2.</p> <p><i>Wastewater in HCT Areas:</i> Similar to Alternative 2.</p>	<p><i>General:</i> Update regulations to ensure capacity for utilities, capital facilities, water, and wastewater.</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<b>CHAPTER 7. Earth</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<i>See Impacts Common to All Alternatives.</i>	<i>See Impacts Common to All Alternatives.</i>	<i>See Impacts Common to All Alternatives.</i>	<p><i>HCT Areas:</i> Seismic hazard impacts in the HCT areas have the potential to be diverse and significant due to the density of development, the level of infrastructure, and the size of the population. This could translate to high levels of damage in the HCT areas from a large magnitude earthquake. The HCT areas do not contain areas of high liquefaction susceptibility.</p> <p><i>UUAs:</i> Seismic hazard impacts in the UUAs, much like the HCT areas, have the potential to be diverse and significant.</p>
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<i>See Mitigation Common to All Alternatives.</i>	<i>See Mitigation Common to All Alternatives.</i>	<i>See Mitigation Common to All Alternatives.</i>	<p><i>UUAs:</i> These conditions would require developers to pursue higher cost mitigation measures to develop within these areas and minimize the risk to health and public safety.</p> <p><i>Erosion and Landslides:</i> Avoided and minimized through critical area development regulations using best available science prohibiting development in active landslide hazard areas, reducing impervious surfaces in these areas, or requiring design, engineering, and construction to avoid and minimize the risk. This is true for the HCT areas, UUAs, and rural areas.</p> <p><i>Seismic Hazards:</i> Mitigated or minimized by development regulation updates to critical areas and the International Building Code (IBC) and International Residential Code (IRC) that require design, engineering, and construction to incorporate methods to mitigate the risk. These same codes can limit impacts by implementing strict siting criteria to limit the location of high-risk development in higher seismic risk areas.</p> <p><i>Mudflows and Flooding from Volcanic Hazards:</i> Mitigated by mapping and restricting or regulating development in those areas most at risk of impact, regardless of whether those areas are in the HCT areas, UUAs, or rural areas.</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<b>CHAPTER 8. Water Resources</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<p><i>Reduction of Groundwater Recharge:</i> Development resulting in reduced infiltration of precipitation will reduce groundwater recharge, while the same growth increases the demand for groundwater for drinking and commercial uses.</p> <p><i>Stormwater Management:</i> Challenges with managing stormwater and the water quality of rivers, lakes, streams, and marine waters will also increase with growth, especially in areas of new land development. Growth that results in increased stormwater runoff, especially in areas where stormwater is ultimately discharged to receiving bodies of water, will present challenges to maintaining and improving water quality. Development strategies such as higher density and infill development can reduce impervious surface area. How these challenges are addressed will impact the health of wildlife, fish, and plants that rely on the habitats around these water bodies.</p>	<p><i>Reduction of Groundwater Recharge:</i> Similar to Alternative 1. In UUAs, the potential increase of industrial development has the potential to significantly impact the primary groundwater recharge area for the Central Pierce County Sole Source Aquifer by increasing the risk of introducing contaminants into the aquifer and from a loss of pervious surfaces reducing groundwater recharge.</p> <p><i>Stormwater Management:</i> Similar to Alternative 1.</p>	<p><i>Reduction of Groundwater Recharge:</i> Similar to Alternative 1.</p> <p><i>Stormwater Management:</i> Similar to Alternative 1. In HCT areas, the concentration of development would create the potential for increased impacts on surface and groundwater water quality in these localized areas by concentrating pollution-generating sources, locally decreasing recharge and infiltration areas, and locally increasing stormwater runoff that must be managed.</p>	<p><i>General:</i> As growth occurs in the planning area, demand for water will increase under any of the alternatives.</p> <p><i>Contaminant Runoff:</i> Growth and new development will increase runoff and the risks of contaminants contained in runoff entering streams.</p> <p><i>Wastewater Infiltration:</i> The interactions between groundwater and surface water may become more important as the expansion of infrastructure such as sewer conveyances and treatment plants reduces the infiltration of wastewater by on-site systems, reducing groundwater inflow to streams. These reductions in flow may be offset by the reduction in nitrates and other contaminants finding their way into streams.</p> <p><i>Decline in Aquifer Levels:</i> Since most water systems (including individual, single-family systems) in the county use groundwater as their main water source, increases in demand will require more groundwater to be produced. Increases in groundwater production can lead to local declines in aquifer water levels due to drawdown interference (drawdown in a well due to production in a nearby well), which have the potential to impact the production capacity of some existing wells. While this may be locally significant at a few individual wells, it is unlikely to be a widespread, and for the overall groundwater resource, it would not be significant. This is because the declines at most locations will be rather modest (fractions of a foot if any decline occurs at all) and, in most wells, the amount of water in the wells is significantly higher (tens to a hundred or more feet) than the pump intake depth. Therefore, small declines in water levels will not impair the production capacity of most wells.</p> <p><i>Decreases in Streamflow:</i> Increases in groundwater production can also lead to decreases in streamflow, as less groundwater will be discharged to stream baseflows. Changes in groundwater discharge to streamflows will vary among the alternatives due to the differing distributions of growth. The significance of these decreases in streamflows is subjective depending on the amount of the decline, the particular stream or river involved, and what reaches of the streams or rivers are affected.</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
				<p><i>Protection of Central Pierce County Aquifer:</i> Growth and the resultant development will also increase pressures in protecting the Central Pierce County Sole Source Aquifer (SSA). These pressures include the potential loss of aquifer recharge area and an increased potential for the introduction of contaminants. The GMA requires protection, and it is also federally protected.</p>
	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION COMMON TO ALL ALTERNATIVES
	None.	<p><i>Urban and HCT Areas:</i> Existing policies and regulations exist to limit impacts on water resources, including public health standards for on-site septic, stormwater codes, and manual Critical Aquifer Recharge Area (CARA) regulations. Updates to the critical area ordinance can offset the loss of groundwater recharge and limit the introduction of contaminants.</p> <p>Potential contaminant-related impacts from increased development in the Central Pierce County SSA area, especially around Frederickson, which is an important recharge area, are significant. Removal of pervious surface areas may also be significant. These can be mitigated by continuing to strengthen codes that control pervious to impervious surface ratios, on-site infiltration of stormwater, and the use of management and containment of hazardous chemicals and petroleum products.</p> <p>Increased infiltration, where feasible, will be useful in reducing impacts on stormwater, streamflow, and groundwater recharge.</p> <p>Development strategies such as infill development and restrictions on impervious surface areas will also provide additional mitigation.</p>	<p><i>HCT Areas:</i> This potential is offset by focusing development in areas with existing and planned infrastructure including wastewater and stormwater collection, conveyance and treatment, and enhancements to regulations. Limitations on impervious surfaces and preservation of tree canopy will also offset surface water impacts.</p> <p>Increased infiltration, where feasible, will be useful in reducing impacts on stormwater, streamflow, and groundwater recharge.</p>	See mitigation under each alternative.

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<b>CHAPTER 9. Plants and Animals</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<p><i>Plants:</i> Under Alternative 1, more development would be expected to occur in areas that are currently undeveloped, resulting in a greater impact on native vegetation, including forest communities, native grasslands, wetlands, and other naturally vegetated areas. Protecting land from increased development at a large scale is unlikely under the No Action Alternative.</p> <p><i>Plants in HCT Areas:</i> Tree canopy in the HCT areas is expected to decrease under Alternative 1 as new development occurs, albeit at a slower rate and magnitude than Alternatives 2 and 3. Additional development may also put pressure on the Oregon white oak habitat, a species of local importance, that is mapped near Parkland and Spanaway; as well as white-top aster, a rare plant species known to occur here. This species is associated with prairies, areas that would have a high likelihood of development. Additional development could increase the rate and quantity of surface water runoff into wetlands.</p> <p><i>Animals:</i> Under Alternative 1, more new developments would be expected in areas that are currently undeveloped, resulting in a greater impact on wildlife habitat.</p> <p><i>Animals in HCT Areas:</i> Additional development in the HCT areas would lead to additional habitat loss. The loss of tree canopy on currently undeveloped parcels can have an impact on wildlife that use tree canopy for cover, nesting, and foraging. Additionally, the loss of this habitat, including street trees, decreases overall habitat, and can result in a decrease in carbon sequestration rates.</p> <p><i>Animals in UUAs:</i> Impacts on animals would be greater in Alternative 1 than in the Action Alternatives due to a greater degree of development in the UUAs in Alternative 1.</p> <p><i>Fish/Aquatic Species in HCT Areas:</i> Development in the HCT would also lead to an increase in impervious surfaces, which could result in more stress to fish and other aquatic animals through increased stormwater runoff. This could have negative impacts on salmonids found in Spanaway, Morey, and Clover creeks.</p> <p><i>Fish/Aquatic Species in UUAs:</i> Development in the UUAs would lead to an increase in impervious surfaces, which can result in an increase of stormwater runoff</p>	<p><i>Plants:</i> See <i>Impacts Common to All Alternatives</i>. Since growth would be concentrated in developed areas and critical areas requirements would be increased based on best available science (BAS), impacts on vegetation under Alternative 2 would be lower than impacts on vegetation under Alternative 1. Protecting land from increased development at a large scale is more likely than the No Action Alternative due to the conservation of 50,000 acres beyond Alternative 1 (56,000 total in the next 20 years) under Alternative 2.</p> <p><i>Plants in UUAs:</i> Under Alternative 2, residential development would be increased in the UUAs at a faster rate than the No Action Alternative, but at a slower rate and lesser degree than in the HCT areas. This area is already largely developed, except for a large, forested area adjacent to the Tehaleh residential community. Most canopy loss under Alternative 2 is expected to occur here as residential development continues.</p> <p><i>Plants in HCT Areas:</i> Under Alternative 2, tree canopy in the HCT areas is expected to decrease at a faster rate and to a larger degree than the No Action Alternative as most new development would occur in these areas. However, as described for the No Action Alternative, canopy cover is already low here (37%), and tree removal would likely be from the forested canopy of undeveloped parcels. Forested areas in public parks and riparian corridors would be protected.</p> <p><i>Animals:</i> Impacts are similar to those in Alternative 1. However, the expansion of rural roads may reduce the availability of some habitat to wildlife to a higher degree than Alternative 1.</p> <p><i>Animals in HCT Areas:</i> Additional development in the HCT areas would lead to additional habitat loss, likely at a faster rate than Alternative 1. The loss of trees on undeveloped parcels can have an impact on the wildlife that use trees for cover, nesting, and foraging.</p> <p><i>Animals in UUAs:</i> Under Alternative 2, additional development in UUAs would lead to additional habitat loss and increased habitat fragmentation at a faster rate than the No Action Alternative, but at a slower rate and to a lesser degree than in the HCT areas.</p> <p><i>Fish and Aquatic Species:</i> Similar to Alternative 1, however less impacts are expected because new road and road improvements provide an opportunity for stormwater</p>	<p><i>Plants:</i> Similar to impacts under Alternative 2. Protecting land from increased development at a large scale is more likely than the No Action Alternative and Alternative 2 due to the conservation of 150,000 acres beyond Alternative 2 (156,000 total) under Alternative 3.</p> <p><i>Plants in UUAs:</i> Under Alternative 3, portions of the UUAs would be removed from the UGA and become part of rural Pierce County. Tree canopy would be lower than in its current state but not as low as under Alternatives 1 and 2.</p> <p><i>Plants in HCT Areas:</i> Under Alternative 3, a greater proportion of new development would occur in the HCT areas, and impacts on vegetation in the HCT areas are expected to be greater than those of Alternatives 1 and 2. The few forested patches that exist are attached to business parks and housing communities and would likely be removed as residential and workforce developments increase. Some impacts on wetlands and wetland buffers are expected but in general would not be much greater than those of Alternative 2.</p> <p><i>Animals:</i> This would include <i>Impacts Common to All Alternatives</i>. However, no additional habitat fragmentation is expected in rural Pierce County under Alternative 3, and impacts on wildlife would be fewer than those under Alternatives 1 and 2.</p> <p><i>Animals in HCT Areas:</i> Similar to impacts on vegetation, impacts on animals and habitat in the HCT areas under Alternative 3 would be similar to those under Alternative 2 due to updates to the CAO based on BAS.</p> <p><i>Animals in UUAs:</i> Some additional habitat fragmentation is expected in the UUAs under Alternative 3, as some additional development would occur. Forested areas that support terrestrial and avian species would be impacted, but less than under Alternatives 1 and 2.</p> <p><i>Fish and Aquatic Species:</i> Under Alternative 3, impacts on fish and aquatic species would be fewer than those under Alternatives 1 and 2.</p> <p><i>Fish and Aquatic Species in HCT Areas:</i> Impacts on fish and aquatic species in the HCT areas under Alternative 3 would be similar to those under Alternative 2.</p> <p><i>Fish and Aquatic Species in UUAs:</i> Under Alternative 3, impacts on fish and aquatic species would be fewer than those under Alternatives 1 and 2. However, an increase in</p>	<p><i>Plants:</i> Potential impacts under all alternatives include the loss and reduced function of plant communities as a result of population growth and conversion of vegetated lands to non-vegetated lands and impervious surface.</p> <p><i>Plants in UUAs:</i> The UUAs contain several large, forested parcels adjacent to the Tehaleh residential community that could be impacted under all alternatives. Additional development in the UUAs may put pressure on the Oregon white oak habitat mapped here, as well as three species of rare plants: bog clubmoss, Torrey's peavine, and white-top aster.</p> <p><i>Animals:</i> Under all alternatives, wildlife habitat could be lost, simplified, and /or degraded as a result of population growth and development.</p> <p><i>Animals in UUAs:</i> Under all alternatives, additional development in UUAs would lead to additional habitat loss and increased habitat fragmentation. The loss of habitat to residential developments in this area would continue and have an impact on habitat availability and habitat connections. Most of the undeveloped land is a forested area adjacent to the Tehaleh residential community. This area provides a connection to the Carbon River that may be severed if additional development occurs here.</p> <p><i>Fish/Aquatic Species:</i> All of the alternatives result in land conversion, increases in human activity, and a trend toward more urbanized habitats. Urbanized watersheds are prone to more frequent and bigger floods as stormwater volumes traveling over impervious surfaces are delivered too rapidly to streams. Water quantity and water quality would be negatively affected, and impacts on water quantity would primarily affect freshwater habitats and species. Impacts on water quality would affect freshwater, marine, and estuarine areas, and the species that rely on those habitats.</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
	<p>and pollutants that affect fish and aquatic species. This could result in impacts on several streams that provide habitat for federally protected Chinook salmon, including Chambers, Clover, Purdy, and South Prairie creeks.</p> <p>The current Critical Area Ordinance (CAO) is not based on current BAS, as established in the County's BAS Report and Gap Analysis (January 2023) and is unlikely to provide sufficient protection under that standard.</p>	<p>retrofit that could detain or decrease pollutants from entering a water body.</p> <p><i>Fish/Aquatic Species in HCT areas:</i> Development in the HCT areas would also lead to a larger increase in impervious surfaces at a faster rate than Alternative 1. This would result in more stress to fish and other aquatic animals through increased stormwater runoff.</p> <p><i>Fish/Aquatic Species in UUAs:</i> Development in the UUAs would also lead to a larger increase in impervious surfaces at a faster rate than under Alternative 1, but at a slower rate and to a lesser degree than in the HCT areas. This would result in more stress to fish and other aquatic animals through increased stormwater runoff.</p>	<p>impervious surfaces is expected, so effects on water quality and quantity would still occur but be less than under Alternatives 1 and 2.</p>	
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<p>See <i>Mitigation Common to All Alternatives</i>.</p>	<p><i>Plants:</i> See <i>Mitigation Common to All Alternatives</i>: Plus, updates to the CAO, as recommended by the Pierce County Best Available Science Gap Analysis (Watershed Company 2023), would also minimize impacts, or add protections to plants. These include:</p> <ul style="list-style-type: none"> <li>• Requiring no net loss and mitigation sequencing.</li> <li>• Expanding wetland and riparian mitigation ratios.</li> <li>• Revising the list of allowed activities in wetland buffer (i.e., removing allowances for single-family homes).</li> <li>• Adding low-impact development (LID) or stormwater management requirement to buffer requirements to protect sensitive ecosystems such as bogs.</li> <li>• Increase standard wetland buffer widths based on BAS.</li> <li>• Requiring that wetland buffers be vegetated with native plants appropriate to the ecoregion. If buffers do not meet this requirement, they may be increased.</li> <li>• Incorporating the Washington Department of Fish and Wildlife's (WDFW) Riparian Management Zone BAS.</li> </ul> <p>Under Alternative 2, some of these laws and policies will be strengthened and improved, resulting in fewer impacts on plants and animals compared with the No Action Alternative. Alternative 2 involves conserving lands and planting trees for carbon sequestration; an estimated 50,000 acres of land would be protected from development beyond what is currently protected under the No Action Alternative (56,000 total in the next 20 years). Most of these are likely in rural Pierce County.</p> <p><i>Plants in HCT Areas:</i> Reduced carbon sequestration from the loss of tree canopy would be offset by the protection</p>	<p><i>Plants:</i> Similar to Alternative 2, Alternative 3 would conserve lands and plant trees for carbon sequestration. However, an estimated 150,000 acres of land would be protected from development to achieve a goal above that of Alternative 2 (156,000 total). Most of these are likely in rural Pierce County.</p> <p><i>Plants (HCT Areas):</i> Similar to Alternative 2, but reduced carbon sequestration from the loss of tree canopy would be offset by the protection of 150,000 acres above that of Alternative 2 (156,000 total) that have the potential for carbon sequestration.</p> <p><i>Animals:</i> The estimated additional 150,000 acres above that of Alternative 2 (156,000 total) of lands that would be protected for carbon sequestration under Alternative 3 would maintain wildlife habitat.</p> <p><i>Animals (HCT Areas):</i> Same as Alternative 2.</p> <p><i>Fish and Aquatic Species (HCT Areas):</i> Existing roads could also be upgraded to meet fish passage standards.</p>	<p><i>Plants:</i> The County has already implemented several actions under the Sustainability 2030 plan that will minimize impacts on plants. These include:</p> <ul style="list-style-type: none"> <li>• Developing and implementing a policy that incentivizes green infrastructure (raingardens, bioswales, green roofs) and works to remove impervious surfaces where appropriate.</li> <li>• Developing a strategic alignment of priorities between three of the County's land conservation programs: the Conservation Futures Program, the Transfer of Development Rights Program, and the Open Space Program, to maximize conservation.</li> <li>• Developing and implementing a countywide forest program to support small forest landowners and steward county properties.</li> <li>• Conducting an inventory to classify all County-owned forested and undeveloped natural lands to plan for long-term use.</li> <li>• Providing training, education, financial incentives, and recognition opportunities to landowners on best management practices for carbon sequestration.</li> </ul>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
		<p>of 50,000 acres of lands that have the potential for carbon sequestration beyond Alternative 1 (56,000 total in the next 20 years). CAO updates could also improve protections for wetlands and other Priority Habitats.</p> <p><i>Animals:</i> Updates to the CAO, as recommended by the Pierce County Best Available Science Gap Analysis (Watershed Company 2023), would minimize impacts, or add protections to wildlife. These include:</p> <ul style="list-style-type: none"> <li>• Updating regulations for habitats and species of local importance and adding mapping resources to identify the locations of potential habitats and species requiring protection and management.</li> <li>• Requiring habitat assessments within a flood hazard area.</li> <li>• Increasing mitigation ratios for riparian areas.</li> <li>• Adding standards for priority habitat species.</li> <li>• Training County staff to understand the current list of protected species and habitats, and when habitat assessments should be required, and mitigation sequencing and mitigation monitoring requirements.</li> <li>• Requiring that standard stream and wetland buffer widths be vegetated with native plants appropriate for this ecoregion.</li> <li>• Expand wetland and riparian mitigation ratios.</li> </ul> <p><i>Fish and Aquatic Species:</i> Updates to the CAO, as recommended by the Pierce County Best Available Science Gap Analysis (Watershed Company 2023), would minimize impacts, or add protections to fish and aquatic species. These include:</p> <ul style="list-style-type: none"> <li>• Adding standards to manage stormwater infrastructure to avoid and minimize discharges of increased and/or untreated runoff to streams.</li> <li>• Promoting the use of LID as a tool to effectively manage stormwater for minimal downstream impacts.</li> <li>• Requiring that standard stream and wetland buffer widths be vegetated with native plants appropriate for this ecoregion.</li> </ul> <p>Consistency with WDFW's riparian management zone guidance in Riparian Ecosystems, Volume 1: Science Synthesis and Management Implications (Quinn et al. 2020).</p> <p><i>Fish and Aquatic Species in HCT Areas:</i> Existing roads could also be upgraded to meet fish passage standards. Additionally, the expansion of sewer into the UGA could reduce the</p>		



Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
		environmental impacts caused by septic systems, such as the discharge of wastewater into surface waters.		
<b>CHAPTER 10. Air Quality/ Greenhouse Gas (GHG) Emissions</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	<p><i>Construction:</i> During construction, soil-disturbing activities, operations of heavy-duty equipment, commuting workers, and the laying of asphalt may generate emissions that would temporarily affect air quality. The total emissions and the timing of the emissions from these sources would vary depending on the phasing of the project and options chosen for the project.</p> <p><i>GHG:</i> Alternative 1 would have a significant adverse impact because it is inconsistent with the County's climate plan goals.</p>	<p><i>Construction:</i> Same as Alternative 1.</p> <p><i>Air Quality:</i> Alternative 2 would result in a potentially significant adverse unavoidable impact on air quality, due to the growth of residential populations near high-capacity roadways.</p>	<p><i>Construction:</i> Same as Alternative 1.</p> <p><i>Air Quality:</i> Alternative 3 would result in a potentially significant adverse unavoidable impact on air quality, due to the growth of residential populations near high-capacity roadways.</p>	See impacts under each alternative.
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	<p><i>Short-term Construction Mitigation:</i> Same as Mitigation Common to All Alternatives.</p> <p><i>GHG and Air Quality Mitigation:</i> Same as Mitigation Common to All Alternatives.</p>	<p><i>Short-term Construction Mitigation:</i> Same as Mitigation Common to All Alternatives.</p> <p><i>GHG and Air Quality Mitigation:</i> Same as Mitigation Common to All Alternatives.</p>	<p><i>Short-term Construction Mitigation:</i> Same as Mitigation Common to All Alternatives.</p> <p><i>GHG and Air Quality Mitigation:</i> Same as Mitigation Common to All Alternatives.</p>	<p><i>Short-term Construction Mitigation:</i> Emissions of particulate matter, ozone precursors (e.g., volatile organic compounds and oxides of nitrogen), sulfur oxides, and carbon monoxide would be minimized whenever reasonable and possible. Since these emissions primarily result from construction equipment, machinery engines would be kept in good mechanical condition to minimize exhaust emissions. Contractors would also be encouraged to reduce idling time of equipment and vehicles and to use newer construction equipment or equipment with add-on emissions controls.</p> <p><i>GHG and Air Quality:</i> The following measures could be applied to any of the alternatives to reduce exposure to air pollutants:</p> <ul style="list-style-type: none"> <li>• Limit the development of residential units with land use buffers (e.g., within 500 feet of major roadways) and consider project-specific mitigation measures to limit exposures to emissions sources such as high-capacity roadways. Land use buffers could include designating areas near high-impact areas as industrial or other nonresidential zones to ensure distance between these areas and residences.</li> <li>• Reduce exposure to traffic by implementing mitigation strategies, including reducing VMT, land use buffers, improved urban design, decking or lids over highways, and building design strategies.</li> <li>• Develop and implement strategies to reduce vehicle trips, improve vehicle fuel efficiency, and</li> </ul>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
				<p>facilitate rapid adoption of zero-emissions alternative fuel vehicles.</p> <ul style="list-style-type: none"> <li>• Apply transit-oriented development to create more walkable communities (inherent in Alternatives 2 and 3).</li> <li>• Enhance the air monitoring network within the county to enable the community to characterize their exposures more accurately. Prioritize highly burdened regions, such as South Tacoma.</li> <li>• Continue to prioritize low-emissions transportation modes through the development of additional bike/walk pathways, rideshare programs, and other travel demand strategies (inherent in Alternatives 2 and 3).</li> <li>• Identify opportunities to use roadside barriers to reduce exposure to air pollution and to provide the related benefit of reduced noise.</li> <li>• Use urban design to enhance open space and to incorporate strategic building placement.</li> <li>• Deploy roadside barriers to reduce the dispersion of emissions from high-capacity roadways, with the co-benefit of reducing noise.</li> <li>• Promote the use of high-efficiency ventilation filters in buildings within 1,500 feet of high-capacity roadways. Limit sensitive uses on floors that are at or near roadway level.</li> </ul> <p>As part of Washington’s Climate Commitment Act, funds will be allocated to assist highly impacted communities and to support the involvement of cities, community members, and other affected entities. This program is yet to take form but seems to have a variety of similarities to California’s Assembly Bill 617. This program will likely provide additional emphasis and consideration of air-related mitigation measures for highly impacted communities within Pierce County.</p> <p>Individual projects within the county should also demonstrate their ability to be consistent with the goals and strategies provided in the Sustainability 2030 update.</p>

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
<b>CHAPTER 11. Cultural Resources</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>COUNTYWIDE IMPACTS</b>	<b>IMPACTS COMMON TO ALL ALTERNATIVES</b>
	See <i>Impacts Common to all Alternatives</i> .	<p><i>Cultural Resources:</i> In addition to Impacts Common to All Alternatives, impacts on cultural resources could occur as a result of the land use, housing, and growth policy change.</p> <p>Alternative 2 would create a SEPA infill exemption for the entire UGA. Under Alternative 2, the number of projects reviewed under SEPA could decrease, and therefore the number of projects that receive a cultural resources review could also decrease. Cultural resource reviews could be completed on these projects if they involve a federal undertaking (Section 106) or capital funding (Executive Order [EO]-21-02), but if SEPA is the only review associated with a project, then these projects within the UGA would no longer have a cultural resource review. Without a review, the existing, unrecorded, or unknown resources within the UGA could have their integrity degraded and impacted.</p> <p>Changes to the current setting that occur in a piecemeal fashion have the potential to impact current historic districts and could degrade the integrity of an area to a point that a currently unrecorded historic district could not be recognized or determined eligible for listing in the National Register of Historic Places (NRHP).</p>	<p><i>Cultural Resources:</i> Similar impacts under Alternative 2.</p> <p>Alternative 3 proposes a SEPA infill exemption for the HCT areas within the UGA. Under Alternative 3, the number of projects reviewed under SEPA could decrease, and therefore the number of projects that receive a cultural resources review would also decrease. While this is the same impact within the HCT areas as in Alternative 2, it would result in less impact within the UGA overall because the infill exemption would not be in place in the urban areas outside the HCT areas. Cultural resource reviews could be completed on these projects if they involve a federal undertaking (Section 106) or capital funding (EO-21-02), but if SEPA is the only review associated with the project, then these projects within the HCT areas would no longer have a cultural resources review. Without a review, the existing, unrecorded, or unknown resources within the HCT communities could have their integrity degraded and impacted.</p>	<p><i>Cultural Resources:</i> Potential impacts on cultural resources common to all alternatives would be from increased development. Any direct impacts on a precontact-era or NRHP-listed historic-era archaeological resource would be a significant impact, as these resources are non-renewable. Development that would demolish or alter historic resources or potential historic districts to the point that they can no longer convey their potential historical significance would be a significant impact.</p> <p>Under all alternatives, cultural resources associated with Indigenous and historically underrepresented communities are similarly at risk of being indirectly impacted by increased development involving the alteration, damage, or demolition of historic resources or districts.</p> <p>If a cultural resource is encountered without a cultural resources review, then there is a high likelihood the resource will be damaged and have its integrity decreased.</p>
	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION MEASURES</b>	<b>MITIGATION COMMON TO ALL ALTERNATIVES</b>
	The County would need to develop policies, strategies, and regulations to ensure that mitigation measures occur on projects newly exempt from SEPA or that would incrementally degrade an existing or future historic district.	<p>The County could establish procedures or code for mandatory cultural resources review for projects exempt from SEPA, including the SEPA infill exemption in Alternatives 2 and 3. This review could be triggered by certain project factors such as:</p> <ul style="list-style-type: none"> <li>• The project is located in an area defined by the DAHP predictive model as having a high or very high likelihood of containing cultural resources;</li> <li>• The project is adjacent to an existing archaeological resource;</li> <li>• The project is adjacent to or within 100 feet of a water source; or</li> <li>• Knowledge or concerns shared by the Tribes indicate there is a risk to cultural resources.</li> </ul> <p>Impacts on historic districts that could occur under the alternatives could be avoided or mitigated if the County conducted surveys, inventories, and eligibility assessments, and documented the resources on historic property inventory (HPI) forms in Washington State's cultural resources database (WISAARD). This type of work</p>	Same as Alternative 2.	No mitigation common to all Alternatives.

Element of the Environment	Alternative 1 (No Action)	Alternative 2 (Centers and Corridors Implementation):	Alternative 3 (High-Capacity Transit Focus):	All Alternatives
		would assist in identifying the resources that could contribute to a potential historic district, allowing an opportunity to identify additional historic districts before increases in development or density occur that could diminish their ability to meet register criteria.		
<b>CHAPTER 12. Transportation</b>	COUNTYWIDE IMPACTS	COUNTYWIDE IMPACTS	COUNTYWIDE IMPACTS	IMPACTS COMMON TO ALL ALTERNATIVES
	<i>State Facilities:</i> A total of 14 state route segments are expected to exceed Washington State Department of Transportation (WSDOT) Level of Service (LOS) standards under Alternative 1, representing a significant impact on state facilities.	<p><i>Traffic Impacts:</i> Similar to <i>Impacts Common to All Alternatives</i>, but with an increase in congestion due to more dense development throughout the urban area.</p> <p><i>State Facilities:</i> As with Alternative 1, a total of 14 state route segments are expected to exceed WSDOT LOS standards under Alternative 2, representing a significant impact on state facilities.</p> <p><i>Pedestrian and Bicycle Facilities:</i> Because some segments of the pedestrian and bicycle networks would not meet the Alternative 2 adopted Level of Traffic Stress (LTS) standard, a significant impact on the pedestrian and bicycle networks is expected under Alternative 2.</p> <p><i>Cost:</i> Same as <i>Impacts Common to All Alternatives</i>, but with additional costs related to increased investment in pedestrian and bicycle facilities.</p>	<p><i>Traffic Impacts:</i> Same as Alternative 2, but with an increase in congestion concentrated in the HCT areas. Alternative 3 also reduces the adopted LOS for automobiles to allow for higher congestion in the urban area overall.</p> <p><i>State Facilities:</i> As with Alternative 1, a total of 14 state route segments are expected to exceed WSDOT LOS standards under Alternative 3, representing a significant impact on state facilities.</p> <p><i>Pedestrian and Bicycle Facilities:</i> Because some segments of the pedestrian and bicycle networks would not meet the Alternative 3 adopted LTS standard, a significant impact on the pedestrian and bicycle networks is expected under Alternative 3.</p> <p><i>Cost:</i> Same as Alternative 2, but with a slight cost variation due to differences in planned costs and revenues relating to the Canyon Road North Extension.</p>	<p><i>Traffic Impacts:</i> Traffic congestion will increase under all three alternatives, including along SR 7 and SR 161. These corridors are planned to serve the Stream and Bus Rapid Transit (BRT) C frequent transit lines. This increased congestion will result in increased transit delay along these corridors and represents a significant impact on planned transit service under all alternatives, consistent with the high levels of congestion expected along these corridors under all alternatives.</p> <p><i>Cost:</i> Projected costs are anticipated to exceed available revenue between 2024 and 2044 under all three alternatives.</p>
	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION MEASURES	MITIGATION COMMON TO ALL ALTERNATIVES
<i>Vehicle Facilities:</i> Improvements in Chapter 12 <i>Transportation</i> were identified for any County arterial segment exceeding a level of service threshold of 1.0 volume/service (V/S) ratio under Alternative 1, and additional modeling was performed to confirm that this addressed the deficiency.	<p><i>Vehicle Facilities:</i> Improvements in Chapter 12 <i>Transportation</i> were identified for any County arterial segment exceeding a level of service threshold of 1.0 V/S under Alternative 2, and additional modeling was performed to confirm that this addressed the deficiency.</p> <p><i>Pedestrian and Bicycle Facilities:</i> Pedestrian and bicycle improvements were identified based on the prioritized segments previously presented for Alternative 2.</p>	<p><i>Vehicle Facilities:</i> Improvements in Chapter 12 <i>Transportation</i> were identified for any County arterial segment exceeding a level of service threshold of 1.1 V/S under Alternative 3, and additional modeling was performed to confirm that this addressed the deficiency.</p> <p><i>Pedestrian and Bicycle Facilities:</i> Pedestrian and bicycle improvements were identified based on the prioritized segments previously presented for Alternative 3.</p>	<i>Cost:</i> Potential expenditure and revenue mitigations were identified consistent with the Road Fund Sustainability Evaluation performed by the County in 2023.	

## 1.1 Significant Unavoidable Adverse Impacts

Based on the full analysis presented in Chapters 3 through 12 of this Draft EIS, implementation of the alternatives would result in the following significant unavoidable adverse impacts for the following elements of the environment:

- **Air Quality:** Alternatives 2 and 3 would both result in a potentially significant adverse unavoidable impact on air quality, due to the growth of residential populations near high-capacity roadways.
- **Housing:**
  - **Housing Capacity.** Significant adverse impacts related to capacity are expected under the No Action Alternative or Alternative 3, unless additional strategies are implemented to accommodate enough housing for the lowest income bands.
  - **Displacement Risk.** The No Action Alternative does not include any additional strategies to avoid or mitigate displacement and is likely to have significant adverse displacement impacts.
- **Water Resources:** Reduction in groundwater recharge from the conversion of on-site sewage disposal centralized sewer collection and treatment and the decrease of the pervious to impervious surface ratio are unavoidable and significant impacts that could occur with Alternative 1.
- **Transportation:** Regardless of the alternative selected, travel demand is expected to increase, resulting in potentially significant adverse impacts on vehicle travel and transit facilities through increased annualized average daily traffic (AADT) and vehicle miles traveled (VMT), as well as on pedestrian and bicycle facility traffic stress.
- **All Other Elements of the Environment:** With respect to the other elements of the environment analyzed in this Draft EIS, with the implementation of mitigation measures, no other significant unavoidable adverse impacts are expected under any of the alternatives.

## 1.2 Significant Areas of Controversy and Uncertainty, and Issues to Be Resolved

Key environmental issues and options facing decision-makers include:

- Alternative land use patterns in relation to growth estimates and community vision.
- Relationship of land use patterns to the natural environment and land use compatibility.
- Effect of growth on demand for public services, utilities, and parks and transportation capital improvements.

All alternatives would allow for population, housing, and employment growth and increased urbanization.

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

- Selection and refinement of future land use studied in the range of alternatives in terms of selection of a potential Preferred Alternative.
- Refinement of goals, objectives, and policies, if appropriate.

Issues yet to be resolved include guidance related to the development regulations for specific zones to accommodate the changes proposed in the alternatives. The precise nature of these necessary amendments will be described in the Final EIS, after a Preferred Alternative has been identified.

## 1.3 Benefits and Disadvantages of Delaying the Proposal

- If the proposal is delayed, growth in Pierce County would be guided by the current Comprehensive Plan and zoning as assumed in Alternative 1, No Action. It would allow for growth but not coordinate with the Regional Growth Strategy and targets or the investment to the same degree as Alternatives 2 and 3.
- In No Action, the investments in infrastructure would follow existing plans and not prepare the County for its planned share of growth. Retention of the No Action Alternative would also not provide a full range of housing types.
- Retaining Alternative 1 No Action would also result in inconsistencies with transportation metrics and disperse growth in a pattern that could result in more adverse impacts on the environment.
- Delaying the proposal would also not align with the GMA, VISION 2050, or Countywide Planning Policies. This could hinder the County's success in PSRC certification as well as obtaining state and federal grants and loans for infrastructure.

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