

# Chapter 1. Summary

Chapter 1 consists of a summary of the proposal, alternatives, mitigating measures and significant unavoidable adverse impacts. This chapter is a highly summarized description of the more detailed information that is provided in the balance of the Draft Environmental Impact Statement (Draft EIS). While this chapter provides an “at a glance” overview, the reader is encouraged to refer to the full document for a complete discussion of the proposed action, potential impacts and mitigating measures.

## 1.1. Purpose of Proposed Action

The Proposed Action is the 10-Year Urban Growth Area (UGA) Review of the Whatcom County Comprehensive Plan (Plan) as required by the Growth Management Act (GMA). The GMA (RCW 36.70A.130[3]) requires that Whatcom County (County) review its UGAs every 10 years to confirm capacity to accommodate projected urban growth for the next 20-year period. As part of the UGA review, the County will consider growth forecasts and allocations, UGA boundaries, comprehensive plan map amendments, and zoning map amendments. The County may also consider amendments to Whatcom County Countywide Planning Policies (CWPPs), County comprehensive plan goals and policies, and development regulations, such as zoning. Pursuant to a Western Washington Growth Management Hearings Board order, revised effective March 30, 2009, the County’s review is due by December 1, 2009.

The County is updating its Plan, which includes policies and action plans to implement the County’s vision for the future and to direct public investment and other efforts to implement the vision. Upon adoption, the 10-Year UGA Review would achieve the following objectives.

- Revise the Plan to extend the planning horizon from the year 2022 to the range 2029-2031.
- Adopt population growth projections within the range of forecasts from the State of Washington Office of Financial Management (OFM) as required by GMA.

- Assure continued compliance with CWPPs.
- Revise UGA boundaries that direct where urban land uses and urban public services may occur to accommodate adopted growth projections.
- Amend the Plan’s land use map designations that direct zoning regulations to accommodate population and employment forecasts and to meet other community objectives for growth management of growth.
- Incorporate changes to the Plan to accommodate population and employment growth and ensure consistency among elements, including, but not limited to land use, transportation, and capital facilities.
- Include additional or updated information and address changes in the County.

## 1.2. State Environmental Policy Act Process

The purpose of this Draft EIS is to assist the public and agency decision makers in considering future decisions on growth allocations, UGA boundaries, and associated comprehensive plan goals, policies, and development regulations as part of the 10-Year UGA Review. These decisions will provide direction and support for more specific actions by the County, such as future subarea planning, implementing regulations, and requests for future land use approvals on specific parcels of land.

This Draft EIS addresses elements of the natural and built environment for the following topics:

- Earth
- Air Quality
- Water Resources (Surface and Ground)
- Plants and Animals
- Land and Shoreline Use
- Plans and Policies
- Population and Employment
- Cultural Resources
- Transportation
- Public Services and Utilities

It compares impacts of and mitigation for two No Action alternatives and two Action alternatives. Through the public comment period, the Draft EIS also provides a vehicle for public input on decisions relative to planning and development in the County.

This Draft EIS provides qualitative and quantitative analysis of environmental impacts appropriate for the 10-Year UGA Review. An EIS for policy-based proposals 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 (WAC 197-11-442).

This Draft EIS considers potential environmental impacts at both the countywide and smaller area levels of detail.

- **County Planning Area.** In general, environmental analysis has been conducted at a countywide and cumulative level for the County Planning Area that applies to the western third of the County and excludes the National Forest land. In certain cases, where possible and where additional information may assist decision-making, smaller area analyses have been provided, such as the UGA Study Area, Suitability Analysis Study Area, or Rural Study Area (described below).
- **UGA Study Area.** Some of the environmental analysis is broken down by UGA which includes both the city and its associated unincorporated urban land, or if unassociated with a city the whole unincorporated County UGA (e.g., Birch Bay, Cherry Point, and Columbia Valley).
- **Suitability Analysis Study Area.** This Draft EIS includes a suitability analysis of each existing unincorporated portion of a UGA and a potential expansion area around each UGA. In some cases the suitability area outside of the UGA is distinguished separately from the designated UGA in the analysis. The suitability analysis provides an evaluation of smaller geographic areas based on specific factors. This analysis is intended to support decision-making on UGA boundaries and a preferred alternative in the Final EIS. (Please see Chapter 3 for an additional description and findings of the Suitability Analysis.)
- **Rural Study Area.** Some of the environmental analysis pertains to the unincorporated rural and resource lands located outside of the UGAs in the County Planning Area. For the purposes of this EIS, rural study area is used as a generic phrase to include all areas outside of UGAs including resource lands.

### 1.3. Public Involvement

The County has conducted a variety of public participation efforts during the planning process to provide information and obtain public comment.

- **Website.** The Whatcom 2031 page on the County's website (<http://www.co.whatcom.wa.us/pds/2031/index.jsp>) provides a central point of information and announcements. It also is a place where citizen comment letters have been posted.
- **Growth Management Coordinating Council.** Elected officials from the County and cities have met monthly since summer 2008 to discuss coordinated growth allocations and regional policy issues. Meetings have been open to the public. Meeting materials are posted at the County website.
- **Vision Workshops.** As part of the 10-Year UGA Review, vision workshops were conducted in fall 2008 to 1) share input about the comprehensive plan update process; 2) identify participants' issues, concerns, and questions; 3) share information about the County's and cities' existing vision concepts; and 4) obtain feedback about the relevance and/or revisions necessary to reflect the County's current vision. About 100 persons participated.
- **Questionnaire.** A questionnaire that focused on the County's long-term vision and growth was distributed in October 2008. Responses to the questionnaire totaled 387 between October and December 2008.

- **Scoping Process.** In accordance with State Environmental Policy Act (SEPA) (WAC 197-11-232 and 360), the County solicited agency and public comments on the scope of the Draft EIS through a Determination of Significance/Scoping Notice. Please see Chapter 2 and Appendix A for a discussion of the scoping process. Also during the scoping process, the County held a public workshop in Birch Bay on February 5, 2009, and a general countywide open house and public hearing on February 17, 2009.
- **Alternatives Workshops.** On March 23 and 24, 2009, the County presented preliminary results of a UGA suitability analysis and asked for public input on mitigation measures for alternatives at three public workshops. About 65 persons participated and gave information about how the County could prioritize changes to UGAs and how to allocate growth to urban and rural areas. Comments are summarized in Chapter 3 and also available at the County website.
- **Community Values and Beliefs Survey.** The County helped fund a survey for the Legacy Project which included questions about location of urban growth, farmland protection and other topics are relevant to the 10-Year UGA Review. Results of the survey, which became available on March 31, 2009, are available at the County website.
- **City and County UGA Proposals.** Between March and May 2009, the County and cities have been conducting individual public reviews to develop UGA specific proposals for growth and land use designations. Additional public meetings and hearings are planned as described below.

Additional public participation opportunities occurring with the issuance of the Draft EIS and through the GMA planning process include the following comment periods and meetings.

- **Draft EIS Comment Period.** The Draft EIS is open to a 45-day comment period. See the Fact Sheet for more information.
- **Public Meetings and Hearings.** In summer and fall of 2009, city and county proposals will be presented at joint Planning Commission and County Council meetings and hearings. The public will be invited to provide testimony at public hearings during this time. More information about meetings will be available on the County website.

## 1.4. Proposed Action, Alternatives, and Objectives

### 1.4.1. Proposed Action and Alternatives

This Draft EIS considers two No Action alternatives and two Action growth alternatives. A No Action alternative is required by SEPA and provides a baseline for comparison of impacts with the Action alternative scenarios. The Action alternatives test the differing growth patterns, including scenarios that redirect rural growth to the urban areas and shift growth away from the Bellingham UGA to the smaller urban communities.

**No Action Current Comprehensive Plan Alternative.** The No Action Current Comprehensive Alternative assumes growth similar to the adopted comprehensive plan.

**No Action Trends Alternative.** The No Action Trends Alternative assumes future growth that matches the historic pattern of urban and rural growth.

**Action Alternative X.** Action Alternative X would shift future growth from the rural areas and resource lands into the UGAs and would continue to focus on Bellingham as the primary employment and population center in the County. Action Alternative X would emphasize infill development in the existing UGAs and assumes that planned densities would be achieved.

**Action Alternative Y.** Action Alternative Y would shift future growth from the rural areas and resource lands into the UGAs to a lesser degree than Action Alternative X or the adopted comprehensive plan. Growth would be shifted away from Bellingham to other small urban areas. Densities would be similar to the patterns achieved in the last 5 years.

## 1.4.2. Objectives

As part of describing proposed actions and alternatives, SEPA requires the description of proposal objectives and features. The County's objectives for the 10-Year UGA Review are listed below.

- Fulfill the GMA requirements for 10-Year UGA Review.
- Provide incentives and regulations that shift growth from rural and resource lands to urban areas.
- Consider shifting growth away from the Bellingham UGA and distributing more growth to the smaller UGAs.
- Make necessary changes to the Plan for internal consistency including growth policies, transportation, and capital facilities.
- Consider updated policies and regulations to implement the comprehensive plan land use designations and to achieve or increase residential and business quality of life in the County.

## 1.5. Major Issues, Significant Areas of Controversy and Uncertainty, and Issues to be Resolved

Key environmental issues and options facing decision makers are listed below:

- location of growth;
- in UGAs with an undersupply of population or employment lands, tradeoffs in balancing infill encouragement with UGA expansions;
- in UGAs with an oversupply of population or employment lands, modifications to the land use mix and/or UGA reductions to balance land demand and supply;
- the amount and location of growth in order to protect resource lands of long-term commercial significance and rural lands; and
- the level and cost of capital improvements needed to support land use/growth levels.

All four alternatives would result in significant additions of population. Employment growth would also be significant. Long-term local impacts resulting from any alternative include

increased urbanization, cumulative impacts on fish and wildlife habitat, increased transportation congestion, and increased demand for infrastructure and facilities.

Prior to final plan adoption, the following issues are anticipated to be resolved:

- refinement of a Preferred Alternative following public hearings;
- preparation of associated land use plan and development regulations;
- selection and refinement of capital facility projects supporting land use, including transportation; and
- refinement of goals, objectives, and policies as well as implementing regulations.

## 1.6. Summary Matrix of Impacts and Mitigation Measures

Chapter 4 contains the full text of the Affected Environment, Significant Impacts, and Mitigation Measures sections. Table 1-1 below contains significantly abbreviated versions of the full discussion in Chapter 4.

Table 1-1 summarizes mitigating measures beyond adopted policies and regulations including “Other Potential Mitigation Measures,” which are new measures that the County may employ to reduce impacts. Full lists of mitigation measures are found in the individual sections of Chapter 4 including “Incorporated Plan Features” (self-mitigating features of the alternatives such as policies) and “Applicable Regulations and Commitments” (adopted codes and regulations).

For these reasons, readers are encouraged to review the more comprehensive discussion of issues of interest in Chapter 4 to formulate the most accurate impression of impacts associated with the alternatives.

Table 1-1 and the chapter it summarizes (Chapter 4) focus on a cumulative analysis though UGA comparisons are often made. For UGA-specific analysis, readers are encouraged to review Chapter 3, Suitability Analysis.

Table 1-1. Summary Matrix of Impacts and Mitigation Measures

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
<b>Earth</b>				
Impacts Common to All Alternatives	<p>All four alternatives would result in the eventual reduction of vegetative cover in concert with the construction of approved development projects. Vegetative disturbance would initiate multiple opportunities for soil disturbance through erosion, compaction, and contamination.</p> <p>All four alternatives would permit development that is at risk of some degree of catastrophic geologic hazards, including landslides, earthquakes, and volcanic eruptions.</p>			
Impacts of Each Alternative	<p>The Current Comprehensive Plan Alternative would result in the lowest population growth, with densities increasing inside existing UGAs. As such it would have the lowest potential of the alternatives to result in impacts described under "Impacts Common to All Alternatives."</p>	<p>The No Action Trends Alternative would have greater population growth countywide, with more development occurring in rural areas and Bellingham, and a greater potential to result in impacts described under "Impacts Common to All Alternatives." The alternative would potentially increase development within volcanic, seismic, and marine landslide hazard areas found inside UGAs. This alternative also allows for greater development within rural areas where there is a greater distribution of landslide, seismic, volcanic, and alluvial fan hazard areas.</p>	<p>Action Alternative X also assumes that Bellingham would continue to be the primary population center with the greatest growth rate, while the growth in rural areas would remain relatively low. Densification would occur with a greater intensity under Action Alternative X, resulting in more urban, high-density residential areas. However, many of the areas where this would occur are already compacted or paved and generally impervious. Increased densities within existing UGAs could increase the exposure to such hazards, with areas of increased population exposed to large regional earthquakes and the risk of damage greatest in areas prone to liquefaction.</p>	<p>Soil impacts resulting from densification under Action Alternative Y would be similar to those described earlier for the No Action Trends Alternative, but with greater emphasis on growth in the small urban areas of the County such as Birch Bay, Ferndale, and Lynden.</p> <p>Action Alternative Y could result in an increase in land used for urban purposes, and the potential for soil impacts would be greater in UGAs that may be expanded compared to those existing areas where densification may occur.</p> <p>Generally, the geologic hazards associated with Action Alternative Y would not be significantly greater than the other alternatives, because expanding UGA boundaries will not encroach significantly into geologic hazard areas.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Avoid expanding UGAs in Suitability Analysis Study Areas having moderate to high liquefaction hazard areas (e.g., parts of Lynden and Sumas) or volcanic hazard area (e.g., parts of Lynden and Sumas).</li> </ul>			
<b>Air Quality</b>				
Impacts Common to All Alternatives	<p>During construction, fugitive dust from excavation and grading would contribute to temporary increases in ambient concentrations of particulate matter. Tailpipe emissions from heavy construction equipment and vehicles would temporarily degrade air quality near the construction sites.</p> <p>Emissions would be generated by natural gas, fuel oil, and propane combustion used for space heating at new and existing dwelling and retail/commercial businesses. Because residential development may include installation of fireplaces or wood stoves, there is a potential for air quality impacts from wood burning. Emissions from stationary sources at industrial and commercial facilities would continue to be regulated by regional and state agencies.</p> <p>Under any of the alternatives, localized CO impacts could occur at major intersections that experience significant traffic congestion.</p> <p>All alternatives would increase countywide population and employment compared to existing levels. As a result, countywide vehicle travel (quantified as vehicle miles traveled [VMT]) is also forecast to increase. As a result of federal tailpipe emission standards, increased vehicle travel by countywide on-road vehicles would not be expected to cause significant impacts to regional air quality for photochemical smog. However, on-road vehicle emissions are a concern with regards to county-wide greenhouse gas (GHG) emissions.</p>			
Impacts of Each Alternative	<p>Countywide daily VMT would increase by 31%, and countywide population would increase by 30% between the years 2005 and 2031.</p>	<p>The forecast countywide population and VMT under the No Action Trends Alternative are higher than existing conditions and the Current Comprehensive Plan, and are not completely accounted for in the County's 2007 climate action plan. The VMT increase is expected to be 42% and the population increase is expected to be 43%.</p>	<p>The forecast countywide population and VMT are higher than existing conditions, but roughly the same as the No Action Trends Alternative; the VMT increase is expected to be 44% and the population increase is expected to be 43%. The increased growth and VMT generated by this alternative are not fully accounted for in the County's 2007 GHG action plan.</p>	<p>The forecast countywide population and VMT are higher than existing conditions, but less than the other action alternatives that have a similar population growth; the VMT increase is expected to be 39% and the population increase is expected to be 43%. Similar to the No Action Trends Alternative and Action Alternative X, the increased growth and VMT for this alternative are not fully accounted for in the County's 2007 GHG action plan.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ The County could consider adopting policies and regulations to prohibit the installation of even EPA-certified wood burning appliances in certain areas where population density would be high enough to cause air quality impacts from wood smoke emissions.</li> <li>▪ The County should consider updating its 2007 GHG plan, if either Action Alternative X or Action Alternative Y is selected since these would induce larger increases in population and vehicle travel, and since the required ton/year GHG reductions specified by the County's 2007 GHG plan would not have accounted for the growth.</li> <li>▪ The GHG reduction measures listed in the County's 2007 GHG action plan are not the only ways the County could reduce GHG emissions. Additional GHG emission 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. See Section 4.2.3 for more details.</li> </ul>			
<b>Water Resources</b>				
Impacts Common to All Alternatives	<p>Impacts on groundwater quantity and quality may occur due to:</p> <ul style="list-style-type: none"> <li>▪ Changes in land use that reduce groundwater recharge, such as development, soil compaction or other soil disturbing activities.</li> <li>▪ Changes in population that increase demand for groundwater as water supply for drinking and other household uses.</li> <li>▪ Land uses that produce higher levels of non-point source pollution, such as runoff or residential development with septic disposal.</li> <li>▪ Land uses that increase the density of on-site septic systems.</li> <li>▪ Land uses that produce point source pollutants that can enter the groundwater at specific discharge points (e.g. industrial sources).</li> <li>▪ Intrusion of saltwater from marine waters into coastal aquifers can result from over-pumping of wells and reversal of groundwater flow directions from seaward to landward.</li> </ul> <p>Two mechanisms that have significant influence on natural surface water systems, forest removal and creation of impervious surfaces (Booth et al. 2002), will unavoidably accompany the increased development that would occur under all alternatives. Recent studies indicate that land use intensity, land cover composition, landscape configuration (i.e., patterns or distributions), and the connectivity of impervious surface areas have complex but direct influences on the ecology and water quality of the surface waters within a watershed (Alberti et al. 2004). Stormwater quantity and quality may change in streams due to impervious surfaces and runoff. Potential impacts to lakes associated with all alternatives include increasing sedimentation from tributaries and adjacent land. Typical future development that may be allowed under any alternative could include direct and indirect impacts on wetland hydrology; degradation due to temporary construction impacts such as siltation and runoff; and loss of wetland habitat.</p> <p>All alternatives would probably exacerbate flooding in mapped flood hazard areas to some degree, mainly due to changes in peak stream-flow.</p> <p>Marine/estuarine areas in the County that are most susceptible to impacts from all of the alternatives include Drayton Harbor, Birch Bay, Strait of Georgia, Bellingham Bay and Chuckanut Bay as these areas border completely or partially one or more of the UGAs. Impacts on marine/estuarine areas could include potential increased input of pollution from stormwater runoff of impervious surface area, fertilizers, and herbicides associated with managed lawns. Other potential impacts include the conversion of natural shorelines to</p>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Impacts of Each Alternative	<p>The No Action Current Comprehensive Plan Alternative would result in the least amount of new impervious surface area within existing UGAs and rural areas within the County Planning Area though greater than existing conditions.</p>	<p>The No Action Trends Alternative would increase the population of the County more than the No Action Current Comprehensive Plan Alternative, with a greater proportion of the growth occurring in rural areas. The No Action Trends Alternative would result in the largest increase in new impervious surface area of all four alternatives being considered.</p>	<p>Action Alternative X would shift future growth from the rural areas into the UGAs and would continue to focus on Bellingham center in the County. Action Alternative X would result in the greatest increase in new impervious surface area within existing UGAs of the alternatives considered, but the lowest impervious increase for unincorporated rural areas.</p>	<p>Action Alternative Y would shift future growth away from Bellingham to the smaller urban areas but would allow increased rural development to continue, similar to, but less than the No Action Trends Alternative. Action Alternative Y would result in the least increase in impervious surface area considering urban and rural areas together within the County Planning Area.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Encourage use of drainage systems that mimic natural drainage systems, such as vegetated swales, wet ponds, and created wetlands.</li> <li>▪ Implement all adopted watershed management and salmon recovery plans.</li> <li>▪ Adopt more protective detention standards.</li> <li>▪ Adopt more protective water quality standards.</li> <li>▪ Reduce impervious surface area by adopting new low-impact development requirements.</li> <li>▪ Provide drainage/treatment systems on a sub-basin level that optimize treatment and manage existing and future stormwater flows.</li> <li>▪ Retrofit existing detention facilities to improve water quality treatment.</li> <li>▪ Construct improvements that would correct existing erosion problems and reduce the potential for increased erosion in the future.</li> <li>▪ Implement stormwater quality monitoring to evaluate the effectiveness of stormwater practices and standards.</li> <li>▪ Reclaim water from wastewater treatment plants to augment wetlands, streams, and aquifers and to decrease use of groundwater.</li> <li>▪ Additional interties could be provided to enhance the reliability and efficiency of the water distribution system.</li> <li>▪ Consider further integration of methods of watershed characterization and land use planning, similar to the Birch Bay Watershed Characterization Pilot Study (ESA Adolfson 2007).</li> <li>▪ Promote the preservation of onsite native vegetation, particularly mature trees and naturally diverse scrub-shrub communities.</li> <li>▪ Publicize and encourage the preservation of native soils and protect the natural processes of soil maintenance and onsite hydrology.</li> <li>▪ Consider larger wetland buffers for particularly complex or sensitive wetland areas.</li> <li>▪ Consider placing water quality improvement projects immediately upstream from wetlands.</li> <li>▪ Provide for ongoing care and preservation of natural areas either by placing them into public ownership or by providing technical</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>assistance and materials to property owners to enhance native vegetation benefits.</p> <ul style="list-style-type: none"> <li>▪ Encourage maintaining existing working forests by purchasing development rights from willing foresters to maintain forested landscapes.</li> <li>▪ Develop mitigation banks to provide before-the-fact mitigation for anticipated impacts on wetlands, streams, and habitat in each UGA.</li> <li>▪ Establish a groundwater monitoring program to provide the groundwater information necessary to assess the ability of the resource to be managed to sustain fisheries, farming, and current and planned levels of growth.</li> <li>▪ Expand intergovernmental cooperation to coordinate groundwater impacts across political boundaries.</li> <li>▪ Create and implement a groundwater education and resource program.</li> </ul>			
<b>Plants and Animals</b>				
Impacts Common to All Alternatives	<p>Vegetation communities would continue to be removed and/or disturbed during implementation of development activities. Vegetation communities that are characterized by trees and dense shrubs would be converted to managed plant communities typified by the vegetated suburban residential and developed cover types, such as lawns and landscaped trees and shrubs. Impervious surface area within the UGAs would increase. Indirect impacts would include changes in permeability to infiltrate water.</p> <p>Impacts on aquatic species could occur due to loss or alteration of habitat as a result of changes in water quality and quantity and shoreline development. Increases in the human population and subsequent development and increased density typically have a negative effect on aquatic species and their habitat.</p> <p>There would be a reduction in the amount of wildlife habitat in the County over time as planned projects and future development projects are implemented. Direct impacts could include loss or conversion of habitat to either unsuitable or less suitable types for many wildlife species currently occupying those habitats. Indirect effects common to all alternatives could include a reduction in wildlife habitat quality and function because of increased human disturbance and associated factors in areas adjacent to wildlife habitat.</p>			
Impacts of Each Alternative				
Vegetation	<p>As vacant and underdeveloped parcels are developed in the UGAs, removal and conversion of existing vegetation would increase. Since UGA boundaries are retained with the No Action Current Comprehensive Plan Alternative, the change would be focused there. Where allowed, development in unincorporated rural areas</p>	<p>Impacts in UGAs would be similar to the No Action Current Comprehensive Plan, though greater with the increased level of population and employment growth.</p> <p>The amount of growth in unincorporated rural areas would be greatest under the No Action Trends Alternative, and would have the greatest potential to affect native</p>	<p>Impacts on vegetation in UGAs would be the same as described for the No Action alternatives.</p> <p>There would be less growth in unincorporated rural areas compared to both the No Action Trends Alternative and Action Alternative Y, but more than under the No Action Current Comprehensive Plan Alternative, with potential</p>	<p>Under Action Alternative Y, impacts on vegetation would be as described for the No Action alternative scenarios.</p> <p>If growth were to extend into the Suitability Analysis Study Areas, there would also be potential impacts on sensitive plant species located in the vicinity of Everson and Ferndale. There would be less</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Fish and Other Aquatic Species	would have the greatest potential to affect native vegetation, including sensitive plant species and high quality or rare vegetation communities.	vegetation, including sensitive plant species and high quality or rare vegetation communities.	impacts on native and sensitive plant species as described for No Action alternatives.	growth in unincorporated rural areas compared to the No Action Trends Alternative, though development in rural areas would have the greatest potential impact on native plant species, including sensitive species as described for No Action alternatives.
Wildlife	Water quantity impacts would primarily affect freshwater habitats and species. Water quality impacts would affect freshwater, marine, and estuarine area and the species that rely on those habitats. This alternative accommodates the least growth and would allow densification in current UGA boundaries. Thus it would have the lowest impacts of the four alternatives.	Impacts would be similar to the No Action Current Comprehensive Plan and since the dominant impact mechanism is growth and increased population density this alternative would have greater impacts than the No Action Current Comprehensive Plan, particularly in rural areas. Development of unincorporated rural areas could degrade relatively high quality fish habitat and have a negative effect on water quality.	Impacts would be the same as described under the No Action alternative scenarios, but the impact would be focused in the Bellingham area. It would increase development in the Bellingham UGA and so would have the potential to affect water quality, and therefore, fish and other aquatic species.	Impacts would be spread across UGAs in the County Planning Area, with focus on the smaller urban areas and away from Bellingham. Under this alternative, there would be more development in unincorporated rural areas where relatively high quality fish habitat exists, though impacts to these habitats would be less than under the No Action Trends Alternative.

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>the UGAs include: bald eagle, common loon, great blue heron, Peregrine falcon, Trumpeter swan, Vaux's swift, seabird breeding locations, shorebird concentrations, waterfowl concentrations, harbor seal, seal/sea lion haul-out, Pacific western (Townsend's) big-eared bat.</p>	<p>UGAs, it would be expected to have the greatest impact on wildlife habitat. Rural areas contain more natural vegetation and the amount of human activity is less than in urban areas, and thus habitat in rural areas is generally of higher quality for wildlife and supports a greater diversity of species.</p>		<p>alternative would also allow for growth in rural areas, although at lower levels than the No Action Trends Alternative.</p> <p>Under this alternative, impacts on areas of high conservation value may occur in the Suitability Analysis Areas in the vicinity of Birch Bay, Blaine, and Cherry.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p>			
	<p><b>Vegetation</b></p>			
	<ul style="list-style-type: none"> <li>▪ Consult the biodiversity database (Nelson 2007) to prioritize areas for conservation and determine areas where development would have reduced impacts on areas of high conservation value.</li> <li>▪ Reduce impervious surface area by adopting low impact development requirements.</li> <li>▪ Promote the preservation of on-site native vegetation, particularly mature trees and naturally diverse scrub-shrub communities.</li> <li>▪ Publicize and encourage the preservation of native soils and protect the natural processes of soil maintenance and on-site hydrology.</li> <li>▪ Increase regulatory guidance or limit expansions of UGAs in areas that may impact sensitive plant species or complex wetland areas, such as Birch Bay, Ferndale, or Nooksack.</li> <li>▪ Sponsor or encourage public education about the benefits of native vegetation.</li> <li>▪ Provide for ongoing care and preservation of natural areas either by placing them into public ownership or by providing technical assistance and materials to property owners to enhance native vegetation benefits.</li> </ul>			
	<p><b>Fish/Aquatic Species</b></p>			
	<ul style="list-style-type: none"> <li>▪ Encourage the use of drainage systems that mimic natural drainage systems, such as vegetated swales, wet ponds, and created wetlands.</li> <li>▪ Implement all adopted watershed management and salmon recovery plans.</li> <li>▪ Adopt more protective detention standards that would require new development to infiltrate and/or detain larger volumes of stormwater runoff on their sites and in such a way as to better mimic the pre-development stormwater patterns. This would help reduce downstream channel erosion, which would improve water quality and physical habitat conditions for aquatic species. Detention standards could also encourage infiltration of smaller storm events.</li> <li>▪ Adopt more protective water quality standards, such as more protective requirements for water quality BMPs.</li> <li>▪ Reduce impervious surface area by adopting new low-impact development requirements that set maximum limits on the percentage of impervious area allowed and increase the infiltration of surface water.</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<ul style="list-style-type: none"> <li>▪ Provide drainage/treatment systems on a sub-basin level that optimize treatment and manage existing and future stormwater flows.</li> <li>▪ Retrofit existing detention facilities to improve water quality treatment.</li> <li>▪ Construct improvements that would correct existing erosion problems and reduce the potential for increased erosion in the future. This could consist of constructing salmonid/habitat friendly channel stabilization improvements or bypass pipelines to divert high flows around sections of erosive channels.</li> <li>▪ Implement stormwater quality monitoring to evaluate the effectiveness of stormwater practices and standards.</li> <li>▪ Reclaim water from wastewater treatment plants to augment wetlands, streams, and aquifers and to decreased demand for potable groundwater.</li> <li>▪ Provide additional incentives to enhance the reliability and efficiency of the water distribution system.</li> </ul>			
	<p><b>Wildlife</b></p> <ul style="list-style-type: none"> <li>▪ Consult the biodiversity database (Nelson 2007) to prioritize areas for conservation and determine areas where development would have reduced impacts on areas of high conservation value.</li> <li>▪ Consider avoiding expansion of UGA boundaries in areas of documented priority, threatened, or endangered species. (See Tables 4.4-4 and 4.4-5 for PHS information.)</li> <li>▪ Require management plans for areas included in an expanded UGA boundary that would include threatened or endangered species, for the potentially affected area by the landowner in coordination with WDFW prior to permitting any habitat alteration.</li> <li>▪ Promote low-impact development, with emphasis on native plant retention in greenbelts between and within areas of proposed development to retain a portion of the wildlife habitat on the site and to preserve a measure of connectivity between areas of wildlife habitat.</li> <li>▪ Encourage buffer enhancement through means such as establishment of native vegetation and control of non-native invasive plant species with a goal of providing high quality wildlife habitat and discouraging human entry into the buffer area.</li> </ul>			
<b>Land and Shoreline Use</b>				
<p>Impacts Common to All Alternatives</p>	<p>Many areas that are currently vacant would be converted to residential or employment uses. Redevelopment or intensification of existing developed lots could also occur.</p> <p>Impacts that are likely to be associated with future development and land use conversion include increased noise, light and glare, and traffic delays; changes in views or the aesthetic character of the area; and increased pressure to develop or redevelop adjacent vacant or underutilized areas.</p> <p>All alternatives would result in changes in activity levels and patterns as a result of new development.</p> <p>Each alternative has the potential for creating localized incompatibilities, especially in less populous UGAs where the surrounding land uses are likely to be resource lands or more rural in nature. If new development is industrial or commercial in nature, adjacent residential or mixed uses could experience localized compatibility impacts associated with noise, odor, truck traffic, and nighttime activity. Potential land use conflicts associated with future development could also occur at the boundaries between urban areas and resource lands or rural land uses, where the differences in the intensity and type of use may be the most extreme.</p>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Impacts of Each Alternative				
Land Use Conversion	Residential, agricultural, and undeveloped land make up the majority of unincorporated acreage within existing UGAs. The potential exists for the conversion of existing agricultural land within UGAs for residential or commercial uses under the No Action Current Comprehensive Plan Alternative.	Under the No Action Trends Alternative, a larger portion of the projected growth would occur outside the UGAs. Under the No Action Trends Alternative, a higher potential exists for the conversion of agricultural or forestry uses to residential or commercial uses. The No Action Trends Alternative would direct more population and employment growth into the rural county than any other alternative.	Because of a focus on more concentrated growth in current UGA, and particularly Bellingham, the Action Alternative X would have a greater potential for conversion of uses within UGAs than either of the No Action alternative scenarios. However, by channeling this growth into areas already targeted for urban levels of development, Action Alternative X may prevent the conversion of agricultural, rural, or resource lands that could be converted under the No Action Trends Alternative.	By directing future growth away from the Bellingham UGA and into areas that have lower density character, Action Alternative Y has a greater potential for the conversion of uses than Action Alternative X, particularly regarding rural lands and agriculture, which form a significant portion of the land within the Ferndale, Cherry Point, Lynden, Everson, Nooksack, and Sumas UGAs. Given the lower projected densities of these UGAs, new development is likely to consume greater amounts of land, which would further increase the potential for conversion of uses. Additionally, Action Alternative Y would create a higher potential for the conversion of agriculture and forestry, as well as undeveloped rural land, though this potential is lower than the No Action Trends Alternative.
Activity Levels and Patterns	Under the No Action Current Comprehensive Plan Alternative, intensification of activity levels would occur primarily inside the UGAs, with the largest share of population and employment growth occurring in the Bellingham	The No Action Trends Alternative has a greater potential to alter activity levels and patterns, based upon the larger proportion of growth occurring outside UGAs, e.g., traffic and noise.	Activity levels and patterns associated with new development and redevelopment would generally be similar to those associated with existing urban development, though the higher population and	By spreading the growth from Bellingham to other smaller urban areas the overall density pattern could be a little less intense. Lower-density development would require greater amounts of land to satisfy development needs,

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Land Use Compatibility	<p>UGA. Activity levels and patterns associated with new development and redevelopment would generally be similar to those associated with existing urban development.</p> <p>New development of an industrial or commercial nature could potentially create localized compatibility conflicts with existing development. Many of the UGAs are adjacent to agriculture and other forms of rural or resource lands that may not be compatible with new development within the UGAs.</p>	<p>The No Action Trends Alternative has a greater potential to introduce land use incompatibilities, as a larger portion of future growth would be directed into the rural areas of the County.</p>	<p>employment of Action Alternative X would create greater increases in activity intensity, particularly in the Bellingham UGA.</p> <p>The higher densities and intensities projected under Action Alternative X have the potential to create conflicts where they are adjacent to low-density uses, such as single-family residences, agriculture, or forestry uses, which are all common in most of the UGAs.</p>	<p>which could significantly alter land use patterns in areas characterized by rural uses by converting large portions of them to low-density residential or commercial uses.</p> <p>The slightly lower urban densities (in several UGAs) anticipated under Action Alternative Y are likely to foster uses that are more compatible with the existing low-density residential and agricultural uses that are common in the County's UGAs. Growth directed to the rural portions of the County, however, could generate incompatibilities with the rural and resource land uses outside the UGAs.</p>
Shoreline Use	<p>Under the No Action Current Comprehensive Plan Alternative, shoreline impacts are anticipated to be similar to those associated with the current development pattern; development is assumed to continue at the previously forecast rate, with a focus on urban areas.</p>	<p>The No Action Trends Alternative anticipates a much higher level of growth in the rural portions of the County, as discussed above. Outside urban areas, shoreline environments are more ecologically intact, as evidenced by high occurrence of Rural, Resource, and Conservancy designations. Directing development into rural areas raises the potential that these sensitive shoreline environments will be impacted by new development.</p>	<p>By directing the majority of growth into urban areas, the potential for conflicts with shoreline uses is minimized. Shoreline areas within UGAs are more likely to be designated Urban, Urban Conservancy, Rural, or Shoreline Residential, as opposed to Conservancy or Natural. By directing growth to areas that are recognized to be less ecologically intact than shorelines in the rural portions of the County, the potential to impact the shoreline ecology is</p>	<p>Directing growth to rural areas increases the potential for impacts to sensitive shoreline environments, while focusing growth in urban areas reduces this risk by placing new development near shorelines that are already planned for higher intensity land uses. Action Alternative Y's impacts are expected to be similar to Action Alternative X in urban areas and similar to though less than the No Action Trends Alternative in rural areas.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Within UGAs whose land capacity analysis indicated an acreage deficit, increased densities could alleviate the need to expand UGA boundaries. In particular, the Bellingham UGA, which is already more urban than those of the other cities, could benefit from increased densities or mixed-use zoning, which would allow co-location of both residential and employment uses.</li> <li>▪ The County should consider reducing the size of UGAs with a current surplus of developable acreage and allowing this land to return to rural use.</li> <li>▪ Rural land protection measures and incentives to make UGAs more attractive (e.g., densities, infrastructure investment) could be applied to direct growth to urban areas. See Chapter 2 and Section 4.7 for more information.</li> </ul>			
<b>Plans and Policies</b>				
Impacts Common to All Alternatives	<p>All of the alternatives propose population forecasts that are within the OFM population range.</p> <p>The 10-Year UGA Review process is designed to respond to key Countywide Planning Policies (CWPPs) regarding growth allocations, UGA sizing, infill development, and service provision.</p> <p>Once a growth forecast and allocation is selected from the alternatives or a combination of the alternatives, comprehensive plan amendments would be required.</p>			
<b>Impacts of Each Alternative</b>				
Growth Management Act Planning Goals	<p>The No Action Current Comprehensive Plan Alternative meets GMA goals by focusing growth in the current UGAs. To ensure that rural growth is limited, additional protective measures are required since rural growth has already exceeded its original allocation.</p>	<p>The No Action Trends Alternative maintains present UGA boundaries. This alternative carries forward the trend of more growth in rural areas, undermining urban and rural goals of GMA. Growth in rural areas has a greater possibility of affecting intact ecological systems, reducing open space, and fostering less efficient public services.</p>	<p>Action Alternative X assumes increased growth within existing UGAs combined with rural protection measures and achieves a balance of GMA goals to guide growth to urban areas, reduce sprawl, and protect open space and the environment.</p>	<p>Action Alternative Y spreads growth to smaller urban communities to foster economic development.</p> <p>While Action Alternative Y has some potential vehicle mile travelled efficiencies and fewer impervious acres which better meet GMA transportation and environmental goals, it has the second highest rural growth allocation.</p>
Urban Growth Areas	<p>Focusing growth in existing UGAs promotes the use of infill measures and more efficient urban services. However,</p>	<p>Although most UGAs are oversized for the present growth forecasts, there are more undersized UGAs</p>	<p>Under Action Alternative X several UGAs are oversized for the present growth forecasts similar to No Action Trends</p>	<p>The combination of spreading growth to the smaller communities and the use of achieved densities results in</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>most UGAs are oversized for the present growth forecasts. Oversized UGAs will need to be modified to be in balance with the growth allocation.</p> <p>The demand for services will increase though less than the other EIS alternatives. Regarding water, the UGAs that require the most attention include Birch Bay and Lynden. Regarding sewer, UGAs that appear to require attention include Blaine, Cherry Point, Columbia Valley, Everson, and Nooksack.</p>	<p>identified in the No Action Trends Alternative than under the No Action Current Comprehensive Plan Alternative.</p> <p>The demand for services will be greater than for the No Action Current Comprehensive Plan due to greater growth. The UGAs that appear to require attention are the same as for the No Action Current Comprehensive Plan.</p>	<p>Alternative. Oversized UGAs may undermine Action Alternative X's infill incentives and make service provision more costly.</p> <p>The demand for services with Action Alternative X is similar to the No Action Trends Alternative. Additionally, the Ferndale UGA may have a sewer treatment deficit with Action Alternative X.</p>	<p>the smaller communities shrinking the oversupply of residential capacity though it still remains in most cases. Growth is assumed to extend into the Suitability Analysis Study Area for UGAs that are undersized for population or employment including Bellingham and Lynden.</p> <p>The demand for services is similar to Action Alternative X.</p>
Resource Lands	<p>No resource lands of long-term commercial significance are designated within present UGA boundaries. The lack of implementing regulations to ensure rural growth is limited may result in a continuation of low density residential growth outside of UGAs in rural and resource lands.</p>	<p>Urban growth along UGA boundaries may occur next to the designated resource lands. Clustering, buffering, title notices, and other measures can reduce this potential impact.</p> <p>Additionally, the No Action Trends Alternative has the highest rural growth allocation compared to the other alternatives and may result in low density residential growth in rural and resource lands that could disrupt agricultural practices.</p>	<p>The potential for urban growth to occur next to designated resource lands and create incompatibilities in scale and character is similar to No Action Trends Alternative.</p> <p>The addition of rural protection measures are likely to restrict growth in agricultural resource lands and other rural lands and result in the lowest rural/resource lands impacts of the studied alternatives.</p>	<p>The greater growth in Action Alternative Y and the location of resource lands abutting UGAs as well in inside the Suitability Analysis Areas means similar but greater potential for incompatibilities with resource lands.</p> <p>The Lynden UGA is undersized for population and employment. Unless infill measures are significant, Lynden UGA expansion may be needed to allow the community to meet growth allocations. If allowed, there is a potential loss of approximately 202.6 acres or more of agricultural lands of long-term commercial significance.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Whatcom County Comprehensive Plan Vision	The implementation of the adopted vision has not fully occurred. UGA boundaries abut one another. A lack of implementing measures to limit rural growth (e.g., Action Alternative X rural protection measures) may undermine the alternative's ability to protect of resource lands.	The No Action Trends Alternative has a similar level of consistency with the current vision as the No Action Current Comprehensive Plan, except that it has the greatest rural growth allocation of the studied alternatives and the greatest potential to disrupt resource lands.	Action Alternative X is the most consistent with the current vision to focus growth in urban areas and protect rural character.	Action Alternative Y has a similar level of consistency with the current vision as the other alternatives. Action Alternative Y has the second highest rural growth allocation of the studied alternatives and due to the relatively lower achieved densities assumption in some Suitability Analysis Study Areas, may convert resource lands.
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ For UGAs that show population capacities below population allocations (e.g., all alternatives for Lynden, the No Action Trends Alternative for Columbia Valley, and Action Alternative X for Bellingham), the County in consultation with the appropriate city could: <ul style="list-style-type: none"> <li>○ Consider measures to increase the development capacity such as applying incentives (e.g., infill incentives such as density bonuses), upzones (e.g., greater densities)</li> <li>○ Consider limited UGA expansions where infill measures are not feasible within the Suitability Analysis Study Areas.</li> <li>○ Reallocate population from undersized UGAs to oversized UGAs, within the range of the population allocations of the Draft EIS. This would shift population to communities that have greater potential to accommodate population in existing UGAs.</li> </ul> </li> <li>▪ For UGAs that show residential land capacities greater than the population allocations, UGA boundaries could be decreased. Areas could be removed that are more costly to provide public services, that have significant concentrations of critical areas or constraints or that are considered lower priorities by the associated cities or communities (see Chapter 3). Alternatively or in combination, a different mix of densities or land uses may also assist the achievement of allocations, provided the densities are still urban in nature and can be served with public services.</li> <li>▪ UGAs that are undersupplied with employment capacity should be modified to change the balance of land uses that have different land demand requirements (e.g. industrial versus retail), or to change UGA boundaries (e.g., expansions). Deficits in employment could be offset with a rezone of residential land to employment given the oversupply of residential land in some UGAs.</li> <li>▪ To avoid an oversupply of employment land that is unused during the 20-year planning period, the County in consultation with cities could reduce the proposed amount of land designated for commercial and industrial employment use to reach a corresponding level of jobs as the employment forecast.</li> <li>▪ The County could conduct joint planning with cities to determine appropriate land use categories in the UGA to attain the population and/or employment allocation. Until joint planning is complete, the population or employment allocation would be held in reserve. The County would not allow annexation until joint planning is complete and final UGA boundaries are determined.</li> <li>▪ Where additional capital plans are needed, UGA sizing and capital planning options may include: <ul style="list-style-type: none"> <li>○ Retaining UGAs but disallowing urban growth or annexation until adequate capital facility planning is completed;</li> </ul> </li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<ul style="list-style-type: none"> <li>o Setting UGA boundaries that would expire if capital planning is not completed and additional analysis is required;</li> <li>o Before expanding UGAs or modifying UGA boundaries, reserving some portion of growth allocations until more detailed planning and capital facility information is available.</li> <li>o Reducing UGAs and identifying urban reserve areas that constitute a potential supply of land for future addition into the UGA that can be added after additional planning is completed.</li> </ul> <ul style="list-style-type: none"> <li>▪ Rural land protection measures, and incentives to make UGAs more attractive (e.g., densities, infrastructure investment) could be applied to direct growth to urban areas. See Section 4.7 for more information.</li> <li>▪ The County and cities could require clustered development, buffers, graduated densities, and other measures to reduce potential incompatibilities next to resource lands outside of UGAs.</li> <li>▪ The County and city of Lynden should conduct an analysis of designated agricultural lands in the Suitability Analysis Area to determine long-term significance and consider inclusion in UGA only for those that are not of long-term commercial significance.</li> <li>▪ Comprehensive Plan and Capital Plan amendments could be prepared by the Cities and County during a “reconciliation process” giving some leeway to the County/special districts and cities as they incorporate the growth allocations into their comprehensive plans based on new information that arises from a detailed plan update process. The reconciliation process could occur after 2009 and before the required 7-Year Comprehensive Plan Review due in 2011.</li> </ul>			
<b>Population and Employment</b>				
Impacts Common to All Alternatives	<p>All alternatives provide capacity for increased population, housing, and employment, although to different degrees and in different locations.</p> <p>Secondary, indirect impacts of growth under each alternative would likely include potential encroachment near natural environmental resources, increases in demand for facilities and infrastructure, and other effects. These secondary impacts are described in other sections of this Draft EIS.</p>			
<b>Impacts of Each Alternative</b>				
Total Population	<p>The No Action Current Comprehensive Plan Alternative assumes a population growth rate of approximately 1.49% between 2008–2022 period, or 0.9% when extending the forecast between 2008 and 2031. Total population growth of 234,917 would add 43,917 persons over the present 191,000 population.</p>	<p>The No Action Trends Alternative assumes a population growth rate of approximately 1.32% between 2008 and 2031. Total population growth of 258,448 would add 67,448 persons over the present 191,000 population.</p>	<p>Action Alternative X has the same growth rate and net increase in population as the No Action Trends Alternative.</p>	<p>Action Alternative Y has the same growth rate and net increase in population as the No Action Trends Alternative.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Urban Population	<p>The No Action Current Comprehensive Plan Alternative would allocate most growth to the Bellingham UGA with another larger share to Ferndale and Lynden. The No Action Current Comprehensive Plan Alternative generally has more than enough residential land capacity to meet the projected growth. All UGAs are oversized for population capacity except for Lynden.</p>	<p>The No Action Trends Alternative would allocate most growth to the Bellingham UGA though less of a share than the No Action Current Comprehensive Plan Alternative. All UGAs are oversized for population capacity except for Lynden and Columbia Valley.</p>	<p>Action Alternative X would allocate most population growth to the Bellingham UGA—the greatest of all the alternatives studied. Action Alternative X generally has more than enough residential land capacity to meet the projected growth. All UGAs are oversized for population capacity except for Bellingham and Lynden.</p>	<p>Action Alternative Y would allocate about a third of the growth share to the Bellingham UGA—the least of all the alternatives studied. Action Alternative Y generally has more than enough residential land capacity to meet the projected growth. All UGAs are oversized for population capacity except for Lynden.</p>
Rural Population	<p>The rural population projection of 3,359 additional persons (assuming a growth rate of 7.6%) would require an additional 1,500 dwellings approximately. Without incentives or requirements to direct rural growth to the UGAs, it may be difficult to avoid conversion of some agricultural lands to residential dwellings.</p>	<p>With the No Action Trends Alternative, rural lands would take the greatest share of population growth at 22.5%. The rural population projection of 15,388 additional persons would require an additional 6,952 dwellings approximately. The No Action Trends Alternative has no additional rural protection measures, but has the greatest share of rural population growth and therefore the greatest potential to intrude on rural and resource lands identified for protection in the comprehensive plan.</p>	<p>With Action Alternative X, rural lands would take the least share of population growth at 6.3%. The rural population projection of 4,257 additional persons would require an additional 1,923 dwellings. Action Alternative X also includes measures to redirect growth to urban areas and protect rural lands, such as larger lot sizes, transfer of development rights, lot consolidation, etc. The ability of any one rural land protection program to reduce the development potential of the 26,917 lots is not high. Thus there will need to be a combination of measures.</p>	<p>With Action Alternative Y, rural lands would take a moderate share of population growth at 14.6%, less than No Action Trends Alternative but more than the other alternatives. The rural population projection of 9,822 additional persons would require an additional 4,438 dwellings. Without rural land protection measures, Action Alternative Y has the potential to intrude on resource lands. If rural land protection measures were applied in Action Alternative Y, there may be fewer measures required to protect resource lands compared to Action Alternative X since Action Alternative Y's growth allocation is more in line with past trends.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Total Employment	<p>The No Action Current Comprehensive Plan Alternative would allocate most job growth to the Bellingham UGA with another larger share to Lynden and Ferndale. The No Action Current Comprehensive Plan Alternative has enough capacity to meet the projected job growth. All UGAs are oversized for job capacity except for Blaine.</p>	<p>The No Action Trends Alternative allocates job growth similar to the No Action Current Comprehensive Plan Alternative in terms of UGAs receiving the greatest share – Bellingham, Ferndale, and Lynden. The No Action Trends Alternative generally has enough capacity to meet the projected job growth. All UGAs are oversized for job capacity except for Bellingham and Blaine.</p>	<p>Action Alternative X allocates job growth similar to the No Action Current Comprehensive Plan Alternative in terms of UGAs receiving the greatest share – Bellingham, Ferndale, and Lynden. Action Alternative X has enough capacity to meet the projected job growth. All UGAs are oversized for job capacity except for Bellingham and Blaine.</p>	<p>Action Alternative Y generally has enough capacity to meet the projected job growth. All UGAs are oversized for job capacity except for Bellingham and Blaine and to a small degree Lynden. Nooksack UGA appears to be in balance for employment demand/supply.</p>
Jobs/Population Balance	<p>The jobs/population ratio would increase for Bellingham UGA and Rural areas.</p>	<p>The jobs/population ratio would increase for Bellingham, Blaine, Everson, Ferndale, and Nooksack UGAs as well as Rural areas.</p>	<p>The jobs/population ratio would increase for the Bellingham UGA and Rural areas.</p>	<p>The jobs/population ratio would increase for Bellingham, Birch Bay, Columbia Valley, and Nooksack UGAs as well as the Rural areas.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ For UGAs that show population capacities below population targets (e.g. all alternatives for Lynden, the No Action Trends Alternative for Columbia Valley, and Action Alternative X for Bellingham), the County in consultation with the appropriate city could: <ul style="list-style-type: none"> <li>○ Consider measures to increase the development capacity such as applying incentives (e.g., infill incentives such as density bonuses) and/or upzones (e.g., greater densities)</li> <li>○ Consider limited UGA expansions where infill measures are not feasible within the Suitability Analysis Study Area.</li> <li>○ Reallocating population from undersized communities to oversized communities, within the range of the population allocations of the Draft EIS. This would shift population to UGAs that have existing potential to accommodate population.</li> </ul> </li> <li>▪ For UGAs that show capacities greater than the population targets, UGA boundaries should be decreased (see Chapter 3). Alternatively or in combination, a different mix of densities or land uses may also assist the achievement of allocations, provided the densities are still urban in nature and can be served with public services.</li> <li>▪ UGAs that are undersupplied with employment capacity should be modified to change the balance of land uses that have different land demand requirements (e.g., industrial versus retail), or to change UGA boundaries (e.g., expansions). Deficits in employment could be offset with a rezone of residential land to employment land if there is an oversupply of residential land in that UGA.</li> <li>▪ The County in consultation with cities could reduce the proposed amount of land designated for commercial and industrial employment use to reach a corresponding level of jobs as the employment forecast.</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<ul style="list-style-type: none"> <li>▪ The County could allocate population and employment as “initial growth allocations.” The County could modify this growth allocation, in consultation with cities, during the 2011 comprehensive plan update process, with a process to reconcile differences and set final allocations for formal adoption.</li> <li>▪ The land capacity analysis should be revised upon further review by the County and cities, either of which may offer modifications to the draft method developed in February 2009. The method allows for variation based on local information for several factors while providing a consistent countywide framework.</li> <li>▪ The current land capacity method removes critical areas including, but not limited to, floodways. Due to recent changes in FEMA regulations (see Water Resources Section 4.3.3 of this EIS), it is possible that development potential will be greatly limited in floodplains. The County and cities are considering whether to modify the land capacity analysis to deduct acres located within the 100-year floodplain when located in unincorporated UGAs.<sup>1</sup> If the method is changed, the floodplain acre reductions would reduce land capacity surpluses or increase land capacity deficits but does not appear to substantively change the overall results.</li> <li>▪ The County 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.</li> <li>▪ Rural land protection measures, and incentives to make UGAs more attractive (e.g., densities, infrastructure investment) could be applied to direct growth to urban areas.</li> </ul>			
<b>Cultural Resources</b>				
Impacts Common to All Alternatives	Cultural resources located in urban areas designated for residential, commercial, and industrial uses have the highest potential to come under development pressures and disturbed or converted to other uses. Cultural resources located in areas proposed for rural uses are subject to less developmental pressure; however, typical agricultural activities tend to destroy or disturb cultural resources.			
Impacts of Each Alternative	Development under the No Action Current Comprehensive Plan Alternative could occur on or near parcels that presently contain identified cultural resources and could thus result in a substantial adverse affect in the significance of a cultural resource. The greatest amount of land required for development is expected in the Bellingham, Lynden, Cherry Point, and Ferndale UGAs.	Impacts would be similar to the No Action Current Comprehensive Plan Alternative. Since No Action Trends Alternative assumes a higher overall growth level, the potential for impacts could be higher under the No Action Trends Alternative.	Action Alternative X focuses primarily on developing Bellingham. Bellingham is the largest urban area in the County and has the highest number of historic and prehistoric archaeological sites. The likelihood of development impacting previously recorded cultural resources is higher in Bellingham than other UGAs.	Action Alternative Y shifts growth from rural areas to UGAs other than Bellingham. Columbia Valley, Sumas, Nooksack, Everson, Ferndale, and Lynden have lower densities of identified cultural resources than seen in Birch Bay, Cherry Point, Blaine and Bellingham. However, none of the UGAs have undergone a comprehensive cultural resources inventory and

<sup>1</sup> Since some of the cities have developed areas, such as downtowns, in floodplains that have an established development pattern, the potential method reviews only removing floodplain acres from unincorporated UGAs.

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>High densities of cultural resources are located along the shorelines of Cherry Point and Bellingham Bay affecting Cherry Point, and Bellingham study areas.</p>		<p>Other UGAs with substantial acres of residential and commercial development include Lynden, Cherry Point, and Ferndale. As with the No Action Current Comprehensive Plan, high densities of cultural resources are located along the shorelines of Cherry Point and Bellingham Bay affecting Cherry Point, and Bellingham study areas.</p>	<p>undiscovered cultural resources may exist that have not been identified in these UGA study areas.</p>
<p>Mitigation Measures</p>	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include the following:</p> <ul style="list-style-type: none"> <li>▪ A policy or program could be developed to promote improved ongoing communication and coordination strategies with local Native American communities and other interested parties in an effort to better preserve and enhance cultural resources.</li> </ul> <p>The following mitigation measures are recommended for all future development projects in the County Planning Area that are located on or in proximity to properties containing known archaeological and historic resources:</p> <ul style="list-style-type: none"> <li>▪ Meet the U.S. Secretary of the Interior’s Standards for Rehabilitation for the preservation, rehabilitation, restoration, reconstruction or adaptive reuse of historic resources.</li> <li>▪ In the event that a future development project is proposed on or immediately surrounding a site containing a historic resource, conduct environmental review of the development project and consider the impacts to the historic resource.</li> <li>▪ In the event that a future development project in the County Planning Area is proposed on a site containing a previously unknown historic resource that is not documented, require, as part of the environmental review of the project, an intensive-level assessment of the property by a qualified historian or architectural historian.</li> <li>▪ Complete archaeological testing and, if necessary, data recovery for proposed projects that involve significant excavation and any changes made to the vegetation and landforms within the County Planning Area, particularly those near existing waterways.</li> <li>▪ Through environmental review of the development project consider the impacts to the archaeological resource and, if needed, include 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, impose any and all measures to avoid or substantially lessen the impact. If avoidance of the archaeological resource is not possible, develop and implement an appropriate research design with full data recovery of the archaeological resource prior to the development project.</li> <li>▪ Avoid cultural resources through the selection of other project alternatives and changes in design of project features in the specific area of the affected resource(s) to eliminate the need for measuring impacts.</li> <li>▪ Find other opportunities in the community for mitigation measures that are not specific to the impacted site(s) such as developing an educational program, interpretive displays, design guidelines that focus on compatible materials, and professional publications.</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
<b>Transportation</b>				
Impacts Common to All Alternatives	Implementation of any of the alternatives will result in increased traffic within the county.			
Impacts of Each Alternative				
County Roads	Eleven roads are projected to exceed County level of service (LOS) standards by 2031.	All segments identified with 2031 impacts under the No Action Current Comprehensive Plan Alternative, are also projected to be impacted under the No Action Trend alternative. Four additional road segments are also projected to exceed LOS standards.	All segments identified with 2031 impacts under the No Action Trend alternative are also projected to be impacted under Action Alternative X. In general, projected V/C values on deficient segments are higher than values projected under No Action, and lower than values projected under No Action Trend.	All segments identified with 2031 impacts under the No Action Trend and Action Alternative X are also projected to be impacted under Action Alternative Y. In general, projected V/C values on deficient segments are higher under Action Alternative Y than projected V/C under the other three alternatives.
State Roads	Length (miles) of state highway segments expected to exceed LOS standards: 29.79	Length (miles) of state highway segments expected to exceed LOS standards: 38.94	Length (miles) of state highway segments expected to exceed LOS standards: 36.47	Length (miles) of state highway segments expected to exceed LOS standards: 42.97
Vehicle Miles Traveled	No Action Current Comprehensive Plan Alternative would have the lowest increase in VMT.	No Action Trends would have a greater increase in VMT than Action Alternative Y but less than Action Alternative X.	Action Alternative X would have the highest increase in VMT.	Action Alternative Y is projected to result in lower VMT increase than No Action Trends and Action Alternative X. This may be due to this alternative's spreading of employment growth to other smaller urban UGAs outside of Bellingham, allowing for more jobs in proximity to population centers.
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>With one exception, the same capital improvements are identified as mitigation for all four alternatives in section 4.9.3. The exception is improvement to a 1.8-mile length of Slater Road, between Lake Terrell Road and Haxton Way, which is identified for No Action Trend, Action Alternative X, and Action Alternative Y; but is not identified for the No Action Current Comprehensive Plan</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>Alternative. This reflects the results of the impact analysis, which indicate that while V/C projections vary, the locations where deficiencies are projected are very similar between the four alternatives.</p> <ul style="list-style-type: none"> <li>▪ In the event that revenue is not forthcoming, the County has several options.                             <ul style="list-style-type: none"> <li>○ Lower the LOS standard, reducing the need for additional infrastructure.</li> <li>○ Increase the amount of revenue from existing sources.</li> <li>○ Adopt new sources of revenue.</li> <li>○ Require developers to provide such facilities at their own expense.</li> </ul> </li> <li>▪ The following implementation measures could, over time, mitigate ongoing growth and transportation impacts. The County has discretion and a number of options under each of these policy categories. In order to maintain this three-way balance, increase/decrease in one category requires change in the other two categories.                             <ul style="list-style-type: none"> <li>○ Commute trip reduction.</li> <li>○ Transit compatible design.</li> <li>○ Access management.</li> </ul> </li> </ul> <p>Although state highways are not under the County’s direct responsibility, the County will work cooperatively with the Whatcom Council of Governments and the Washington State Department of Transportation to ensure that the impact of growth on these facilities is addressed. The County’s comprehensive plan has adopted the goal of ensuring “an efficient regional system of state highways that is functional and safe, and is consistent with regional priorities and City and County comprehensive plans.”</p>			
<b>Police Services</b>				
<p>Impacts Common to All Alternatives</p>	<p>New development and population growth would result in an increased demand for sheriff and correctional facilities under all alternatives.</p> <p>Increased densities would allow for greater efficiency of service in urban areas. A more compact development pattern would allow for smaller patrol areas and faster response times.</p> <p>As urban areas of the county are annexed into adjoining cities or incorporated as new cities, patrol-related functions may be assumed by the cities while joint use of some facilities (e.g., jails) could be retained at the county level. Annexation of current UGA areas by 2031 under all alternatives reduces the population served for capital facilities serving the unincorporated population, such as Sheriff’s Office space.</p>			
<p>Impacts of Each Alternative</p>	<p>The increased growth paired with planned capital improvements allows the County to meet Emergency Management and Jails service standards. The Sheriff’s Office is currently conducting a needs analysis for future jails which</p>	<p>Impacts are similar to the No Action Current Comprehensive Plan Alternative, except that this alternative would have greater growth and greater demand for police and jail services.</p>	<p>Similar overall results as under the No Action Trends Alternative, given that population growth is expected to be the same. The difference would be that more population would be living in Bellingham and working in Bellingham and</p>	<p>The results for law enforcement facilities and services are similar to the effects discussed under other alternatives.</p> <p>More population and employment will occur in cities</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>may indicate a need to increase the currently established LOS standard.</p> <p>The additional population expected in the No Action Current Comprehensive Plan Alternative would result in a deficit for juvenile detention beds of 7 beds.</p>	<p>The additional population expected in the No Action Current Comprehensive Plan Alternative would result in a deficit for juvenile detention beds of 10.</p>	<p>Cherry Point than in other alternatives.</p>	<p>other than Bellingham. This could shift where long-term future facilities and services may be located.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Expanded police services should be provided concurrent with new development. Measures such as building access and lighting, right-of-way access, and other measures may help to deter crime and facilitate response time.</li> <li>▪ Staffing will need to be increased as population increases. However, as urban areas are annexed, personnel and/or facilities may need to transfer to the annexing city.</li> <li>▪ Building and site designs known as Crime Prevention through Environmental Design (CPTED), which would reduce opportunities for crimes to occur, could be encouraged through regulations, as would adequate street lighting for residential and commercial development.</li> <li>▪ Development of community crime prevention programs could also help mitigate some of the impacts of increased demand for police services.</li> </ul>			
<b>Fire and Emergency Medical Services</b>				
Impacts Common to All Alternatives	<p>New development and population growth associated with the Whatcom 2031 Comprehensive Plan Update will result in an increased demand for fire protection. The specific need for services, equipment, and facilities would be determined through ongoing planning by the various fire protection districts and would be based on response time goals and/or the timing and location of future development.</p> <p>Greater infill development in core 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.</p> <p>Under all alternatives, upgrades to water systems would be needed to achieve adequate fire flow in urban areas throughout the County.</p> <p>All fire districts serving urban areas are projected to experience deficits in fire and aid service facilities by 2031 under all alternatives being considered based on a square-foot-per-incident LOS standard calculated in the County's Preliminary Draft CFP.</p>			
Impacts of Each Alternative	<p>An LOS analysis confirms that the No Action Current Comprehensive Plan</p>	<p>The No Action Trends Alternative anticipates the highest growth of the four</p>	<p>Action Alternative X provides for a similar total growth as No Action Trends Alternative but</p>	<p>Action Alternative Y represents the greatest growth for Districts 1, 7 and North Whatcom Fire</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>Alternative is expected to provide the least increase in calls for fire and aid service, and thus the least projected increase in facility needs of all the alternatives for fire districts serving urban areas.</p>	<p>alternatives for districts that include a larger rural portion due to the greater rural growth allocation (e.g., Districts 8, 14, 17, and South Whatcom Fire Authority).</p> <p>The No Action Trends alternative will provide the highest projected facility deficits for Fire District 14, Fire District 8, South Whatcom Fire Authority, and almost all the districts serving rural areas only (Fire District 18 is the exception). Fire District 4, Fire District 8, and South Whatcom Fire Authority may expect the largest increase in population remaining in their service areas under this alternative, as their only urban areas are within the City of Bellingham's UGA.</p> <p>In terms of meeting response time LOS, the No Action Trends Alternative would provide a population that is more widespread throughout the County than other alternatives.</p>	<p>focuses the growth in UGAs, for a more compact growth pattern that may be more efficiently served.</p> <p>The Bellingham UGA would see the greatest population and employment growth under this alternative. Action Alternative X provides greater growth to District 4 serving areas surrounding Bellingham than other alternatives since Action Alternative X focuses growth in the Bellingham UGA including city limits.</p> <p>An LOS analysis indicates that Action Alternative X provides the highest or second highest projected facility deficit for the fire districts serving the Bellingham UGA.</p>	<p>and Rescue as well as the Lynden UGA. Action Alternative Y will provide the highest projected facility deficit for the fire districts serving the Blaine, Birch Bay, Ferndale, Cherry Point, Everson, and Nooksack UGAs, consistent with greater growth occurring in these areas than in other alternatives.</p> <p>Continued coordination with fire and emergency medical service providers will be needed to ensure that population and employment growth and future fire/EMS facilities are located close enough to one another to continue meeting response time LOS standards of each service provider</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ A countywide coordinated LOS should be developed in conjunction with fire protection/EMS service providers, similar to Whatcom Medic One program.</li> <li>▪ Expanded fire and emergency medical services, police protection services, and public safety dispatch services should be provided concurrent with new development.</li> <li>▪ Specific impacts of future development proposals should be assessed and appropriate mitigation measures imposed through the County's SEPA authority. These may include building access and lighting, right-of-way access, and other measures to support rapid emergency response.</li> <li>▪ Since emergency medical service provision makes up approximately 75% of all emergency response countywide, a larger number of lower cost Medic/Aid Stations can be constructed in lieu of providing a full-service fire station. By providing more of the Medic/Aid Stations in more geographically dispersed locations, fire districts can serve a larger percentage of their incident calls at a lower cost. A precedent for this model of service delivery is already in place in the County with Medic One's two county medic stations.</li> </ul>			
<b>Parks and Recreation</b>				
Impacts Common to All Alternatives	<p>All alternatives would result in an increased demand for park and recreation facilities. As population growth occurs in cities and unincorporated county lands, demand for parks, open space, and recreational facilities will increase.</p>			
Impacts of Each Alternative	<p>The County will experience less growth overall than in other alternatives, resulting in less demand for parks, trails, and activity centers.</p> <p>Future growth is expected to result in a net deficit of 15 acres of developed park land, 19.2 miles of trail, and one activity center.</p>	<p>Countywide growth is increased above the No Action Current Comprehensive Plan. Future growth is expected to result in a net deficit of 241 acres of developed park land, 37.2 miles of trail, and three activity centers. The most population growth of all alternatives is expected in the unincorporated rural areas and the Columbia Valley UGA, resulting in greater usage of developed parks, trails, and activity centers in these areas than under other alternatives.</p>	<p>Countywide growth is similar to the No Action Trends Alternative, with similar deficits in parks, trails, and activity centers. However, under Action Alternative X, developed parks, trails, and activity centers in and around Bellingham and its UGA would experience more use as growth is concentrated in that area as well as for Cherry Point which would have its highest employment level.</p>	<p>Impacts would be similar to No Action Trends Alternative and Action Alternative X except that under this alternative, parks, trails, and activity centers in and near Birch Bay, Blaine, Everson, Ferndale, Lynden, Nooksack, and Sumas would all experience greater use.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ The County could update the Whatcom County 6-Year Capital Improvement Program on a biennial basis.</li> <li>▪ The County could consider allowing public use of undeveloped or partially developed parkland in or near urban areas. The County</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>owns more undeveloped park land that is not accounted for in the developed parks inventory.</p> <ul style="list-style-type: none"> <li>▪ Impacts on park and recreation land and facilities would be mitigated to the degree that each alternative provides the parks and facilities projected by LOS requirements through additional projects identified in the County's park plan.</li> <li>▪ The County could change its LOS standards for parks, trails, and activity centers to accommodate growth envisioned by 2031.</li> <li>▪ The County could implement parks impact fees to help with funding of new parks, trails, and activity centers.</li> <li>▪ The County could consider joint use of facilities for parks and recreation purposes such as school athletic fields and playgrounds.</li> <li>▪ The County could consider establishing a park in the Columbia Valley UGA, which does not currently have a public park.</li> </ul>			
<b>Schools</b>				
Impacts Common to All Alternatives	<p>The alternatives will affect school districts by increasing residential development, and consequently the number of students enrolled within the seven school districts serving the unincorporated county will also increase. Based on where population growth would occur within the unincorporated county, each school district will be affected differently. Impacts will generally be higher at schools serving the more urbanized area located within UGAs, although residential development and associated increases in enrollment would also occur in rural areas.</p>			
Impacts of Each Alternative	<p>The No Action Current Comprehensive Plan Alternative produces student enrollment deficits in almost all of the school districts being reviewed except Nooksack Valley and Mount Baker School Districts.</p>	<p>The No Action Trend produces student enrollment deficits in almost all of the school districts being reviewed except Nooksack Valley. Under No Action Trend, the largest student enrollment is projected for the Mount Baker School District, reflecting the nature of this school district located in unincorporated rural Whatcom County.</p>	<p>Action Alternative X focuses growth in the County's traditional large-city UGA of Bellingham, with a lesser amount of growth going to other County UGAs. As would be expected, this alternative produces the largest student generation rate for the Bellingham School District of all alternatives. Enrollment deficit results are similar to the No Action Current Comprehensive Plan.</p>	<p>Action Alternative Y produces the largest student enrollments in 2031 for all school districts except Bellingham and Mount Baker noted in other alternatives above. Most school district student enrollments exceed existing facility capacity. Action Alternative Y is the only alternative where the Nooksack Valley School District, serving the Everson, Nooksack, and Sumas UGAs shows a deficit. This alternative also shows the largest student enrollment facility deficit for the Blaine, Ferndale, Lynden, and Meridian school districts.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ The County and school districts could work together to identify potential sites for new school development in areas where higher</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<p>amounts of growth are planned.</p> <ul style="list-style-type: none"> <li>The County could incorporate school district capital facility plans, and subsequent updates, into the Whatcom County Comprehensive Plan by reference.</li> </ul>			
<b>Water Systems</b>				
Impacts Common to All Alternatives	<p>Demand for water service would increase under any of the alternatives, which would use surface and groundwater supplies. Under all alternatives, greater development capacities within UGAs would result in relatively higher demand for services inside UGAs, compared to the rural area.</p> <p>Under all alternatives, if the City of Lynden is unable to resolve its water rights dispute with the Washington State Department of Ecology (Ecology), the City will experience a water supply deficit. Birch Bay Water and Sewer District and Evergreen Water and Sewer District appear to have current or future water supply deficits.</p> <p>A number of the water systems in the County have a range of deficiencies when meeting the requirements of the County Fire Code.</p>			
Impacts of Each Alternative	<p>The No Action Current Comprehensive Plan alternative provides less overall population than any of the other alternatives being considered. As such, it also provides the least population projected for the majority of the urban water service providers.</p> <p>Birch Bay Water and Sewer District and Evergreen Water and Sewer District appear to have current or future water supply deficits.</p>	<p>The No Action Trend provides the greatest demands on Water Districts 2, 7, and Lake Whatcom Water and Sewer District (formerly Water District 10) all serving portions of the Bellingham UGA, but with significant areas outside of the UGA as well. The No Action Trend also provides the greatest population and employment growth for Water District 13 and the Evergreen Water and Sewer District serving the Columbia Valley UGA and surrounding areas as well.</p> <p>Birch Bay Water and Sewer District and Evergreen Water and Sewer District appear to have current or future water supply deficits as described for the No Action Current Comprehensive Plan</p>	<p>Under this alternative, the City of Bellingham water service area experiences the largest population and employment growth of any of the other alternatives. Similarly, as Cherry Point UGA experiences greater employment growth under this alternative, PUD 1, serving both Cherry Point and portions of the Ferndale UGA also experiences the largest employment growth under Action Alternative X. The City of Lynden experiences the greatest population growth to its water service area under Action Alternative X.</p> <p>The same Districts that require attention under the No Action alternatives require attention in Action Alternative X.</p>	<p>Under Action Alternative Y, Birch Bay, Blaine, Everson, Ferndale, Nooksack, and Sumas all experience greater population and employment growth that affect their water demand than in other alternatives. The City of Lynden water service area together with the portion of the UGA that would be served by the Delta Water Association experiences its greatest population and employment growth under this alternative.</p> <p>The same Districts that require attention under the No Action alternatives require attention in Action Alternative Y.</p>

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Water systems should increase the size of piping, install additional looping to increase water pressure for fire flow, and/or increase frequency of hydrant placement to meet fire flow requirements.</li> <li>▪ Water providers and County planners should continue to consult early in plan updating processes for both water system and land use plans to coordinate land use with future water supply needs, particularly in urban growth areas.</li> <li>▪ Birch Bay Water and Sewer District should continue to work with City of Blaine and others to identify and develop new water supply sources to address the anticipated water supply deficit that is projected for that water service area.</li> <li>▪ Evergreen Water and Sewer District should continue to upgrade its system to reduce unaccounted water loss and allow for more water service connections. The District should also incorporate Whatcom 2031 projections for its District boundaries in the next WSP update in order to plan for possible water source and/or storage needs.</li> <li>▪ Birch Bay UGA could be sized to accommodate a smaller population in order to provide water service with existing supply.</li> <li>▪ The City of Lynden should continue to work with Ecology to address their water rights issues. A failure to address water rights would impact the adequacy of Lynden’s water supply to meet demand under all alternatives.</li> <li>▪ The County should coordinate regional water supply monitoring as part of an update to the Whatcom County Coordinated Water System Plan.</li> <li>▪ The County should review and revise landscaping codes as necessary to encourage use of drought tolerant plantings and reduce demand for water.</li> <li>▪ The County and water purveyors should encourage water conservation, native plantings, and the use of rainwater retention systems in new and existing development to reduce water demand for domestic and landscaping needs.</li> <li>▪ The County could incorporate water system plans, and subsequent updates, into the Whatcom County Comprehensive Plan by reference when the water system serves an urban growth area.</li> </ul>			
<b>Wastewater</b>				
Impacts Common to All Alternatives	<p>Under any of the alternatives, additional sanitary sewer service would be necessary to serve increased demand. Expansions and upgrades of existing treatment plants would be required to handle increased volumes generated by residential growth and increased pollutant loads generated by new commercial and industrial development. Conveyance system extensions would also be necessary to provide sanitary sewer service to developing areas within UGAs.</p> <p>Birch Bay Water and Sewer District is the only sewer service provider in Cherry Point UGA at present time. Growth in employment in the Cherry Point UGA in the 2010-2031 timeframe is likely to increase demand for additional sewer service in the Cherry Point UGA. In such case, either Birch Bay Water and Sewer District could be petitioned to include additional Cherry Point UGA land area within its sewer service area, or a new sewer service provider would be created to serve Cherry Point UGA.</p> <p>Columbia Valley is not fully served by a sewer district. In the future Water District 13 which serves a portion of Columbia Valley may contract with its neighboring water district to provide sewer service to the portion of the Columbia Valley UGA served by Evergreen Water and Sewer District.</p>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Impacts of Each Alternative	<p>The cities of Everson and Nooksack are expected to experience treatment capacity deficits under both No Action alternatives in 2031. The City of Blaine is at sewage treatment capacity under the No Action Current Comprehensive Plan Alternative. However, these capacity numbers do not account for the City of Blaine's near-term plans to upgrade its sewage treatment plant. The Columbia Valley UGA will experience a sewer service deficit under the 2031 No Action Trends Alternative based upon existing capacity.</p>	<p>Greater growth will lead to greater demand for services. The same districts requiring attention under the No Action Current Comprehensive Plan require attention with the No Action Trends Alternative.</p>	<p>The concentrated growth pattern projected under Action Alternative X is expected to make provision of sewage collection systems more cost effective. Sewage collection systems extended to new service areas, particularly in the Bellingham UGA, would serve larger numbers of people under this alternative.</p> <p>The Action Alternative X growth increment is expected to provide sewage treatment deficits in Blaine, Everson, Ferndale, and Nooksack. The Columbia Valley UGA will experience a sewer service deficit under the 2031 No Action Trends Alternative based on existing capacity.</p>	<p>The LOS analysis for Action Alternative Y in 2031 indicates that Blaine, Everson, Ferndale, Nooksack, and Water District 13 all experience sewage treatment deficits.</p> <p>The increased growth in many of the County's UGAs would make provision of sewer collection systems to populations in those areas more efficient and cost effective for sewer districts compared to other alternatives.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ The increased amount of unincorporated rural population growth found under the No Action Trends Alternative would increase population growth in the sensitive Lake Whatcom watershed outside of current sewer service areas to a greater extent than other alternatives. This may mean that Lake Whatcom Water and Sewer District would be called upon to provide future sewer service outside the UGA to address Lake Whatcom water quality issues.</li> <li>▪ Increases in unincorporated rural population in the No Action Trends Alternative would increase population growth pressure in an area outside Ferndale's UGA that is currently served by sewer. If this alternative is adopted, it may make sense to extend the Ferndale UGA to this area to provide sewer service in an area that is already served by sewer facilities.</li> <li>▪ In instances where sewer service providers do not identify future sewer service trunk lines and major future sewer service facilities, the providers should update their comprehensive sewer plans to identify the future locations of sewer collection facilities to serve their entire UGA or service area.</li> <li>▪ The cities of Blaine and Ferndale are in the process of updating their sewer plans as well as including near-term sewer treatment capacity upgrades. Water District 13 and the City of Everson are also updating their comprehensive sewer plans. When these plans are completed, the Blaine, Ferndale, Everson, and Water District 13 sewage treatment capacity should be updated to analyze the ability of those service providers to meet future population projections.</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
	<ul style="list-style-type: none"> <li>▪ The Columbia Valley UGA could be sized to accommodate a smaller population in recognition of existing limitations on sewer service.</li> <li>▪ Water District 13 and Evergreen Water and Sewer District will need to plan, between the two districts, to provide adequate sewer service to the future population projected for the Columbia Valley UGA.</li> <li>▪ The County could incorporate comprehensive sewer plans and subsequent updates, into the Whatcom County Comprehensive Plan by reference when the sewer system serves an urban growth area.</li> </ul>			
<b>Stormwater</b>				
Impacts Common to All Alternatives	<p>Under all alternatives, additional stormwater drainage systems would be needed to handle increased stormwater runoff resulting from new development and added impervious surfaces such as roads and driveways. The creation of more impervious surface area and the reduction of forest land cover would reduce the amount of rainwater intercepted by trees and infiltrated into the ground, thereby increasing the volume and rate of stormwater runoff. Without adequate drainage facilities, an increase in either peak flow or volume of stormwater runoff could potentially add to existing flooding problems by increasing the depth of flooding, the area that is flooded, the frequency of flooding, and the length of time an area remains flooded. In some cases, an increase in the peak flow or volume of stormwater runoff may also create new flooding problems (i.e., flooding hazards in areas that are not currently subject to them).</p>			
Impacts of Each Alternative	<p>The No Action Current Comprehensive Plan Alternative would result in relatively lower levels of development and urbanization than would the other alternatives; therefore, overall impervious surface and overall needs for stormwater drainage and treatment facility capacity would likely be lower as well.</p>	<p>The No Action Trends Alternative would result in the greatest impervious surface of all the alternatives. This is due to the location of growth in areas which are already high in impervious surfaces, with the trend projected to continue. Most new impervious surfaces—and corresponding stormwater drainage demand—would occur in Bellingham, Cherry Point, and Lynden UGAs.</p>	<p>Action Alternative X would result in the greater impervious surfaces than the No Action Current Comprehensive Plan Alternative, but less than No Action Trends Alternative. Similar to the other alternatives, most new impervious surfaces—and corresponding stormwater drainage demand—would occur in Bellingham, Cherry Point, and Lynden UGAs.</p>	<p>Impervious surfaces are expected to increase with Alternative Y, but less than No Action Trends Alternative and Action Alternative X. The relatively less impervious surfaces than the other higher growth alternatives is due to the relatively less impervious surface percentages in the UGAs outside of Bellingham where more of Action Alternative Y’s growth is spread.</p>
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ Low impact development (LID) standards could be adopted to require new developments to incorporate LID technologies wherever possible to aid in the reduction of stormwater impacts. Some examples of LID technologies are green roofs, bioretention swales or cells (rain gardens), pervious pavement, amended soils, forest cover retention, minimal excavation foundations, and general minimization of impervious surface coverage.</li> </ul>			

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
<b>Solid Waste</b>				
Impacts Common to All Alternatives	The additional population and employment capacity accommodated by the alternatives would increase demand for additional solid waste capacity.			
Impacts of Each Alternative	The No Action Current Comprehensive Plan Alternative would have the lowest growth level, and therefore the lowest projected increase of solid waste at 180,886 tons per year.	The No Action Trends Alternative would generate 180,886 tons per year, greater than No Action Current Comprehensive Plan but the same as Action Alternative X and Y due to similar growth numbers.	Same as the No Action Trends Alternative.	Same as the No Action Trends Alternative.
Mitigation Measures	<ul style="list-style-type: none"> <li>▪ Focusing growth in existing UGAs and cities where solid waste services already exist, particularly under No Action Current Comprehensive Plan Alternative and Action Alternative X, would reduce impacts related to providing curbside pickup for added population and promote more curbside customers.</li> <li>▪ Coordination and monitoring at transfer facilities and drop boxes would be ongoing to ensure adequate solid waste capacity. Recycling programs and waste prevention would continue to increase the level of recycling. Service levels for curbside collection as outlined in the Capital Facilities Chapter would continue or improve to encourage recycling.</li> </ul>			
<b>Power, Gas, and Telecommunications</b>				
Impacts Common to All Alternatives	<p>For each private utility (gas, electricity, telecommunications), increases in population will create increased demand for services. In general, increased densities associated with population growth would allow for greater efficiency in providing these services by minimizing the length of pipe or line that would need to be installed and maintained to provide adequate service.</p> <p>The following potential impacts are applicable to all alternatives:</p> <ul style="list-style-type: none"> <li>▪ Cascade Natural Gas would be required to increase service connections in response to customer requests. Additional gas distribution facilities would be constructed when existing system capacity has been maximized.</li> <li>▪ Telephone, cable, and cellular communication companies would increase service connections upon customer request.</li> </ul>			
Impacts of Each Alternative	As this alternative proposes the lowest range of growth in the County, it would generate the lowest increase in demand for power, gas, and telecommunication services.	Compared to the No Action Current Comprehensive Plan Alternative, the No Action Trends Alternative would generate a greater increase in population and employment. This Alternative would have	Action Alternative X would result in population and employment growth on the same level as the No Action Trends Alternative, but with a different proposed distribution. Future growth would be	Directing low-density growth toward smaller urban areas has the potential to increase demand for power, gas, and telecommunications services in locations where current infrastructure may not be

Element of the Environment	No Action Current Comprehensive Plan Alternative	No Action Trends Alternative	Action Alternative X	Action Alternative Y
Mitigation Measures	<p>In addition to Incorporated Plan Features and Applicable Regulations and Commitments, Other Potential Mitigation Measures include:</p> <ul style="list-style-type: none"> <li>▪ The County and cities along with the utilities could promote energy conservation by encouraging site design that emphasizes tree retention and optimum solar access, as well as architectural design that incorporates energy-efficient building materials and techniques.</li> <li>▪ The County and cities along with the utilities could encourage co-location of telecommunications facilities with undergrounded utilities in urban areas to minimize aesthetic and land use impacts associated with utility corridors.</li> <li>▪ The County and cities, along with the utilities, and in cooperation with state and federal governments, could encourage and create incentives for the installation of smaller-scale alternative energy generating systems on individual residential, commercial and industrial buildings and sites. The cumulative effect of smaller scale, decentralized energy sources can reduce the need for new large-scale facilities, potentially reduce greenhouse gas emissions and reduce the vulnerability of standard, centralized energy providers to peak demand shortfalls and to potential general security concerns.</li> </ul>			

## 1.7. Significant Unavoidable Adverse Impacts

Section 1.6 summarized impacts and mitigation measures. The subsections below indicate whether impacts can be mitigated and if there are potential residual impacts following application of mitigation measures.

### 1.7.1. Earth

All alternatives would result in increased urbanization in the County. An unavoidable consequence will include a corresponding increase in erosion and sedimentation. A greater population could also be at risk from the adverse impacts of damage to buildings and infrastructure should an earthquake, volcanic eruption, or landslides occur. The No Action Current Comprehensive Plan Alternative would have the least potential for these impacts as it has the least growth and maintains present UGA boundaries. The No Action Trends Alternative would have the greatest potential impact in rural areas as it allocates the most growth to the rural areas, though its overall population is similar to the Action Alternative X and Action Alternative Y. Action Alternative Y would allocate growth with a more extensive urban pattern because of use of achieved densities and the potential that growth in undersized UGAs could extend into the Suitability Analysis Area.

### 1.7.2. Air Quality

Population and vehicle travel would increase under all four alternatives based on their growth levels. However, air quality emission increases for conventional smog-producing pollutants (NO<sub>x</sub>, VOC and PM) are likely to be either partially or fully offset, due to a combination of beneficial factors: EPA emissions control requirements on vehicles; anticipated future purchase of more fuel-efficient household appliances and industrial equipment; and continued application of air quality regulations on stationary industrial sources.

In terms of GHG emissions, each alternative would increase VMT with the No Action Current Comprehensive Plan increasing the least and Action Alternative X increasing the most. Action Alternative Y would have the least negative air quality effect of the two Action alternatives. Future “business as usual” GHG emissions under the No Action Trends Alternative, Action Alternative X and Action Alternative Y would be higher than the No-Action estimates incorporated into the County’s 2007 GHG action plan. Therefore, the 2007 GHG action plan should be updated to reflect the higher estimates of future “business as usual” GHG emissions.

### 1.7.3. Water Resources (Surface and Ground)

Impervious surface area would increase under all four alternatives based on projected growth. Measures are currently in place to reduce the potential impacts associated with increases in impervious surface area and additional measures have been proposed within this section; however, increases in impervious surface area would likely have some level of unavoidable impact on water resources. The potential degree of impact on water resources would be dependent upon several factors, which could include where within a subbasin the impervious surface area is located, the level of pollution that may be generated by the impervious surface area (e.g., new road, driveway, parking lot) and the effectiveness of stormwater facilities in treating and detaining stormwater and mimicking the natural conditions that existing pre-development (e.g., infiltration, groundwater discharge to surface waters, surface water patterns, etc.).

### 1.7.4. Plants and Animals

#### Vegetation

Potential impacts under all alternatives include the loss and reduced function of vegetation communities as a result of population growth and development within the county. A reduction in the amount of vegetation communities would reduce habitat for wildlife as discussed in the wildlife section below. Additional development under any alternative would result in loss of larger tracts of native forested vegetation and grassland/pasture areas that also include nonnative species. Vegetation diversity (e.g., number of different native plant species and structure) would decline as the larger tracts of vegetation are developed and converted to vegetated suburban residential areas where lawns and nonnative landscaping increases.

#### Fish/Aquatic Species

Over time, changes in land use and development patterns would likely result in increased potential risk of impacts on fish, fish habitat and aquatic species. Overall, greater human activity, increased impervious surface area, modified hydrology, and degraded water quality associated with discharges from commercial, residential and roadway surfaces would likely result from the alternatives considered. All of these factors could adversely affect fisheries and aquatic habitat.

Under all alternatives, fish habitat could be lost or suffer diminished function and value as a result of population growth and development within the county. In general, alternatives that allow for the greatest amount of new development and extend the land available for urban purposes would have the greatest potential effect on fisheries and aquatic resources.

## Wildlife

Under all alternatives, wildlife habitat could be lost and degraded as a result of population growth and development in the county. In general, alternatives that allow for the greatest amount of new development and extend the land available for urban purposes have the largest potential to affect wildlife habitat.

A reduction in habitat could result in decreased abundance or local extirpation of species dependent on the habitat. On a landscape scale, wildlife habitats would become more fragmented and disconnected from adjoining natural habitats. Over time, some re-growth of native vegetation would occur within the UGAs as residential areas mature. Such re-growth would present an incremental improvement in habitat values for some wildlife species, primarily songbirds and small mammals. The reduction in habitat values for some species of wildlife would result in an increase in populations of those species adapted to more urban habitats.

The precise extent of impacts on wildlife, wildlife habitat, and corridors would depend on the site-specific development plans for individual properties.

### 1.7.5. Land and Shoreline Use

Over time, the implementation of any of the alternatives would irreversibly commit vacant, partially developed, and redeveloped properties to additional or new single-family, multifamily, commercial, retail, and industrial uses. In urban areas, the potential for this is greatest under Action Alternative X which focuses the most growth in existing UGAs and results the greatest demand for urban acres. However, Action Alternative Y geographically expands urban uses into Suitability Analysis Areas in UGAs that are undersized for population and/or employment. Cumulatively, however, the No Action Trends Alternative would represent the greatest land use impact scenario, due to its high levels of both urban and rural growth and the large amount of development that would be directed to rural lands. Under all of the alternatives, the UGAs will experience development and greater urbanization over time and the rural areas will receive additional housing units and jobs in a lower density character.

### 1.7.6. Plans and Policies

All alternatives provide for population allocations in the range of state forecasts. In general, all alternatives are consistent with GMA goals by focusing growth in urban areas, though rural protection measures would improve consistency with GMA rural and resource land goals. All alternatives include UGAs that are oversized or undersized for growth allocations, and this may be mitigated by UGA land use or boundary changes to bring land supply and land demand in balance.

Expansions of the Lynden UGA have the potential to irreversibly commit agricultural lands of long-term commercial significance to urban uses.

### **1.7.7. Population and Employment**

Population, employment and housing will increase under any of the alternatives reviewed, to different degrees, with the No Action Current Comprehensive Plan Alternative increasing the least and No Action Trends Alternative, Action Alternative X and Action Alternative Y the greatest. Additional population growth will increase the demand for housing. Additional population, housing, and employment growth will result in secondary impacts on the natural and built environment and to the demand for public services, and is addressed in the appropriate sections of this Draft EIS.

### **1.7.8. Cultural Resources**

Future growth and development in the County will increase pressure for the redevelopment of significant cultural resources. Future development activities could disturb or destroy cultural resources, those known and unknown. Consistent application of federal, state, and local laws should reduce the potential for impacts on cultural resources.

### **1.7.9. Transportation**

Implementation of any of the alternatives will result in increased traffic within the county, with the lowest increase occurring under the No Action Current Comprehensive Plan Alternative. The greatest level of VMT increase is projected to occur under Action Alternative X, and the greatest level of volume to capacity (V/C) impact is projected to occur under Action Alternative Y. Although the effects of additional vehicles on traffic congestion can be mitigated to varying degrees through the recommended transportation improvements, the actual increase in traffic is considered a significant unavoidable adverse impact.

### **1.7.10. Public Services and Utilities**

#### **Police and Fire/Emergency Medical Services**

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

## Parks and Recreation

With the increase in population and urbanization of the County under any of the alternatives, there would be greater demand for parks, recreational facilities, and programs. However, the impacts on facilities are not expected to be adverse, since the County establishes a LOS and parks capital facility plans to provide services and meet demand.

Neighborhoods surrounding existing, new or expanded parks would experience more activity in the form of vehicles and pedestrians. Costs for acquiring parks will rise with the increased demand for urban land.

## Schools

The demand for school services and facilities will increase as new development occurs and the number of families with school-aged children increases. The consequences of setting aside land for school facilities would decrease the availability of that land for other uses. With mitigation, significant, unavoidable adverse impacts would not be anticipated.

## Water

All alternatives would increase demand for water services. Most water providers appear able to serve planned growth, but other water service providers will require additional water sources (e.g., Birch Bay Water and Sewer District and potentially the City of Lynden) to be able to serve additional growth. Adequate attention to capital facility planning should mitigate potential impacts, unless additional water sources cannot be found.

## Wastewater

With advance planning, implementation and update of capital facility plans no less than every 6 years, as well as review of development permits in terms of system impacts, no significant unavoidable adverse wastewater impacts would be anticipated within the range of alternatives reviewed.

## Stormwater

Similar to Water Resources, Section 1.7.3.

## Solid Waste

Future population growth and development would continue to increase the amount of solid waste generated in the county under any alternative. With solid waste management plans, regularly updated as appropriate, no significant unavoidable adverse impacts are anticipated.

## Power, Gas, and Telecommunications

Regardless of which alternative is selected, population and employment growth in the County will drive additional demand for energy and telecommunications services. This increased demand will require some degree of either the construction of new facilities or upgrades to existing infrastructure.

## 1.8. Format of Draft Environmental Impact Statement

This Draft EIS is organized as follows:

**Chapter 1.** Chapter 1 consists of a summary of the proposal, alternatives, mitigating measures and significant unavoidable adverse impacts. While this chapter provides an overview, the reader is encouraged to refer to the full document for a complete discussion of the proposal, potential impacts and mitigating measures.

**Chapter 2.** Chapter 2 provides background information on the proposal and a description of the alternatives.

**Chapter 3.** The suitability analysis is contained in Chapter 3. The analysis consists of a series of UGA study area maps that illustrate suitability of each study area for urban development based on a set of specific factors. A brief narrative discussion and potential changes to increase suitability for each topic is also provided.

**Chapter 4.** Chapter 4 consists of a discussion of the affected environment, impacts, mitigation measures and significant unavoidable adverse impacts for each element of the environment and alternative.

Appendices contain appropriate technical or reference materials, including:

Appendix A: Environmental Impact Statement Scoping Summary

Appendix B: Fiscal Assessment of Comprehensive Plan Alternatives

Appendix C: Transportation Data

Appendix D: Alternative Growth Estimates by Service Provider