

FACT SHEET

PROJECT TITLE

Draft Southcenter Subarea Plan and Implementing Regulations

DESCRIPTION OF PROPOSAL AND ALTERNATIVES

- **Proposed Action:** Adoption by the City Council of a Subarea Plan for the Southcenter area, revised development regulations in TMC Chapter 18.28 Tukwila Urban Center (TUC), and the Southcenter Design Manual. This Action would maintain Southcenter's current share of the regional retail market and enhance the area's long-term competitive edge within the region by promoting the development of a more vibrant, high intensity mixed-use center including housing and pedestrian-oriented areas in proximity to rail and transit, enhancing the visual character of the built environment, prominently featuring natural amenities, and encouraging redevelopment of underutilized properties. Change would be driven by market forces, catalyst public projects, and the guidance of new development regulations and design guidelines. The Proposed Action would meet the objectives of the Subarea Plan and would accommodate projected 20-year demand for housing and jobs.
- **Alternative 1: High Intensity Urban Center**
Same as the Proposed Action, except this Alternative would allow higher maximum building heights potentially resulting in an incrementally more compact land use pattern in the Transit Oriented Development (TOD) District. This alternative would meet the objectives of the Subarea Plan and would accommodate projected 20-year demand for housing and jobs.
- **Alternative 2: No Action**
No subarea plan, new development regulations or design guidelines would be adopted. The City would continue to apply the regulations of the existing TMC Chapter 18.28 for the Tukwila Urban Center. The area would continue to develop as a suburban retail and warehouse/distribution center, with change driven by market forces, but the City's current share of the regional retail market would likely decline. This alternative would not meet the objectives of the Subarea Plan and would not accommodate projected 20-year demand for housing; it would accommodate the projected demand for jobs.

PROJECT LOCATION

The Tukwila Urban Center/Southcenter Subarea is bounded by I-5/Southcenter Parkway (and the toe of the west valley wall) on the west, I-405 on the north, the City limits and the Green River on the east, and S. 180th Street and the Green River on the south.

PROPONENT

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Tukwila, WA 98188-2544

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LICENSES, PERMITS AND APPROVALS POTENTIALLY REQUIRED

The Tukwila City Council will adopt the Southcenter Subarea Plan as an optional element of Tukwila's Comprehensive Plan and will adopt the revised TMC Chapter 18.28 TUC and the Southcenter Design Manual as development regulations to implement the Subarea Plan. Future developments consistent with the SEIS will be reviewed as provided by the Tukwila Municipal Code and will not require additional SEPA review, as permitted by RCW 43.21C.420.

EXISTING ENVIRONMENTAL DOCUMENTS BEING SUPPLEMENTED AND/OR ADOPTED

- This document supplements the Environmental Impact Statement (EIS) for the Tukwila Comprehensive Plan, October 1995. The 1995 EIS is being adopted for purposes of SEPA compliance, consistent with WAC 197-11-630.
- Copies of the EIS are available for review at:
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DATE OF ISSUE OF DRAFT SUPPLEMENTAL EIS

October 21, 2013

DATE COMMENTS ARE DUE ON DRAFT SUPPLEMENTAL EIS

- There is a 30-day comment period. Comments must be received by 5 p.m. on November 20, 2013. Mail or email comments to:
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DRAFT SEIS AVAILABILITY, COST AND BACKGROUND MATERIAL

The Draft SEIS may be reviewed online at <http://www.tukwilawa.gov/dcd/urbancenterplan.html>. Review copies of the Draft SEIS and background materials are available at the City of Tukwila Department of Community Development, Suite 100, 6300 Southcenter Boulevard, Tukwila, WA 98188-2544. Documents may be reviewed between the hours of 8:30 AM and 5:00 PM. CD copies of the Draft SEIS are available for purchase at the above address at a cost of \$10.00.

City of Tukwila
Draft Southcenter Subarea Plan and Implementing Regulations SEIS

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Chapter 1

Summary of the Proposed Action

This chapter provides a brief summary of information contained in the Southcenter Plan Supplemental Environmental Impact Statement (SEIS). It provides an overview of the alternatives, the analysis of significant impacts and mitigation measures, and significant unavoidable impacts. This summary is intended to be brief and selective; the reader should consult individual sections of the Draft SEIS for detailed information concerning environmental impacts and mitigation measures. A brief summary of the public SEIS scoping process is provided. A matrix in this chapter contains a comparative overview of the impacts identified for the Proposed Action and alternatives.

Section 1.1 Summary of the Proposed Action and Alternatives

1.1.1 Location of Proposal

Tukwila's Urban Center, Southcenter, is an approximate 1,000-acre area that is generally bounded by I-5/Southcenter Parkway (and the toe of the west valley wall) on the west, I-405 on the north, the City limits and the Green River on the east, and S. 180th Street and the Green River on the south (See Figure 1.1). The area is intensively developed with a range of retail, commercial, warehousing, distribution and light industrial uses. Current land uses and site design may be characterized as suburban and auto-oriented in nature, with many low scale, single-use buildings located behind extensive surface parking lots. Large-scale retail and industrial buildings are also present in some portions of the area. The existing street system is built around mega-blocks, which makes walking challenging. There is little vacant land remaining that is not environmentally constrained or preserved for open space. Major open space, recreational areas, and natural features of the urban center include the Green River and Interurban Trails, Bicentennial Park, Tukwila Pond Park, and Minkler Pond.

1.1.2 Proposed Action

The Proposed Action consists of two major elements:

- Adoption by the City Council of a subarea plan for the Southcenter area, Tukwila's designated Urban Center – which will become an optional element of the City's Comprehensive Plan; and
- Adoption of revised development regulations for the Tukwila Urban Center (TMC Chapter 18.28), and the Southcenter Design Manual.

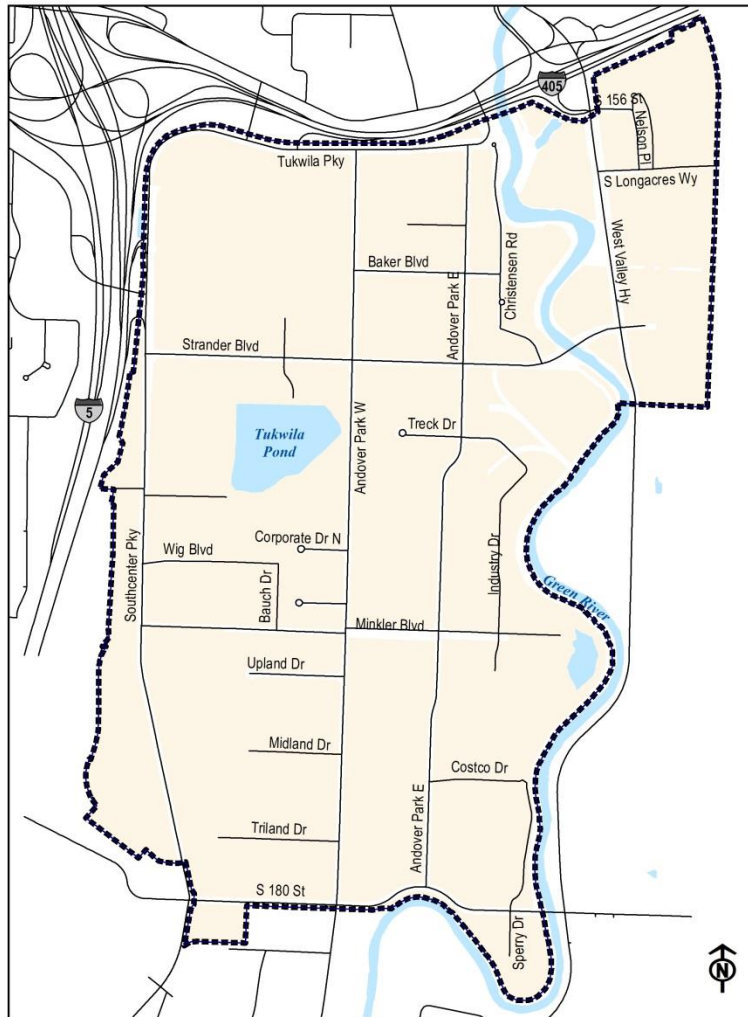


Figure 1.1 Tukwila Urban Center Boundary

The Southcenter Subarea Plan would amend and become part of the Tukwila Comprehensive Plan and would guide future growth and redevelopment of the subarea. The development regulations and design guidelines would amend the text of the City's zoning code (Tukwila Municipal Code Chapter 18.28 Tukwila Urban Center District). The revised zoning code and new design guidelines would both implement the Subarea Plan and act as mitigation measures for future development; the regulations and design guidelines would not cause significant impacts on their own. The regulations and provisions of the entire Tukwila Municipal Code (TMC), such as those related to noise, building and fire life safety, and sensitive areas, would continue to apply to development within the Urban Center.

The Southcenter Plan is primarily a strategy and roadmap for restructuring, reorganizing and redeveloping the Urban Center over time. It builds on the policies contained in the City's Comprehensive Plan. It would be implemented through a variety of public and private actions, with the guidance of new development regulations. The Southcenter Plan provides guidance for

restructuring and transforming the Urban Center from an area with a dispersed, unconnected, and auto-dominated land use pattern, with generally undistinguished design, hidden amenities and no real center, to a vibrant mixed-use center that is organized, connected, and pedestrian-oriented, and which is well-designed around its amenities. Change is expected to be evolutionary, driven by market forces, catalyst public projects, and the guidance of new development regulations and design guidelines.

A key element of the subarea plan is to generally organize the Southcenter area into a pattern of five “districts,” each with a distinct identity and mix of uses: Regional Center, Transit Oriented Development (TOD), Pond, Commercial Corridor and Workplace (See Figure 2.3 District Map). Each district is based on an existing development element (such as Westfield Mall), an amenity (e.g., Tukwila Pond), a public facility (the Sounder Commuter rail/Amtrak station), or the dominant land use (warehouse & industrial in the Workplace District). District size and layout are influenced by identified market opportunities, circulation connections, walking distance and nearby amenities.

Other major themes and elements of the subarea plan and the transformation that it envisions include:

- Creation of a street network – from superblocks to a fine-grained pattern of streets and blocks
- Transit integrated with urban center development
- Integration of the natural and recreational amenities with the emerging built environment
- Building, Site and Infrastructure Design – create a “great place”¹

In general, growth and development would occur in a more urban/intensive, pedestrian-oriented, walkable form, primarily in the northern portion of the Southcenter area between the Mall and the Sounder/Amtrak Station, and around Tukwila Pond. Table 1.1 presents a summary of growth (households and employment) associated with the Proposed Action.

Table 1.1 Future Land Use (Households & Employment) by Alternative

Land Use Scenario	Total Citywide		Total Southcenter Subarea	
	Households	Employment	Households	Employment
2013	7,435	47,540	4	19,725
2031 No Action	10,574	71,686	654	21,393
2031 Proposed Action/ High Intensity	12,285	75,205	2,714	25,084

¹ A great place is memorable and helps promote social interaction and sense of community, is visually interesting, reflects local culture or history, and has a unique or special character.

1.1.3 Land Use Alternatives

Two alternatives to the Proposed Action are addressed in the SEIS: the No Action Alternative and the High Intensity Alternative. Both alternatives address the same geographic area and use the same 2031 forecast year as the Proposed Action. Both are evaluated using the King County Countywide Planning Policy's updated household and employment forecasts for Tukwila. Table 1.1 also shows the future land use (household and employment) associated with the alternatives.

1.1.3.1 High Intensity Alternative

The High Intensity Alternative would be very similar to the Proposed Action in that it would implement the vision for the Southcenter area and accommodate the same forecasted housing and employment targets, but would allow the construction of taller buildings in the area designated for transit oriented development when multiple height incentives are employed. It is assumed that the Southcenter Subarea Plan and other aspects of the implementing regulations would remain the same as under the Proposed Action. The regulations and provisions of the entire Tukwila Municipal Code (TMC), such as those related to noise, building and fire, and sensitive areas, would also continue to apply to development within the Urban Center.

The most significant differences between the Proposed Action/High Intensity alternatives and No Action would be evident in growth and development occurring in a more urban/intensive, pedestrian-oriented, walkable form, primarily in the northern portion of the Southcenter area between the Mall and the Sounder/Amtrak Station, and around Tukwila Pond in the Proposed Action and High Intensity Alternative when compared to the No Action Alternative. The regulations and provisions of the entire Tukwila Municipal Code (TMC), such as those related to noise, building and fire life safety, and sensitive areas, would continue to apply to development within the Urban Center under both alternatives.

1.1.3.2 No Action Alternative

No Action provides a "baseline" for comparing the impacts of the proposal. Relative to the Urban Center, No Action assumes that the Southcenter Subarea Plan, revised development regulations and new design guidelines would not be adopted. The existing regulations, design guidelines and design review thresholds in TMC Chapter 18 would continue to apply to future development. The existing suburban development pattern would continue and the City would not achieve regional goals for an urban center or have sufficient development capacity to accommodate the household target allocated to the City.

SEPA review would occur on a project-by-project basis, without the benefit of a comprehensive and cumulative analysis of subarea impacts as a whole.

1.1.4 Prior Planning and Environmental Review

The City of Tukwila adopted a Comprehensive Plan in 1995 complying with the requirements of the Growth Management Act and in coordination with the overall planning framework of the King County Countywide Planning Policies. The goals, policies, and implementation strategies contained in the Plan were intended to be the basis for managing anticipated growth and

development in Tukwila over the following twenty years. The Comprehensive Plan Draft and Final EIS² identified and documented potential significant adverse environmental impacts and mitigation measures associated with Plan alternatives. An Addendum³ to the Tukwila Comprehensive Plan EIS evaluated the environmental impacts of the zoning code changes proposed to implement the Comprehensive Plan. In 2004 the City of Tukwila issued another Addendum to the Comprehensive Plan EIS addressing proposed revisions to the Comprehensive Plan and development regulations.

This Supplemental EIS (SEIS) focuses on potential impacts associated with increased intensity of development proposed for the Urban Center. It supplements the analysis of adverse impacts contained in the documents described above, along with other plans and EISs that contain environmental information relevant to the Urban Center that are being relied upon for purposes of SEPA compliance. Please refer to the Fact Sheet and Appendix A for a list and summary of documents that are being adopted and/or incorporated by reference, and which may be reviewed at the City of Tukwila Department of Community Development. Many of the impacts associated with future development in the subarea are already addressed by adopted the development regulations, by other applicable requirements of the City's Comprehensive Plan, and/or by other local, state or federal rules or laws. The City intends to rely on these to mitigate significant adverse impacts.

The City of Tukwila is using the SEPA review provisions for subareas set forth in RCW 43.21C.420. These provisions allow the City to comprehensively consider area-wide, cumulative environmental impacts of the Southcenter Plan and appropriate mitigation over an extended time horizon, rather than evaluating impacts and mitigation on a project-by-project basis. Future project-specific development proposals that are consistent with the subarea plan, development regulations and SEIS do not require individual SEPA review and cannot be challenged administratively or judicially pursuant to SEPA. As such, the nonproject SEIS provides certainty and predictability for urban development proposals, by streamlining the environmental review process within the subarea and encouraging the goals of SEPA and the State's Growth Management Act (Chapter 36.70A RCW).

To meet the procedural requirements of RCW 43.21C.420(4)(b) and (d), the City held the required community meetings, provided information about the plan, issued a Determination of Significance and Scoping Notice, and held a scoping meeting. The City is also evaluating the feasibility of a Transfer of Development Rights (TDR) program. Six comments were received during the 30-day scoping period, and all comments were considered in determining the scope of this SEIS. More detail on this process and comments received can be found in Chapter II.

1.1.5 Summary of Significant Impacts

Table 1.2 provides a summary of environmental impacts for each element of the environment evaluated in the Draft SEIS. Table 1.2 also includes mitigation measures for impacts that could result from the Proposed Action. Significant unavoidable adverse impacts are also identified, as applicable.

² Dated June 1995 and October 1995, respectively.

³ Dated November 1995

Table 1.2 Summaries of Significant Impacts in the Urban Center

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
PLANS & POLICIES	This Alternative is consistent with the urban center-related VISION 2040, the King County Countywide Planning Policies, and the Tukwila Urban Center (TUC) Element of Tukwila's Comprehensive Plan.	Same as the Proposed Action.	The No Action Alternative would be inconsistent to varying degrees with urban center-related policies of VISION 2040, the King County Countywide Planning Policies, and the Tukwila Urban Center (TUC) Element of Tukwila's Comprehensive Plan.
BUILT ENVIRONMENT			
LAND USE & AESTHETICS	<p>The Urban Center would be organized into five districts. Guiding certain types of land uses to specific districts with compatible uses would provide each with a distinct identity and reduce future land use conflicts.</p> <p>The most significant land use changes would be evident in growth and development occurring in a more urban/intensive, pedestrian-oriented, walkable form, primarily in the northern districts of the Urban Center between the Mall and the Sounder/Amtrak Station, and around Tukwila Pond. A mix of uses would occur in these areas – office, retail and multifamily within the same building. Areas south of Tukwila Pond and along Southcenter Pkwy would not change significantly from the current pattern of development. Overall, more commercial growth (5,359 employees) would occur under the Proposed/High Intensity Alternative by 2031, resulting in 3,691 more employees than the No Action.</p> <p>Opportunities for residential development would expand to areas in proximity to high capacity transit and water amenities, resulting</p>	<p>Land use impacts under the High Intensity Alternative will be similar to those identified under the Proposed Action, except for building heights in the TOD District. Under this alternative, maximum building heights within the TOD District would be greater with height incentives (115') when compared to the Proposed Action (70'). Consequently, height related impacts in the TOD District would be greater than under the Proposed Action, and similar to those under the No Action.</p> <p>Since the growth assumptions are the same for this alternative as under the Proposed Action (see Table 3.4), the most significant land use impact of allowing taller buildings in the TOD District is that fewer buildings may be constructed within the Urban Center and the land use pattern could be marginally more compact.</p>	<p>The current pattern of single use structures and lower-scale suburban commercial development would continue; development would most likely not achieve a higher density mixed-use land pattern. Retail uses would continue to dominate; very little housing would be constructed in the Urban Center (650 units by 2031). Land use conflicts between adjacent uses could increase, since differentiation of the urban center into districts with similar/compatible uses would not occur.</p> <p>The rate of commercial growth may slow over time due to increased competition from mixed use centers locating in surrounding areas, such as Renton Landing, Kent Station, and Burien Town Center, and lack of investment in the Subarea. This could result in 3,691 fewer employees than the other Alternatives in 2031.</p> <p>Public investment in the types of amenities needed to attract housing and meet regional goals for increasing pedestrian and transit-supportive environments would not be generated. Reduced opportunities for housing in the Urban Center could make it difficult for</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	<p>in 2,710 dwelling units by 2031, or 2,060 more than No Action. Multifamily height incentives would be offered.</p> <p>Building heights would be lower than the No Action, except for around the Mall where heights could reach 214' with height incentives for public frontage improvements or multifamily development. Building heights along the Green River within 200' of the OHWM would be the same in all alternatives. Shadowing impacts would be less than the No Action, except around the Mall.</p> <p>Many potential impacts would be mitigated by adopted comprehensive plan policies and development regulations, and/or by proposed subarea plan strategies, development regulations and design guidelines. The elements of the proposal are themselves mitigation measures that would address the potential impacts of future growth. The Shoreline Master Program would have a positive effect on shoreline resources. No additional mitigation measures are required.</p> <p>No significant unavoidable adverse impacts have been identified. While some existing uses in some portions of the urban center could be displaced in the process of redevelopment, such uses could potentially relocate to other areas of Southcenter or elsewhere in the City. Such displacement may be significant to individual displaced businesses, but is not an adverse impact to land use in the Urban Center. While identified land use changes will be significant and are unavoidable, they are generally considered to</p>		<p>the City to accommodate its citywide housing targets. Consequently, there could be greater pressure for infill and intensification of housing in the City's existing single family residential neighborhoods. In addition, there could be increased demand in housing markets in adjacent cities – Renton, Seattle, and Sea-Tac, in South King County generally, and in Pierce County.</p> <p>Publicly accessible open space would not be required under No Action. Consequently, the area may continue to redevelop without the additional requirements for parks and open spaces that contribute to "great spaces" and function as amenities that attract housing. Covered or uncovered recreation space would be required for residential developments.</p> <p>This alternative would not advance or be consistent with the desired direction for the Urban Center identified in the Comprehensive Plan.</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	be positive rather than adverse, and do not require mitigation.		
	<p><i>Aesthetics, building heights, views and visual character:</i></p> <p>The Proposed Action would likely result in improved visual quality overall and would not result in significant adverse impacts.</p> <p>New design guidelines for buildings, sites, landscaping, parks, streets and utilities in the northern part of the Urban Center would contribute to the Center's identity and sense of place, create a lively street-level environment, and support the community's vision for a high-quality environment. Buildings would be composed of a mix of contemporary and Northwest-inspired elements, such as exposed natural materials and building elements that respond to the area's climate. The scale, modulation and transparency of buildings in pedestrian oriented areas would be significantly improved.</p> <p>Public and private investments in a new street network, urban amenities (e.g. parks and plazas), and streetscape improvements would enhance the look of the area and balance open spaces with an increase in the built environment. New development would orient towards Tukwila Pond, Minkler Pond and the Green River. These natural features would be better connected to the Interurban and Green River Trails and other city parks.</p> <p>A finer street grid system would be developed, resulting in more appropriately sized blocks</p>	<p><i>Aesthetics, building heights, views and visual character:</i></p> <p>The High Intensity Alternative is likely to result in impacts similar to those described for the Proposed Action. In general, this alternative would likely result in improved visual quality of the built environment and is not expected to result in significant adverse impacts. Views from development on hills surrounding the urban center may be more impacted under this alternative than under the Proposed Action, but similar to those under the No Action.</p> <p>The primary difference between the Alternatives is the location, height and scale of some developments; as well as the amount and location of surface parking provided.</p>	<p><i>Aesthetics, building heights, views and visual character:</i></p> <p>No additional design guidance would be provided for buildings, sites, landscaping, parks, streets or utilities. Architectural design and visual character would be more influenced by the subjective vision of individual property owners and could potentially result in substantial contrasts in design.</p> <p>The area would retain its existing suburban character and undistinguished visual qualities, with uses of significantly different scale and character such as warehouse and multifamily projects located adjacent to one another. No differentiation of districts with similar and complementary uses would occur within the Urban Center. Individual buildings would continue to be set back far from the street edge, surrounded by large amounts of parking, and would provide minimal pedestrian amenities. Buildings would likely be larger in bulk and scale.</p> <p>Maximum building heights would remain at 115' anywhere within the Urban Center, except within 200' of the OHWM of the Green River where shoreline development regulations apply. Generally, shadowing impacts throughout the Urban Center would be greater than under the Proposed Action and, to a lesser extent the High Intensity Alternative, except around the Mall. No height incentives are provided.</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	<p>that foster walking and biking. Streetscapes would be designed to support the uses they serve – wider sidewalks with pedestrian amenities in the shopping, mixed-use residential neighborhoods and around the bus and rail centers. Parking in these areas would be located to the side or rear of buildings, or in limited amounts between the buildings and sidewalks.</p> <p>While identified aesthetic changes will be significant and are unavoidable, they are generally considered to be positive rather than adverse, and do not require mitigation. The most significant potential impact is from the differences in scale between the area where 214' buildings are permitted in the Regional Center District along Tukwila Parkway, and the rest of the Urban Center where maximum building heights are significantly lower. Tall buildings could also potentially interrupt views from residential areas on the surrounding hillsides. Shadowing on the street level and adjacent development from these taller structures would be greater than under the No Action. These impacts would be mitigated through design guidelines and careful site planning.</p>		<p>Improvements to the water quality, park features, and access to Tukwila Pond Park may occur pursuant to the master plan, but adjacent new development would most likely continue to turn its back to the Pond.</p>
OPEN SPACE	<p>Retail, office and lodging development would be required to contribute to public open spaces. Open spaces would increase in amount and improve in terms of access and function compared with the No Action. Enhanced open spaces would then draw amenity-based housing development. Residential development would be required to contribute to common and private open spaces. Design guidelines for public and private open spaces</p>	<p>Same as the Proposed Action</p>	<p>Residential development would be required to contribute to shared recreation space. There would not be a required contribution to publicly accessible open space by new development. The Subarea would continue to redevelop and potentially intensify without any parks and open spaces to balance out the increase in the built environment. No additional guidance on parks or open space is provided.</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	are provided. There are no significant adverse impacts identified.		
SHORELINES	Building height and setbacks will be restricted by Shoreline regulations. However, maximum building heights adjacent to the River would be less, at 70 feet with incentives; 45 feet without incentives. Design guidelines address building façades facing the Green River Trail. Development is encouraged to orient towards the River. The Shoreline Master Program would have a positive effect on shoreline resources. No significant adverse impacts are identified.	The High Intensity Alternative is likely to result in impacts similar to those described for the Proposed Action. Building height and setbacks will be restricted by Shoreline regulations. However, maximum building heights adjacent to the River could be taller: 115 feet with incentives. Consequently, when proposing a structure over 70 feet in the TOD District, a condition for approval could include that an applicant must show how shadowing on adjacent open spaces, amenities, and parks is mitigated. The Shoreline Master Program would have a positive effect on shoreline resources.	The Shoreline Master Program would have a positive effect on shoreline resources. Building height and setbacks will be restricted by Shoreline regulations. Outside the shoreline environment on parcels adjacent to the Green River, maximum building heights would be 115 feet. The visual character of the built environment, as viewed from the Green River Trail, would not be addressed. Land uses adjacent to the River north of Strander Blvd would remain similar to those currently permitted, including warehouse and industrial uses. Development would not be oriented towards the river to take advantage of its amenities.
HISTORIC AND ARCHAEOLOGICAL RESOURCES	<p>There is one residence in the Subarea listed on the Washington State Register of Historic Places. The City of Tukwila does not have adopted policies or regulations for historic properties. Federal law and the Washington State Department of Archeology and Historic Preservation's law regulating historic sites would apply if the property is proposed for redevelopment.</p> <p>The majority of the Urban Center has already been developed. There is a possibility that archaeological materials may be inadvertently encountered during future construction. If such materials are discovered, work at the specific location would be suspended until the materials can be inspected by a professional archaeologist and the appropriate agencies notified.</p>	Same as the Proposed Action.	Same as the Proposed Action.
FIRE PROTECTION	Increases in residential and commercial	Same as the Proposed Action, except	Increases in residential and commercial

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	<p>development could occur, but at building heights less than currently allowed under the No Action Alternative. The exception to this is in the Regional Center District, where building heights could reach a maximum of 214' in proximity to Tukwila Parkway.</p> <p>Any significant increase in density and/or height from the current conditions could affect fire and emergency service capabilities, potentially requiring additional personnel and equipment in order to provide appropriate levels of service.</p> <p>To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs, and include these needs in the capital facilities planning process.</p>	<p>maximum building heights in the TOD District would be greater than under the Proposed Action and similar to the No Action Alternative.</p>	<p>development could occur, but at building heights greater than that allowed under the Proposed Action. The exception to this is in the Regional Center District, where building heights could reach a maximum of 214' in proximity to Tukwila Parkway in the Proposed Action.</p> <p>Any significant increase in density and/or height from the current conditions could affect fire and emergency service capabilities, potentially requiring additional personnel and equipment in order to provide appropriate levels of service.</p> <p>To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs, and include these needs in the capital facilities planning process.</p>
SCHOOLS	<p>Significant residential development could occur, but the actual number of school-age children generated by future development over the next 20 years is projected to be minimal (a total of 79 students). Based on the distance of existing schools in the Tukwila and Renton School Districts from the Urban Center, students would need to be bused to all school facilities. Over the long term, adjustments in specific school service boundaries may be warranted, as well as future bond issues and levies, to serve general growth in both districts. New development and associated funds from property taxes would help offset increases in demand for school services.</p>	<p>The High Intensity Alternative is likely to result in impacts similar to those described for the Proposed Action.</p>	<p>Very few school age children would be generated by the minimal residential development that could occur by 2031 (a total of 20 students). Based on the distance of existing schools in the Tukwila and Renton School Districts from the Urban Center, students would need to be bused to all school facilities. No significant impacts are identified.</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
TRANSPORTATION & AIR QUALITY	<p>A total of 17,000 PM peak hour trips would be generated by the anticipated future land uses in the Southcenter subarea.</p> <p>The proposed land use mix is more balanced (i.e., jobs and housing) and would better support transit, walking, and cycling.</p> <p>No adverse impacts are anticipated to parking, safety, walking or bicycling. Conversely, the combination of smaller block sizes and compact mixed use development with planned City roadway projects would be more conducive to pedestrian and bicycle mobility, and would likely support the City's non-motorized policies to a greater degree than the No Action Alternative.</p> <p>Planned transit facility improvements combined with increased densities and a more urban mix of uses would be more conducive to transit service and would support the City's transit policies to a greater degree than the No Action Alternative. Transit service may experience some delays at the Southcenter Boulevard/66th Avenue South, and along W. Valley Hwy at Strander and S.180th Street because of increased traffic congestion. Potential mitigation would include increasing capacity, and implementing transit signal priority and other technological enhancements.</p> <p>Minimum parking requirements are generally lower for retail, restaurants, and residential uses in the more intensely developed, transit-supportive parts of the Urban Center than under the No Action. Minimum parking</p>	<p>Same as the Proposed Action.</p>	<p>A total of 15,500 PM peak hour trips would be generated by anticipated future land uses in the Southcenter subarea.</p> <p>Superblocks, lack of pedestrian and bicycle connections and amenities, and absence of streetscape improvements would continue to deter walking, bicycling, and transit use and, instead, encourage auto travel. The lack of housing in the Urban Center would likely result in more people commuting to the area for work.</p> <p>The City is planning several projects (e.g. bus transit center) to improve access to transit facilities and accommodate the additional transit activity in the Urban Center under all alternatives. Transit service may experience some delays at the Southcenter Boulevard/66th Avenue South intersection because of increased traffic congestion in all alternatives.</p> <p>Traffic safety is expected to generally improve between existing and future conditions with planned City roadway improvements.</p> <p>Parking requirements in the northern part of the Urban Center are higher than those required for the other alternatives.</p> <p>No significant construction impacts are anticipated in conjunction with the No Action.</p> <p><i>Levels of Service (LOS):</i> Under this alternative, one intersection would</p>

Elements of the Environment	Proposed Action	High Intensity Alternative	No Action Alternative
	<p>requirements in the Workplace and Commercial Corridor Districts is the same as the No Action.</p> <p>No significant construction impacts are anticipated in conjunction with the Proposed Action.</p> <p><i>Levels of Service (LOS):</i> Under this alternative, one intersection would operate below an acceptable LOS during p.m. peak hours:</p> <ul style="list-style-type: none"> • Southcenter Blvd / 66th Ave S <p>Two corridors will operate unacceptably during p.m. peak hours:</p> <ul style="list-style-type: none"> • South 180th St (LOS F) • West Valley Highway (LOS F) <p>Mitigation measures are identified for all three locations, and if implemented, no significant adverse impacts would remain.</p> <p><i>Air Quality</i> Calculated peak-hour CO concentrations caused by transportation sources near the worst-operating intersection would not exceed ambient air quality standards. The Proposed Action would not be expected to result in any significant air quality impacts due to its effect on the surface roadways in the area.</p>		<p>operate below an acceptable LOS during p.m. peak hours:</p> <ul style="list-style-type: none"> • Southcenter Blvd / 66th Ave S <p>Mitigation measures are identified, and if implemented, no significant adverse impacts would remain.</p> <p><i>Air Quality</i> No unavoidable significant impacts were identified.</p>

Chapter 2

Proposal & Alternatives

Section 2.1 Proponent, Action, Location/Major Features

The proposal is sponsored by the City of Tukwila Department of Community Development. The proposed action consists of the following elements:

1. Adoption by the City Council of a subarea plan for the Southcenter area, Tukwila's designated Urban Center – which will become an optional element of the City's Comprehensive Plan; and
2. Adoption of revised development regulations for the Tukwila Urban Center (TMC Chapter 18.28), and the Southcenter Design Manual.

The Southcenter Subarea Plan would amend and become part of the Tukwila Comprehensive Plan and would guide future growth and redevelopment of the subarea. The development regulations and design guidelines would amend the text of the City's zoning code (Tukwila Municipal Code Chapter 18.28 Tukwila Urban Center District). The revised zoning code and new design guidelines would both implement the Subarea Plan and act as mitigation measures for future development. The City Council would take legislative action following review of the Plan and regulations by the Planning Commission and the public, and compliance with SEPA.

Tukwila's Urban Center, *Southcenter*, is an approximate 1,000-acre area that is generally bounded by I-5/Southcenter Parkway (and the toe of the west valley wall) on the west, I-405 on the north, the City limits and the Green River on the east, and S. 180th Street and the Green River on the south (See Figure 2.1 Tukwila Urban Center Boundary). The area is intensively developed with a range of retail, commercial, warehousing, distribution and light industrial uses. Current land uses and site design may be characterized as suburban and auto-oriented in nature, with many low-scale, single-use buildings located behind extensive surface parking lots. Large-scale retail and industrial buildings are also present in some portions of the area. The existing street system is built around mega-blocks, which makes walking challenging. There is little vacant land remaining that is not environmentally constrained or preserved for open space. Major open space, recreational areas, and natural features of the urban center include the Green River and Interurban Trails, Bicentennial Park, Tukwila Pond Park, and Minkler Pond.

The City of Tukwila, located in South King County, is home to more than 17,000 people and almost 47,000 workers⁴. Approximately forty percent of this employment is located in the Urban Center. As of the 2010 census, the City had 7,755 housing units⁵ (46 percent single family and 54 percent multi-family); however, there is currently one single family home and no multi-family housing in the Urban Center. The City's population grew by 45 percent during the 1990's, primarily as a result of the annexation of new areas into the City, but has slowed since 2000.

⁴ 2008 King County Annual Growth Report

⁵ U.S. Census 2010 and Washington State Office of Financial Management, 2012

The City's 20-year growth targets⁶ (through 2031) are for 4,850 new households and 17,550 new employees.



Figure 2.1 Tukwila Urban Center Boundary

⁶ King County Growth Targets and the Urban Growth Area, March 1, 2012. Update: Revised Table DP-1. Targets include Planned Annexation Areas (PAA).

Section 2.2 Background -- Planning & Regulatory Framework

Over the past decade, the City of Tukwila has been engaged in a wide range of planning activities for land use, infrastructure and environmental protection to help realize its goals for the Urban Center. These actions have followed direction provided in the Growth Management Act, King County's Countywide Planning Policies, and Vision 2040. This policy direction is summarized below to help provide the context for the Southcenter plan; the plan has been developed in response to these policies, and to market opportunities.

2.2.1 State and Regional Policies

2.2.1.1 Growth Management Act

The *Growth Management Act (GMA, RCW 36.70A)*, adopted in 1990, establishes general policies, standards and procedures for local planning and development controls to manage growth within the state's largest and fastest-growing cities and counties. The City of Tukwila is subject to the GMA's provisions, which includes preparation of a comprehensive plan and development regulations that are consistent with and implement the plan (RCW 36.70A.040). Local plans are required to contain specified "elements" or chapters which address land use, housing, capital facilities, utilities and transportation (RCW 36.70A.070). Plans may contain other optional elements, including subarea plans which are consistent with the comprehensive plan (RCW 36.70A.080(2)). The content of a subarea plan is determined by the local jurisdiction. Amendments to Comprehensive Plans are generally limited to once per year; however, the adoption of subarea plans that do not modify the comprehensive plan's applicable policies and designations may be adopted at any time ((RCW 36.70A.130(2)).

2.2.1.2 Vision 2040

Vision 2040 (Puget Sound Regional Council, amended 2009) is a regional land use and transportation strategy for King, Snohomish, Pierce and Kitsap Counties. The designation of regional growth centers, along with manufacturing/industrial centers and town centers, is a key element of the regional strategy. Regional growth centers are intended to be compact areas of high-intensity residential and employment development, with a mix of land uses including housing, jobs, recreation and shopping. Within the region, regional growth centers are targeted for high capacity transit service and investments promoting economic development (Policies MPP-DP-5 & 7). *Vision 2040* also calls for expanding the supply and range of housing in centers (MPP-H-5). *Vision 2040* designates the Southcenter area of Tukwila as one of twenty-seven regional growth centers in the four-county region.

While not specifically addressing centers, *Vision 2040* also contains goals and policies regarding designing high quality physical environments to create more livable communities, better integrate land use and transportation systems, and restore the environment (MPP-DP-33-42). Communities should also be planned and designed to promote physical, social and mental well-being to foster healthier and more active lives (MPP-DP-43 & 44, 46 & 47).

Vision 2040's transportation policies in centers call for designing, constructing and operating transportation facilities that serve all users safely and conveniently while accommodating the movement of freight and goods (MPP-T-14); improving local street patterns for walking, bicycling and transit use to enhance communities, connectivity and physical activity (MPP-T-16); and applying urban design principles in transportation programs and projects in centers and high-capacity transit station areas (MPP-T-21).

2.2.1.3 Countywide Planning Policies

The GMA requires that counties adopt county-wide planning policies to guide preparation of local plans and regulations. The *King County Countywide Planning Policies (CPPs)*, adopted by the King County Growth Management Planning Council (amended December 2012), provides this framework. The CPPs address a wide range of issues relevant to managing growth in the region, including the designation of vibrant, diverse, and compact urban communities. According to the CPPs, much of the growth in employment and new housing will occur in urban centers (DP-29). These centers are intended to provide a mix of living, working, cultural, and recreational activities. Within each center there should be a balance between jobs and housing. Each center develops its own successful urban character and should be noted for its livability, vibrancy, healthy environment, design, and pedestrian focus.

Urban Centers are designated in local comprehensive plans, consistent with criteria in the CPPs (DP-30, DP-31 & DP-32). These criteria include averages of 15,000 jobs within one-half mile of a transit center, 50 employees per gross acre, and 15 households per gross acre. Urban Centers should adopt policies to promote and maintain quality of life in the center through the following:

- a broad mix of land uses fostering both daytime and nighttime activities and social interaction;
- a range of affordable and healthy housing choices;
- historic preservation and adaptive reuse of historic buildings;
- accessible parks and open spaces;
- strategies to increase tree canopy and incorporate low-impact development measures;
- facilities meeting human service needs;
- superior urban design reflecting the local community vision for compact development;
- pedestrian, bicycle and transit use, and linkages between them;
- planning for complete streets; and
- parking management and other strategies that minimize SOV trips.

CPPs DP-11, DP-12 and DP-13 direct that each jurisdiction plan to accommodate CPP's adopted housing and employment growth targets for Year-2031. Tukwila's must plan for 4,850 new households and 17,550 new employees (includes Tukwila's Planned Annexation Areas). CPPs promote continuing to focus local investment into urban centers, as well as with planning and financial policies, to encourage growth and achieve employment targets (EC-14 & EC-15). Additional CPPs related to urban design, housing and transportation are discussed in the Land Use section of the Draft SEIS.

2.2.2 Tukwila Comprehensive Land Use Plan⁷

The City adopted its initial Comprehensive Plan complying with the Growth Management Act in 1995. The plan has been amended regularly since that time, including adoption of several subarea plans (e.g., the Manufacturing Industrial Center and the Pacific Highway/Tukwila International Boulevard area). The Comprehensive Plan contains goals, policies and implementation strategies and is organized into chapters or “elements” which address issues required by the GMA and other subjects important to the City. While the Plan’s purposes are many and varied, key objectives include (1) improving residential neighborhood quality and livability, (2) redeveloping and reinvigorating the Pacific Highway corridor and industrial uses along East Marginal Way, and (3) developing a thriving Urban Center as a true regional concentration of employment, housing, shopping and recreational opportunities.

The Southcenter area is addressed in a specific element of the Comprehensive Plan (*Tukwila Urban Center*), and its policies and implementation strategies are summarized below, along with some additional draft Plan goals and concepts relevant to the Southcenter area. The proposed Southcenter subarea plan embodies this direction.

2.2.2.1 Tukwila Urban Center Element

This element of the Comprehensive Plan provides goals, policy direction and strategies for achieving the City’s vision for its urban center. That vision seeks to capitalize on Southcenter’s regional accessibility, retain the urban center’s competitive edge and economic strength, and make it a more attractive destination over the long term. Looking out 30 to 50 years, the urban center should be a high density area with regional employment, high quality housing located in proximity to amenities, a wide range of shopping and recreational opportunities, and excellent access to and within the center for all modes of travel. Policies contemplate and encourage a number of significant changes over time, and an evolution in response to development regulations, incentives, guidelines, market forces and proactive private/public actions:

- creating districts within the Southcenter area to guide development and to achieve areas of compatible land uses, character, and form;
- developing walkable areas in the northern part of the urban center, with an intensive mix of retail, entertainment, housing, public spaces and employment;
- improving streets, pedestrian facilities and other infrastructure, and creating a pedestrian-oriented environment, where appropriate, through building and streetscape design;
- developing residential areas in proximity to water amenities and within walking distance of the rail station and new bus transit center;
- expanding and improving parks, open space and other amenities, and integrating natural features into the urban environment;

⁷ Tukwila’s Comprehensive Plan elements are currently being reviewed and updated, as required by the Washington Growth Management Act, and are expected to be adopted before action on the Southcenter Plan is taken. No changes in terms of consistency between the Subarea Plan and the updates to the Comprehensive Plan are anticipated.

- encouraging the design and construction of buildings that are a positive element in the architectural character of the area;
- reinforcing pedestrian and transit connections between activity areas, with a strong focus on the linkage between the Mall and the Sounder commuter rail station, and the Mall and Tukwila Pond;
- creating a balanced transportation system with motorized and non-motorized facilities, and excellent regional access and local circulation;
- creating a fine-grained street network that serves all modes of travel, and creating a distinct identity for major right of ways that reinforces each street's function;
- providing adequate parking, achieved through flexible regulation, strategies and programs;
- actively promoting and encouraging development and redevelopment in the Southcenter through flexible regulations, incentives, and public and private investments; and
- being sensitive to the needs of existing businesses while facilitating market-driven transitions.

The *Tukwila Urban Center* element identifies a broad range of strategies to accomplish its vision and policies, including:

- flexible zoning regulations that allow a range of uses;
- adequate building capacity through development regulations;
- development standards and incentives for housing near water amenities and within walking distance of the Sounder commuter rail/Amtrak station and the bus transit center;
- design guidelines for sites, buildings, landscaping and streetscapes;
- alternative parking strategies, such as shared parking, pay in-lieu of, and on-street parking;
- coordinated transit improvements; and
- creating an environment attractive to investment by developers.

2.2.2.2 Community Image Element

The Plan establishes a general framework for future planning and development of the City as a whole and for the Urban Center. The overall goal for the Urban Center, included in the Plan's *Community Image* element, calls for it to be characterized by economic strength, a distinct image and character, bold architectural form, and an intensive mix of uses with access to transit, public amenities and civic facilities (Goal 1.9). The mix of high intensity uses should include retail, commercial, light industrial, and residential areas adjacent to water amenities (Policy 1.9.1).

2.2.2.3 Economic Development Element

The Comprehensive Plan's *Economic Development* element identifies achieving this increased intensity and diversity of land uses as an "issue" that should be addressed through a variety of

programs -- planning, regulatory, infrastructure investment and incentives. The City's general philosophy is to sustain moderate growth; to ensure quality growth and guide it to desired areas through zoning and development regulations; and to provide capacity to meet employment targets. It identifies a range of implementation strategies to encourage economic development and consistent infill and redevelopment, which include preparation of area-wide environmental impact statements, focused public infrastructure investment, cooperative environmental remediation actions to facilitate redevelopment, and formation of local improvement districts to finance facilities.

2.2.2.4 Transportation Element

The Transportation element establishes an overall goal of moving people and goods safely and efficiently to, from, within and through Tukwila. The existing street network should be augmented by breaking up super-blocks in non-residential areas, separates traffic by function, and provides sidewalks. A level of service (LOS) standard of "E" is adopted for the urban center, except for Strander Boulevard and a portion of the Andover Park East corridor. (LOS E is defined as average delays of 55-80 seconds at signalized intersections). Strander and Andover Park East (between Tukwila Parkway and Strander) corridors have an adopted LOS standards of "F" with an average delay not to exceed 120 seconds. (LOS F is defined as average delays of greater than 80 seconds at signalized intersections). Increasing transportation choices such as transit use, rideshare, and pedestrian and bicycle facilities should be priority measures considered to mitigate impacts of development to street capacity. After considering those priority measures, consideration should be given to signal improvements, other street capacity improvements, and street widening as a last resort.

The Plan encourages the expansion of public transit service as a means to reduce auto trips. Other relevant recommendations include pursuing a multi-modal transit center in conjunction with the Tukwila Commuter Rail/Amtrak station in the urban center with connections to the Mall; pursuing a pedestrian/bicycle route linking the Mall to the Tukwila Commuter Rail/Amtrak Station; supporting the implementation of a light rail route with service to the Urban Center via the transit bus center and the Tukwila Commuter Rail/Amtrak Station; pursuing a pedestrian-friendly bus transit center on Andover Park West; pursuing an Urban Center circulator service connecting the rail station, the bus transit center, businesses and attractions within the Southcenter area; and establishing mode-split goals for significant employment centers. Sources of funding for transportation improvements to maintain adopted LOS standards should include grants, mitigation payments, and general city revenues.

2.2.3 Tukwila Strategic Plan (2012)

The Strategic Plan is intended to guide City actions and investments for the next five to ten years. The Plan is comprised of the Community Vision and five goals that describe the desired future of Tukwila. Two of the goals directly relate to the City's urban center, Southcenter:

Goal One: A Community of Inviting Neighborhoods and Vibrant Business Districts, recognizes the City's commitment to making its business districts more vibrant as key to advancing other of the Plan's aspirations. Making the community safe and visually attractive with inviting and

appealing spaces attracts more shoppers and employers, supporting the business districts and strengthening the tax base. City planning and investments are directed towards supporting the City's role as a major regional shopping and employment center, making the City more accessible to bikers and walkers, and advancing plans for the Southcenter area, among other efforts.

Goal Three: A Diverse and Regionally Competitive Economy stresses that by maintaining a strong economy, the City will be able to provide quality services to residents, infrastructure for neighborhoods, jobs, and shopping options. The City must protect and strengthen its economic assets and regional role in the face of changing tastes, regional and global economic forces, and competitive moves by other communities. Tukwila and its businesses must be proactive and innovative to maintain and increase market share, employment levels, and City services.

2.2.4 Existing Zoning

The entire Urban Center is located within the "Tukwila Urban Center" (TUC) district on the City's zoning map. This classification currently provides an area for high intensity regional uses, including commercial services, offices, light industry, warehousing and retail (TMC Chapter 18.28). The existing zoning code lists more than 50 uses that are permitted outright, as well as a number of accessory conditional and unclassified uses. Development standards include modest setback and landscaping requirements, and a 115-foot height limit for structures. Housing is conditionally permitted: 1) up to a density of 22 dwelling units per acre on property adjacent to and within 500 feet of the Green River, Minkler Pond and Tukwila Pond (100 du/acre for mixed-use senior housing); and 2) up to 65 dwelling units per acre (as a mixed-use development that is non-industrial in nature) on property adjacent to and not greater than ¼ mile from the Sounder Commuter Rail/Amtrak Station property. Recreation space is required for housing units. Performance standards are established for air quality, noise, water quality, and hazardous materials.

Design review is required for all commercial structures larger than 1,500 square feet, and all buildings containing multi-family units. Depending on the size of the proposal, design review may be administrative or by the Board of Architectural Review. Commercial structures between 1,500 and 2,500 square feet and multifamily structures up to 1,500 square feet are reviewed administratively. Design review is also required for certain exterior repairs, reconstructions, alterations, or improvements to buildings over 10,000 square feet in size. The code contains design standards (TMC 18.60.050) which are based on the type of use; they are not specific or tailored to the urban center.

Section 2.3 Southcenter Plan Background

The process and background analyses used to develop the Southcenter Plan are described below.

2.3.1 Southcenter Planning Process

Tukwila began preparing the Urban Center plan in 2002 and considered a range of alternatives throughout the planning process. The process included numerous public workshops and meetings with stakeholders. Between May 2002 and March 2003, public work sessions with the City Council and Planning Commission focused on developing an understanding of the market forces and forecasts, land use relationships, and transportation system in the Southcenter area.

Between May 2003 and February 2004, the City held eight public workshops to gather public comment. Public comments were used to craft and then to evaluate preliminary land use alternatives, and to develop a “preferred alternative” for the Southcenter area. The City Council directed staff to prepare the draft plan after reviewing the recommended vision and implementation strategy alternatives at a joint Council/Planning Commission work session in May 2004. In 2005, the Urban Land Institute convened a Technical Advisory Panel to review the implementation aspects of the draft TUC Plan, with the intent of providing an objective critique from a variety of public and private perspectives, including real estate, marketing, financing, and development. From 2005-2008, city staff “tested” the draft regulations on retail and office developments projects proposed in the Southcenter area to help fine-tune the regulations.

In October 2008, the City held another public open house and a joint Council/Planning Commission work session to affirm the vision for the area and to reintroduce the draft plan concepts. In 2009, a draft Plan was published consisting of three “books”. Book I contained the community’s intent of vision for the area, Book II the implementing development standards, and Book III contained potential city actions⁸. The City initiated a broad public outreach program prior to the Planning Commission’s review of the 2009 draft Plan. Comments were gathered during public hearings between March and May 2009. The 2009 draft Plan was then remanded to staff for revisions, primarily to address economic feasibility concerns related to the vision and development regulations. In September 2009, consultant-led focus groups discussed the concerns with local and regional developers, local property owners and managers, and Westfield Mall representatives. As part of their study, the consultants evaluated the market for proposed redevelopment and provided a financial analysis to identify potential adjustments to the 2009 draft plan and development regulations to assure that the vision in the draft plan could be implemented.

Between 2010 and 2011, staff met internally with city departments to discuss changes to the draft Plan, and with individual property and business owners to discuss their specific concerns. In March 2011, the City Council directed staff to reduce the project scope and revise the 2009 draft

⁸ The 2009 draft Plan was almost identical to the current *draft Southcenter Subarea Plan* in the community’s vision, focusing on basic concepts such as the Mall to Station connections, and recognizing the role that the market plays in redevelopment. However, the earlier version took a much more aggressive regulatory approach towards implementing the vision while the most recent draft *Southcenter Subarea Plan* uses a phased approach with regulations and developer incentives. The 2009 version was closer to a true “form-based code” (i.e., emphasizing urban form and design rather than zoning districts to regulate land use and achieve a desired vision) than the more recent draft *Southcenter Subarea Plan*, which is more of a hybrid approach blending conventional zoning with a form-based structure.

planning documents. Staff worked on revisions to the draft documents, reorganized the 2009 draft Plan into three stand-alone documents, and updated comprehensive plan goals and policies in the TUC Chapter. From January to October 2012 the City held a public open house, a planning commission public hearing, and four Planning Commission work sessions on the draft documents. The Planning Commission preliminarily recommended adoption of the Comprehensive Plan updates, the revised Southcenter Subarea Plan, the revised TMC Chapter 18.28, and the Southcenter Design Manual at their October 25, 2012 meeting.

Since that time, the City contracted with a consultant to edit and reformat all of the Comprehensive Plan elements, which are being updated as required by the state's Growth Management Act. As a result of this review, staff revised the goals and policies contained in the Planning Commission recommended draft of the *Southcenter-Tukwila's Urban Center* Comprehensive Plan Element. The revisions were minor, consisting of wordsmithing and technical edits to increase clarity and readability, and streamlining the document by deletion of goals, policies and implementation strategies that are redundant of those contained in other elements of the comprehensive plan, such as those related to transportation. The Planning Commission reviewed these changes at a May 21, 2013 worksession, and formally approved the draft *Southcenter – Tukwila's Urban Center* Element after a public hearing May 23, 2013. The City Council held a public hearing on August 12, 2013 and will likely adopt the Planning Commission recommended draft Element in the fourth quarter of 2013.

To ensure consistency between the Comprehensive Plan elements, the SEIS, and the Southcenter Subarea Plan documents, the anticipated sequence of actions from this point forward are as follows:

- The Draft SEIS on the Urban Center Plan is likely to be issued prior to the adoption of the *Southcenter-Tukwila's Urban Center* Comprehensive Plan element revisions by the City Council.
- After the Draft SEIS is issued, the Planning Commission's preliminary recommended draft Subarea Plan, revised TMC Chapter 18.28, and Southcenter Design Manual will be revisited by the Planning Commission along with the Draft SEIS. The draft Subarea Plan documents will include any additional improvements or mitigation measures identified during the SEIS review process.
- The Final SEIS on the Urban Center Plan is anticipated to be issued in the 4th quarter of 2013, although timing is dependent on the content of the comments received on the Draft SEIS.
- The Planning Commission's recommended versions of the draft Southcenter Plan, revised TMC Chapter 18.28, and the Southcenter Design Manual will likely be reviewed and adopted by the City Council early in 2014.

2.3.2 Background Studies

2.3.2.1 Market Analysis

A market analysis was prepared in 2002 to identify the urban center's current market position and its constraints and opportunities. Major findings were that market demand for retail uses, light industrial, and warehousing would likely remain strong through 2020, due to the urban

center's existing strength in these sectors and its strategic location. The office market was seen as "competitive" due to the over-supply of space existing at that time (but since reduced substantially). A viable potential for multifamily housing was identified, based on strong growth in the region, and a trend to locating housing in mixed-use areas. Market issues relative to housing in the Southcenter area included high land prices favoring retail versus housing projects, traffic, and impacts associated with the surrounding suburban land use pattern. High land prices would also generally push development towards higher densities and structured parking.

In general, the market analysis concluded that much of the northern portion of the subarea – from Strander Boulevard to Tukwila Parkway – was vulnerable to change in the near term (next 6 to 8 years). The area between Tukwila Pond and Minkler Boulevard was also seen as susceptible to change from market pressures. Since that time, there has been significant redevelopment of warehouse/industrial properties and parking lot area to retail, services and restaurants south of the Pond and north of Strander Boulevard.

In December 2009, after the initial round of Planning Commission public hearings, the market analysis was updated to focus on the ability to implement the Plan's vision. In general, the analysis concluded that while the draft Plan's vision of a more urban, mixed-use neighborhood was a desired outcome for most stakeholders, the 2009 draft Plan and development code required a type of development that was not financially viable at the time because of uncertainty in financial markets. However, given the comparative advantages of the Urban Center, the vision may be achievable once the market returns; but this would likely occur in phases over a period of time, and only with significant, targeted public investments to catalyze and support the desired type of development. The analysis recommended specific changes to the draft 2009 development code related to organization, thresholds that trigger compliance, parking, height and frontage requirements, and fire code, and also recommended employing more incentives. Recommendations also identified actions and tools the City could use to form and implement a redevelopment strategy for the Southcenter area. These recommendations were included in the current Southcenter Subarea Plan.

2.3.2.2 Transportation Studies

In 2005, the City updated the traffic model and Transportation Element of the Comprehensive Plan, developed a Transit Network Plan, and adopted Transportation Impact Fees and a Concurrency Ordinance. In 2012, updates were again made to the City's transportation model and Transportation Plan based on the proposed land use scenario in the 2012 draft Southcenter Plan and the allocation of King County household and employment targets to areas within the City. This process resulted in identification of transportation improvements needed to support planned growth; these are described in the Transportation section of the Draft SEIS. Improvements would be financed through a combination of public funding, traffic impact fees, developer agreements, and project-specific mitigation measures and conditions of approval.

Section 2.4 Proposed Action & Alternatives

As part of the subarea planning process, two land use alternatives were considered that express different choices the community can make for the future of its Urban Center. A third land use alternative is the “No Action” alternative, which is required by SEPA (WAC 197-11-440(5)(b)(ii)). For Tukwila’s Urban Center, the No Action alternative comprises continuation of the current development regulations (amended October 2012); the subarea plan, revised zoning code, and new design guidelines would not be adopted.

2.4.1 Proposed Action: Southcenter Plan & Development Regulations

The Southcenter Plan is primarily a strategy and roadmap for restructuring, reorganizing and redeveloping the Urban Center over time. It builds on the policies contained in the City’s Comprehensive Plan. It would be implemented through a variety of public and private actions, with the guidance of new development regulations. A summary of the draft Plan’s major themes and elements follows below.

2.4.1.1 Southcenter Plan - Vision, Major Themes & Elements

The vision of the Southcenter plan, which echoes the goals of the City’s Comprehensive Plan, is based on the following objectives:

- Bolster the Urban Center’s market share and position as the primary regional shopping center for South King County by creating an attractive central destination offering shopping, entertainment and recreation. Connect dispersed retail activities; provide a convenient, walkable, enjoyable and varied shopping environment.
- Establish a planning framework that insures that each new increment of new investment adds to the long term sustainability of Southcenter as a part of the city and region.
- Encourage the eventual redevelopment of underutilized properties and oversized parking lots into a pattern that connects the project areas’ key anchors and overlooked amenities to each other and to new infill commercial, residential and public spaces.
- Substantially enhance the walkability of the northern portion of the Southcenter area, augmenting the exclusively auto-oriented environment with pedestrian amenities, transit and bicycle facilities.
- Stimulate pioneering residential and office development in walking distance of the Tukwila Sounder commuter rail/Amtrak station and the Southcenter bus transit center, and ensure this development is configured to provide safe and comfortable pedestrian routes to and from the stations and other Urban Center destinations.
- Enhance the convenience, visibility, accessibility and visual character of the transit infrastructure in the Southcenter area, and integrate it with the new pattern of development in the Urban Center.
- Realign policies conditioning development in the Urban Center with contemporary consumer and investor preferences, resulting in buildings and spaces that contribute to an

identifiable sense of place and attract new types and forms of development envisioned by the community.

- “Unearth” Tukwila Pond, restoring, where necessary, its natural health and beauty, and featuring it prominently as an amenity that enhances the identity and drawing power of the Southcenter area.
- Enhance the visual character of the Urban Center to reflect the special landscape and architectural heritage of the Pacific Northwest region.
- Manage expected growth in a sustainable way, ensuring that the regional benefits of growth management do not come at the expense of livability, by focusing growth and density in environmentally suitable areas and adequately servicing it with improved infrastructure, including non-motorized facilities, transit and enhanced access to parks and natural features.

The Southcenter Plan provides guidance for restructuring and transforming the Urban Center from an area with a dispersed, unconnected, and auto-dominated land use pattern, with generally undistinguished design, hidden amenities and no real center, to a vibrant mixed-use center that is organized, connected, and pedestrian-oriented, and which is well-designed around its amenities. Change is expected to be evolutionary, driven by market forces, catalyst public projects, and the guidance of new development regulations and design guidelines.

The strategic components of the plan’s vision, and the use pattern that is envisioned, are summarized in the following themes:

District Structure – From sprawling commercial area to urban center

The Southcenter area would be generally organized into a pattern of five “districts,” each with a distinct identity and mix of uses (See Figure 2.2 Evolution of Envisioned District Structure and Figure 2.3 District Map). Each district is based on an existing development element (such as Westfield Mall), an amenity (e.g., Tukwila Pond), a public facility (the Sounder Commuter rail/Amtrak station), or the dominant land use (warehouse & industrial in the Workplace District). District size and layout are influenced by identified market opportunities, circulation connections, walking distance and nearby amenities. The five districts and their anticipated characteristics are as follows.

Regional Center District: The northwestern quadrant of the Urban Center would be comprised primarily of retail uses centered on the Westfield Southcenter Mall. This is the primary shopping and entertainment destination and the centerpiece of the Urban Center. Redevelopment would occur in conjunction with proposed expansion of the Mall. Over time, targeted public investments combined with market-driven infill may instigate new development, which will be increasingly characterized by a pattern of walkable-scaled city blocks with key street frontages lined with visible storefronts and active sidewalks. Retail stores in mixed-use buildings may line landscaped streets within and adjacent to the mall. Upper floors could contain offices, homes, or hotel rooms. To foster a more enjoyable pedestrian walking experience, parking may be located to the side or rear of a building, between the building and primary street in limited amounts, and could

eventually be located in parking structures. Building heights would range from 25 to 85 feet; building heights of 115 to 214 feet could occur in areas with height incentives.

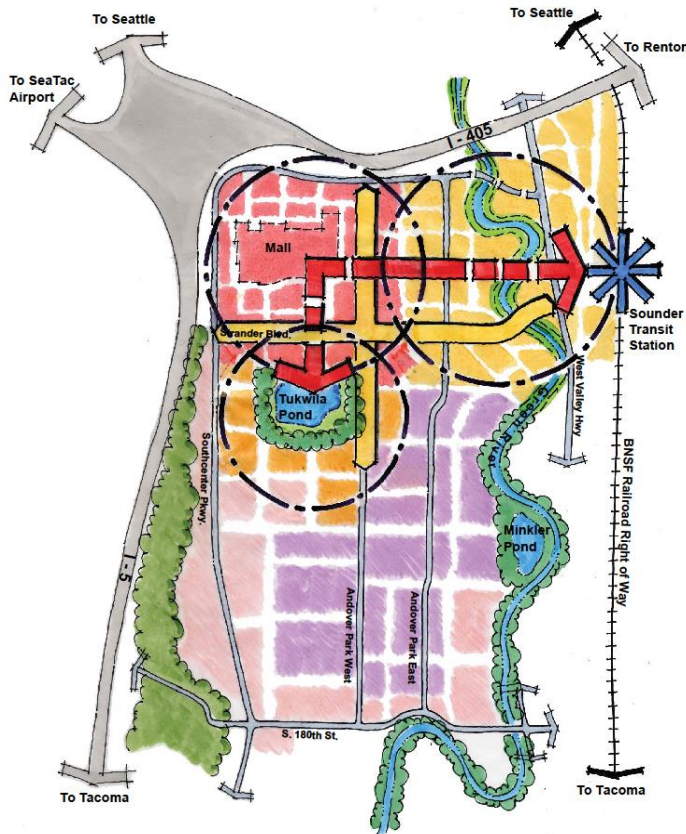


Figure 2.2 Evolution of Envisioned District Structure

Southcenter encompasses a relatively large area containing a wide variety of uses. To create a more coherent urban form and enhance the Center's long-term competitive edge within the region, the City intends to guide development and change to create distinct areas where the character, forms, types of uses and activities benefit, complement, and support each other. (*City of Tukwila Comprehensive Plan*)

Transit Oriented Development (TOD) District: The TOD District is located between the Regional Center and the Sounder commuter rail/Amtrak station, and has the Green River running through the middle. The area is within convenient walking distance of both the Sounder/Amtrak rail station and bus transit center. Within the area, building heights would range from 25 to 45 feet, or 70 feet with proposed height incentives. Greater development intensities and building heights would occur closer to the station, and lower-rise buildings would locate along the river, transitioning again to higher development intensities and heights where the district overlaps with the edges of the Regional Center.

The TOD neighborhood is an urbanized area with a mix of high density residential, office, lodging, and some retail uses. A growing network of streets, public spaces and pedestrian connections will provide a fine-grained scale to the district, resulting in small pedestrian scaled blocks. Parking will be located to the side or rear of buildings, in limited amounts between the street and building, or in structures. Along the riverfront, new uses may be oriented towards the river.

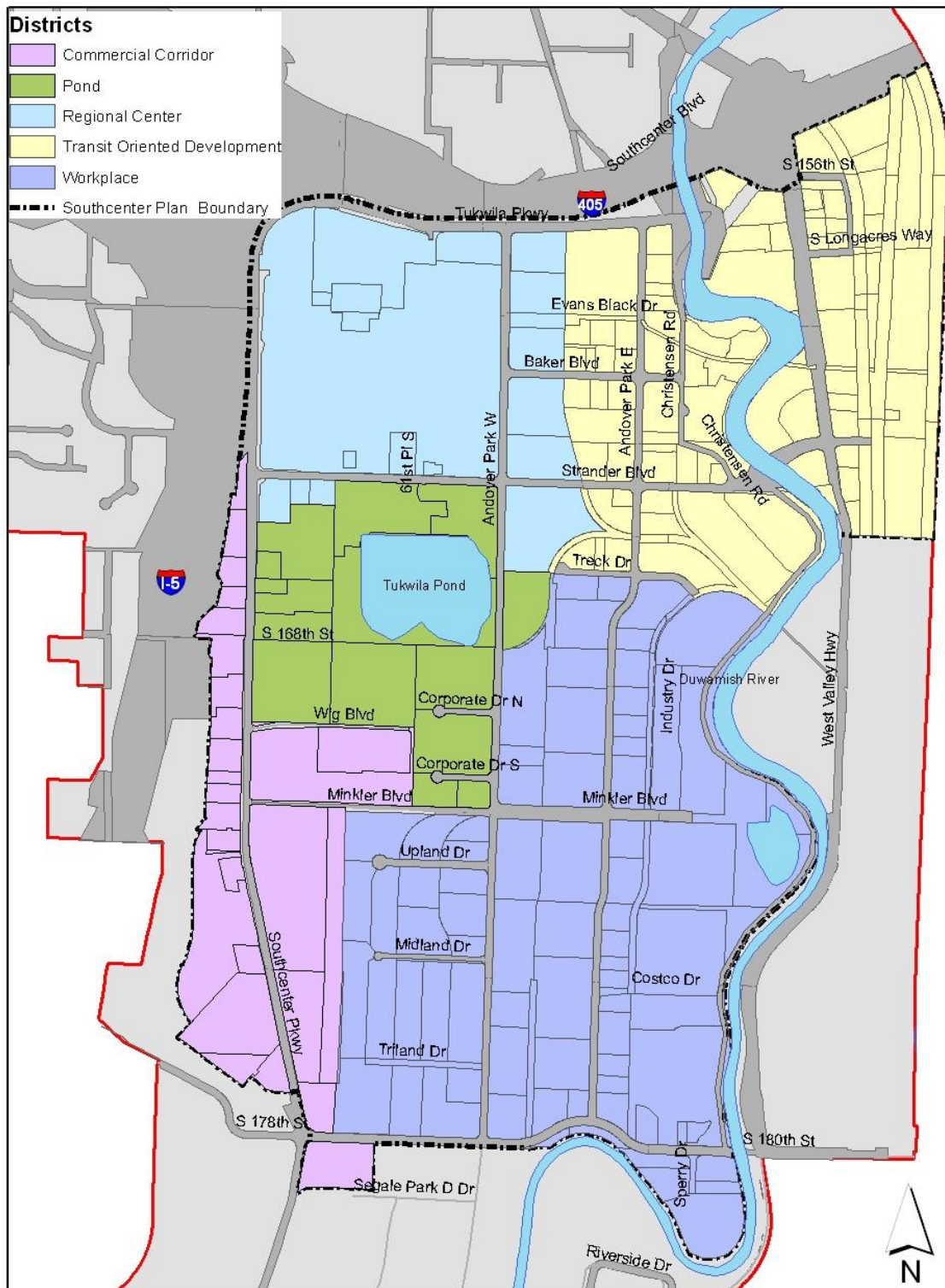


Figure 2.3 District Map

Uses would consist of a mix of housing (townhouse and low-rise multifamily), office, lodging and supportive retail and service uses. A new pedestrian bridge across the Green River will provide a more direct connection between the Sounder commuter rail/Amtrak station, and the TOD and Regional Center Districts, and a new east-west pedestrian-oriented corridor along the Baker Boulevard alignment will complete the walkable connection between the Mall/bus transit center and the Sounder/Amtrak rail station. As the area's primary walking corridor, Baker Boulevard will be lined with a mix of active uses in buildings located adjacent to the sidewalks to provide a pleasant pedestrian realm along the primary street leading to the stations. Parking will be located to the side or rear of buildings along Baker Boulevard.

East of the river, railroad lines, and underground and overhead utilities currently present obstacles to redevelopment. However, a commitment by Sound Transit to support transit oriented development on the existing station site could be a catalyst for new residential and office development oriented to the rail station. Drive-through facilities or services in the TOD district would only be allowed east of the Green River.

Pond District: The Pond would be transformed into a visual and recreational amenity. New mixed-use development in this district would be oriented towards Tukwila Pond, with active doors and windows facing the water. Pedestrian pathways would surround the Pond and provide connections to adjacent districts. Building heights in this district would be a maximum of 45 feet, or 70 feet with height incentives; building heights would step down toward the water. Along the northern edge of the Pond, development would take a more urban form, with retail, restaurants and entertainment on the ground floor focused toward a paved waterfront esplanade. Upper stories will likely include residential units, offices and/or hotel rooms. A more natural park environment will characterize development on the eastern, western and southern edges of the Pond, preserving habitat for pond wildlife. Drive-through facilities or services would not be allowed. Parking will be located to the side or rear of buildings, in limited amounts between the street and building, or in structures.

Commercial Corridor District: This district will continue to function as a predominantly auto-oriented commercial strip along Southcenter Parkway, with retail (some large-scale), service, lodging, and office uses. Drive-through facilities will also be permitted to locate here. The district would retain its auto orientation, but its appearance would be improved through streetscape improvements, landscaping, improved signage and improved architectural design. Building heights would be a maximum of 45 feet. Parking would be permitted to the front, side or rear of buildings, or in structures.

Workplace District: This district, which comprises approximately 1/3 of the overall Southcenter area, is located in the southern portion of the Urban Center, and is characterized by larger-scale light industrial and warehousing and distribution activities, some of which provide support for other Southcenter area activities. These uses are anticipated to continue. Street improvements, made in conjunction with new development, will better connect and coordinate access and circulation. Similar to the Commercial Corridor district, the Workplace district would retain its existing auto

orientation, but its appearance would be improved through streetscape improvements and landscaping. Underutilized properties along the Green River may take advantage of their unique location along the water and Green River Trail, and redevelop with housing adjacent to this amenity. Building heights would be a maximum of 45 feet; buildings could reach 70 feet on parcels adjacent to the River using the multifamily height incentive. Parking would be permitted to the front, side or rear of buildings, or in structures.

Street Network – from superblocks to a fine-grained pattern of streets and blocks

As redevelopment occurs, an increasingly fine-grained network of new blocks and interconnected streets will emerge to accommodate the intensification of the Southcenter area. New streets will increase roadway capacity, improve circulation, and make walking and bicycling a more viable alternative, particularly in the northern part of the urban center. Streets will be designed to support the uses they serve. Private development lining these streets will have building frontages that match the street type, with appropriate orientation, setbacks, entrances, and parking lot locations.

Transit integrated with urban center development

Development around the rail station and bus transit center will be oriented to these facilities and contribute improvements that incrementally add to the network of safe, walkable and complete street environments, thereby promoting and supporting transit ridership. The bus transit center located at the edge of the Mall property on Andover Park West will be connected to the permanent Commuter Rail/Amtrak station along a street designed for walking (Baker Boulevard), making the stations the focal points of the area's circulation network. In addition, these transit anchors will be linked by local and regional bus service, and ultimately, "people movers" such as small buses.

Integration of the natural and recreational amenities with the emerging Urban Center

The emerging "public realm" of Southcenter will be increasingly distinguished by open spaces, plazas, and parks that will be connected to the Interurban and Green River Trails and the natural amenities of the urban center – Tukwila Pond, Minkler Pond and the Green River. New public and private investment will "unearth" Tukwila Pond and focus on improving water quality, preserving its natural habitat for plants and animals, and creating a loop trail around the Pond for people to use.

Building, Site and Infrastructure Design – Create a great space

Design guidelines will ensure that the design quality of buildings, sites, streets and utilities contributes to the community's identity and sense of place. These elements will be designed to support the overall vision for a high-quality civic environment. No specific architectural or landscape style is mandated, however, a characteristic style that features a mix of contemporary and Northwest-inspired elements will be recognizable. This includes the use of exposed natural materials, and building elements that respond to the area's climate. The Urban Center's

development regulations and design guidelines will contain enough flexibility to allow for innovative thinking and responding to emerging opportunities. Large mega-blocks will be broken up with an internal street system, pedestrian connections will be put in place from the sidewalk to buildings set back from the street edge, and building facades will be designed to match street types.

2.4.2 Southcenter Redevelopment Strategy

To orchestrate growth and change in Southcenter that is in keeping with the community's vision and redevelopment objectives, the Southcenter Plan promotes guiding new investment by intertwining regulatory control with the strategic investment of limited public resources.

The City's strategy is to move forward with transitioning to a more urban form in phases. This phased strategy would lead by targeted public investments and implementing a set of regulations that condition redevelopment and result in incremental changes to the urban form that are in alignment with the community's long term vision. Over time, these changes will serve as a framework, catalyst, and attractor for the types of development envisioned for the urban center.

The Southcenter Subarea Plan redevelopment strategy pairs objectives with corresponding implementation measures for redevelopment and public investment over time. These measures then form the basis for the standards and guidelines contained in the revised TMC Chapter 18.28 and the Southcenter Design Manual. The objectives and initial implementation measures are organized by: future investments, transit oriented development, mall-to-station, circulation, open space, and design.

2.4.2.2 Redevelopment Assumptions

The majority of development within Southcenter over the next 20 years will be driven by economic and market conditions and public investments, likely resulting in renovations and expansions of existing buildings rather than entirely new construction. Consistent with the subarea plan's strategy and priorities, it is assumed that development to 2031 would be focused in the northern portion of the urban center, including the Regional Center, TOD, and Pond Districts. Development is assumed to consist of a combination of mixed-use, retail, office, and residential uses.

Transit-oriented development adjacent to the rail station would occur through redevelopment and infill of vacant parcels. Public and private investments in a new street network, urban amenities (e.g. parks and plazas), and streetscape improvements will create connections between districts in the urban center. Incremental and scattered redevelopment or infill of industrial or retail land uses in other portions of the urban center would also occur by 2031.

As noted previously, the Urban Center will redevelop in response to market and economic conditions, helped along by city-initiated public improvements, and bounded by the framework provided by the subarea plan, development regulations, incentives and design guidelines. The exact timing, rate and location of development cannot be identified precisely. Redevelopment and infill could occur anywhere within the Urban Center.

Table 2.1 depicts the amount of development (housing units and employment) within the City of Tukwila that is assumed to occur by Year 2031 and was used as a basis for the evaluation of adverse environmental impacts in the SEIS.

Table 2.1 City of Tukwila Forecasted Growth Year-2031

Type of Growth	Amount Citywide⁹
Additional Housing Units	4,850
Additional Employment	27,701 ¹⁰

Source: King County Countywide Planning Policies (amended 12.3.2012) and Fehr & Peers (2013)

Some expansion and redevelopment of parcels would occur with or without the draft Subarea Plan. Development associated with known proposed or vested but not yet constructed “pipeline” projects are identified below in Table 2.2.

Table 2.2 Assumed Urban Center Pipeline Projects

Project/Type	Southcenter District	Square Feet	Units	Status
Mixed-use Hotel/Condo project	TOD		170 guest rooms; 300 du	Pipeline
Westfield Mall Expansion	Regional Center	300,000 retail 200 room hotel 200,000 office		Pipeline
Tukwila Station Mixed-use	TOD	5,000 retail	300 du	Vested & Development Agreement expired
Home2 Suites	Workplace District	71,760		Vested
3 Pads on Mall site - Restaurants	Regional Center	14,934		Vested
Olympus Spa	TOD			Pipeline

Source: City of Tukwila, August 2013

⁹ Includes Potential Annexation Areas (PAAs)

¹⁰ The transportation analysis is based on a larger number of anticipated additional employees in 2031, and therefore is more conservative.

2.4.2.3 Draft Development Regulations and Design Guidelines

The Southcenter Plan would be implemented by development regulations that are specific to the Tukwila Urban Center and are intended to encourage the type and form of development envisioned by the Plan's vision, themes and strategy. The revised zoning code and new design guidelines are, in effect, mitigation measures that would avoid, reduce or minimize potential impacts of future development within the Southcenter subarea and would not, in themselves, generate any adverse impacts. The regulations include the following documents:

TMC Chapter 18.28 Tukwila Urban Center (TUC)

This chapter defines the categories of regulations, performance measures and guidelines that will apply to all properties within the TUC:

District Standards include:

- 1) regulations governing the use of a building or site;
- 2) regulations addressing scale (such as minimum and maximum building heights and maximum block size) that vary by district. Scale regulations ensure that the height of new buildings and scale of new blocks are consistent with the scale of each district, and help to establish a finer grained network of blocks and streets;
- 3) the configuration of the built environment (such as setbacks, open space, and landscaping requirements); and
- 4) provisions allowing greater heights for structures using multifamily and public frontage improvement height incentives.

Corridor Standards govern thoroughfare configuration, public frontage conditions, building and parking placement, front yard landscaping, and some architectural aspects of a building's façade. These regulations are organized by corridor type, and ensure that the configuration, location and orientation of new development match the envisioned character of the public realm along all streets and open spaces in the Urban Center. Architectural design regulations address building modulation and transparency of the façade.

Supplemental Development Regulations include regulatory definitions, requirements, and guidelines common for all properties in Southcenter, addressing front yard encroachments, special corner features, new streets configurations and guidelines, open space, landscaping, site components, and parking.

Open space and *parking requirements* are organized by subarea plan district. Publicly accessible open space is required for most types of development. Requirements may be satisfied through provision of new streets or public ways. Minimum requirements are identified for parking in the TOD, Pond, and Regional Center districts – these are lower than the parking ratio currently required because of the proximity to high capacity transit and the potential for shared and complementary parking. In the Workplace and Commercial Corridor districts, current parking requirements remain in place.

Design Review is also required and may be administrative or through the City's Board of Architectural Review, depending on the type and scale of project. Projects located in the Regional Center, TOD, Pond, or Commercial Corridor districts, or residential projects located in the Workplace district, and meeting the thresholds for design review are evaluated using the corridor based architectural design regulations in the revised TMC Chapter 18.28 and the guidelines in the *Southcenter Design Manual*. Commercial projects located in the Workplace district and meeting the thresholds for design review are evaluated using the corridor based architectural regulations in the revised TMC Chapter 18.28 and the existing design criteria in TMC 18.60 Board of Architectural Review.

Southcenter Design Manual

The Southcenter Design Manual contains regulations and guidelines on site and building design. The guidelines are intended to support and complement the community vision described in the Southcenter Subarea Plan, and supplement and expand upon the design requirements found in TMC Chapter 18.28 Tukwila Urban Center (TUC) zoning standards.

The Manual is organized by design topic, addressing: 1) architectural aspects of a building including massing, composition, design, style, elements, and character to ensure that new and renovated buildings embody architectural characteristics that maintain the desired human scale, rhythm, and urban character; and 2) aspects of a site, including design, lighting, and walls and fences.

2.4.2.4 Other City Codes

The regulations and provisions of the entire Tukwila Municipal Code (TMC) as adopted, such as those related to noise, building and fire, and sensitive areas, will continue to apply to development within the Urban Center.

2.4.3 High Intensity Alternative

The High Intensity Alternative is very similar to the Proposed Action. This alternative would implement the vision for the Southcenter area and accommodate the same forecasted housing and employment targets, but would allow the construction of taller buildings if employing a minimum of two height incentives – up to 115 feet anywhere within the TOD District - than those allowed under the Proposed Action. No additional increment of growth is assumed to occur under this alternative. On balance, the year-2031 growth targets would still express the overall level of growth for the subarea. The Southcenter Subarea Plan and other aspects of the implementing regulations would remain the same, and regulations and provisions of the entire Tukwila Municipal Code (TMC), such as those related to noise, building and fire, and sensitive areas, would continue to apply to development within the Urban Center.

2.4.4 No Action Alternative

A *No Action* alternative is required by SEPA (WAC 197-11-440(5)(b)(ii)). No Action provides a “baseline” for comparing the impacts of the proposal. Relative to the Urban Center, No Action assumes that the Southcenter Subarea Plan, revised development regulations and new design

guidelines would not be adopted. The existing regulations, design guidelines and design review thresholds in TMC Chapter 18 would continue to apply to future development.

Year 2031 household and employment targets for the City are assumed to be the same as for the subarea plan, and growth would occur in response to operation of market forces. However, based on recent economic trends and job declines, less commercial growth and very limited residential growth is likely to occur in the Urban Center without City investments in public improvements, or without revised regulations and development incentives that would work towards creating a high quality Urban Center. Also, growth in competing retail-entertainment centers in the Puget Sound region will likely cut into Southcenter's market share of retail spending. As with the other two Alternatives, internet shopping may also slow demand for retail space.

Residential development would be less likely to occur in the Urban Center, since the areas of the City where housing is permitted would not be expanded and the types of coordinated investments needed to attract pioneer residential developers would not occur. Consequently, Tukwila's 2031 household targets (from the King County CPPs) could not be accommodated based on existing zoning. However, there would likely be greater pressure for redevelopment and infill in existing residential neighborhoods in other parts of the City.

Redevelopment would occur project-by-project without the guidance, controls or incentives provided by the subarea plan and regulations. Differentiation of the Urban Center into coordinated districts with harmonized development would not occur without the proposed development regulations. There would be no concerted or coordinated public investments in parks, amenities, and infrastructure to act as catalyst for redevelopment. Design guidelines would be minimal and not tailored towards achieving a more urban environment that integrates districts, development and their surroundings. The suburban development pattern would continue and the City would not achieve regional goals and targets for an urban center.

SEPA review would also occur project-by-project, without the benefit of a cumulative analysis of Subarea impacts as a whole.

Section 2.5 Environmental Review

2.5.1 SEPA Review for Subarea Plans (RCW 43.21C.420)

The provisions of the State Environmental Policy Act (RCW 43.21C) provide GMA jurisdictions with valuable planning and implementation tools. A new approach to SEPA review, set forth in RCW 43.21C.420, may be used by cities with a population greater than 5,000, who are planning under the GMA, and include an urban center designated by a regional transportation planning organization or are proximate to a "major transit stop" as that term is defined by the statute. These cities, which includes Tukwila, may prepare a nonproject environmental impact statement that assesses and discloses the probable significant adverse environmental impacts of a subarea plan, adopted as an optional comprehensive plan element, and associated development regulations, and of future development that is consistent with the plan and regulations.

Completing a nonproject EIS for a subarea plan allows a city to comprehensively consider area-wide, cumulative environmental impacts and appropriate mitigation over an extended time horizon, rather than evaluating impacts and on a project-by-project basis. Future project-specific development proposals that are consistent with the subarea plan and development regulations do not require individual SEPA review and cannot be challenged administratively or judicially pursuant to SEPA. As such, the nonproject SEIS provides certainty and predictability for urban development proposals, by streamlining the environmental review process within the subarea and encouraging the goals of SEPA and the State's Growth Management Act (Chapter 36.70A RCW).

Under RCW 43.21C.420, a proposed development will not be subject to project-specific SEPA-based administrative or judicial appeals if it: (1) is situated within the Urban Center area; (2) is consistent with the subarea plan and associated development regulations; (3) meets any established conditions or mitigation; and (4) have had its probable significant adverse impacts identified in the SEIS prepared on the plan and development regulations. If an implementing project is determined to satisfy the criteria, no further environmental review is necessary. Additional environmental review may be required, however, if a proposal fails to meet any of the criteria.

To meet the procedural requirements of RCW 43.21C.420(4)(b) and (d):

- The City of Tukwila held a community meeting on the proposed Subarea Plan on February 27, 2013. Notice of the community meeting was mailed and posted on land use signs on February 12, 2013.
- The City of Tukwila issued a Determination of Significance (DS), Scoping Notice for the Southcenter Plan and associated development regulations, and Notice for a Scoping Meeting on March 8, 2013. The scoping comment period was March 8, 2013 to April 8, 2013, and the scoping meeting was held on March 20, 2013 to gather public comment.
- The above notices were mailed to: 1) all property owners of record within the Urban Center; 2) all property owners within 100 feet of the Subarea boundary; 3) the Muckleshoot and Duwamish tribal governments; 4) local, state and federal agencies with jurisdiction over the future development anticipated within the Subarea; 5) adjacent school and library districts; 6) the Cities of SeaTac, Renton, and Kent; and 7) interested parties. Notice included general illustrations and descriptions of the buildings generally representative of the maximum building envelope allowed in each district. Notices were also posted on land use signs located in six different locations on major travel routes in the Subarea.

2.5.1.1 Transfer of Development Rights (TDR)

RCW 43.21C.420(4)(g) also states that as an incentive for development, a city shall consider establishing a transfer of development rights program in consultation with the county where the city is located, that conserves county-designated agricultural and forest land of long-term commercial significance. If the city decides not to establish a transfer of development rights program, the city must state in the record the reasons for not adopting the program.

Currently, the City of Tukwila is studying the feasibility of implementing a TDR program. The City is considering certain conditions, such as any TDR used in Tukwila must originate from lands with important public benefits, for example farmland, forestland, open space, or wildlife habitat, in the South King County region, preferably in proximity to Tukwila.

If the City decides not to adopt a TDR program, the decision is not subject to appeal. Nothing in RCW 43.21C.420 (4)(g) may be used as a basis to challenge the optional comprehensive plan or subarea plan policies authorized under this section.

2.5.1.2 Prior Environmental Review & Adopted Development Regulations & Plans / Scope of Supplemental EIS

The City reviewed the existing environmental documents, plans and development regulations summarized below to help determine the type and scope of environmental document that would be appropriate for the Southcenter Subarea Plan, development regulations and related actions. It reviewed the extensive documentation that has been developed in connection with SEPA compliance for prior City planning actions and for project proposals. It also reviewed its adopted development regulations and adopted City utility plans. The scope of the City's review included the following documents:

SEPA Documents

- a. Tukwila Comprehensive Plan EIS Addendum addressing 2015 Update to the Comprehensive Plan (March 2013)
- b. Shoreline Master Program Update SEPA Checklist (August 2008)
- c. Tukwila Comprehensive Plan Amendment Addendum or Checklist (2004)
- d. Tukwila Comprehensive Plan EIS Addendum addressing 2004 Growth Management Act – Related Technical Revisions (April 2004)
- e. Westfield Shoppingtown Southcenter Expansion FEIS (2004)
- f. Central Link Light Rail Transit Project FEIS (November 1999)
- g. Tukwila Comprehensive Plan Draft and Final EISs (June 1995, October 1995)
- h. Tukwila Comprehensive Plan EIS Addendum addressing Implementing Zoning Code Amendments (November 1995)

Adopted Development Regulations

- a. Zoning Code (TMC Title 18)
- b. Environmentally Sensitive Areas Ordinance (TMC 18.45)
- c. Shoreline Overlay (TMC 18.44)
- d. Transportation Concurrency Standards and Impact Fees (TMC 9.48)
- e. Concurrency Management (TMC 9.50)
- f. Stormwater Management (TMC 14.30)
- g. Utility Concurrency Standards (TMC 14.36)
- h. Archaeological & Paleontological Regulations (TMC 18.50)
- i. Tree Regulations (TMC 18.54)
- j. Floodplain Management (TMC 16.52)

- k. Sign Code (TMC Title 19)

Other Adopted Plans & Programs

- a. Tukwila Comprehensive Sewer System Plan Update (2006)
- b. Tukwila Water System Plan Update (2007)
- c. Tukwila Comprehensive Surface Water Management Plan (2003)
- d. Gilliam Creek Basin Stormwater Management Plan (2001)
- e. Shoreline Master Program (2011)

The contents of these documents, including the impacts and mitigation measures identified through environmental review are summarized in *Appendix A. Tukwila Environmental Documents, Adopted Regulations & Plans*.

Based on this review, the City determined that almost all probable significant adverse environmental impacts associated with adoption of the Southcenter subarea plan have been disclosed and evaluated in previous environmental documents, would be mitigated by adopted development regulations, and/or are addressed in adopted City plans, and/or other local or federal rules or laws. The key changes and impacts that are likely to occur as the Urban Center redevelops are related to transportation and land use. Although these impacts have been anticipated and discussed previously, the City determined that supplemental information and analysis of these issues, in the form of a Supplemental EIS (SEIS) would help the public and elected officials understand the environmental implications of the Southcenter Subarea Plan, would further the City's goal of encouraging appropriate development within the Urban Center, and would meet the requirements SEPA.

2.5.2 EIS Scoping Process and Comments Received

The purpose of scoping under SEPA is to invite public comment regarding the scope of elements of the environment to be addressed in the EIS. In response to issuance of a Determination of Significance/Scoping Notice for the nonproject SEIS on March 8, 2013, Tukwila received six comments during the 30-day scoping period, which extended from March 8, 2013 to April 8, 2013. Comments were received from the Muckleshoot Indian Tribe Fisheries Division, El Centro de la Raza, King County Metro, King County Department of Natural Resources - Water, Land and Resources Division, the City of Renton, and Van Ness Feldman Gordon Derr (for WEA Southcenter LLC). All comments were considered in determining the scope of the SEIS.

Chapter 3

Environmental Analysis

Introduction

This chapter of the SEIS discusses potential impacts to aspects of the built environment of the Southcenter area – the City’s Urban Center.¹¹ Because the form and design of existing development are integrally related to the types of land uses characterizing the urban center, and to avoid redundancy, land use and aesthetics are discussed together in this chapter. As part of the built environment, potential impacts on open space, shorelines, historic and archaeological resources, fire protection, and schools are also addressed. This chapter also includes a discussion of the relationship of the Southcenter Subarea Plan to Vision 2040, the King County Countywide Planning Policies, and the Tukwila Comprehensive Plan, focusing on the Urban Center and Shoreline policies.

The discussion is focused on the indirect and cumulative impacts associated with implementation of the Southcenter Subarea Plan, the revised TMC Chapter 18.28, and the Southcenter Design Manual. The Subarea Plan in itself will not directly cause any changes to the built and natural environments. Like the City’s Comprehensive Plan, the Southcenter Plan will provide a blueprint for achieving the City’s long-term vision of growth and change in the Urban Center. The revised development regulations (TMC Chapter 18.28) and the Southcenter Design Manual will further guide and shape the nature of this change over time, consistent with the Subarea Plan’s provisions. Adoption of the Subarea Plan, development regulations and design guidelines in themselves would not result in any direct impacts to the built and natural environments. In effect, the Subarea Plan, development regulations and design guidelines would function as mitigation measures, and would avoid, reduce and minimize impacts that could occur in the absence of this framework.

Changes to land use will occur slowly and incrementally through market-based changes, public and private investments, and the application of development regulations to projects; significant change is anticipated to occur over a 30 to 50 year period. Although any individual project may not result in dramatic transformation of the Southcenter area, the cumulative effect over time will be significant and generally positive. The discussion in this section identifies the direction of cumulative changes using a time horizon of 2031 as a benchmark. By 2031, the vision and foundation of the Urban Center’s long-term transformation are expected to be manifest in the types, forms and appearance of land uses.

This vision of the Urban Center in 2031 is based, in part, on the King County housing and employment targets for the City. The vision is also based on the City’s analysis of economic and market conditions in the Urban Center and the region, which will be major drivers of change (see the discussion in Chapter 2 of this Draft SEIS). In reality, the City has relatively little influence over economic and market factors. However, its planning and regulatory decisions and facility

¹¹ City-wide impacts are addressed in the EIS for the Tukwila Comprehensive Plan (1995).

investments can work with the direction of economic forces and encourage and guide the type and form of growth the City desires. That is the approach embodied in the proposed Southcenter Subarea Plan.

Alternatively, the City could remain passive and just watch these forces operate, try to react quickly to transient opportunities, and allow proposed development to drive the Urban Center's planning and investments. The guidance provided by regulations would be minimal – any type of development could essentially locate wherever it wanted, subject to minimum standards for land use intensity, and no real standards for design. That approach is reflected in the No Action alternative.

In the context of this SEIS, the 2031 housing and employment targets, as well as the anticipated land use scenario, is not intended to be a prediction or limitation of the specific type, location or amount of development and redevelopment that could occur in the Southcenter area. The exact location, number, and dimensions of buildings are not known at this time. The subarea plan intends to be flexible regarding the amount of individual land uses (housing, for example) that could occur, subject to capital facility limitations and the goals of the Southcenter Subarea Plan. Traffic congestion and the need for transportation improvements will likely be the major limiting factor for long-term growth. However, sufficient transportation improvements have been identified and incorporated in the City's Transportation Plan to support the 2031 scenario. Using the information in the SEIS, the City will identify a "threshold" consisting of a maximum number of new p.m. peak trips within the subarea as a whole. When traffic generated from a proposed development causes the total number of p.m. peak trips to exceed the district threshold, it will trigger the need for additional environmental review and potentially additional improvements beyond what is currently being planned.

Section 3.1 Built Environment

3.1.1 Affected Environment

3.1.1.1 Land Use & Aesthetics

Tukwila's Urban Center is approximately 1,000-acres in area. It is generally bounded by I-5/Southcenter Parkway (and the toe of the west valley wall) on the west, I-405 on the north, the Burlington Northern Santa Fe (BNSF) Railroad and the Green River on the east, and S. 180th Street and the Green River on the south (See Figure 2.1 Tukwila Urban Center Boundary in Chapter 2). The City of Sea-Tac is located to the west of I-5, and the City of Renton is located to the east.

The Urban Center is located in the southern portion of the City. To the north are several residential neighborhoods and the City's Manufacturing/Industrial Center. The area zoned Tukwila Valley South is located to the south. The Urban Center is separated from these neighborhoods by topography and natural features – it is located in a valley, and bounded by steep slopes and the Green River. It is also further isolated by the intersection of two major freeways. It is a type of island, defined by its location and physical features.

The Southcenter area is further distinguished by its function and mix of intensive land uses. Since the 1960's, the Urban Center area has evolved from an agricultural and horticultural district into a major regional shopping and employment center. The area is currently developed with approximately 10.6 million square feet of retail, commercial, office, warehousing, distribution and industrial uses. As shown in Tables 3.1 and 3.2, the Urban Center is dominated by retail development. Uses are intensive and generally large in scale, and most of the Southcenter area is covered with impervious surfaces.

Table 3.1 Summary of Existing Land Uses in the Urban Center (Yr. 2013)

Land Use Category	Amount (in Million square feet)
Retail	5.0
Wholesale Trade, Communications & Utilities (WTCU)	1.9
Manufacturing	1.9
Office	1.8
Residential	.001

*Source: Fehr & Peers

Table 3.2 Summary of Existing Households and Employment in the Urban Center

District	Households	Employment			
		Retail	Office	Warehouse/ Manufacturing	Total Employment
Regional Center	0	4,709	1,376	81	6,166
Pond	0	555	1,273	72	1,900
Commercial Corridor	2	2,433	355	17	2,805
Workplace	0	946	1,178	2,775	4,899
TOD	2	1,270	1,795	890	3,955
Totals	4	9,913	5,977	3,835	19,725

Source: Fehr & Peers, 2013

Currently, the City's zoning map applies a single zoning classification – Tukwila Urban Center (TUC) - to the entire Urban Center area; virtually all types of uses are permitted anywhere, subject to basic requirements for height, setbacks, parking, and similar aspects of development. In some cases, land uses have tended to congregate near one another -- e.g., warehousing and distribution in the southern portion of the Urban Center --but the prevailing pattern is a scattering of uses throughout the Urban Center. Subareas within the Urban Center are disconnected functionally and visually.

Retail uses are generally located in the northern approximate one-third of the subarea, along the entire western side, and in the southeast. The Urban Center contains the Puget Sound region's

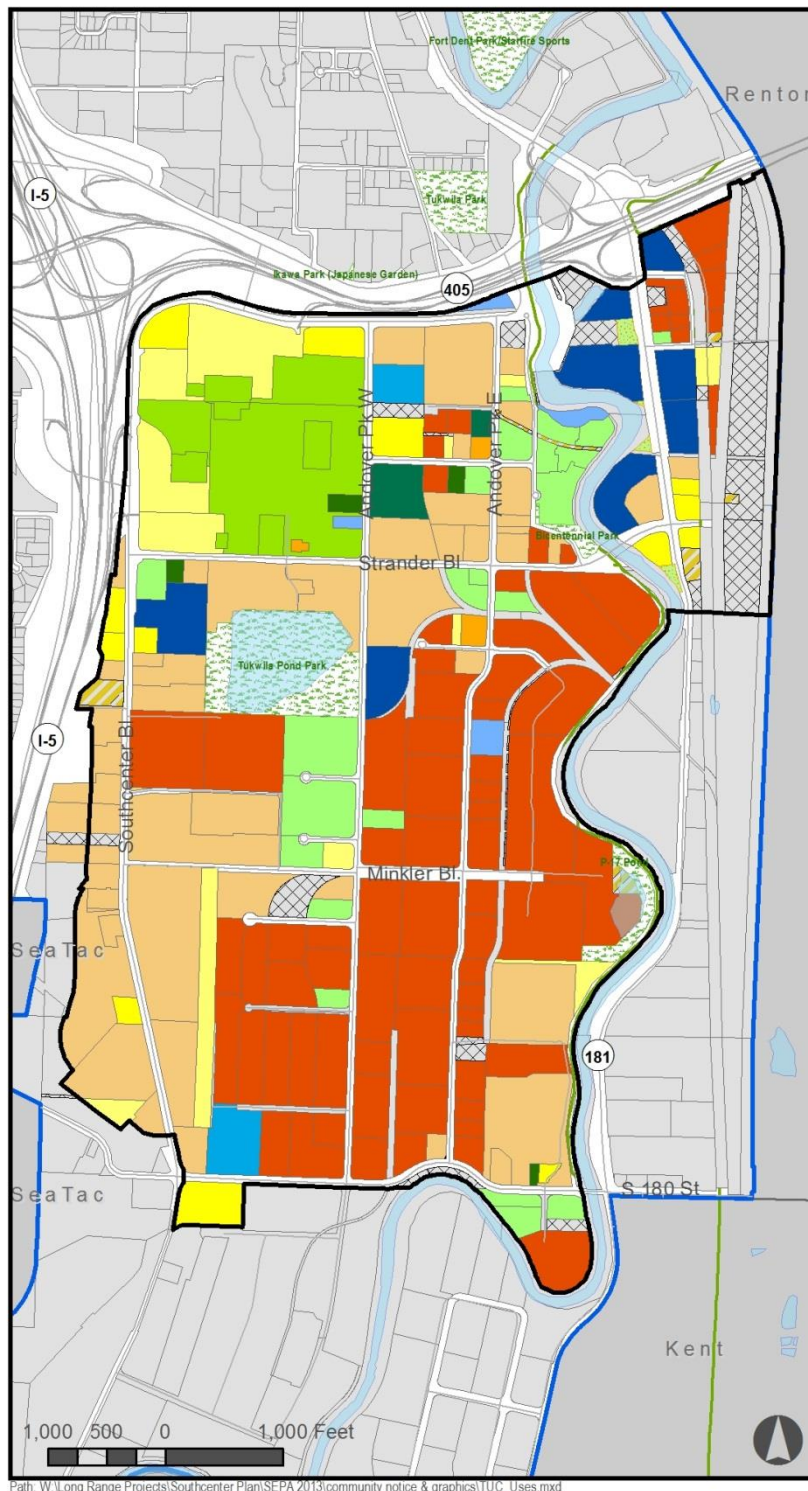
largest shopping center (Westfield Southcenter Mall), as well as numerous free-standing “big box” retail facilities, entertainment uses, and auto-oriented shopping centers. Areas of office/business park, industrial, services, and warehouse and distribution facilities occupy the central, eastern and southern portions of the subarea. There is almost no housing in the urban center at present. While there are numerous retail destinations, there is no real “center” to the subarea.

Land uses and site design are generally auto-oriented in nature, with large buildings separated from the street by extensive surface parking lots. Large-footprint industrial and business park buildings are also present in many portions of the area, described further below.

The street system is built around super-blocks, defined by a few major arterials. The large blocks, long distances between activity areas, rudimentary pedestrian system and lack of pedestrian amenities make walking a relatively unattractive option for circulation. The area also lacks bicycle facilities that connect to the regional trail system. The overall pattern is generally land intensive, sprawling and suburban in character; most buildings are 1 or 2 stories, only a few are taller than 3 stories.

There is relatively little vacant developable land remaining in the Urban Center. Most land use change, therefore, will result from redevelopment of existing land and buildings.

Existing land use in the Urban Center is shown in Figure 3.1. In some areas, development can be loosely organized into districts containing groupings of similar uses (See Figures 2.2 and 2.3 in Chapter 2); dissimilar uses are also typically scattered throughout each area. These districts are described below in terms of their geographic location; the districts used in the Southcenter Subarea Plan are provided as well. Refer to Chapter 2 of the Draft SEIS for further information on Districts.



Path: W:\Long Range Projects\Southcenter Plan\SEPA 2013\community notice & graphics\TUC_Uses.mxd



Southcenter Uses

Legend

- Southcenter Plan
- City Limits
- Use Category**
 - Auto Sales
 - Auto Services
 - Entertainment/Recreation
 - Govt
 - Hotel
 - Mall
 - Office
 - Parking
 - Restaurant
 - Retail
 - Services
 - Warehouse/Industrial
 - Utilities
 - SF
 - Vacant
 - Parks

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Figure 3.1 Existing Land Use

Northern Area – Between Tukwila Parkway and Strander Blvd. (Southcenter Plan Regional Center and TOD Districts)

West Side: Located at the intersection of I-5 and I-405, between Tukwila Parkway, Strander Boulevard and Andover Park West, this portion of the Urban Center is dominated by retail development and the Westfield Southcenter Mall. Buildings in this covered Mall are large in scale, functionally designed, and surrounded by expansive parking lots. In 2008, the Westfield Mall completed an expansion and update, making it the largest shopping center in Washington State with 1.7 million square feet. The addition to the Mall is on the south side, and includes two parking garages, a few restaurants and banks in pad development, and 400,000 square feet of new retail and entertainment uses. The redevelopment also includes a covered walkway between the Mall and the future bus transit center on Andover Park West, and sidewalks leading south from the Mall entrance to Strander Boulevard. More recently, a grocery store moved into a vacant retail space in the Mall.

East Side: This district is generally located between Andover Park West and the eastern city limits, and between Tukwila Parkway and Strander Boulevard. The area between Andover Park West and the Green River is characterized by a mix of retail, recreation, and service uses. Buildings are generally between one and three stories in height, undistinguished in appearance, and surrounded by surface parking. Redevelopment on the north side of Baker Boulevard has resulted in widened sidewalks and more attractive building façades. A landscaped, three-story office park is located adjacent to the River. The River can be viewed from buildings located immediately adjacent to it; otherwise, views from the street level or one story buildings with larger setbacks from the River are blocked, primarily due to surrounding vegetation.

The area between the Green River and West Valley Highway contains a mix of retail and lodging uses. East of West Valley Highway there is scattered commercial and industrial development, the Interurban regional bicycle/pedestrian Trail, the Burlington Northern Santa Fe (BNSF) and Union Pacific railroad tracks, and the temporary Tukwila Station, offering Sounder commuter rail and Amtrak service. Sound Transit plans to construct a permanent rail station in 2014. Also planned for this area is the extension of Strander Boulevard under the BNSF and UP railroad tracks to connect to a roadway project extending westward from SR 167. Strander Boulevard uses an existing bridge to cross the river and provides a connection with West Valley Highway. Uses adjacent to this crossing include a large industrial and office park, warehousing/distribution, some retail and fast food restaurants, the Green River regional bicycle/pedestrian trail, and a city park. A pedestrian bridge crossing the Green River north of Strander Boulevard, combined with improved pedestrian facilities, is planned to link the Urban Center, bus transit center and the Sounder/Amtrak Station.

Central Area -- Between Strander and Minkler Boulevards (Southcenter Plan Commercial Corridor and Pond Districts, and a portion of Workplace District)

West Side: Retail development is located south of the Mall, along both sides of Southcenter Parkway; buildings on the west side of Southcenter Parkway back up against steep slopes and the I-5 freeway. Development occurs primarily in auto-oriented retail centers with one- and two-story buildings, and in large footprint buildings. There are also many restaurant chains located

on pads in parking lots along Southcenter Parkway. A mid-rise hotel and office building are also located just south of the Mall. Some large warehouse and distribution uses are located further south. Retail development – generally in one-story strip centers and some big box buildings -- is also located along Strander Blvd. between Southcenter Blvd. and Andover Park East.

Pond Area: Tukwila Pond is a 25-acre site containing 3.3 acres of upland park along the pond's edges. The pond provides vegetation and habitat for urban wildlife, as well as stormwater management functions. Aesthetically, the pond and its surrounding trees provide much needed visual relief from the intensive development of the urban center. However, the pond is visible from the street only at limited locations. The open water area is not accessible for public use. The Pond can be viewed from buildings located immediately adjacent to it; otherwise, views from the street level or one story buildings with larger setbacks from the Pond are blocked, primarily due to surrounding vegetation. The City has recently prepared a master plan for the park, including recommendations for improving water quality and physical and visual access to the site.

South and west of Tukwila Pond, land use changes to a mix of retail, business park, industrial, and warehouse/distribution facilities. The latter are generally large, functional buildings, with large surface parking areas. In 2007, one of these facilities was redeveloped into a 240,000 square-foot retail center. East of Tukwila Pond is a mix of retail and lodging uses.

Southern Area -- Between Minkler Blvd. and Southern Boundary of Urban center (Southcenter Plan Commercial Corridor District and portions of the Workplace District)

West Side: Southcenter Parkway is dominated by big box and large strip center retail. The western and central portions of the area are dominated by a concentration of large warehouse and distribution facilities and industrial businesses; the latter continue south of the Urban Center's southern boundary.

East Side: Minkler Pond is located adjacent to a bend in the river and the Green River Trail along the Urban Center's eastern boundary. Like Tukwila Pond, it offers visual relief and contrast from intensive development in the business parks located on both sides of the river. It also provides habitat and stormwater management functions. The eastern portion of this district contains business park uses and two big box retail stores (Costco and Home Depot). Other uses include large warehouse and distribution facilities, some with office or retail fronts.

3.1.1.2 Open Space

In the Urban Center today, there are relatively few green spaces, little significant landscaping, and only limited visual relief from the center's concentration of urban development and concrete. Major open space, recreational areas and natural features of the Urban Center include the Green River, Interurban and Green River Trails, Bicentennial Park, Tukwila Pond Park, and Minkler Pond. However, these areas are unconnected to the public realm, and largely invisible from most vantage points in the Southcenter area.

3.1.1.3 Shorelines

The Green River runs through the Urban Center, in some places forming its eastern boundary. The shoreline is currently developed with an urban mix of commercial and industrial uses, and is not natural in character. The Green River Trail extends the length of the River along the east bank.

The Green River, as it passes through the urban center, is designated *Urban Conservancy Environment* under the City's Shoreline Master Program. The SMP applies to lands within 200 feet of the ordinary high water mark (OHWM) of the Green River. The purpose of the Urban Conservancy Environment is to protect ecological functions where they exist in urban and developed settings, and restore ecological functions where they have been previously degraded, while allowing a variety of compatible uses.

Two river buffers are defined for the Green River through the Urban Center, measured in distance from the mean high water mark. The purposes of the river buffers are to:

- Ensure no net loss of shoreline function;
- Restore degraded ecological functions;
- Provide for restoration & public access;
- Allow for adequate flood & channel management;
- Avoid need for new shoreline armoring; and
- Protect existing & new development from high river flows.

The buffer designation is dependent on the location along the river and whether or not there is a flood control levee. In some cases, buffer widths may be reduced. Additional regulations are specified for each buffer:

- *Urban Conservancy Environment Buffer* – The buffer will consist of that area measured 100 feet landward of the OHWM for non-leveed portions of the river (through the Urban Center, consisting of portions of the east bank of the river), and that area measured 125 feet landward from the OHWM for leveed portions of the river (through the Urban Center, consisting of primarily the west bank of the river). These setbacks allow enough room to reconfigure the river bank to achieve a slope of 2.5:1, the angle of repose or the maximum angle of a stable slope, and allow for some restoration and improvement of shoreline function through the installation of native plants and other habitat features. No uses or structures are permitted, except for trails, limited recreation facilities, some signs, bridges, utility towers, some roads, some shoreline stabilization, water dependent commercial and industrial development (if permitted by underlying zoning), pollution control support facilities, some landfills and regional detention facilities, and water-oriented and some non-water oriented essential public facilities. Conditional uses in this buffer include some dredging, new private vehicle bridges, and some fill.
- *Urban Conservancy Environment Outside of Buffer* – All permitted and conditional uses in the Urban Conservancy Environment Buffer and Shoreline Use Matrix are similarly permitted and conditional uses outside of the Urban Conservancy Environment Buffer and within 200 feet of the OHWM.

Development within the Urban Conservancy Environment Buffer is limited to 15 feet in height; 45 feet in height between the outside landward edge of the River Buffer and 200 feet of the OHWM. Buildings that obstruct views of a substantial number of residences on areas adjoining shorelines are limited to 35 feet height, but can exceed that if complying with a buffer enhancement height incentive. Appropriate landscaping is required, as is protection of native vegetation and trees within the shoreline jurisdiction. Public access to the shoreline may be required as mitigation where a development or use will create increased demand for public access to the shoreline; incentives for providing public access are also identified. Shoreline design guidelines apply to new development, uses and activities in the Urban Conservancy Environment, addressing site, building, and public access.

3.1.1.4 Historic and Archaeological Resources

The Tukwila area is located within the traditional territory of the Muckleshoot and Duwamish peoples, who made their homes along the Black and Duwamish Rivers. Sound Transit identified an area of high probability for buried archaeological sites along the alternative LINK light rail routes in the Urban Center¹². However, no significant unavoidable adverse impacts to known or unknown archaeological sites were identified in the area studied.

The soils present in the river valleys are largely flood deposits, providing a rich farmland. The first Euroamerican settlers in the early 1850s chose to settle along the riverbeds to farm the rich soils. There is one place within the Urban Center listed on the Washington State register of Historic Places. The Nelsen Family Historical Residence was built in 1905 by James and Mary Nelsen, and is maintained and preserved in recognition of its architectural and historical significance in portraying the rich agricultural past of the Valley and those who worked to settle it.

The City of Tukwila does not have adopted policies or regulations for archaeological resources or historic properties.

3.1.1.5 Fire Protection

The City of Tukwila Fire Department provides fire protection and basic life support (BLS) emergency medical service (EMS) to the entire City of Tukwila, including the Urban Center. . The Tukwila Fire Department has mutual aid agreements with the city of Renton, the Kent Regional Fire Authority (Kent, Seatac, KCFD #37), the Valley Regional Fire Authority (Auburn, Algonia, Pacific), South King Fire and Rescue (KCFD #39, Des Moines), King County Fire District's #2, #11, #20, #43 and the Port of Seattle, among others.

Fire Station 51 is the Department Headquarters and is located in the Urban Center. Current minimum suppression staffing at this station includes one shift battalion chief, one Captain, and two firefighters. Front line equipment located here includes: one 1,500 gallon per minute pumper, one hazardous materials trailer and tow vehicle, one structural collapse trailer, one decontamination trailer, two mass casualty trailers, and a shift commander vehicle. The station

¹² *Central Link Light Rail Transit Project FEIS - Volume 1*, by Sound Transit, November 1999.

also houses one reserve pumper, one Tukwila Police Department Command Vehicle and several utility/support vehicles. Fire Station 51 is a 15,000 square foot facility with 3.5 apparatus bays.

The Tukwila Fire Department's Special Operations Division includes a Hazardous Materials Team and a Rescue Team. The Tukwila Fire Department currently has a rating of 3, indicating low insurance rates, by the Washington Surveying and Rating Bureau.

The average response time for the Fire Department in the Urban Center, as bounded by Tukwila Parkway on the north, West Valley Highway on the east, South 180th Street on the south, and Southcenter Parkway on the west, is five minutes and twenty one seconds for all incidents, including both fire protection calls and emergency medical service, as recorded for the year 2012.

3.1.1.6 Schools

Approximately half of the proposed TOD District (east of the Green River), half of the proposed Pond District, and that portion of the proposed Workplace District properties located along the Green River are within Renton School District boundary. The remaining portions of the proposed TOD and Pond Districts, as well as the proposed Regional Center District, are within Tukwila School District boundary (See Figure 3.2 School District Maps).

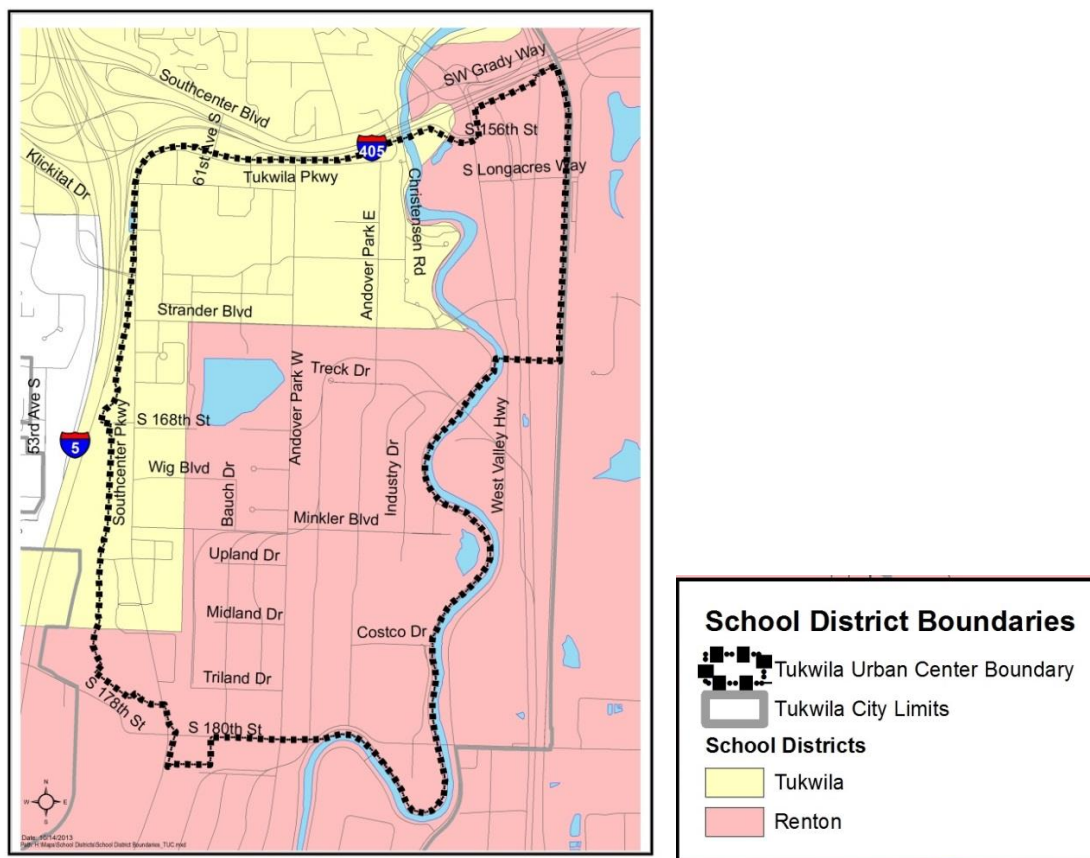


Figure 3.2 School District Map

Five students within Tukwila, but residing outside the Subarea, attend the Renton School District in 2013. These students are bussed to their schools. As of June 2012, 275 property owners in Tukwila within the Renton School District paid the District \$5 million in school levies (Levy code 2340). Currently, there are no students living in the Urban Center and attending either the Renton or Tukwila School District.

3.1.2 Significant Impacts of the Alternatives

This section of the SEIS addresses indirect and cumulative impacts associated with future development in the Urban Center. Adoption of the Subarea Plan, development regulations and design guidelines in themselves would provide a framework and guidance for future development, and would not result in any direct impacts. In effect, the Subarea Plan, development regulations and design guidelines would function as mitigation measures, and would avoid, reduce and minimize impacts that could occur in the absence of this framework.

The types of impacts that are discussed in this section include: changes to the Urban Center's land use pattern from the establishment of new uses (e.g., mixed-use development, housing); intensification of the land use pattern; potential displacement of existing uses; conflicts between land uses of different intensity; changes to the appearance of the Urban Center from planned building forms and design, including increased building height; potential blockage of views; potential shadowing from changes in building heights; potential redevelopment of historic properties; and the potential for increases in enrollment in school districts.

3.1.2.1 Proposed Action: Southcenter Subarea Plan

Land Use & Aesthetics

The land use pattern described in the Proposed Southcenter Subarea Plan indicates the general locations and planned groupings of activities. The plan is conceptual in nature and provides a framework and flexibility for future site planning. The specific location or design of individual buildings are not known and not prescribed; these details will be determined through individual proposals that are developed according to the Southcenter Plan's objectives, development standards and design guidelines. The stated land use emphasis of each district, and the uses permitted within each proposed district by the revised development regulations, would guide the type and location of future development.

Forecasted Growth & Future Land Use Changes

Land use change (households & employment) for the Proposed Action is shown in Table 3.3 Proposed Action: Summary of Future Growth (Households and Employment) by District (Yr. 2031). Redevelopment and change will occur incrementally over an extended period of time, possibly 30 to 50 years. The year 2031 is used as a benchmark to provide a mid-term snapshot of the nature and character of planned change in the Urban Center. The most significant land use changes would be evident in growth and development occurring in a more urban/intensive, pedestrian-oriented, walkable form, primarily in the northern portion of the Southcenter area between the Mall and the Sounder/Amtrak Station, and around Tukwila Pond.

Table 3.3 Proposed Action: Summary of Future Growth (Households and Employment) by District (Yr. 2031)

District	Total Households	Total Employment
Regional Center	223	7,754
Pond	601	3,410
Commercial Corridor	2	3,554
Workplace	0	5,373
TOD	1,888	4,993
TOTAL	2,714	25,084

Source: Fehr & Peers, 2013

Other portions of the Urban Center south of Strander Boulevard which are already characterized by established auto-oriented environments, such as the Workplace District (warehouse, distribution, industrial and business park uses) and the Commercial Corridor District (Southcenter Boulevard), would change relatively little. The Subarea Plan recognizes the importance of these land uses and the jobs they provide, preserves their place in the City's fabric, and seeks to improve circulation and design over time. Similar changes would also occur under the High Intensity Alternative.

Growth was evaluated using future household targets allocated to the City by King County and employment numbers forecasted by PSRC for Tukwila. The most significant land use change would be in housing – growing from almost zero today to approximately 2,714 dwelling units in 2031. Most new housing would likely occur in the TOD and Pond Districts. While housing would be permitted adjacent to the Green River in the Workplace District, the Proposed Action would not project any to be constructed prior to 2031.

Employment growth for the Proposed Action in the Urban Center is projected to increase by approximately 27 percent to 25,084. The Pond District would likely experience the largest increase in employment (80%), followed by the Regional Center and TOD Districts (26% each), most likely in retail, commercial, and office uses. The Commercial Corridor District would likely experience a similar increase in employment (27%), primarily in retail uses. Manufacturing and warehouse/distribution employment and other uses in the Workplace District would increase only marginally (10%).

Table 3.4 – Comparison of Future Growth (Yr. 2031) by Alternative

Alternative	Southcenter Urban Center	
	No. of Households	Employment
2010 - Existing	4	19,725
2031 - No Action	654	21,393
2031 – Proposed Action & High Intensity Alternative	2,714	25,084

Source: Fehr & Peers, 2013

Table 3.4 shows that the Proposed Action would likely result in more employment and household growth than the No Action Alternative. The High Intensity Alternative would likely result in increases the type and amount of uses similar to those of the Proposed Action.

The character of land use change, as well as its timing, will be strongly influenced by a combination of public policy and economic forces. Public policy/City guidance would occur in the form of the Southcenter Subarea Plan's strategy and objectives, the framework provided by zoning standards and design guidelines, and strategic public investments in amenities and capital facilities. If the local economy is strong and the Urban Center's vitality is reinforced, as is projected, the area will remain attractive to investors and land prices will likely increase. Real estate investments will generally seek attractive locations that provide redevelopment and market opportunities. Recent plans and growth in other Urban Centers in the Puget Sound region suggest that markets do or will exist in the Southcenter area for some types and forms of land use that are absent today – primarily housing and mixed-use development.

Assuming that the economic impetus for change is present, the northern portion of the Urban Center would generally develop more intensively with a broader range of urban uses. Growth will occur through development of remaining vacant or underutilized land and redevelopment of existing uses. To use the existing land base more intensively and more efficiently, multi-story buildings and structured parking would be encouraged through height incentives. Economic competition, related to the increased demand for new land uses, could result in the redevelopment or displacement/relocation of some existing uses. Displacement would be most likely to occur for relatively low-value, dispersed industrial structures that are located in areas with the potential for more intensive and/or more compatible uses. This could occur in districts that the Southcenter Subarea Plan and zoning code encourage to transition to different activities and to achieve a different character, such as the TOD district. Displaced uses could relocate to other compatible districts within the Urban Center – for example, an industrial use could relocate from the TOD to the Workplace District -- or to other locations in the City or region.

Under the Proposed Action, the most significant change in land use relative to what currently exists in the Urban Center would be the development of housing. Opportunities for residential development would expand in the northern portion of the Urban Center. New housing, retail and office development would occur in mixed-use areas and buildings. These forms of development would contrast with the existing dominance of single-use areas and buildings. The proximity of

residential and commercial uses can generate potential land use conflicts, such as from noise or odors. These types of conflicts are typical of urban areas and of mixed-use development, however, and can be mitigated through site planning and building design techniques.

Patterns of human activity would also change significantly in portions of the Urban Center, particularly in the TOD and Pond Districts. There would be a resident 24-hour population that could live, work, shop and recreate in an urban neighborhood. Pedestrian connections, amenities, and streetscape improvements would make walking between activity areas a convenient and enjoyable alternative to driving.

In many contexts, land use conflicts can occur at the boundaries or along the edges of districts containing land uses of different type, intensity or character. Similarly, conflicts can occur between old and new uses in areas that are undergoing a transition in function. These types of impacts are not expected to be significant in the Urban Center. Most existing land uses are intensive in nature and are not particularly sensitive to noise or other proximity impacts. The Southcenter area is almost an “island”, which is isolated from adjacent neighborhoods and development by interstate freeways, railroads, topography and natural features. Major portions of the Urban Center are already semi-organized into districts that reflect a particular dominant use – for example, retail in the Mall area, or industrial in the southern portion of the subarea. In general, land uses planned within individual Southcenter districts would be compatible with each other and would not generate significant conflicts to adjacent districts.

Construction of new buildings, streets and other components of the Urban Center would result in temporary impacts to adjacent land uses. Adverse impacts could include: temporary air quality deterioration and noise from construction vehicles, earthwork activities, and construction; increased traffic along haul routes and at construction sites; temporary detours and interference with access; and temporary water quality deterioration or runoff from construction sites. Such impacts would be temporary and would be addressed at a project level through adopted development standards, use of best management practices, temporary erosion and sedimentation control plans, traffic management plans, and similar typical conditions of development approval.

Land use changes by district are discussed below.

Regional Center District: The northwestern quadrant of the Urban Center would be comprised primarily of retail uses centered on the Westfield Southcenter Mall. Redevelopment of adjacent properties may occur in conjunction with Mall expansions, and public investments combined with market-driven infill may act as a catalyst for redevelopment of the Regional Center and the adjacent TOD and Pond Districts. Retail stores in mixed-use buildings with limited street front parking would line landscaped public streets adjacent to the Mall. The street network would be improved, providing strong connections to adjacent retail, the bus transit center and Tukwila Pond. New development may be characterized by a pattern of walkable-scaled city blocks with key street frontages lined with wider, active sidewalks and buildings designed with pedestrian amenities and visible storefronts.

This district is currently characterized by extensive retail development, and the major types of land uses encouraged by the proposed Southcenter Plan are not significantly different. There

would be infilling, and more intensive use and redevelopment of existing land bordering the Mall. The form of new development may be a combination of mixed-use (including retail, residential, office uses, and lodging) and single use. Building heights would generally range from 25 to 85 feet, less than the 115 feet maximum currently permitted by code; building heights could reach 115 to 214 feet within 300' of Tukwila or Southcenter Parkway through the use of the code's height incentives. The quality of design would improve significantly, in conjunction with redevelopment of the Mall and application of the Subarea Plan's design guidelines. As redevelopment occurs, a stronger north-south street and pedestrian connection to the Pond District could be created from the Mall's front door to the esplanade on the northern side of Tukwila Pond.

TOD District: The TOD district in the northeastern portion of the Urban Center is strategically located between the Mall/bus transit center and the Tukwila Sounder Commuter Rail/Amtrak station, and between I-405 and just south of Strander Boulevard. Mixed-use transit-oriented development would be located in this district, since it is within walking distance of both the bus transit center and the Sounder/Amtrak station. The Green River would eventually become an amenity and visual focus for development in this area.

Changes in land use would result both from redevelopment of existing uses and development of vacant land. Some of the land located in the area between Andover Park West and Andover Park East, and between Tukwila Parkway and Trek Drive, is considered likely to redevelop based on economic and policy factors discussed previously. Within this area, existing land uses -- primarily single-use retail/commercial, office, industrial and warehousing -- would be redeveloped over time, and replaced by mixed-use buildings containing commercial and residential uses. Some displaced uses (such as office or retail) could potentially relocate within the TOD district in new mixed-use buildings. More intensive uses (such as automotive servicing and repair and industrial, distribution or warehousing) would be out of character with planned activities; these existing uses could relocate to other more compatible Urban Center districts over time. Large single-use structures, such as theaters and bulk retail stores, would no longer be permitted in the TOD District, but could locate in compatible Urban Center districts or other areas of the City.

Land uses would convert to a more urban mix of transit-supportive, pedestrian-friendly retail, lodging, office and housing in multi-story buildings. Housing might range from a mix of town houses and low-rise multifamily developments to high density multifamily buildings and mixed-use projects. Drive-through facilities would be permitted only east of the Green River. Building heights under the Proposed Action would be less than currently allowed, and would generally range from 25 to 45 feet, or 70 feet using the code's height incentives. New buildings on Baker Boulevard will be located at the back of sidewalk and a minimum of 25 feet high to create a "street wall" appropriately-scaled for pedestrians. The specific location, number, size, height and specific uses of individual buildings are not known at this time. In general, the height and intensity of development would generally be higher closer to the Mall and the rail station, and lower close to the River; buildings would be required to step down to provide views of the river and shoreline environment.

Multifamily housing could be developed and would represent a significant new use in the TOD District. New residential uses would contribute significantly to meeting the City's housing goal, would increase the Urban Center's diversity of uses and vitality, and would further the regional objectives for Urban Centers. Development of housing in the Urban Center would also relieve some potential pressure for infill development and intensification of housing in existing residential neighborhoods outside of the Urban Center area.

A growing network of streets, public spaces and pedestrian connections will provide a fine-grained scale to the district, and connect it more readily to adjacent areas. Pedestrian-scaled blocks will improve the walking experience throughout the area. New development will also contribute to the construction of new publicly accessible open spaces.

Vacant land east of the River and surrounding the train station would likely be developed for intensive urban use, potentially office and mixed-use. Railroad right-of-way, easements, and overhead and underground utilities present obstacles to development in the area around the Sounder/Amtrak station. However, a commitment by Sound Transit to support transit oriented development on the existing station site could serve as a catalyst for new residential and office development oriented to the station. East of the River, existing hotels/motels would support and be compatible with planned TOD District activities.

There could be minor conflicts due to noise to adjacent uses from rail operations and traffic along West Valley Hwy. Exterior uses of nearby residential uses would be most sensitive to such impacts. However, beyond those operational noise impacts that exist today, no additional noise impacts would be expected at future residential uses nearby the Sounder/Amtrak station.¹³

Over time, the new mix of land uses within the TOD district could create some pressure for redevelopment of existing industrial uses located south of the Urban Center boundary along West Valley Hwy. The Urban Center's improved access to the regional rail system and the vitality and desirability of the TOD district could drive up land values to some extent. However, the existing pattern of industrial land uses along West Valley Highway is well established, and significant change is not expected in the near term.

Pond District: The Pond District would highlight the open space/amenity value of Tukwila Pond Park, while preserving its important stormwater management and habitat functions. Pedestrian pathways would surround the Pond, and would provide connections to adjacent development and districts. A more urban esplanade would be developed at the northern edge of the pond. Mixed-use retail, office, and residential development in mid-rise buildings would be re-oriented towards the Pond, fronting on the active pedestrian esplanade. Additions to the street network would be made as redevelopment occurs, particularly on the south side of the Pond, breaking up the mega blocks and adding more route alternatives for vehicles, pedestrians and bicycles to the urban center's transportation grid.

Existing uses in the Pond District are primarily retail, including large individual stores and multi-tenant retail centers, lodging, and office uses. These sites could redevelop more intensively and in a coordinated manner oriented to the Pond over time. Some existing uses could be displaced

¹³ Tukwila Commuter Rail Station, NEPA Environmental Assessment, Jan. 2009

by redevelopment but could potentially relocate to other Southcenter districts (e.g., the Commercial Corridor for auto-oriented retail uses). Uses would be similar in type to current uses (however, drive-through facilities and gas stations would not be permitted), similar in scale to the TOD District (45 feet maximum; 70 feet with height incentives except for within 150 feet of the edge of the Pond) but less than what is currently allowed, and designed in a more coherent, coordinated manner.

Commercial Corridor District: The Commercial Corridor District includes the predominantly auto-oriented commercial strip along Southcenter Parkway, comprised of retail (large-scale stand-alone uses and multi-tenant centers), service, and industrial and warehouse. Land use would not change significantly. There would likely be some infill and redevelopment over time, but the district would retain its predominant retail character and auto orientation. While there would also be some intensification of use and increase in building height (45 feet maximum), heights would be less than what is currently allowed. Auto-oriented retail uses potentially displaced from other Urban Center districts could relocate to the Commercial Corridor; this would solidify and intensify the planned land use functions of the district. Parking would be allowed to the front, side or rear of buildings. Uses requiring drive-in and drive-up facilities would also be located here. As new development occurs, new improvements will provide modest new pedestrian amenities, primarily connecting the street to building entrances through parking lots. The appearance and visual character of the district would be improved through streetscape improvements, landscaping and better building design using the new design manual.

Workplace District: The Workplace District comprises approximately one-third of the Urban Center's land area overall. It is currently characterized by a relatively homogeneous mix of large-scale light industrial, and warehousing and distribution activities. There also a few big-box retail stores in the southeastern portion of the district. These uses provide support for other Southcenter area activities and regional commerce, and significant employment.

The Southcenter Plan would maintain the Workplace District as an appropriate location for large-scale industrial and warehouse/distribution activities. Higher intensity workplaces, such as low-rise office uses, could bring new workers to the area. Uses permitted in the Plan are consistent with existing patterns and types of development; some supporting retail and services could also occur. Consolidating these large-scale land uses into a single district could reduce incompatibilities and land use conflicts that can result from industrial uses located in proximity to less intensive retail or residential uses, a situation which occurs in many parts of the Southcenter area today. Parking would be allowed to the front, side or rear of buildings.

As currently permitted, residential development will continue to be encouraged to locate along and oriented towards the Green River. New residential development would be well designed using the new architectural and site design guidelines, and would be allowed reach a maximum height of 70 feet using available height incentives. Development within 200 feet of the Green River's ordinary high water mark will be subject to the Shoreline Overlay height restrictions.

Few significant land use changes and no significant conflicts are anticipated in the Workplace District as a result of the Subarea Plan. There could be some infill and intensification in connection with industrial and warehouse activities displaced from other Urban Center districts,

or as a result of new economic activity. There would likely be some infill and redevelopment over time in any event; building height (45 feet maximum permitted) could increase relative to existing development, but would be lower than what is currently permitted in the code.

Street improvements, made in conjunction with new development and redevelopment, would help to better connect and coordinate access and circulation within the district and between other districts.

Building Heights, Views, and Visual Character

In terms of design, visual characteristics and pedestrian convenience, change would be significant and positive, and consistent with the intensification of the land use pattern.

Under the Proposed Action, building heights will generally range from 25 feet up to 85 feet. Maximum building heights will be highest around the Mall and lower in the other districts. However, using available public frontage and multifamily height incentives, development could go as high as 115 to 214 feet in key areas of the Regional Center District close to Tukwila Parkway and Southcenter Parkway, and 70 feet in the TOD and Pond Districts (45 feet maximum height within 150 feet of the edge of Tukwila Pond), and in the Workplace District adjacent to the river. Per the City's shoreline regulations, new buildings constructed adjacent to the Green River must be set back 125 feet landward from the ordinary high water mark on leveed portions of the River and 100 feet landward of the ordinary high water mark along non-leveed stretches of the River to allow enough room to reconfigure the river bank to achieve the maximum angle of a stable slope and allow for some restoration and improvement of shoreline function through the installation of native plants and other habitat features.

See Figure 3.3 for conceptual illustrations of the maximum building heights that would be allowed under the Proposed Action.

Figure 3.3 Conceptual Illustrations of Maximum Building Height – Proposed Action & High Intensity Alternatives

Color Key:

Green: maximum building height without incentives

Yellow: maximum building height using one height incentive (Proposed Action)

Pink: maximum building height (High Intensity Alternative)

Regional Center District



Maximum height is 85' without height incentives; with height incentives 115', and 214' within 300' of Tukwila Pkwy & Southcenter Pkwy. Illustration shows a potential mixed use infill project on the Mall property, including offices & housing. Building to the left is 214' tall; building to right is 115'; and the Mall's highest point is 85'.

Pond District



Maximum building height is 70' (Proposed Action) with height incentives; 45' without incentives and within 150' of the edge of Tukwila Pond. Illustration shows a mixed use project, including retail, office & housing. Streets break up megablocks and buildings close to Tukwila Pond are set at the street edge, creating a pleasant walking environment.

Transit-Oriented Development District



Maximum height is 45' without height incentives, 70' (Proposed Action) and 115' (High Intensity Alt) with incentives. Buildings located along the street edge. Illustration shows an integrated, mixed use neighborhood with housing, within easy walking distance to transit & rail along Baker Blvd. Parking is located to side or rear of buildings.



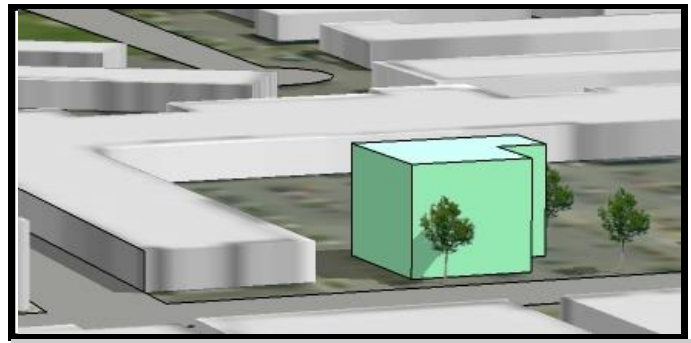
Maximum building envelope allowed in this district which includes the Sounder Commuter rail/Amtrak station is 45' without height incentives; 70' (Proposed Action) and 115' (High Intensity Alt) with height incentives. Limited parking is allowed between the building and street. Development will be transit-supportive and pedestrian-friendly.

Workplace District



Maximum building height is 45', or 70' with multifamily height incentives on parcels adjacent to the Green River. Development must be setback 125' from the river, but will likely be oriented towards the river. Streets break up megablocks to make it more pedestrian friendly. Away from river, land use character remains the same.

Commercial Corridor District



Conceptual illustration of the maximum building envelope allowed in this district. Maximum building height is 45' in the Proposed Action & High Intensity Alts. No restrictions on parking locations. This area will continue to develop with regional retail uses accessed primarily by cars.

Shadowing impacts from tall buildings would be less than under the other two alternatives in the TOD, Workplace and Commercial Corridor Districts, since the allowable maximum building heights would be lower. Shadowing impacts would be greater than the No Action Alternative in the Regional Center District, since maximum allowable height is greater. Impacts would occur on a site-specific basis, depending on where tall buildings are constructed and how they are designed, and potentially include a change in views from the surrounding residential neighborhoods on hillsides west and north of the Urban Center, a decrease in the amount of sunlight that reaches the street, and a decrease in adjacent development's solar access. Tukwila Pond and Bicentennial Park (the only parks in the subarea) and the Green River would be protected from shadowing by required height and construction setbacks. Shadowing impacts would be addressed on a project-by-project basis as part of development review, applying design regulations regarding placement of open space (such as public plazas) and the size, design and scale of tall towers or buildings.

Existing views in the subarea are from upper floors in existing multi-storied buildings, or from development higher up on the hillsides surrounding the Urban Center. Existing views from these locations are of a developed, built environment with low to mid-rise buildings and surrounding treed hillsides – future views would be similar but with potentially taller, well-designed buildings. The Proposed Action would create new views from taller buildings in the subarea.

New buildings on Baker Boulevard will be a minimum of 25 feet high to create a “street wall” appropriately-scaled for pedestrians. Maximum building heights around the Pond without height incentives are 45 feet. To preserve views of water features and prevent shadowing on the Pond, no height incentive increases are allowed within 150 feet of Tukwila Pond. New buildings constructed outside of the 150 foot buffer at taller heights would create new views of the water and Park.

Building heights within 200 feet of the ordinary high water mark of the Green River are subject to shoreline regulations and are not to exceed 45 feet. In the southern portion of the Urban Center, in the Workplace (excluding residential uses along the River) and Commercial Corridor Districts, building heights would range from 1 to 3 floors (maximum 45'), reflecting current heights of retail, industrial, and warehouse buildings in the area. Future development would not affect the existing peekaboo views of the River, primarily because of the large required building setbacks from the River. New buildings constructed at taller heights in the future in the vicinity of the River would support the Shoreline Master Program goals of encouraging and increasing visual access to the water from the shoreline and upland areas by creating new views.

The Urban Center presently contains many land-extensive, large-footprint, low-rise commercial and industrial buildings. Construction of well-designed mid-rise buildings in the northern portion of the Urban Center would alter the area's character and appearance in a positive manner. The vertical thrust of new mid-rise buildings will provide a change in visual character and a more efficient urban form through which to accommodate future growth. These new taller buildings will be visible from various locations in the Urban Center itself, and from adjacent freeways and roads, and will result in a dramatic change in appearance. Initially, the first new taller buildings may appear to be out of scale with surrounding development. This effect will be reduced over time as more development occurs and a more consistent building pattern is established.

Taller buildings, more rigorous and consistent design, and intensification of the land use pattern would give the district a more urban appearance. Requirements for ground-level transparency, locating buildings closer to the street, building modulation, and other architectural design guidelines applied to the northern part of the Urban Center will improve the overall visual character, reduce the apparent scale of large buildings, and establish a human scale at the ground level for pedestrians. New streets, constructed as larger parcels redevelop or as City projects, will break up the existing extremely long block lengths, contributing to a more walkable urban form.

Under the Proposed Action, public frontage improvements will take place with redevelopment to provide infrastructure that better matches adjacent land uses, imparts more individual identity to street corridors, and contributes to general “place making” in the Urban Center. In more pedestrian-oriented neighborhoods in the northern part of the Urban Center, streetscapes will include wider sidewalks than currently in place, with street trees, pedestrian-scaled lighting, and landscaping separating pedestrians from motorized traffic. Parking located to the side or rear of buildings makes it less visible from the sidewalk, adding to the attractiveness of the streetscape.

In the Workplace and Commercial Corridor Districts, streetscape improvements will be minimal. Instead, site improvements will consist of safe and convenient pedestrian connections connecting buildings to sidewalks through parking lots.

Open Space

Publicly accessible open space would increase in amount and improve in terms of access, design, and function. All development would be required to contribute to open space based on its impacts as measured by building size or number of units. Certain types of open space requirements could be met through provision of on-site open space or, at the discretion of the DCD Director, off-site and/or as part of a larger open space being provided by the City or another development. New plazas and urban open spaces would be integrated into the fabric of development as a result of regulations and incentives. A publicly accessible esplanade would be created at the northern edge of Tukwila Pond, and physical and visual access to the Pond would be improved. The Pond would become a major amenity for the Southcenter area overall while maintaining its important functions for stormwater management and wildlife habitat. Similarly, new development in the TOD District would be oriented to the Green River.

Open space requirements for residential development would result in well designed common spaces for the residents of a housing development, such as pools, rooftop decks, and children’s play areas. Other open space requirements would result in balconies, decks, patios and courtyards that are privately accessed from individual dwellings.

Shorelines

Current Shoreline regulations address land uses, landscaping, public access, and building heights within 200 feet of the Ordinary High Water Mark (OHWM) of the Green River. To preserve views of water features, buildings located within 200 feet of the OHWM will be stepped down in height to a maximum of 45 feet. Outside of the shoreline environment on parcels adjacent to the

River, the maximum building height is 70 feet using height incentives. Development will be set back from the River 100 feet landward of the ordinary high water mark along non-leveed stretches of the River and 125 feet along leveed stretches to allow for the future reconfiguration of the river banks. The visual character of the built environment, as viewed from the Green River Trail, will be improved as modulation and transparency requirements will be applied to façades of buildings fronting and within 200 feet of the River. Landscaping along the River's banks will be protected and enhanced. Lighting will be directed away from the river to minimize impacts on the fish habitat. The Shoreline Master Program would have a positive effect on shoreline resources, and no adverse impacts would be anticipated.

Historic and Archaeological Resources

The majority of the Urban Center has already been developed. There is a possibility that archaeological materials may be inadvertently encountered during future construction. If such materials are discovered, work at the specific location would be suspended until the materials can be inspected by a professional archaeologist and the appropriate agencies notified. No adverse impacts on archaeological resources would be anticipated.

Redevelopment of the Historic Nelson Family Farmhouse could occur. If redevelopment of historic properties is proposed, federal law and the Washington State Department of Archeology and Historic Preservation's law regulating historic sites would apply.

Fire Protection

The Proposed Action could result in an increase in commercial and residential development in the Urban Center. Maximum building heights would be less under this Alternative than under the No Action Alternative except in the Regional Center District where maximum heights could reach 214 feet along Tukwila Parkway. The Proposed Action's maximum building heights are similar to those under the High Intensity Alternative, except in the TOD District where they are lower under the Proposed Action.

Any significant increase in density and/or height from the current conditions could affect fire and emergency service capabilities, potentially requiring additional personnel and equipment in order to provide appropriate levels of service. To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs.

Schools

Attracting more housing to the Urban Center is a key component of the Proposed Action. The northern portions of the Urban Center are potential locations for future housing projects, in particular TOD-related housing, since they are in proximity to both the Southcenter bus Transit Center and the Sounder commuter rail/Amtrak station. As such, these projects have the potential to generate students that will need to be accommodated within the school districts. Residential development assumed under the Proposed Action could generate additional student enrollment within the Tukwila and Renton School Districts on an incremental basis over the 18 year

planning period. Based on the distance of existing schools in the Tukwila and Renton School Districts from the Urban Center, students would need to be bused to all school facilities.

Table 3.5 shows the potential number of K-12 students that could be added to each school district by year 2031 based on the housing target allocation to the Urban Center for each land use alternative, using an average generation rate of 3 students per 100 units.¹⁴

Table 3.5 Projected K-12 Student Generation

School District	No Action Alternative Yr. 2031	Proposed Action & High Intensity Alternative Yr. 2031
Tukwila	11	29
Renton	9	50

Source: City of Tukwila, 2013

The actual number of school children generated by future development in the Urban Center may be fewer than shown above. Studies have shown that characteristics such as bedroom mix, type of housing, market target, and child-friendliness of a TOD project may have an impact on school children generation. It is likely that the majority of housing projects that will be built in the northern portion of the Urban Center over the next 20 years will be targeted at young, primarily childless professionals, since developers typically will build studios and 1- and 2- bedroom apartments to make TOD housing projects financially feasible. Larger families and households with older children require more bedroom space.¹⁵ Over the long term, as the land use districts in the Urban Center continue to evolve into residential mixed-use neighborhoods with amenities such as parks, open spaces, and bicycle and walking paths, more family-friendly housing may be constructed and the student population may increase.

Given the 18-year planning period, it is not feasible to assess enrollment versus capacity issues over the long-term for the Tukwila and Renton School Districts. Any impact from students generated within the Urban Center is expected to be minor.

3.1.2.2 High Intensity Alternative

Land Use & Aesthetics

Land use and aesthetic impacts under the High Intensity Alternative will be similar to those identified under the Proposed Action. However, under the High Intensity Alternative, maximum building heights would be 115 feet anywhere within the TOD District when employing a minimum of two height incentives (see Figures 3.3 & 3.4). Consequently, shadowing impacts in the TOD District under this Alternative would be greater than under the Proposed Action, since

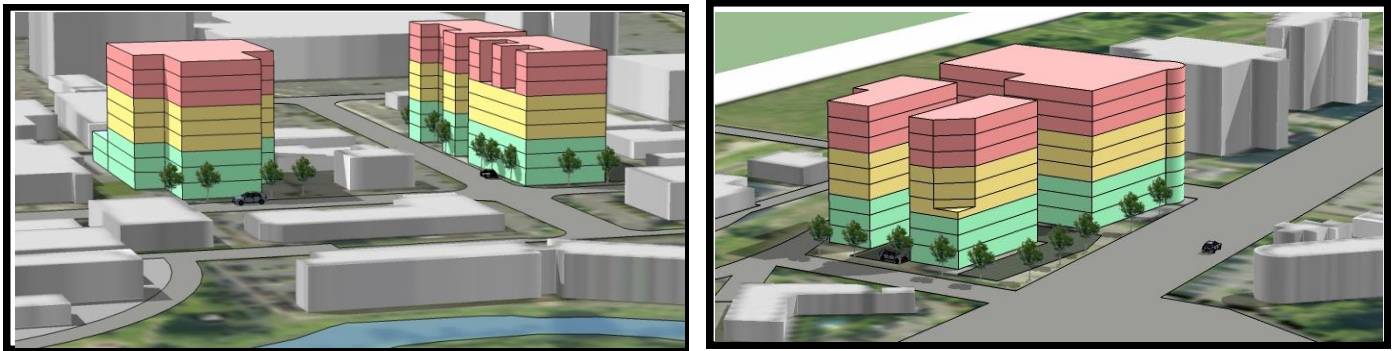
¹⁴ A study of Transit Oriented Development (TOD) projects across the country has shown that the number of school aged children (K-12) generated by TOD projects is extremely low with an average generation rate of 3 students per 100 units. Source: "What About Our Schools?", Urbanomics & Edison Exchange, March 2008.

¹⁵ "Linking Transit-Oriented Development, Families and Schools", by Bierbaum, Vincent, and McKoy, Center for Cities & Schools, University of California, Berkley, In *Community Investments*, Summer 2010/Vol. 22, Issue 2, pg 18-45.

the allowable maximum building height would be higher. Height restrictions and building setbacks from the Green River and Tukwila Pond, as required by the Shoreline regulations and proposed development regulations for the Urban Center would still be required, which would serve to minimize shadowing impacts on these resources. Impacts would occur on a site-specific basis within the District, depending on where tall buildings are constructed, and potentially include obstruction of views from the surrounding residential neighborhoods on hillsides west and north of the Urban Center, a decrease in the amount of sunlight that reaches the street, and a decrease in adjacent development's solar access. Maximum building heights elsewhere in the Urban Center remain the same as under the Proposed Action.

Figure 3.4 Conceptual Illustrations of Maximum Building Heights – High Intensity Alternative

Transit-Oriented Development District



(Above) This SEIS alternative implements the vision for the Southcenter area and accommodates the same amount of planned growth but would allow taller buildings than those allowed under the Subarea Plan within the Regional Center and Transit Oriented Development (TOD) Districts, provided the proposed projects meet specific criteria.

Since the amount of growth assumed for this alternative is the same as under the Proposed Action (see Table 3.4), fewer buildings would be needed in the Subarea to accommodate the anticipated growth, resulting in an incrementally more compact land use pattern. Fewer buildings would also generate the same amount of traffic as the Proposed Alternative. Once the maximum number of p.m. peak trips has been reached, the analysis of this SEIS would no longer apply and each development would undergo individual environmental review of its potential impacts -. Alternatively, the SEIS could be updated to address a higher traffic threshold. All other land use impacts from adoption of the subarea plan, development regulations and design guidelines would remain the same as under the Proposed Action.

Open Space

Open Space impacts under the High Intensity Alternative will be similar to those identified under the Proposed Action. Maximum building heights in the TOD District could be taller, increasing the potential for shadowing on open spaces from adjacent development.

Shorelines

Impacts to the shorelines under the High Intensity Alternative will be similar to those identified under the Proposed Action. Maximum building heights could be taller in the TOD District in proximity to the Green River, increasing the potential for shadowing on shorelines from adjacent development. Along the Green River, building heights and setbacks are restricted by Shoreline regulations which would reduce or eliminate shadowing effects on the river resources. Taller buildings would also create more views of the River.

Historic & Archaeological Resources

Historic and Archaeological resource impacts under the High Intensity Alternative will be similar to those identified under the Proposed Action.

Fire Protection

The High Intensity Alternative could result in an increase in commercial and residential development in the Urban Center. Maximum building heights would be less under this Alternative than under the No Action Alternative except in the Regional Center District where maximum heights could reach 214 feet along Tukwila Parkway, and in the TOD District where they would be equal to the No Action, with height bonuses. The High Intensity Alternative's maximum building heights are similar to those under the Proposed Action, except in the TOD District where they are greater than heights allowed in the Proposed Action.

Any significant increase in density and/or height from the current conditions could affect fire and emergency service capabilities, potentially requiring additional personnel and equipment in order to provide appropriate levels of service. To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs.

Schools

Impacts on schools under the High Intensity Alternative will be similar to those identified under the Proposed Action.

3.1.2.3 No Action Alternative

Land Use and Aesthetics

Table 3.4 shows growth assumptions for the No Action alternative. Overall employment growth would most likely increase by approximately 8.5 percent, to a total of approximately 21,393. This represents less employment growth than the Proposed Action or High Intensity Alternative.

No Action would result in a continuation of the Southcenter area's existing land use pattern – big box and strip mall developments surrounded by parking and separated from the street edge - through infill and redevelopment. The greatest employment growth would most likely occur in

retail land uses. As at present, some categories of uses (e.g., retail and industrial) would continue to be dispersed throughout the Urban Center rather than focused into more coherent and compatible districts. The potential for conflicts between uses of different character and intensity would be greater than for the proposed Subarea Plan.

Regional policies encourage the Southcenter area to become a location for significant higher density housing in the long-term, and No Action would likely frustrate accomplishment of this goal. While market conditions could result in development of some housing (approximately 650 units in known pipeline projects), No Action would result in significantly less compared to the Proposed Action or the High Intensity Alternative. In addition, if manufacturing and warehouse/distribution uses continued to be dispersed throughout the Southcenter area, there would be greater potential for land use conflicts and impacts to housing. This pattern of land use, absence of design guidance and uncertainty about the character of adjacent land uses, would generally make the Urban Center a less attractive location for housing.

No Action will also not generate public investment in the types of amenities that will be needed to attract housing and meet regional goals for increasing pedestrian orientation and transit supportive environments, such as smaller block sizes, improved public and private frontages that will enhance walkability, “complete streets”, open spaces, and improvements to site and architectural design. Reduced opportunities for housing in the Urban Center could make it difficult for the City to meet its housing targets. If the City was unable to accommodate its allocation in the Urban Center, there would be greater pressure for infill and intensification of housing in the City’s existing residential neighborhoods. In addition, there could be increased demand in housing markets in adjacent cities – Renton, Seattle, Sea-Tac, in South King County generally, and in Pierce County.

Building Heights, Views, and Visual Character

The existing, undistinguished visual character of the Southcenter area would continue under No Action. Buildings would most likely remain low in height, be set back far from the sidewalk, and be surrounded by extensive surface parking lots. However, because maximum building heights are 115 feet throughout the Urban Center, there is also a potential for taller buildings to locate anywhere within the Urban Center, especially when compared to the Proposed Action. Consequently, shadowing impacts throughout the Urban Center could be greater under No Action, since the allowable maximum building heights in most Districts (except for the Regional Center District) would be higher. When compared with the High Intensity Alternative, impacts from shadowing would be equivalent in the TOD District, less significant in the Regional Center District (where max heights under the High Intensity Alternative are 214’), and greater in the Commercial Corridor and Workplace Districts. Shadowing impacts would occur unpredictably and on a site-specific basis, depending on where tall buildings are constructed. Impacts potentially include obstruction of views from the surrounding residential neighborhoods on hillsides west and north of the Urban Center, a decrease in the amount of sunlight that reaches the street, and a decrease in adjacent development’s solar access.

No additional guidance would be provided for site and building design. Superblocks, lack of pedestrian and bicycle connections and amenities, and absence of streetscape improvements would continue to deter walking, bicycling, and transit use and, instead, encourage auto travel.

Open Space

Publicly accessible open space is not now and would not be required by regulations under No Action. Consequently, the area may continue to redevelop without the additional requirements for parks and open spaces that contribute to “great spaces” and function as amenities that attract housing. Covered or uncovered recreation space would be required for residential developments. No additional guidance on park or open space design would be provided.

Shorelines

Under the No Action Alternative, development within buildings located within 200 feet of the OHWM will be stepped down in height to a maximum of 45 feet to preserve views. Outside of the shoreline environment on parcels adjacent to the River, the maximum building height would continue as currently permitted at 115 feet. Development would be set back from the River 100 feet landward of the OHWM along non-leveed stretches of the River and 125 feet along leveed stretches to allow for the future reconfiguration of the river banks. The visual character of the built environment, as viewed from the Green River Trail, would not be addressed. Horizontal and vertical modulation of a building’s façade facing the River, as well as ground level transparency, would not be required. Land uses adjacent to the Green River north of Strander Boulevard would remain similar to those currently permitted, including warehouse, industrial and auto-intensive uses. Per the requirements of the Shoreline Overlay District, landscaping along the River’s banks will be protected and enhanced. Lighting will be directed away from the river to minimize impacts on the fish habitat.

Historic and Archaeological Resources

Historic and Archaeological Resources impacts under the No Action Alternative will be similar to those identified under the Proposed Action.

Fire Protection

The No Action Alternative could result in an increase in commercial and residential development in the Urban Center. Maximum building heights would be greater under this Alternative than under the Proposed Action or the High Intensity Alternative, except in: 1) the Regional Center District where maximum heights could reach 214 feet along Tukwila Parkway; and 2) in the TOD District under the High Intensity Alternative where maximum building heights would be the same. Any significant increase in density and/or height from the current conditions could affect fire and emergency service capabilities, potentially requiring additional personnel and equipment in order to provide appropriate levels of service. To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs.

Schools

Since less housing is expected under the No Action Alternative than would be developed under the Proposed Action or High Intensity Alternative, fewer additional students would be generated, resulting in less impact to school districts. As seen in Table 3.5 Projected K-12 Student Generation, the No Action Alternative would generate a minimal number of additional students for enrollment within the Tukwila and Renton School Districts on an incremental basis over the 18 year planning period: 11 additional students for the Tukwila K-12 School District; 9 K-12 students for the Renton School District. Based on the distance of existing schools in the Tukwila and Renton School Districts from the Urban Center, students would need to be bused to all school facilities. Similar to the other Alternatives, it is assumed that enrollment in future years would be adequately planned for by both districts through their capital facilities planning efforts, such that capacity would be provided to meet future needs. Over the long term, adjustments in specific school service boundaries may be warranted, as well as future bond issues and levies, to serve general growth in both districts. Associated funds from property taxes would help offset increases in demand for school services.

3.1.3 Mitigation Measures

Land Use and Aesthetics

The proposed development regulations and design guidelines would effectively avoid, reduce and/or minimize potential land use impacts that could occur in the Southcenter Subarea under existing regulations. As noted previously, the regulations would not in themselves cause significant adverse impacts. The recent City updates to the Shoreline Master Program, as consistent with the requirements of state law, harmonize with the proposed uses and standards as appropriate and would have a positive effect on shoreline resources.

Potential shadowing on adjacent uses from taller buildings could be mitigated through careful site planning and building design. As a condition for approval, an applicant could show how shadowing on adjacent open spaces, amenities, and parks is mitigated when proposing a structure over 70 feet in height. Upper stories of buildings could also be required to be set back off the street through the design review process. Shadowing on Tukwila Pond and the Green River would be mitigated through proposed setbacks and the Shoreline regulations. No additional mitigation measures are required.

Open Space

The Proposed Action calls for integrating the natural and recreation amenities with an increasingly urbanized area. Proposed regulations would encourage buildings to “face” Tukwila Pond and the Green River, enhance visual and physical access to parks and amenities, and increase the amount of public and private open spaces. The specific provision of on-site open spaces would be determined as part of the review process of individual projects. The proposed design guidelines would ensure that the open spaces were well designed, usable, and connected to adjacent uses. Improved streetscapes with wider sidewalks and landscaping would provide improved pedestrian access between the open spaces.

Shorelines

The recent City updates to the Shoreline Master Program, as consistent with the requirements of state law, harmonize with the proposed uses and standards as appropriate and would have a positive effect on shoreline resources. No additional mitigation measures are required beyond what is included in proposed development regulations and design guidelines, and the Shoreline Master Program.

Historic and Archaeological Resources

If a historic structure were proposed to be redeveloped, Federal law and the Washington State Department of Archeology and Historic Preservation's (DAHP) law regulating historic sites would apply. Should archaeological materials or human remains be observed during project activities, all work in the immediate vicinity would stop. The State Department of Archaeology and Historic Preservation, the County/City planning office, the affected Tribe(s) and the county coroner (if applicable) would be contacted immediately in order to help assess the situation and determine how to preserve the resource. Compliance with all applicable laws pertaining to archaeological resources (RCW 27.53, 27.44 and WAC 25-48) would be required. No additional mitigation measures are required.

Fire Protection

To address future deficiencies and service capacity needs, the Fire Department would review its needs on an on-going basis as the Urban Center continues to grow and redevelopment occurs. The Fire Department should continue to monitor demand and develop strategic plans for efficiently utilizing available resources. No additional mitigation measures are required.

Schools

It is assumed that enrollment in future years would be adequately planned for by both districts through their capital facilities planning efforts, such that capacity would be provided to meet future needs. Over the long term, adjustments in specific school service boundaries may be warranted, as well as future bond issues and levies, to serve general growth in both districts. Associated funds from property taxes would help offset increases in demand for school services. No additional mitigation measures are required.

3.1.4 Significant Unavoidable Adverse Impacts

Land Use and Aesthetics

Growth will occur in the Southcenter Subarea with or without the proposed Subarea Plan, although the location, type and amount may vary depending on alternative. Redevelopment of the Urban Center is a goal of the City's adopted Comprehensive Plan, and of regional plans and policies, and additional growth has been anticipated. It is acknowledged that some observers may like the Urban Center as it looks and functions today, and may view future growth, intensification, and change as adverse.

Change will occur and is unavoidable, but it will not be adverse in nature. Guiding certain types of land uses to specific Southcenter districts would reduce existing land use conflicts and avoid or reduce future conflicts. Many potential impacts are anticipated in the Subarea Plan and would be mitigated by adopted and/or proposed subarea plan strategies, development regulations and design guidelines.

While some existing uses in some portions of the Urban Center could be displaced in the process of redevelopment, such uses could potentially relocate to other areas of Southcenter or elsewhere in the City. Such displacement may be significant to individual displaced businesses, but is not an adverse impact to land use in the Urban Center.

No significant unavoidable adverse impacts have been identified. While identified land use and aesthetic changes will be significant and are unavoidable, they are generally considered to be positive rather than adverse.

Open Space

No significant unavoidable adverse impacts to open space would result from the Proposed Action.

Shorelines

No significant unavoidable adverse impacts to shorelines would result from the Proposed Action.

Historic and Archaeological Resources

No significant unavoidable adverse impacts to historic and archaeological resources would result from the Proposed Action.

Schools

No significant unavoidable adverse impacts to schools would result from the Proposed Action.

Section 3.2 Relationship to Plans, Policies and Regulations

This section includes a discussion of the relationship of the Southcenter Subarea Plan to Vision 2040, the King County Countywide Planning Policies, and the Tukwila Comprehensive Plan, focusing on the Urban Center and Shoreline policies. The following discussion is selective and focuses on plans, policies and regulations that are relevant to the Urban Center, the proposed Subarea Plan and development regulations. A discussion of the policy consistency of the City's Comprehensive Plan with the Growth Management Act and the Countywide Planning Policies may be found in the Tukwila Comprehensive Plan Draft EIS (1995).

3.2.1 Growth Management Act (RCW 36.70A)

Summary: The GMA gives local jurisdictions the option to include subarea plans as elements of their Comprehensive Plans (RCW 36.70A.080). A subarea plan and any implementing development regulations must be consistent with the Comprehensive Plan and must be adopted consistent with GMA procedures. In general, subarea plans amend the Comprehensive Plan. Initial adoption of a subarea plan may occur outside the annual Comprehensive Plan amendment cycle if it does not modify the Comprehensive Plan's policies and designations applicable to the sub-area (RCW 36.70A.130(2)(a)(1)). Plan adoption must also satisfy GMA public participation requirements (36.70A.020(11) and 36.70A.035).

The Growth Management Act's planning goals (RCW 36.70A.020) are intended to guide development of local comprehensive plans.

- (1) Urban Growth. Encourage development in urban areas where adequate public facilities and services exist or can be provided in an efficient manner.
- (2) Reduce Sprawl. Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.
- (3) Transportation. Encourage efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans.
- (4) Housing. Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.
- (5) Economic Development. Encourage economic development throughout the state that is consistent with adopted comprehensive plans, promote economic opportunity for all citizens of this state, especially for unemployed and for disadvantaged persons, and encourage growth in areas experiencing insufficient economic growth, all within the capacities of the state's natural resources, public services, and public facilities.
- (6) Property Rights. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
- (7) Permits. Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
- (8) Natural Resource Industries. Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses.

(9) Open Space and Recreation. Encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks.

(10) Environment. Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.

(11) Citizen Participation and Coordination. Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

(12) Public Facilities and Services. Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

(13) Historic Preservation. Identify and encourage the preservation of lands, sites, and structures that have historical or archaeological significance.

Discussion: The Southcenter Subarea Plan would supplement and implement the Tukwila Comprehensive Plan's Urban Center Element, which was amended in 2005 and 2013. It would apply land use and capital facility strategies, development regulations and design guidelines to the Urban Center area. In general, the types and intensities of land uses contemplated by the subarea plan would be consistent with the current land use map and zoning designation (Tukwila Urban Center), and with the objectives and policies of the Tukwila Comprehensive Plan, which are discussed further below. The proposed regulations, which would be adopted concurrent with the Subarea Plan, would also identify a number of distinct land use districts within the Urban Center as a means to organize land uses, to ensure compatibility and to implement the plan.

The subarea plan would be consistent with relevant GMA goals, as follows:

- The Urban Center is within a designated urban growth area, is a designated urban center by King County, and is intended to be developed for a mix of high density urban land uses (Goal 1).
- Concentrating development at higher densities in the Urban Center would make efficient use of urban land (Goal 2).
- The Urban Center is served by public transit (including bus, commuter rail and Amtrak service); road and circulation improvements would manage congestion, better link different modes of travel, and promote pedestrian and bicycle circulation (Goal 3).
- Expanding the locations where multifamily housing is permitted in the Urban Center would expand the range of housing choices available in Tukwila, preserve housing stock in existing neighborhoods, and augment the supply of housing in King County. Housing provided by the SEIS alternatives by 2031 could range from approximately 654 units for No Action, to 2,714 dwelling units for the Proposed Action and High Intensity Alternative (Goal 4).

- The Southcenter area is a significant economic driver for the City, and the subarea plan would increase employment and economic development opportunities (Goal 5).
- Implementing regulations are intended to reflect a fair and reasonable approach to regulation and include reliance on market driven changes, public investment, and incentives (Goal 6).
- The City is evaluating the environmental impacts of the Southcenter Subarea Plan “upfront” using the SEPA process outlined in RCW 43.21C.420, which would streamline permitting for projects that are consistent with and implement the subarea plan and have had their impacts reviewed in the SEIS (Goal 7).
- No resource lands are located within or would be affected by the Southcenter Subarea Plan (Goal 8).
- The Southcenter Subarea Plan would enhance existing urban parks/open space and provide additional resources within the Urban Center; land uses within the Plan would not adversely affect habitat, which would support local, state and federal requirements regarding fish and wildlife (Goal 9).
- This SEIS, along with prior environmental documents, evaluates how development of the Southcenter area would affect various elements of the environment. Adopted plans, policies and regulations would mitigate impacts to the natural environment (Goal 10).
- Please refer to the discussion of public participation in the *Southcenter Planning Process* section in Chapter 2, Section 2.3.1 of the SEIS (Goal 11).
- Needs for public facilities and services have been identified in conjunction with the planning and environmental review processes for the Comprehensive Plan, the Southcenter Subarea Plan, and for recent project proposals in the Urban Center (e.g., the Southcenter Mall expansion). A city-wide transportation plan, adopted in 2005, identified improvements specific to the Southcenter area. Other services and capital facilities are adequate to support planned growth; refer to the matrix in Appendix A (Goal 12).
- The Southcenter Plan would not adversely impact lands with historic or archaeological significance within the Urban Center. Please refer to the discussion in the Land Use section (Goal 13).

3.2.2 Vision 2040 (amended 2009)

Summary: Vision 2040, prepared by the Puget Sound Regional Council (PSRC), provides a regional framework for land use, economic and transportation planning that supports the GMA. The core of the regional strategy expressed in Vision 2040 involves focusing a significant share of future growth in regional growth centers, generally the region’s largest and/or strategically located cities, which are connected to and served by high capacity transit service, and characterized by higher density housing and employment. Tukwila is one of PSRC’s designated “regional growth centers.”

Vision 2040 describes the general characteristics (i.e., residential and employment densities) for different categories of centers. Regional growth centers are locations with current or planned concentrations of the region’s most significant business, governmental, and cultural activities. They support high-density urban neighborhoods with a mix of land uses including housing, jobs, shopping and recreation.

The PSRC's *Central Puget Sound Regional Growth Centers* report (2002) summarized growth trends in the region's designated urban centers. The report indicated that the Tukwila Urban Center's 2000 employment was 22,749; at that time, its 27 jobs per gross acre exceeded *Vision 2020's* target of 25 jobs per gross acre. At the same time, the Urban Center had almost no residential population in 2000, which is also true today.

Discussion: Tukwila's Comprehensive Plan contains an Urban Center element which includes goals and policies for the Southcenter area. Future land uses planned for the Southcenter area include a mix of high density, transit supportive retail, commercial, and residential uses. Development would be designed to encourage walking and bicycling, particularly in the northern part of the Urban Center between the Mall and the rail station. Minimum or maximum density is not specified; the hybrid form-based approach of the development standards and guidelines provide the "envelope" for development (setbacks, heights, and building form), and permit a project to achieve whatever densities are attainable within the development "envelope". Depending on SEIS alternative, housing (in multifamily units) would increase from almost zero in 2013 to 654 units for No Action and 2,714 units for the Proposed Action and High Intensity Alternative by 2031. Housing would be located in the Regional Center, TOD and Pond districts. Approximately 4,850 units could be accommodated city-wide under the Proposed Action or High Intensity Alternative.

Total employment and employment density currently surpass Vision 2040's Urban Center targets. The Southcenter Subarea Plan would enhance the potential for economic development and continued employment growth as competition for the share of the retail market increases in the South King County region.

As a beginning step in managing parking supply, required parking minimums are lower in the northern part of the Urban Center where higher density, transit and pedestrian supportive uses will be located. Parking minimums are further reduced for complementary uses and some uses located in proximity to high capacity transit stations.

3.2.3 Countywide Planning Policies

Summary: The Countywide Planning Policies (CPPs), adopted by the King County Growth Management Planning Council (amended December 2012), provide guidance for local jurisdictions to carry out their GMA planning responsibilities. CPP policies relevant to urban centers are summarized below.

It should be noted that Tukwila's Urban Center has previously qualified and been designated as an Urban Center in regional policy documents, including Vision 2020 and Vision 2040, as well as the CPPs. The EIS originally prepared for the City's Comprehensive Plan (1995) included an analysis of the relationship of the plan to GMA goals and the CPPs. The 1995 Comprehensive Plan included an Urban Center Element, which was updated in 2005 and 2013. A background report prepared for the Urban Center Element in 1995 also evaluated the consistency of the Urban Center with CPP criteria. As discussed further below, the proposed Subarea Plan supplements and would implement the adopted Comprehensive Land Use Plan's Urban Center

Element goals and policies; the City is not required to demonstrate again that the Urban Center meets the CPP or Vision 2040 criteria. This SEIS does not repeat the previous analysis; rather, it discusses how the Subarea Plan's strategy and associated development regulations would advance and further adopted City and regional policy.

In general, the CPPs establish guidelines for levels of households and jobs within designated Centers and a policy for the level of growth that is envisioned and should be planned for. Individual cities establish 20-year household and job targets for their centers. The CPPs recognize that individual centers may develop at different paces, and the targets may be achieved over a longer-term period.

According to the U.S. Census, the City had 7,755 housing units in 2010. Puget Sound Regional Council (PSRC) covered employment estimates for the City in 2010 were 43,126. King County establishes targets for the City of Tukwila and its potential annexation areas of 4,850 new households and 17,550 new jobs by 2031. King County's 2005 Annual Growth Report indicates an assumed average density of 38 du/acre for the Urban Center.

DP-29 Concentrate housing and employment growth within designated Urban Centers.

DP-32 Adopt a map and housing and employment growth targets in city comprehensive plans for each Urban Center, and adopt policies to promote and maintain quality of life in the Center through:

- A broad mix of land uses that foster both daytime and nighttime activities and opportunities for social interaction;
- A range of affordable and healthy housing choices;
- Historic preservation and adaptive reuse of historic places;
- Parks and public open spaces that are accessible and beneficial to all residents in the Urban Center;
- Strategies to increase tree canopy within the Urban Center and incorporate low impact development measures to minimize stormwater runoff;
- Facilities to meet human service needs;
- Superior urban design which reflects the local community vision for compact urban development;
- Pedestrian and bicycle mobility, transit use, and linkages between these modes;
- Planning for complete streets to provide safe and inviting access to multiple travel modes, especially bicycle and pedestrian travel; and
- Parking management and other strategies that minimize trips made by single occupant vehicle, especially during peak commute periods.

DP-43 Design communities, neighborhoods, and individual developments using techniques that reduce heat absorption, particularly in Urban Centers.

DP-44 Adopt design standards or guidelines that foster infill development that is compatible with the existing or desired urban character.

- H-4 Provide zoning capacity within each jurisdiction in the Urban Growth Area for a range of housing types and densities, sufficient to accommodate each jurisdiction's overall housing targets and, where applicable, housing growth targets in designated Urban Centers.
- H-5 Adopt policies, strategies, actions and regulations at the local and countywide levels that promote housing supply, affordability, and diversity, including those that address a significant share of the countywide need for housing affordable to very-low, low, and moderate income households. These strategies should address the following:
- a. Overall supply and diversity of housing, including both rental and ownership;
 - b. Housing suitable for a range of household types and sizes;
 - c. Affordability to very-low, low, and moderate income households;
 - d. Housing suitable and affordable for households with special needs;
 - e. Universal design and sustainable development of housing; and
 - f. Housing supply, including affordable housing and special needs housing, within Urban Centers and in other areas planned for concentrations of mixed land uses.
- H-10 Promote housing affordability in coordination with transit, bicycle, and pedestrian plans and investments and in proximity to transit hubs and corridors, such as through transit oriented development and planning for mixed-uses in transit station areas.
- EC-14 Foster economic and employment growth in designated Urban Centers and Manufacturing/Industrial Centers through local investments, planning, and financial policies.
- EC-15 Make local investments to maintain and expand infrastructure and services that support local and regional economic development strategies. Focus investment where it encourages growth in designated centers and helps achieve employment targets.
- T-4 Develop station area plans for high capacity transit stations and transit hubs. Plans should reflect the unique characteristics and local vision for each station area including transit supportive land uses, transit rights-of-way, stations and related facilities, multi-modal linkages, and place-making elements.
- T-6 Foster transit ridership by designing transit facilities and services as well as non-motorized infrastructure so that they are integrated with public spaces and private developments to create an inviting public realm.

Discussion: The boundaries of the Southcenter area are described in the Comprehensive Plan and the Southcenter Subarea Plan. The plans encourage a mix of uses and densities – for both employment and housing – that would support transit use, and provide a range of housing choices and active daytime and nighttime populations. The subarea plan and development regulations include provisions for parks and open space, and a range of urban amenities. They also address landscaping and street trees along streets, around a development's perimeter, and in parking lots. Facilities to address human service needs are permitted within the development

regulations. The subarea plan and new design manual contain design guidelines tailored to achieve the community's vision for Southcenter (DP-32).

The Comprehensive Land Use Plan provides guiding policy for surface water management in the City. The City of Tukwila Stormwater Water Management Plan and Comprehensive Surface Water Management Plan incorporate measures to control stormwater and surface water runoff. The Surface Water Plan addresses new federal regulations and changing surface water management techniques and strategies, including low impact development (LID). The City is currently revising TMC Chapter 18.54 Tree Regulations, whose purpose is to maintain and improve the quality of the City's environment, promote building and site planning practices that are responsive to the community's natural environment, regulate the clearing of trees and understory vegetation, and regulate vegetation removal in sensitive areas and sensitive area buffers (DP-32).

The Subarea Plan includes lower minimum parking standards than currently permitted for the Regional Center, TOD and Pond Districts. These areas are within walking distance of the bus transit centers and rail station, where increased transit ridership and pedestrian activity is desired and encouraged through a change of building form, site design, and amenities. Transportation strategies include commute trip reduction and similar programs. A revised street and pedestrian network would encourage pedestrian and bicycle circulation (DP-32).

The Urban Center is zoned to accommodate the majority of Tukwila's new housing and employment growth targets. The proposed zoning code amendments and land use districts accommodate a mix of housing types; densities are not specified, but the specified development "envelope" (i.e., min/max building height, setbacks, parking requirements) would control the form and intensity of development. Locations where housing development is permitted are expanded in the proposed subarea plan and revised code. The revised code also offers a building height incentive in exchange for including multifamily housing in a project (H-4 & H-5).

The subarea plan is intended to achieve high urban densities that would encourage transit use; it would also locate significant new housing and mixed-use development proximate to a Commuter Rail station and bus transit center. A revised street and pedestrian network would support increased non-motorized mobility (H-10).

The Southcenter Plan includes strategies that would retain current businesses and encourage economic growth in the Urban Center. Strategies include a combination of working with market forces, employing new development and design regulations, and using focused public investments to stimulate new development that implements the community vision for the Urban Center and keeps it financially viable in the face of regional retail competition (EC-14 & EC-15).

The northern portion of the Southcenter area includes a bus transit center and a commuter rail/Amtrak station, located within one-half mile walking distance of planned population and significant employment. These two facilities are located in a proposed "Transit Oriented Development" (TOD) District. Because the subarea is large in area, employment uses located in the southern portion of the subarea may be further than a one-half mile walk from transit centers; but these areas would be closer to existing or planned bus transit stops. Site development policies call for connecting transit stops with adjacent development; the Subarea Plan calls for creating a

strong “sense of place” within the Urban Center; new street design standards, open space standards, and architectural guidelines will work towards creating an inviting public realm. New street design standards will provide wider sidewalks in northern part of urban center to support the desired level of pedestrian activity, and bicycle facilities on selected roadways. Future street map identifies locations of planned cross-streets that will break up the existing mega blocks, thereby enhancing motorized capacity, walking and biking (T4 & T-6).

The proposed Southcenter Design Manual employs regulations calling for architectural elements designed to minimize solar gain during summer months. Landscaping requirements in the newly revised development regulations call for more landscaping in parking lots and using shade trees on east and west windows to balance summer cooling and winter heating (DP-43).

The Design Manual and new development regulations are focused on addressing redevelopment of underutilized properties and infill development, and ensuring compatibility with the community’s vision. Breaking up mega blocks, considering building orientation to streets and open spaces, connecting buildings to the sidewalk with pedestrian facilities, limiting parking between the building and sidewalk, improving public frontage, and architectural design guidelines will help to implement the Subarea Plan’s vision (DP-44).

3.2.4 Tukwila Comprehensive Land Use Plan (2005, 2013)

Summary: The Comprehensive Land Use Plan was initially adopted in 1995, following environmental review pursuant to SEPA, was amended in 2005, and is currently being updated as required by the state’s Growth Management Act. The Plan’s Urban Center Element contains a vision, policies and implementation strategies which are intended to guide the general direction of the Southcenter Plan. This element has evolved since the Southcenter area was initially designated as an Urban Center, and now provides more area-specific guidance to the Southcenter planning process, which has been underway since 2002.

The basic vision of the Urban Center (initially articulated in the 1995 Comprehensive Land Use Plan) is of an economically vibrant, high density area with regional employment, limited mixed-use housing, shopping and recreational opportunities; transit and pedestrian systems supplementing an improved road system; and sensitive treatment of natural resources. Additional elements of the vision, incorporated in 2005 to reflect public input received during the Southcenter Subarea Planning process, include:

- Improved connections between the Westfield Southcenter Mall and Tukwila Pond.
- An area of high quality, walkable mix of retail, entertainment, housing, public spaces and employment in the northern part of the urban center -- a memorable destination within the region.
- Anchor areas linked by frequent transit service, enhanced with public and private pedestrian facilities, and development standards supporting this type of built environment.
- High quality transit and pedestrian facilities, focusing on creating strong connections between the urban center and the Sounder Commuter Rail/Amtrak station.
- Overall improvements to the network of streets, trails, sidewalks and other infrastructure.

- Encouragement of pedestrian-oriented environment through building and streetscape design features.
- Sensitivity to the needs of existing businesses while facilitating the area's market-driven transitions.

The boundaries of the urban center are defined, consistent with the boundaries of the subarea described in Chapter 2, Section 2.1 of the Draft SEIS.

Discussion: The proposed Southcenter Subarea Plan, development regulations and design guidelines are intended to achieve the vision of the Urban Center as articulated in the Comprehensive Land Use Plan. The various components of the vision (land use, design, streets, etc.) are echoed in the Urban Center Element; they are discussed below in the context of goals and policies.

Summary: Goal 10.1 Land Use. The Tukwila Urban Center (TUC) will contain an intense, diverse mix of uses which will evolve over time. The character and pace of this evolution will have been set by a combination of guidelines, regulations, incentives, market conditions and proactive private/public actions which reinforce existing strengths and open new opportunities, and the desire for a high quality environment for workers, visitors and residents.

10.1.1 Recognize the Tukwila Urban center as a regional commercial/industrial area with opportunities for residential development, served by a balance of auto, pedestrian and transit facilities.

Discussion: The TUC is designated as a regional Urban Center in Vision 2020, Vision 2040, and the King County Countywide Planning Policies. The TUC is currently characterized by a combination of retail, light industrial, warehouse and distribution, lodging and office uses. These same uses would continue, with the planned addition of housing over time in the northern portion of the TUC. An expanded street network and pedestrian connections would help make walking more feasible and pleasant and would help to balance the transportation system. The new permanent Sounder Commuter Rail/Amtrak station and the new bus transit center would facilitate mixed-use development in the northern portion of the TUC.

10.1.2 Public/private investment shall facilitate and encourage overall growth in the Tukwila Urban Center.

Discussion: Redevelopment of the TUC would occur through a combination of public and private actions. Growth would be influenced by market economics and public investment, and guided by development regulations and design guidelines. Proposed zoning code amendments would also provide development incentives (e.g., a height increase) to achieve desired objectives, such as housing and pedestrian amenities.

10.1.3 Tukwila Urban Center "Districts". The TUC encompasses a relatively large area containing a wide variety of uses. To create a more coherent urban form and enhance the center's long-term competitive edge within the region, this plan seeks to guide

development and change to create distinct areas where the character, forms, types of uses and activities benefit, complement and support each other.

Discussion: The variety of uses occurring in the TUC today are often scattered randomly throughout the subarea. Existing zoning permits any use to locate anywhere in the TUC, although some concentrations of similar development (e.g., warehousing) have formed. There is little certainty, therefore, about where particular uses could locate, and there is an ongoing potential for land use conflicts. The proposed Subarea Plan, development regulations (including use, height limits, setbacks, parking, public frontage, and building placement, and architectural regulations), and design guidelines (applied through design review) would create distinct land use districts, containing complementary land uses with a coherent character. Building heights would increase relative to current height limits in some portions of the subarea, but maximum allowable heights will decrease in the subarea as a whole compared to what is currently permitted. The plan has been developed with the involvement of the public and stakeholders.

10.1.4 Tukwila Urban Center Residential Uses. Allow residential development in proximity to water amenities or within walking distance of the Sounder commuter rail/Amtrak station, subject to special design standards.

Discussion: The TUC Plan encourages housing in mixed-use and single-use structures in the northern portion of the TUC, around the Mall, adjacent to the Green River and Tukwila Pond, and in the area surrounding the Tukwila Station. These areas would be within walking distance of the new Sounder commuter rail station or the bus transit center. Development regulations (including addressing some aspects of architectural design) and design guidelines would ensure that buildings are of appropriate scale, high quality design, and compatible with the community's vision for the area.

Summary: Goal 10.2 Urban Development. Encourage and allow a central focus for the Tukwila Urban Center, with natural and built environments that are attractive, functional and distinctive, and support a range of mixed-uses promoting business, shopping, recreation, entertainment and residential opportunities.

Discussion: The proposed Subarea Plan would concentrate a mix of urban uses (retail, housing, office, and lodging) in the northern portion of the TUC. Planned uses, and new streets and pedestrian connections, would connect the Regional Center, TOD and Pond Districts. An increase in public open spaces would balance the intensifying urban area.

10.2.1 Natural Environment. Recognize, protect and enhance the open space network by augmenting existing parks, enhancing access to passive and active recreation areas such as Tukwila Pond, Minkler Pond and the Green River, and by improving air and water quality and preserving natural resources; thereby effectively integrating the natural and built environments in the Tukwila Urban Center.

Discussion: New parks, trails and urban open spaces would be developed through a combination of regulations and public investments. Development would be attracted to amenities such as the Green River, providing connections and access to the existing trail along the shoreline. Around

Tukwila Pond, adjacent mixed-use development would be oriented to a publicly accessible esplanade on the northern edge of the Pond. Existing development regulations --- such as stormwater standards, shoreline policies, and critical area regulations -- would protect the natural environment, including the water quality of Tukwila Pond.

10.2.2 *Streets, Streetscape and Pedestrian Environment.* Create a street network that reflects the demand and need for motor vehicles, transit, pedestrians and bicyclists; provides a safe, convenient, attractive and comfortable pedestrian environment that eliminates potential conflicts and promotes safety for all modes of travel; and reinforces the different functions of streets by creating distinct identities for major rights-of-way.

Discussion: The Subarea Plan includes a network of new streets and pedestrian ways which would reduce the size of superblocks, expand the street network, and enhance vehicular and pedestrian circulation. Proposed development regulations and design guidelines would guide access, improvements, building orientation, on-site parking, public and private frontage improvements, and landscaping based on street type.

10.2.3 *Site Development.* Create regulations and design guidelines to result in high quality site design and contribute to the creation of hospitable pedestrian environments through the use of site design techniques.

Discussion: Proposed TUC development regulations and design guidelines address site architectural, and building design, and the pedestrian environment and amenities. Based on the goals of each district, building height, setbacks, orientation and landscaping would be focused on creating a pedestrian environment that is attractive and convenient.

10.2.4 Require interior vehicular connection between adjacent parking areas wherever possible.

Discussion: Proposed parking guidelines for vehicular access, site development regulations, and design review would address this policy.

10.2.5 Development standards should consider the needs of land owners, developers and businesses.

Discussion: The proposed Subarea Plan desires to maintain and enhance the economic vitality of the TUC, which is driven by business activity, while also improving its appearance and functioning. The Plan is intended to work consistent with economic markets. Proposed Subarea development standards are believed to result in a balanced approach, using a combination of requirements, guidelines and incentives. The proposed standards and guidelines are intended to bolster the Urban Center's market position as the primary shopping/destination center within the region.

10.2.6 *Parking.* Ensure an adequate supply of parking for visitors, employees and businesses. Provide a variety of flexible regulations, strategies and programs to meet parking demands. Ongoing needs shall also be assessed to ensure adequate parking requirements and encourage efficient and effective use of land in parking design.

Discussion: The proposed TUC development regulations establish minimum parking requirements for each type of use. Lower minimum parking figures than currently required by code are provided for development in the northern portion of the TUC, which will have better access to transit and improved pedestrian facilities. Minimum parking requirements for commercial and residential development within walking distance of the Sounder/Amtrak rail station or the Tukwila bus transit center (600 feet for commercial uses and 1,320 feet for residential) may be reduced or modified. New on-street parking spaces provided along adjacent new streets may be counted toward the minimum parking requirement for commercial development on that property. Parking requirements can be met through payment of fees based on the current real cost of constructing a parking space in an exposed, above ground parking structure. On-street parking would be permitted on some streets. Pedestrian amenities and safety improvements would be implemented through regulations and design guidelines. Adopted transportation demand programs would apply to new development.

The plan establishes Parking Types that identify the type and location of parking areas permitted for development, based on location along specific corridors within the TUC. These parking regulations ensure that the provision of parking, and the design and configuration of parking areas, contributes to the character of and supports the type of development desired within the TUC. In general, parking in the northern portion of the TUC should occur behind or to the side of buildings, in limited amounts between the building and sidewalk, or in parking structures. Unrestricted amounts of parking between the building and the street could occur in the Corridor Commercial and Workplace Districts.

10.2.7 Building Design. Promote high quality, market feasible architecture in the Tukwila Urban Center, with attention to guidelines which:

- a. Promote an appropriate display of scale and proportions.
- b. Give special attention to developing pedestrian-oriented features and streetfront activity areas such as ground floor windows, modulated building facades, rich details in materials and signage;
- c. Provide quality landscape treatment;
- d. Provided an appropriate relationship to adjacent sites and features; and
- e. Encourage overall building quality and sensitivity to, and respect for, the area's important features such as the Green River and Tukwila Pond.
- f. Include property owners in developing urban design guidelines to ensure that the intent of this policy is met.

Discussion: The proposed TUC development regulations and design guidelines address architectural elements and style, design character, building height, design and orientation, setbacks, streetscape improvements and landscaping. A specific design theme is not mandated, however. The regulations and guidelines direct development throughout the TUC according to a series of distinct districts of hierarchical density, scale and use. Together, they are intended to achieve high quality site and building design which improves the appearance of the TUC and, where appropriate, creates a pleasant and functional pedestrian environment.

10.2.8 Signage. Revise sign regulations to promote clear identification of businesses and directions, and signage that complements the design of the structure or facility; unobtrusive signage should contribute visual consistency at street level and for passing motorists, and promote high quality retailing and business development appropriate to “concentrated” mixed-use areas within the Tukwila Urban center.

Discussion: Tukwila adopted a citywide sign code in 2010 addressing permanent and temporary signs, a master sign program, and the construction, maintenance and removal of signs. The code is intended to increase the effectiveness of visual communication in the City, have signs that attract and invite the public’s attention, and have streets that appear orderly and safe because clutter is minimized. The code also established an “opt-out” provision for properties that currently do not have the development pattern that would benefit from the new sign regulations (e.g., an area of existing development that due to its high traffic counts and auto-oriented property configuration is well served by the historical sign regulations). The time period for applying for this exception has passed.

10.2.9 Parks, Open Space and Public Amenities. Support plans, policies, projects and programs to expand and improve the parks, open space and other amenities in the Tukwila Urban Center and seek opportunities to develop new facilities that enhance the overall experience of employees, residents, business owners and visitors.

Discussion: The Southcenter Subarea Plan would integrate new plazas and urban open spaces into planned development to ensure a wide range of public open spaces that complement the primary public streets and open spaces in each district. An esplanade (approximately 1,200 linear feet) would be created at Tukwila Pond and public access to the Pond Park would be improved. Most types of new development would be required to contribute to open space (on site, or constructed off-premises and/or as part of a larger open space being provided by the City or other private developments within that district or within 1,000 feet of the project premises) based on the size/number of units proposed and resulting impacts.

10.2.10 Economic Development. Actively promote development in the Tukwila Urban Center by supporting existing uses, expanding the range of allowable uses, developing design guidelines, increasing amenities, adopting workable regulations, investing in public improvements; and proactively developing programs and incentives to attract new businesses, investing in infrastructure and public amenities; and encouraging business owners and developers to invest in the quality of the built and natural environment.

Discussion: The fundamental underpinnings and explicit goals of the proposed Subarea Plan include maintaining, building on and leveraging the economic vitality of the TUC, and bolstering the TUC’s market position as the primary shopping center in the region. The Plan creates a framework that accommodates the widest possible range of investments while avoiding the potential loss of value from inappropriate juxtapositions of different uses. It accomplishes this by identifying appropriate locations for pedestrian-oriented destination retail and auto-oriented retail and services. Development regulations and design guidelines would create districts with compatible, well-designed urban land uses. The existing mix of uses would be expanded to include housing. The City, in conjunction with the private sector, would invest in a range of new

physical improvements, including parks, trails, landscaping, public frontage improvements, and new streets and pedestrian corridors.

Summary: Goal 10.3 Transportation and Circulation. A balanced transportation network that complements the Tukwila Urban Center land use and design policies and provides access for all transportation modes to, from and within the center.

10.3.1 Regional Access. Promote transportation and transit services and facilities, as well as traffic management systems that increase and improve access to and from the Tukwila Urban Center for all transportation modes; encourage a range of solutions, including but not limited to local circulator systems, regional serving park-and-ride sites, connections to regional rail alignments, and regional and local high-occupancy vehicle systems.

Discussion: The City has been working with transit providers to enhance bus and rail transit service to the TUC; the types, location and design of planned land uses would also be coordinated with existing and future transit service nodes. The Subarea Plan proposes a mix of uses and urban densities that will promote and support increased transit use and investment. Land uses in the northern portion of the TUC, where the most change is expected to be focused, are within a short walk of bus and rail transit centers. Future residential and mixed-use development in the TUC's TOD District, for example, would be concentrated near the planned Commuter Rail/Amtrak station. The City has also developed a Growth and Transportation Efficiency Center (GTEC) program for the Urban Center, containing a collection of city-adopted goals and policies, facility and service improvements and marketing strategies that are designed to help reduce drive alone trips and vehicle miles travelled over the next six years.

10.3.2 Local Access. Support the development of a continuous, comprehensive public street network that serves all transportation needs, allows a range of travel route choices, and facilitates access within Tukwila Urban Center for both motorized and non-motorized transportation modes.

Discussion: The Southcenter Subarea Plan includes a modified street network that will improve vehicular and pedestrian circulation. Proposed design guidelines and streetscape improvements would make walking and biking a safe, pleasant and realistic alternative to driving within the TUC. The City's Transportation Plan was updated in 2005 to include a number of road and intersection improvements that will support planned growth at adopted levels of service.

10.3.3 Transit Service and Facilities. In an effort to provide the greatest benefit to employees, business people, shoppers, visitors and residents of the Tukwila Urban center, promote the development and enhancement of transit service and facilities; coordinate with regional transit agencies to enhance existing and future bus and rail facilities; ensure consistency in planning between land use and transportation to create compatibility between motor vehicles, transit and pedestrians.

10.3.4 Transportation Alternatives. Ensure that land use, urban design and transportation and circulation actions for employees support and reinforce transportation alternatives,

including the Commute Trip Reduction programs, Transportation Demand Management (TDM) programs, Rideshare programs, and related projects and programs.

10.3.5 Pedestrian Network. Create a non-motorized transportation network by exploring the use of railroad rights-of-way as pedestrian paths; utilizing public/private funds to augment the existing network, and create connections between sites, within sites, and from building entrances to the street.

Discussion: The City has been coordinating with local and regional transit agencies while it developed the Comprehensive Land Use Plan and the Southcenter Subarea Plan. The northern portion of the TUC will contain a bus transit center and a new permanent Sounder Commuter Rail/Amtrak station. The Southcenter Subarea Plan coordinates land use with transportation considerations. A more concentrated, higher density, mixed-use land use pattern, which focuses housing, office and retail development within walking distance of transit stations, would enhance the use of transit service. The Subarea Plan would also create major pedestrian corridors and a system of trails that would improve the pedestrian environment and make walking a safe and convenient alternative to driving within the TUC. Urban design guidelines and site development standards focus on putting in place pedestrian connections between building entrances and streets, particularly through large parking lots.

Summary: TUC Element Update, 2013. Pending changes to the TUC element, as part of the 2013 Comprehensive Plan update, primarily update, reorganize, consolidate and/or clarify existing policies and implementation strategies adopted during the last Comprehensive Plan update in 2005 and include the following:

- Rebranding - substituting *Southcenter area* for *Tukwila Urban Center* or *TUC*.
- Updated the *Purpose* section to reflect most recent King County and Puget Sound Regional Council policies regarding urban centers.
- Revised the Issues section to make it more relevant to current issues, particularly the need to accommodate King County housing targets for Tukwila.
- Increased the “visibility and clarity” of the Vision Statement section, so that the vision for the urban center is clearly stated upfront for the reader.
- Wordsmithing or technical edits to increase clarity and readability
- Streamlining the document by deletion of goals, policies and implementation strategies that are redundant of those contained in other elements of the comprehensive plan, such as those related to transportation.

Discussion: The Proposed Action is consistent with the proposed updates to the TUC element.

3.2.5 Tukwila Shoreline Master Program

The City adopted a Shoreline Master Program (SMP) complying with the Shoreline Management Act (RCW 90.58) in 1974; it was amended and approved by WA Department of Ecology in 1982, 1995, and 2011. The SMP applies to lands within 200 feet of the ordinary high water mark of designated “shorelines of the state”, which includes the Green River. A substantial development permit is required for most development occurring within the designated shoreline. Local master programs, which are reviewed and approved by the Department of Ecology, must

characterize shorelines according to their functions, and adopt policies and regulations for their appropriate use. The local SMP is required to achieve a balance of uses that reflect both the state-wide interest in shorelines and various local goals.

3.2.5.1 Comprehensive Plan Goals and Policies – Shoreline Element

Summary: As required by the Growth Management Act (RCW 36.70A.480), the City has incorporated the policies of the SMP into the Shoreline Element of the Comprehensive Land Use Plan and harmonized them with applicable Land Use policies.

The Comprehensive Land Use Plan's Shoreline goals and policies are intended to reflect the City's priorities for directing change by facilitating redevelopment of the urban center and Manufacturing/Industrial Center, increasing public access to the river, and increasing the amount of trees and landscaping in the river environment.

The Shoreline Management Act designates the Green River a "shoreline of statewide significance." Local master programs are required to give preference to uses (in priority order) that:

1. Recognize and protect the statewide interest over local interest.
2. Preserve the natural character of the shoreline.
3. Result in long-term over short-term benefit.
5. Increase public access to publically owned areas of the shoreline.
6. Increase recreational opportunities for the public in the shoreline.
7. Provide for any other element defined in RCW 90.58.100 deemed appropriate of necessary.

Goal 5.1, Shoreline Environment Designations, is intended to meet SMA requirements and reflect local conditions. Approximately two-thirds of the City's shoreline – including the Green River shoreline in the urban center – is designated as an Urban Conservancy Shoreline Environment. Use priority in this environment (per Policy 5.1.2) is given to development that protects and enhances vegetation, sensitive areas, and ecological functions; preserves water quality to assure no net loss of shoreline ecological functions; promotes water enjoyment; restores shoreline ecological functions; minimizes interference with navigation and flood control, considers impacts to views, and allows for safe passage of fish and wildlife; provides public access and recreations when ecological impacts can be mitigated; and, does not require extensive alteration of the shoreline, except for restoration projects. The redevelopment and development of commercial and industrial activities are also supported where shoreline impacts are minimized and there is no net loss of shoreline functions.

Goal 5.2 calls for expanding the value of the river as a local and regional resource through regional coordination of shoreline management programs and programs that foster appreciation and awareness of the river, involving businesses, schools, government and community organizations.

Goal 5.3 specifies that land development along the shoreline should foster economic vitality while preserving the long-term benefits of the river. Policies relevant to the Southcenter Subarea Plan include the following:

- 5.3.1 Developing and implementing river design guidelines that encourage project designs to view the river as an amenity; guide design of and increase multiple-use activities; prioritize locations for use; and encourage the maintenance of native planted vegetation and the removal of invasive species with nonchemical methods.
- 5.3.2 Designing and locating development to minimize impacts to other important shoreline functions, such as for wildlife, habitat, vegetation, public access and recreation, historical resources, and flood control.
- 5.3.5 Recognize and promote the river's contribution to the economic vitality of Tukwila, as a valuable amenity for existing or future businesses which depend on or benefit from a shoreline location.
- 5.3.7 *TUC Development Policy.* Design and locate shoreline development in the urban center to encourage water enjoyment uses that:
 - provide for shoreline multiple uses and are consistent with underlying zoning;
 - provide additional benefits, such as riverbank restoration, fishing piers, non-motorized boat launches, river views, interpretive signs;
 - support public access to and along the shoreline;
 - provide water enjoyment uses as transitions between the river and non-water dependent uses; and
 - encourage efficient use of land through such techniques as clustering, mixed-use projects, cooperative parking or parking located under principle structures, and shared utility and access corridors.

Goal 5.5 Enhanced identity of the river as a unique community asset through high quality development and public activities that reflect Tukwila's history and sense of community pride.

- 5.5.1 Shoreline development should be required to have no net loss of shoreline function; designed to be consistent with Tukwila's Shoreline Design Guidelines; reflects principles of high quality design in site planning, architecture and landscaping, and provides open space that enhances the shoreline environment.

Goal 5.6 Providing increased amounts of and a diversity of opportunities for public recreation and access to and along the river, including visual and cultural access to the water's edge, opportunities for small boat access, and connections to other neighborhoods, consistent with the shoreline character.

- 5.6.1 Retain and improve areas identified as important in the network of public access to the river, including cross-town connections, former railroad rights-of-ways and

unimproved street-end rights-of-ways, historic sites, unique natural features or other areas valuable for their interpretive potential.

- 5.6.2 Maintain existing parks along the shoreline and acquire additional park lands to increase access and recreation opportunities.
- 5.6.9 Shoreline development shall maintain and encourage views of the water from the shoreline and upland area through design of building and outdoor spaces.
- 5.6.11 Improve pedestrian connections between the river, Green River Trail and the urban center's commercial, office and residential uses.

Other relevant shoreline goals include the following:

- Goal 5.7 Safe corridors and amenities for pedestrians, cyclists and users of public transportation, allowing more citizens to access and enjoy the river.
- Goal 5.8 Identification, enhancement, restoration and protection of sites with historic and cultural value.
- Goal 5.9 Restored, enhanced and protected natural environmental resources along the river, including trees, wildlife habitat, and features with value for long-term public, scientific, and educational uses.
- Goal 5.10 Improved water quality and quantity control programs that improve the river's water quality, provide habitat for fish and wildlife, protect river health and safety, and enhance public enjoyment of the river.
- Goal 5.11 Shoreline uses that do not endanger public health, safety and welfare, or the capacity of the river to provide long term benefits and resources to the community.

Discussion: The proposed Southcenter Subarea Plan, revised development regulations, and new design guidelines, have all been crafted to be consistent with applicable shoreline policies and use regulations. In general, the plan is intended to create a mixed-use neighborhood with enhanced visual and public access to the river, and pedestrian connections to other portions of the subarea, but also to protect shoreline functions through setbacks and environmental standards (e.g., critical area regulations and stormwater requirements).

- Implementation of the subarea plan would achieve the use priorities for shorelines of statewide significance. The shoreline of the Green River in the Urban Center is currently surrounded by urban development, and is not natural in character. As discussed above, in regard to the Growth Management Act and Countywide Planning Policies, planned mixed-use/residential development in the Urban Center's TOD District would help achieve significant, long-term, state-wide and regional growth management objectives – including concentrating employment and housing in designated urban centers at higher densities

proximate to transit. Existing and planned trails and public and private open spaces would increase shoreline public access and recreational opportunities.

- The shoreline within the Southcenter area is currently developed with a mix of commercial and industrial uses. Redevelopment within the TOD District, and in other portions of the urban center adjacent to the shoreline, would be consistent with the priorities of the Urban Conservancy Environment (Goals 5.1 and 5.11).
- The Southcenter Plan defers to and is consistent with the guidelines and regulations in the Shoreline Master Plan, TMC Chapter 44 Shoreline Overlay, and Shoreline Restoration Plan for coordination of regional shoreline management programs (Goal 5.2).
- Future development and redevelopment adjacent to the shoreline, as encouraged by the Southcenter Subarea Plan, would help to maintain the urban center's economic vitality. Existing shoreline regulations, environmental regulations, and proposed Southcenter development regulations would protect the river's environmental functions and values (Goal 5.3).
- Proposed regulations and design guidelines specifically address the river environment. Setbacks, for example, would comply with required shoreline setbacks, and building heights would step down adjacent to the river (Policy 5.3.1, 5.3.2, and 5.6.9). The Subarea Plan would create new views of the river, provide increased public access, and generally treat the river as a unique environmental amenity for the entire community (Policy 5.3.5). Multiple uses, including housing, are encouraged in the TOD District and along the river in the Workplace District. New development and City programs would provide increased trail connections and pedestrian amenities, as well as a pedestrian bridge crossing the river. Open space guidelines address pedestrian connections between the Green River and a publicly accessible street/sidewalk. Architectural design standards address the ground level transparency and modulation of buildings facing the river. Land would be used efficiently for a mix of high density urban uses (Policy 5.3.7, Goals 5.5, 5.6 and 5.7). Existing shoreline regulations, the revised TUC development standards, and the new design manual would control the type of use and location of development, and ensure high quality design within the shoreline jurisdiction (Policy 5.5.1).
- The Corridor Map for the Southcenter area identifies future streets connecting activity areas, such as Tukwila Pond and the Green River, and the reuse of railroad right-of-ways (Policy 5.6.1). New development regulations for open space and public pathways will support goals of increasing access and recreation opportunities (Policy 5.6.2 and 5.6.11).
- Historic preservation goals adopted in the Community Image Element of the Tukwila Comprehensive Plan address preservation of historic resources within the City. State and federal regulations address protection of archaeological and historic sites and structures (Goal 5.8).
- Proposed development regulations require landscaping in connection with development and redevelopment. Trees and shrubs would enhance wildlife habitat and the visual attractiveness

of the shoreline (Goal 5.9). Adopted environmental programs – including the shoreline master program, critical area regulations, and stormwater management standards, and regional programs such as WRIA 9 and King County Flood Hazard Management Plan – would protect water quality and habitat, and provide flood control (Goal 5.2 and 5.10).

3.2.5.2 Shoreline Use Regulations

Summary: The City has incorporated the SMP's use regulations into a shoreline overlay classification in the zoning code (TMC Chapter 18.44). The overlay applies in addition to regulations of the underlying zoning district; all uses permitted in the underlying zone are also permitted in the shoreline; and conditional uses require a shoreline conditional use permit.

All shorelines within the City are designated Urban; four sub-categories of the Urban designation – Shoreline Residential Environment, Urban Conservancy Environment, High Intensity Environment, and Aquatic Environment - are identified in the Comprehensive Plan, discussed above. The Green River, as it passes through the urban center, is designated Urban Conservancy Environment. General shoreline regulations, applicable to all uses, include the following:

- The first priority for city-owned property within the shoreline jurisdiction shall be reserved for water-dependent uses including habitat restoration, followed by water-enjoyment uses, public access, passive recreation and open spaces, or public educational purposes.
- Limitations on hazardous waste handling, processing or storage within the shoreline jurisdiction, unless incidental to a use allowed in that area and adequate controls are in place to prevent any releases to the shoreline/river.
- Overwater structures shall not cause a net loss of ecological function, interfere with navigation or flood management, or present potential hazards to downstream properties or facilities, and shall comply with Overwater Structures Section of TMC.
- Parking as a primary use is not permitted, except for existing Park and Ride lots, where adequate stormwater collection and treatment is in place to protect water quality. Parking is only permitted as an accessory to a permitted or conditional use in the shoreline jurisdiction.
- All development activities or uses, unless it is an approved overwater or flood structure or shoreline restoration project, shall be prohibited waterward of the Ordinary High Water Mark (OHWM).

The purpose of the Urban Conservancy Environment is to protect ecological functions where they exist in urban and developed settings, and restore ecological functions where they have been previously degraded, while allowing a variety of compatible uses.

Two river buffers are defined for the Green River through the Urban Center, measured in distance from the mean high water mark. The purposes of the river buffers are to:

- Ensure no net loss of shoreline function;
- Restore degraded ecological functions;
- Provide for restoration & public access;
- Allow for adequate flood & channel management;
- Avoid need for new shoreline armoring; and

- Protect existing & new development from high river flows.

The buffer designation is dependent on the location along the river and whether or not there is a flood control levee. In some cases, buffer widths may be reduced. Additional regulations are specified for each buffer:

- *Urban Conservancy Environment Buffer* – The buffer will consist of that area measured 100 feet landward of the OHWM for non-leveed portions of the river, and that area measured 125 feet landward from the OHWM for leveed portions of the river. These setbacks allow enough room to reconfigure the river bank to achieve a slope of 2.5:1, the angle of repose or the maximum angle of a stable slope, and allow for some restoration and improvement of shoreline function through the installation of native plants and other habitat features. No uses or structures are permitted, except for trails, limited recreation facilities, some signs, bridges, utility towers, some roads, some shoreline stabilization, water dependent commercial and industrial development (if permitted by underlying zoning), pollution control support facilities, some landfills and regional detention facilities, and water-oriented and some non-water oriented essential public facilities. Conditional uses in this buffer include some dredging, new private vehicle bridges, and some fill.
- *Urban Conservancy Environment Outside of Buffer* – All permitted and conditional uses in the Urban Conservancy Environment Buffer and Shoreline Use Matrix are similarly permitted and conditional uses outside of the Urban Conservancy Environment Buffer and within 200 feet of the OHWM.

Development within the Urban Conservancy Environment Buffer is limited to 15 feet in height; 45 feet in height between the outside landward edge of the River Buffer and 200 feet of the OHWM. Buildings that obstruct views of a substantial number of residences on areas adjoining shorelines are limited to 35 feet height, but can exceed that if complying with a buffer enhancement height incentive. Appropriate landscaping is required, as is protection of native vegetation and trees within the shoreline jurisdiction. Public access to the shoreline may be required as mitigation where a development or use will create increased demand for public access to the shoreline; incentives for providing public access are also identified. Shoreline design guidelines apply to new development, uses and activities in the Urban Conservancy Environment, addressing site, building, and public access.

Discussion: The Southcenter Subarea Plan, development regulations, and design guidelines defer to and have been developed consistent with adopted shoreline regulations. The mix of uses encouraged in the Urban Center districts within or adjacent to the shoreline are intended to be consistent with use limitations in the shoreline, to enhance public access to the shoreline, but to prohibit activities that would interfere with shoreline functions or the public's enjoyment of the shoreline. Setbacks in urban center districts/portions of districts within the shoreline would be consistent with the setbacks in applicable shoreline management environments, and uses would be oriented to the river.

Activities and individual development projects within shoreline jurisdiction would be reviewed for consistency with applicable policies and use regulations.

3.2.6 Plans of Adjacent Cities

The Urban Center can be thought of as almost an “island”, which is separated from adjacent jurisdictions by the Green River, significant railroad lines, and major freeways. Impacts of the Subarea Plan will be self-contained for the most part, and any effects of the Subarea Plan on adjacent jurisdictions, therefore, are expected to be minor. The relationship of the Proposed Action to plans of the Cities of Renton, SeaTac and Kent are discussed below.

3.2.6.1 City of Renton

The City of Renton shares an eastern boundary with the Urban Center, separated by the Burlington Northern Santa Fe (BNSF) railroad right-of-way. Land adjacent to this boundary in Renton is zoned *Commercial Office* (CO). CO is established to provide areas appropriate for professional, administrative, and business offices and related uses, offering high-quality and amenity work environments. In addition, a mix of limited retail and service uses may be allowed to primarily support other uses within the zone, subject to special conditions. Limited light industrial activities, which can effectively blend in with an office environment, are allowed, as are medical institutions and related uses. These uses are consistent with the types of uses permitted in the Urban Center’s TOD District and would not be adversely affected by the Proposed Action.

The SW 27th Street/Strander Boulevard extension transportation project will link Renton with the Urban Center via a roadway travelling under the BNSF and Union Pacific railroad tracks, connecting with the future Sound Transit Tukwila Commuter Rail Station. The City of Renton’s Trails and Bicycle Master Plan (2009) identifies a separated multi-use trail from Strander Boulevard in Tukwila to Puget Drive in Renton. Renton’s SW 27th Street/Strander Boulevard extension project includes this trail alignment. This SEIS does not evaluate trail connections; the feasibility of this proposed alignment will be addressed in greater detail in the City of Tukwila’s Walk and Roll Plan.

3.2.6.2 The City of SeaTac

The City of SeaTac shares a boundary with Tukwila in the southwest corner of the Urban Center. Land lying west of the Urban Center in SeaTac is zoned Urban Low Density Residential, are effectively separated from the Urban Center by the Interstate 5 corridor right-of-way, and would not be adversely impacted by land use permitted under the Proposed Action.

3.2.6.3 The City of Kent

The City of Kent shares a boundary with Tukwila in the southeast corner of the Urban Center. Land lying east of the Urban Center in Kent is zoned General Commercial (GC) and Industrial Park/Commercial (M1-C). The GC district provides for the location of commercial areas for a range of trade, service, entertainment, and recreation land uses which are automobile oriented. The M1-C district provides for a broad range of industrial, office, and business park activities of a non-nuisance type. The City of Kent is effectively separated from the Urban Center by the

Green River. These uses would not be adversely impacted by land use permitted under the Proposed Action.

Section 3.3 Transportation & Air Quality

This chapter summarizes the transportation impacts, including transportation-related air quality, associated with the proposed Southcenter Subarea Plan. Implementation of the Southcenter Subarea Plan includes modifications to the land use code in Tukwila's Southcenter area to accommodate expected growth and to achieve the City's vision for a vibrant mixed-use center. The Subarea Plan and revised regulations will help achieve a more balanced land use mix that better supports transit, walking, and cycling, and may result in more people living and working in Southcenter, decreasing the demand for travel, including auto trips.

3.3.1 Affected Environment

This section summarizes current transportation and air quality conditions in the study area, which is shown in Figure 3.5. The study area for the Subarea Plan focuses on the Southcenter area. Much of the City's residential and employment growth over the next 20 years is planned to occur in this area. Southcenter has, and will continue to have, unique traffic characteristics due to the concentration of commercial activity.

Transportation facilities include state highways, city streets, sidewalks, bikeways, trails, and public transportation facilities and services. These elements of the subarea's transportation system are described below.

3.3.1.1 Roadway System

The roadway network within the Southcenter subarea is composed of principal, minor, and collector arterials, and local access streets as shown in Figure 3.6. Interstate 5 (I-5) runs north-south and forms the western boundary of Southcenter. Interstate 405 (I-405) runs east from I-5 and forms the northern boundary of Southcenter. The eastern boundaries of Southcenter are the City limits and the Green River; the southern boundary is South 180th Street. Although not exhaustive, the following list summarizes the main arterials throughout the Southcenter area.

North/South Arterials

- West Valley Highway/SR 181 (principal arterial/state route)
- Southcenter Parkway (minor arterial)
- Andover Park West (minor arterial)
- Andover Park East (minor arterial)

East/West Arterials

- Tukwila Parkway (minor arterial)
- Strander Boulevard (minor arterial)
- Minkler Boulevard (collector)
- South 180th Street (principal and minor arterial)



Figure 3.5

Study Area - Southcenter Subarea Plan

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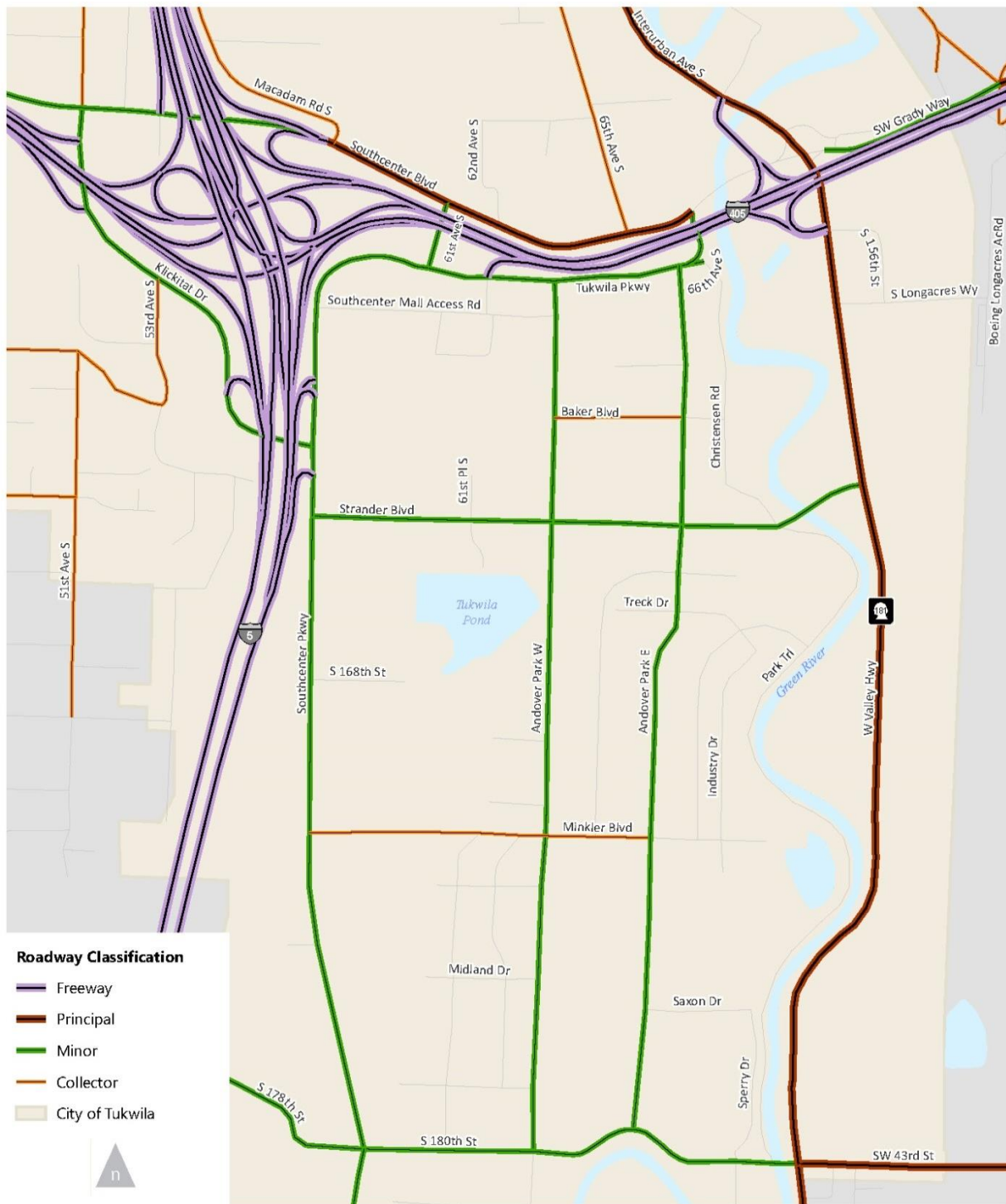


Figure 3.6
Functional Classification

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3.3.1.2 Pedestrian and Bicycle System

In January 2009, Tukwila completed an extensive study of the City's pedestrian and bicycle systems and summarized the findings in the Walk and Roll Plan, which is the City's non-motorized transportation plan. Based on the data in the Walk and Roll Plan, Figure 3.7 displays the existing pedestrian and bicycle facilities along arterial streets in Southcenter¹⁶ and Figure 3.8 shows the designated bicycle friendly routes. The City has recommended a comprehensive network of bicycle friendly routes, but only a small portion of those routes currently have facilities such as bike lanes. Within the Southcenter Subarea, there are currently no bicycle facilities, except for the Green River and Interurban Trails. Sidewalks exist along most arterials, but there are some gaps. Some arterials have paved shoulders rather than sidewalks.

3.3.1.3 Transit System

Transit service in the City of Tukwila is provided by King County Metro and Sound Transit. Figure 3.9 depicts existing transit routes and facilities within the study area. A new Tukwila Transit Center is anticipated to be completed in 2014. The facilities will be located at the northeast and southwest corners of intersection at Andover Park West and Baker Boulevard, and will include north and south bus stops, bus bays, custom transit and passenger shelters, landscaping, improved pedestrian connections, and transit passenger amenities. The Transit Center will serve Metro bus routes, including the new RapidRide F line. The facility will be located within easy walking distance of the Mall, significant employment and shopping destinations, and future residential neighborhoods in the Southcenter Area.

Sound Transit

Sound Transit runs the Sounder commuter train between Tacoma and Everett on weekdays. The train stops at the Tukwila Station located at S Longacres Way just east of West Valley Highway and south of I-405. The current station is temporary and will be replaced with a larger permanent station that is expected to open in 2014. Eight trains run northbound in the morning and southbound in the afternoon and two trains run southbound in the morning and northbound in the afternoon. Amtrak inter-city service also serves Tukwila Station. Tukwila Station has a park-and-ride lot with 208 spaces. Sound Transit's Link light rail line has one station within Tukwila located on International Boulevard and Southcenter Boulevard/S. 154th Street, approximately two miles west of Southcenter. Link light rail service runs between Sea-Tac Airport and Downtown Seattle every 10 minutes for much of the day.

King County Metro

Southcenter is served by King County Metro transit routes reaching West Seattle, Downtown Seattle, Burien, Kent, and Renton. The routes, neighborhood destinations, and headways are shown in Table . Headways for all five lines remain the same throughout the day. All lines with the exception of Route 155 operate every day of the week. Route 155 does not operate on Sundays. In 2014, the RapidRide F Line will be replacing the Route 140.

¹⁶ The Walk and Roll plan considered streets other than arterials, however Figure 3 focuses only on the facilities present on the arterial street system.

Table 3.6 – King County Metro Bus Routes Serving Southcenter		
Route	Destinations	Headway in Minutes (6 AM – 6 PM)
128	Admiral District, West Seattle Junction, Delridge, South Seattle Community College, White Center Transfer Point, Highline Specialty Medical Center, Riverton Heights, Tukwila International Blvd Station, and Southcenter	30
140	Burien Transit Center, Riverton Heights, Tukwila International Blvd Station, Southcenter, Tukwila Station, South Renton Park & Ride, and Renton Transit Center.	15
150	Downtown Seattle Transit Tunnel, Stadium Station, SoDo, SoDo Station, Tukwila Park & Ride, Southcenter, Kent Boeing, Regional Justice Center, and Kent Station	15
155	Fairwood, Cascade Vista, Valley Medical Center, and Southcenter	60
156	Sea-Tac, McMicken Heights, Southcenter, and Tukwila Station	30

Sources: King County Metro, 2010.

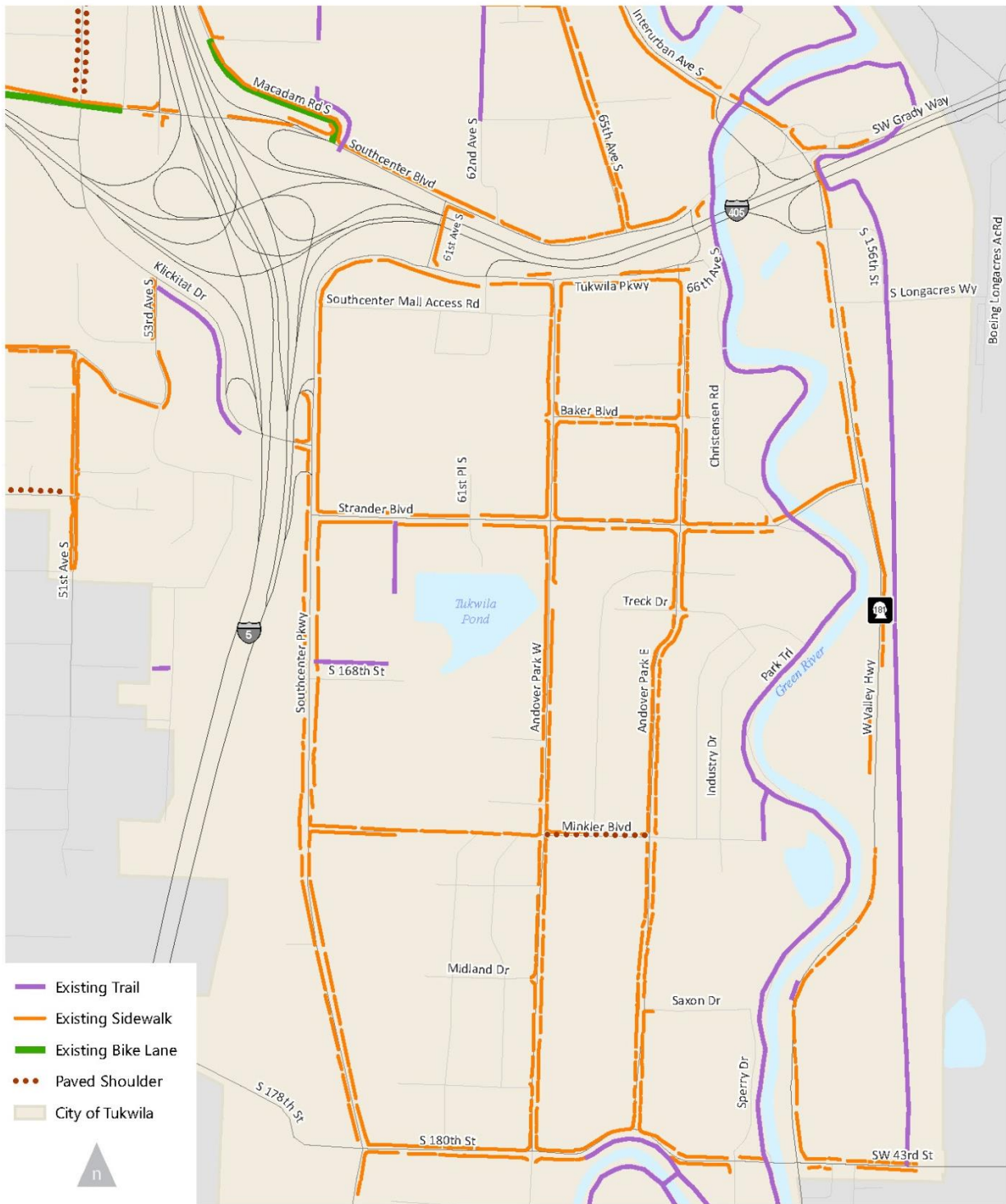


Figure 3.7
Existing Pedestrian and Bicycle Facilities

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Figure 3.8
Designated Bicycle Friendly Routes

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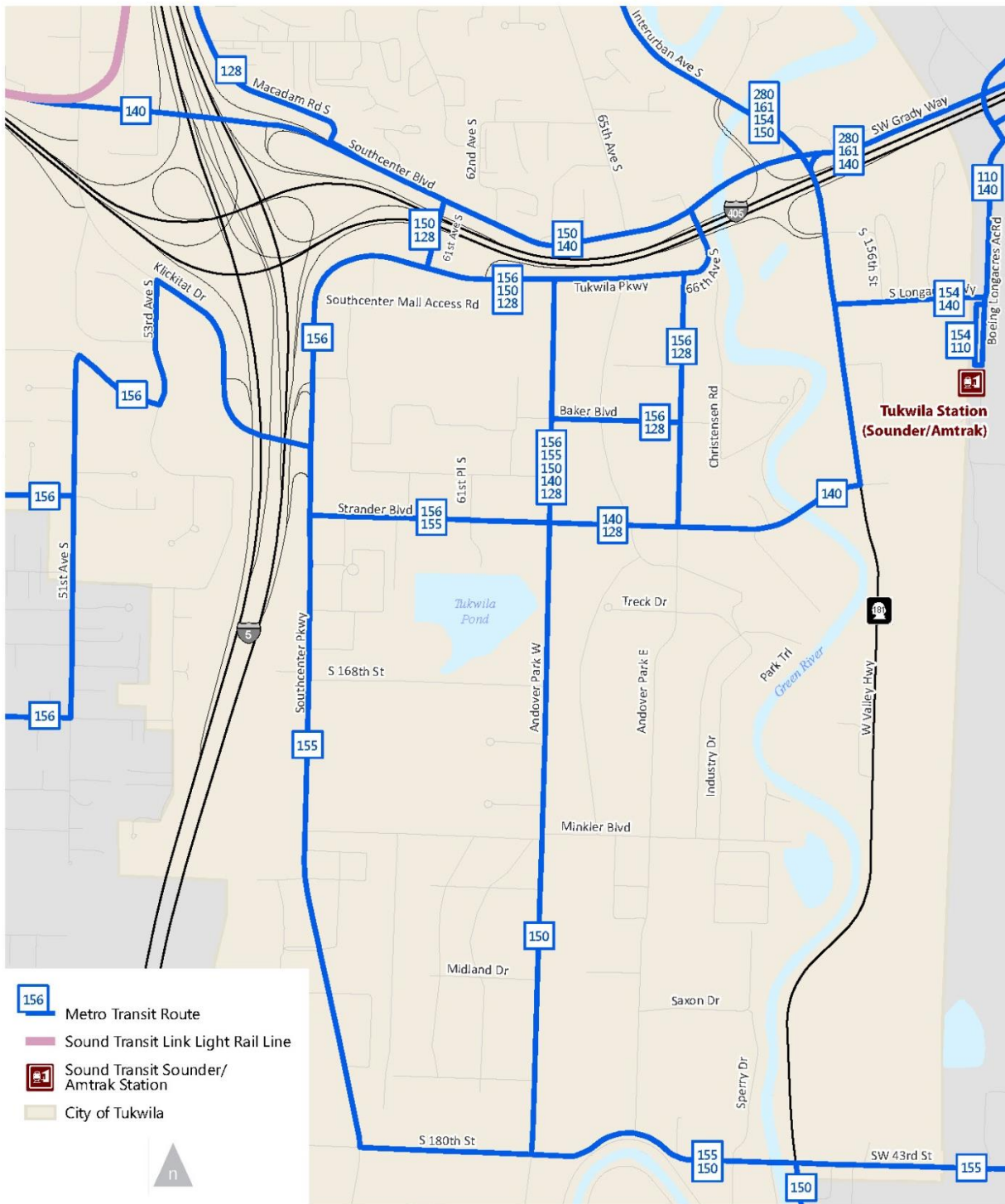


Figure 3.9
Existing Transit Routes and Facilities

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3.3.1.4 Policy Context

This section summarizes adopted transportation policy documents that relate to the Southcenter Subarea.

State Policies

The Washington Growth Management Act (GMA) contains concurrency provisions that are intended to ensure sufficient public facilities are available for new development. To evaluate the effect of proposed development on transportation facilities, local jurisdictions must set level of service (LOS) standards. If the trips generated by a development will cause a facility to fall below the LOS standard established by the jurisdiction, the local government may deny or delay permits for the project, modify land use, or modify the LOS standard to allow the development. Alternatively, changes may be made to the development to meet the concurrency requirements, such as reducing the size or employing travel demand management to reduce the number of trips generated.

The City of Tukwila has established a concurrency management program to comply with GMA. City staff regularly monitors LOS at intersections and corridors throughout the city. If traffic operations trend toward exceeding LOS standards, the City first identifies whether there is a feasible capital improvement to improve LOS. If there is, City staff identifies appropriate improvement(s) and updates the Capital Improvement Program (CIP). For intersections and corridors where there are no feasible capital improvements (e.g., right-of-way constrained highways), City staff will determine if it is appropriate to recommend a change in LOS standard to allow for additional economic development.

The LOS review and project update is typically done biennially by the City such that individual projects can be processed with only site-specific traffic reviews. For large projects that require an EIS, the concurrency management program update is conducted concurrently with the EIS since the project could lead to a change in the CIP project list or LOS standards. Projects to accommodate new growth may be partially funded using traffic impact fees, as well as other funding sources. All new development and some redevelopment within the Southcenter Subarea must meet the City's concurrency standard and may be subject to paying traffic impact fees to ensure that transportation concurrency is maintained within the subarea.

Local Policies

The City's 2008 Comprehensive Plan identifies the LOS standards for intersections and corridors within the City. The relevant requirements for the study area are listed below:

- All non-residential intersections are not to exceed LOS E.
- Corridor LOS is not to exceed LOS E, except for the Strander Boulevard corridor and a portion of the Andover Park East corridor.
- The Strander Boulevard corridor and Andover Park East corridor, between Tukwila Parkway and Strander Boulevard, are not to exceed LOS F with a weighted average intersection delay not to exceed 120 seconds.

- West Valley Highway (SR 181), as a state highway of regional significance, is not to exceed LOS E/Mitigated, as defined by the Puget Sound Regional Council (PSRC).

These standards are used as “thresholds of significance” in this analysis. Note that impacts within the Southcenter Subarea are defined using the Corridor LOS and not individual intersections. However, changes to individual intersections are also identified.

3.3.2 Analysis Methodology

This section describes the transportation analysis methodology and the results of the existing system operations analysis completed on corridors and intersections throughout Tukwila. The operations of the transportation system in Tukwila are analyzed for each mode of travel. Auto-related impacts are analyzed quantitatively, as described below. Pedestrian travel, bicycling, and transit are evaluated qualitatively. Alternatives for future conditions are evaluated using the same methodology described below. Traffic forecasts were determined using land use information provided by King County and City of the Tukwila as well as the City’s Travel Demand Forecasting model.

3.3.2.1 Auto Intersection Level of Service

Major intersections in Southcenter were analyzed using standard techniques from the 2010 Highway Capacity Manual (HCM). Under the 2010 HCM, level of service at a signalized intersection is measured in terms of average delay per vehicle in seconds and is rated with letters A through F, where “F” indicates the most congestion. Average delay is also reported for four-way stop-controlled intersections. The delay of the worst movement is reported for two-way stop-controlled intersections. Table shows the correspondence between delay and LOS, as defined by 2010 HCM. This analysis considered PM peak hour conditions.

Table 3.7 - Intersection Level Of Service Criteria		
Level of Service	Delay per Vehicle in Seconds	
	Signalized	Unsignalized
A	0 - 10	0 - 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50

Source: Highway Capacity Manual, 2010.

3.3.2.2 Southcenter Corridor Level of Service

As described above, the City of Tukwila Comprehensive Plan sets specific corridor LOS requirements for 11 arterial corridors in the Southcenter area. These corridors were defined in acknowledgement that the Southcenter Subarea is intended to be a vibrant mixed-use area where traffic at specific intersections may be congested during peak travel periods. Rather than focus on individual intersections, the City analyzes more comprehensive transportation corridors within Southcenter to ensure that the entire transportation system functions well.

Within each corridor, the average control delay¹⁷ of each signalized intersection is averaged to calculate an average corridor delay. The corridor LOS is then calculated using the same LOS thresholds for signalized intersections shown in Table 3.7. The 11 corridors, and corresponding intersections, are shown in Figure 3.5. Note that an individual intersection can be included in more than one corridor.

3.3.2.3 Existing Traffic Operations

The existing traffic operations in the study area were analyzed using PM peak hour traffic counts collected in the summer of 2009. Since the counts were collected, there has been little new development or change in existing land uses in the Southcenter Subarea; traffic volumes have remained substantially unchanged over the last four years. Thus, the counts from 2009 reasonably reflect conditions in 2013 and provide a sound basis for establishing existing levels of service. Historic traffic volumes in the City of Tukwila and the Southcenter subarea are included in Appendix B.

The existing intersection and corridor LOS results for the PM peak hour are shown in Table 3.8 and Figure 3.10. The average delays for the intersections within the corridors are included in Appendix C. All study locations currently meet the City's established LOS requirements.

¹⁷ Control delay is a measure defined by the *Highway Capacity Manual*, which is the delay that is caused by a traffic control device. It includes the delay caused by deceleration, stopping, and acceleration back to normal speeds.

Table 3.8 – Existing PM Peak Hour Level of Service			
ID	Intersection	Delay (seconds)	LOS
1	Southcenter Blvd / I-405 SB Off-Ramp	29	D
2	Southcenter Blvd / 66th Ave S	47	D
3	I-405 SB Ramps / Interurban Ave	36	D
ID	Corridor	Delay (seconds)	LOS
1	61st Ave S	27	C
2	Southcenter Pkwy north of S 168th St	35	C
3	Andover Park W north of Strander Blvd	32	C
4	Andover Park E north of Strander Blvd	26	C
5	Strander Blvd	49	D
6	Andover Park W south of Strander Blvd	54	D
7	Andover Park E south of Strander Blvd	26	C
8	Southcenter Pkwy south of S 168th St	20	C
9	Minkler Blvd	31	C
10	S 180th St	57	E
11	W Valley Hwy	51	D

Source: Fehr & Peers, 2013.

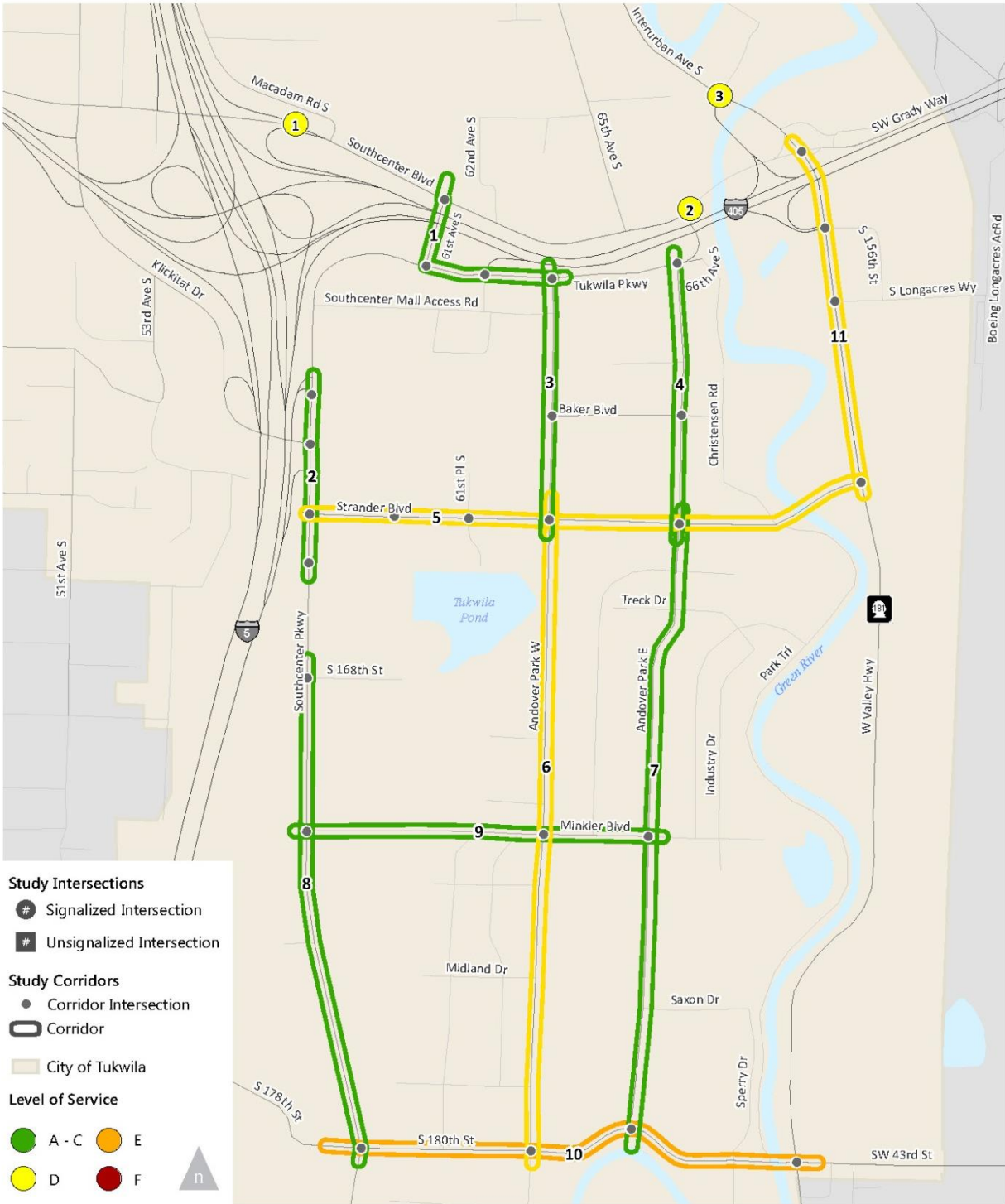


Figure 3.10
Existing PM Peak Hour Level of Service (2013)

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3.3.2.4 Pedestrian and Bicycle Operations

The street network in the Southcenter area is auto-oriented with large blocks that limit connectivity and mobility, particularly for pedestrians and bicycles. Most of the arterials have sidewalk facilities, however the large scale of the blocks makes walking inconvenient. For example, the block length between Strander Boulevard and Minkler Boulevard is 2,600 feet (one-half mile). This can be compared to downtown Bellevue's 600-foot "superblocks" and downtown Seattle's 300-foot blocks.

All of the arterials lack dedicated bicycle facilities. The Interurban and Green River Trails, which run on either side of West Valley Highway, provide excellent north-south routes for bicycles and pedestrians. However, the scarcity of east-west connections makes it difficult to access the heart of Southcenter from the trails. Field observations indicate that there is limited pedestrian and bicycle activity away from trails and major transit stops. Note that the City of Tukwila is pursuing construction of a new pedestrian/bicycle bridge over the Green River and enhanced pedestrian improvements along Baker Boulevard which will provide a good connection between Southcenter and the Interurban Trail, as well as the Tukwila Sounder/Amtrak station.

3.3.2.5 Transit Operations

The Southcenter Subarea is well served by transit with five bus routes, two of which operate with 15 minute frequencies, as well as the nearby Tukwila Sounder Commuter Rail/Amtrak station. As mentioned above, the city is seeking to improve the connections between the Southcenter Transit Center on Andover Park West and the Tukwila Sounder/Amtrak station with the planned pedestrian enhancements and bridge at Baker Boulevard over the Green River.

3.3.2.6 Safety

The City of Tukwila routinely analyzes transportation safety and implements projects to reduce collisions. As part of the most recent Comprehensive Plan update, a comprehensive safety analysis was conducted throughout the City of Tukwila where intersections and roadway segments with higher collision rates than the city-wide average were identified. In the Southcenter subarea, the locations that were highlighted through this analysis were along Andover Park West and Andover Park East between Tukwila Parkway and Minkler Boulevard. The segment of West Valley Highway between Southcenter Boulevard and the I-405 SB Ramps was also identified. The majority of collisions at these locations were property damage only. The number of collisions involving pedestrians and bicyclists was limited. No intersection had more than one collision with a pedestrian or bicyclist during the study period. Andover Park West between Strander Boulevard and Baker Boulevard was only the only roadway segment with pedestrian or bicycle collisions within the Southcenter subarea. This is one of the busiest pedestrian corridors in the City with activity between the Tukwila Transit Center, both sides of Andover Park West, and the Southcenter Mall.

Andover Park West has significantly higher collision rates than the other locations within the study area and in response to this issue, the City is will be constructing a project in 2014 to improve safety through modifying left turn access, thus reducing the potential for conflict.

3.3.2.7 Air Quality

Air quality is generally assessed in terms of whether concentrations of air pollutants are higher or lower than ambient air quality standards set to protect human health and welfare. Ambient air quality standards are set for what are referred to as "criteria" pollutants (e.g., carbon monoxide - CO, particulate matter, nitrogen dioxide - NO₂, and sulfur dioxide - SO₂). Three agencies have jurisdiction over the ambient air quality in the Tukwila/Southcenter Subarea Plan area: the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA). These agencies establish regulations that govern both the concentrations of pollutants in the outdoor air and rates of contaminant emissions from air pollution sources. Although their regulations are similar in stringency, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the EPA standards apply. These standards have been set at levels that EPA and Ecology have determined will protect human health with a margin of safety, including the health of sensitive individuals like the elderly, the chronically ill, and the very young.

Ecology and PSCAA maintain a network of air quality monitoring stations throughout the Puget Sound area. In general, these stations are located where there may be air quality problems, and so are usually in or near urban areas or close to specific large air pollution sources. Other stations located in more remote areas provide indications of regional or background air pollution levels. Based on monitoring information for criteria air pollutants collected over a period of years, Ecology and EPA designate regions as being "attainment" or "nonattainment" areas for particular pollutants. Attainment status is therefore a measure of whether air quality in an area complies with the federal health-based ambient air quality standards for criteria pollutants. Once a nonattainment area achieves compliance with the National Ambient Air Quality Standards (NAAQSs), the area is considered an air quality "maintenance" area¹⁸. The primary aspect of the air quality review conducted for this analysis is to consider whether ambient air quality would continue to comply with the NAAQSs with the proposed plan in place, and thus, whether traffic would be likely to result in any potentially significant adverse air quality impacts.

The project area is considered in attainment for all air pollutants except carbon monoxide (CO). Much of the Seattle urban area, including the Southcenter subarea, was once classified as nonattainment for CO, but has long since attained the standard. The area is now considered an air quality maintenance area for CO. This status means air quality is generally good throughout the area except under certain circumstances that tend to promote poor air quality for short periods of time. Examples include hot days during which ground level ozone concentrations can increase, and cold stagnant wintertime periods of poor dispersion when particulate matter concentrations from fuel combustion sources can adversely affect air quality. Based on this assessment, there are no existing air quality deficiencies in the Southcenter subarea or anywhere in the Puget Sound Basin.

¹⁸ Areas that were once classified as nonattainment that have since attained the standard are classified as maintenance areas in perpetuity, or until such time as the standard that was the basis of the nonattainment designation is vacated.

3.3.3 Significant Impacts

This section begins by summarizing the land use scenarios and transportation network assumptions studied in this document. Thresholds for significance are identified and results are presented for the No Action Alternative and the Proposed Action/High Intensity Alternative.

Land Use Scenarios

The previous section summarized existing transportation conditions (2013). The remainder of this section focuses on the operations of the transportation conditions in 2031¹⁹ under three different land use scenarios. This section describes the assumed changes in land use patterns and the transportation network changes that are expected between now and 2031.

For purposes of analysis, EIS documents often define land use alternatives based on the amount of square footage of various land uses that is assumed to be developed within a specified timeframe, or based on the total number of residents/employees assumed to be accommodated in an area and resulting traffic generation. Tukwila proposes to implement the Southcenter Subarea Plan using a hybrid form-based code, which is described in Chapter 2 of the Draft SEIS. In general, this approach to zoning focuses more on regulating the placement and form of development, rather than the specific type of land use. Consistent with this approach, this SEIS measures impacts based on the total number of PM peak hour trips generated by the target numbers of households and employment within the Southcenter Subarea.

Households and Employment Targets

Household and employment targets for 2031 for Tukwila are provided by King County and are based on regional population and employment growth forecasts. Tukwila's share of regional growth is allocated to the City's Traffic Analysis Zone (TAZ) structure based on the availability of vacant and redevelopable lands. The No Action Alternative includes the land use assumed under the 2005 Comprehensive Plan and existing zoning extended to 2031. The No Action Alternative would not be able to accommodate the full 2031 land use allocation target provided by King County, because residential development is only permitted in limited locations in the subarea by the current zoning.²⁰ The Proposed Action includes the land use assumptions put forth in the draft Southcenter Subarea Plan and proposed development regulations. The Proposed Action Alternative is able to entirely absorb the 2031 household and employment targets allocated to Tukwila by King County.

A High Intensity Alternative is also considered in the SEIS, which would allow additional height bonuses in the TOD District for certain projects that include a minimum of two height incentives, such as public frontage improvements and housing. While the High Intensity Alternative would

¹⁹ Note that the Transportation Background Report for the 2013 Comprehensive Plan Update evaluated 2030 conditions while the SEIS evaluates 2031 conditions. The date discrepancy is related to different forecast year nomenclature used by PSRC, which provided the initial land use input data for the Comprehensive Plan Update, and King County, which provided the final land use data for the Comprehensive Plan Update. The 2031 King County land use data are the same as the 2030 PSRC land use data.

²⁰ Tukwila Dept of Community Development, 2013.

allow for larger buildings on specific parcels, it is not assumed to increase the overall land use target or absorption for the Southcenter Subarea. In other words, it is assumed that there is a fixed market for development within the Southcenter Subarea and if some parcels develop at a more intense level, others are likely to experience less development. Therefore under this scenario, there would be no difference from a subarea-wide transportation perspective between the Proposed Action and High Intensity alternatives.

Table 3.9 summarizes the citywide and Southcenter Subarea forecasts for total households and employment. Citywide, the household category includes both single-family and multifamily residences; only multifamily housing is assumed within the Urban Center. The employment category includes five different employment sectors: retail, services, government, industrial, and manufacturing. See Appendix D for a full description of the land use for each TAZ within the City for 2013, and the two 2031 scenarios.

Table 3.9 – Land Use Summary				
Land Use Scenario	Citywide		Southcenter Subarea	
	Households	Employment	Households	Employment
2013	7,435	47,540	4	19,725
2031 No Action	10,574	71,686	654	21,393
2031 Proposed Action/High Intensity Alternative	12,285	75,205	2,714	25,084

Source: City of Tukwila, 2011-2013.

Trip Generation

A key element of Tukwila’s transportation impact threshold is corridor LOS. Corridor LOS is dependent on the number of vehicle trips generated during the PM peak hour. Therefore, to evaluate impacts, the trip generation of each of the land use scenarios must be quantified. The City of Tukwila maintains a calibrated and validated Travel Demand Forecasting model to determine the vehicle trip generation and traffic levels associated with land use development in the City. The Travel Demand Forecasting Model is used for both SEPA and GMA Transportation Concurrency analyses.

The household and employment data described above was input to the Travel Demand Forecasting Model to determine the total volume of PM peak hour trips. For the No Action Alternative, there would be 15,500 PM peak hour trips within the Southcenter Subarea in 2031. For the Proposed Action and High Intensity Alternative, there would be a total of 17,000 PM peak hour trips associated with the land use in the Southcenter subarea.

The Southcenter Subarea Plan differs from many other subarea plans in that there would be fewer restrictions on the types of land uses permitted in the area. Instead of traditional use-based zoning restrictions, the subarea plan and development regulations define the forms and scale of buildings that can be built in the area, with a lesser emphasis on use. Because of this hybrid “form based” land use code approach, it would not be appropriate to base the transportation

impacts on a specific amount of individual land uses since many different combinations of land uses could occur. Rather, since it is vehicle trips, specifically PM peak hour vehicle trips that are principally associated with adverse transportation impacts, the number of PM peak hour trips is used to establish a threshold or maximum that is encompassed by this EIS. Therefore, the analysis will account for nearly any mix of land use that falls within the trip threshold. Any development which would increase the total number of PM peak hour trips beyond this amount would require additional SEPA review to identify any potential significant adverse transportation impacts. The subarea plan expects that a blend of retail, office, residential, and light industrial uses will be built in Southcenter; the land use table in Appendix D shows the assumed mix of uses. A project with very unique travel patterns, such as a heavy-industrial manufacturing facility or a major university, may not be encompassed by this SEIS because the peak travel times for these uses may not occur in the PM peak hour. These types of unique uses would require project-specific environmental review to identify other potential traffic impacts outside of the PM peak hour.

Transportation Network Assumptions

Based on information provided by the Tukwila Public Works department, the following roadway projects were included in the 2030 transportation network:

- Reconfigure the South 180th Street / Southcenter Parkway intersection to eliminate split phasing²¹
- Reconfigure the South 180th Street / Andover Park West intersection to eliminate split phasing
- Reconfigure the Minkler Boulevard / Andover Park West intersection to eliminate split phasing
- Extend Strander Boulevard from West Valley Highway to Tukwila Sounder Station
- Signalize the Southcenter Boulevard / I-405 SB Off-ramp intersection

In addition to these roadway improvements, substantial transit improvements are assumed in the analysis. Link Light Rail is anticipated to extend from the Northgate in Seattle to Angle Lake in SeaTac. There are also numerous planned improvements to pedestrian and bicycle facilities throughout Southcenter area. These projects will not have an impact on vehicular operations but will significantly enhance connections for non-motorized modes and upgrade existing transit facilities. They are listed below:

- Provide a sidewalk on the south side of S 180th Street from Sperry Drive South to the Green River Bridge
- Require property owners to provide sidewalks along West Valley Highway between S 180th Street and Strander Boulevard as redevelopment occurs

²¹ This is one of two alternatives that the City is considering to improve operations. The second alternative is realigning South 178th Street and closing the western leg of this intersection to vehicle traffic. Either alternative would improve the level of service. However, the reconfiguration to eliminate the split phasing would not improve operations as much as the removal of the western leg and therefore was included in this analysis as the more conservative improvement (resulting in slightly worse LOS).

- Upgrade the Transit Center along Andover Park W near Baker Boulevard to improve multi-modal choices in the Southcenter area
- Restripe Baker Boulevard to include two parking lanes, two bicycle lanes, and two travel lanes between Andover Park W and Christensen Road
- Construct a multi-use path from the terminus of Baker Boulevard to the Tukwila Sounder/Amtrak Station, with connections to West Valley Highway and the Interurban Trail
- Widen Andover Park W from Strander Boulevard to Tukwila Parkway to include a center median with turn pockets, boulevard-type landscaping, and wider sidewalks
- Restripe Southcenter Boulevard from 53rd Avenue S to Macadam Road S to allow for five foot bikes lanes on either side of the road
- Construct a 12 foot wide multi-use path along the north side of Southcenter Boulevard from Macadam Road S to the bridge over the Green River
- Add a sidewalk on the south side of Southcenter Boulevard between 61st Avenue S Bridge and 62nd Avenue S
- Construct a new crosswalk, with a pedestrian refuge in the median, at the east leg of the Southcenter Boulevard / 62nd Avenue S intersection
- Construct a new crosswalk, with a pedestrian refuge in the median, at the east leg of the Southcenter Boulevard / 65th Avenue S intersection
- Construct a short segment of sidewalk on the south side of Southcenter Boulevard to connect the new crosswalk at 65th Avenue S to the existing bus stop
- Modify the southbound channelized right turn lane at Southcenter Boulevard / West Valley Highway by bringing traffic to intersection or reducing the corner radius of the lane
- Add high visibility crosswalks and advanced yield markings on the channelized right turns, additional crosswalk, and a landscaped buffer at Southcenter Boulevard / West Valley Highway

Impact Identification Criteria

The No Action Alternative serves as the baseline for identifying significant impacts to transportation facilities under the Proposed Action. A significant transportation impact is considered to occur if an alternative would:

- Cause a study intersection or corridor that operates acceptably under the No Action Alternative (LOS E or better) to operate unacceptably (LOS F); or
- Cause a study intersection or corridor that operates unacceptably under the No Action Alternative to operate with higher delay; or
- Interfere with any existing or planned transit service by significantly increasing congestion along a transit route or by preventing the implementation of any planned transit services; or
- Interfere with any existing or planned pedestrian or bicycle facility by not adequately addressing safety concerns or preventing the implementation of any planned bicycle or pedestrian facility improvement projects; or

- Interfere with existing parking facilities by not adequately addressing parking needs or supplying sufficient parking; or
- Lead to the construction of transportation facilities that have a documented incidence of more fatality and injury collisions for any mode likely to use the facility.

2031 Transportation Operations

The intersection levels of service (LOS) for 2031 were calculated with the same method used to obtain existing LOS using Synchro and SimTraffic as described previously. Volumes were generated using the 2031 Tukwila Travel Demand Forecasting Model. To reduce model error, a technique known as the “difference method” was used to develop the 2031 traffic forecasts. The difference method adds the travel model’s estimated growth in traffic between 2013 and 2031 conditions to the traffic counts taken at each location. This technique eliminates much of the potential model error by using existing traffic counts as the basis of the forecast rather than direct model output.

The analysis assumed that all signal timings for intersections in Tukwila would be optimized during the next 20 years; however, cycle lengths were not adjusted. Synchro was used to optimize the signal timings. The 2031 intersection LOS was computed for PM peak hour conditions.

3.3.3.1 No Action Alternative

Traffic Operations

LOS results are shown in Table 3.10 and Figure 3.11. Under the No Action Alternative, one intersection would operate with an unacceptable LOS F:

- Southcenter Boulevard / 66th Avenue South

Table 3.10 – 2031 No Action Alternative PM Peak Hour Intersection Level of Service			
ID	Intersection	Delay (seconds)	LOS
1	Southcenter Blvd / I-405 SB Off-Ramp	15	B
2	Southcenter Blvd / 66th Ave S	106	F
3	I-405 SB Ramps / Interurban Ave	51	D
ID	Corridor	Delay (seconds)	LOS
1	61st Ave S	34	C
2	Southcenter Pkwy north of S 168th St	41	D
3	Andover Park W north of Strander Blvd	29	C
4	Andover Park E north of Strander Blvd	24	C
5	Strander Blvd	54	D
6	Andover Park W south of Strander Blvd	39	D
7	Andover Park E south of Strander Blvd	27	C
8	Southcenter Pkwy south of S 168th St	22	C
9	Minkler Blvd	17	B
10	S 180th St	78	E
11	W Valley Hwy	77	E

Note: Locations shown in bold denote impacts.

Source: Fehr & Peers, 2013.

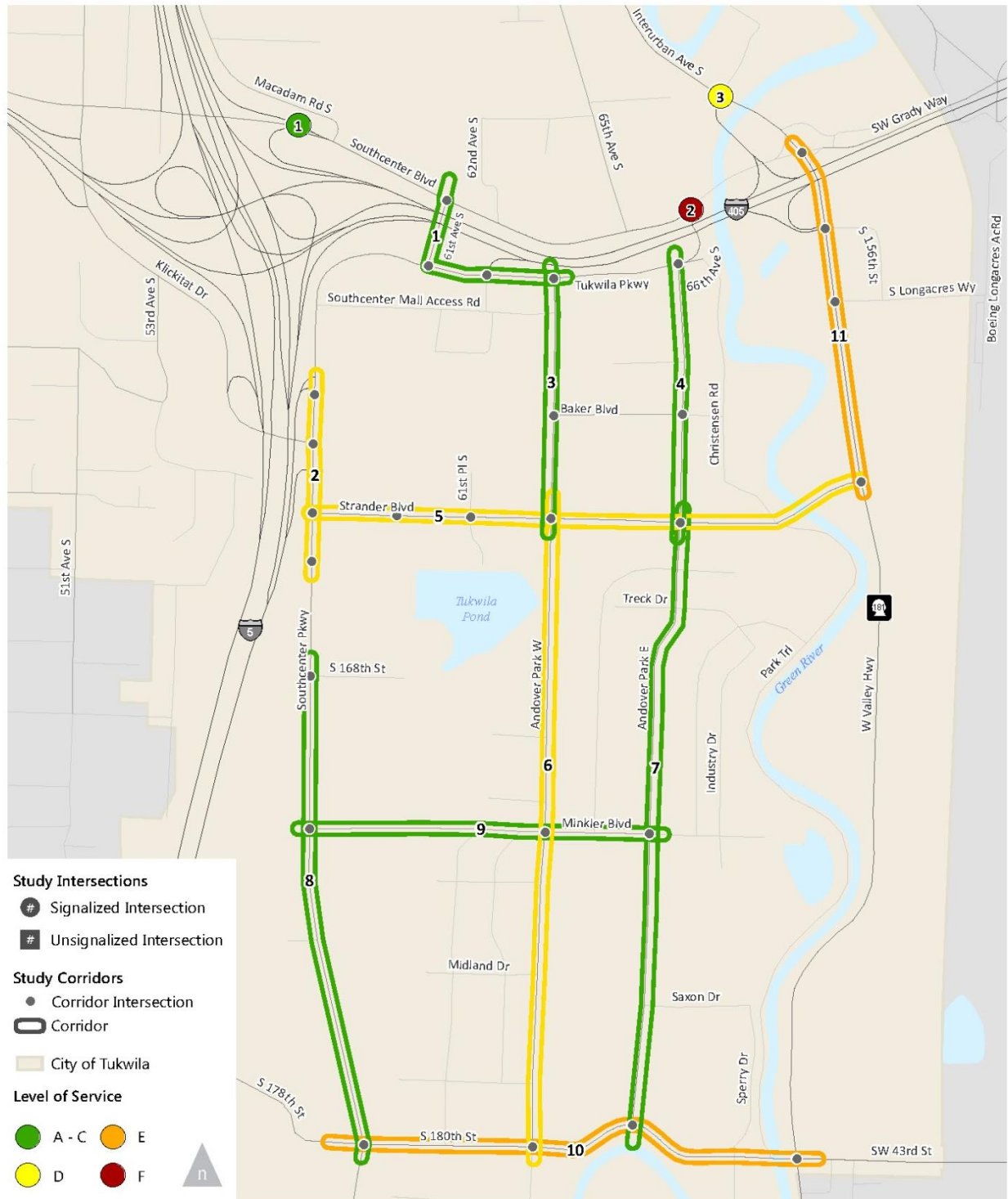


Figure 3.11

No Action PM Peak Hour Level of Service (2031)

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Pedestrian & Bicycle Operations

The City is planning numerous improvements to pedestrian and bicycles facilities which will occur under both the No Action and Proposed Action alternatives. These improvements include constructing new sidewalks, filling in sidewalk gaps, and adding bicycle facilities along major roadways. These projects would provide connections between existing pedestrian and bicycle facilities and major destinations within the study area.

Transit Operations

The City is planning several projects to improve access to the transit facilities within the Southcenter Subarea for both the No Action and Proposed Actions. These improvements are designed to accommodate the additional activity under both SEIS alternatives. Examples include the construction of a new Transit Center on Andover Park West, and infrastructure improvements to facilitate the operation of Metro RapidRide F-Line, which would provide frequent all-day service between Burien and Renton via Southcenter and the Tukwila Sounder Rail Station. It is not anticipated that the ridership on any of the transit routes serving Southcenter will exceed capacity in the future.

As shown in Table 3.10, traffic operations are generally anticipated to remain well within the City LOS standards. The exception is the intersection of Southcenter Boulevard/66th Avenue South, which is expected to operate at LOS F. Based on these results, transit travel times and schedules are expected to be within typical ranges for the urban sections of the region. Some delays may result at the Southcenter Boulevard/66th Avenue South intersection, however. As a way to help mitigate congestion and retain speed and reliability for transit routes, Transit Signal Priority (TSP) is being installed by King County as part of the new Metro RapidRide F-Line route. TSP works with the signal controllers to give priority to busses with transponders. All signalized intersections along the new F-Line route will also have TSP.

Safety

Future development under the No Action Alternative will generate additional vehicle trips as well as increased pedestrian and bicycle activity. There is, however, no correlation between increased travel volumes and increased safety risks. In addition, many of the City's planned transportation improvements will include elements that will allow for safer operations for vehicles, pedestrians, and bicycles. Traffic safety is expected to generally improve between existing and future conditions for both the Action and No Action alternatives.

3.3.3.2 Proposed Action/High Intensity Alternative

Traffic Operations

Intersection and corridor LOS results are shown in Table 3.11 and Figure 3.12. Under the Proposed Action/High Intensity Alternative, one intersection and two corridors would operate with unacceptable LOS F:

- Intersection 2: Southcenter Boulevard / 66th Avenue South
- Corridor 10: S 180th Street
- Corridor 11: West Valley Highway

The intersection of Southcenter Boulevard / 66th Avenue South would operate unacceptably under the No Action Alternative and would experience increases in delay in the Proposed Action and High Intensity Alternative. This increase in delay qualifies as an impact under the guidelines defined previously.

The increased delay along the South 180th Street corridor is primarily caused by increases in delay at the intersection with West Valley Highway. The increased delay along the West Valley Highway corridor is caused by increases in delay at the intersections with Strander Boulevard and Southcenter Boulevard/Grady Way. Although the increases in average delay are minimal for each of these corridors (approximately 5 seconds), they would result in an unacceptable level of service and would be considered impacts.

Table 3.11 – 2031 Proposed Action/High Intensity Alternative PM Peak Hour Intersection Level of Service

ID	Intersection	No Action Delay (s) / LOS	Proposed Action/ High Intensity Delay (s) / LOS
1	Southcenter Blvd / I-405 SB Off-Ramp	15 / B	15 / B
2	Southcenter Blvd / 66th Ave S	106 / F	121 / F
3	I-405 SB Ramps / Interurban Ave	51 / D	57 / E
ID	Corridor	No Action Delay (s) / LOS	Proposed Action/ High Density Delay (s) / LOS
1	61st Ave S	34 / C	35 / D
2	Southcenter Pkwy north of S 168th St	41 / D	44 / D
3	Andover Park W north of Strander Blvd	29 / C	29 / C
4	Andover Park E north of Strander Blvd	24 / C	25 / C
5	Strander Blvd	54 / D	57 / E
6	Andover Park W south of Strander Blvd	39 / D	44 / D
7	Andover Park E south of Strander Blvd	27 / C	29 / C
8	Southcenter Pkwy south of S 168th St	22 / C	22 / C
9	Minkler Blvd	17 / B	20 / C
10	S 180th St	78 / E	83 / F
11	W Valley Hwy	77 / E	82 / F

Note: Locations shown in bold denote impacts.

Source: Fehr & Peers, 2013.

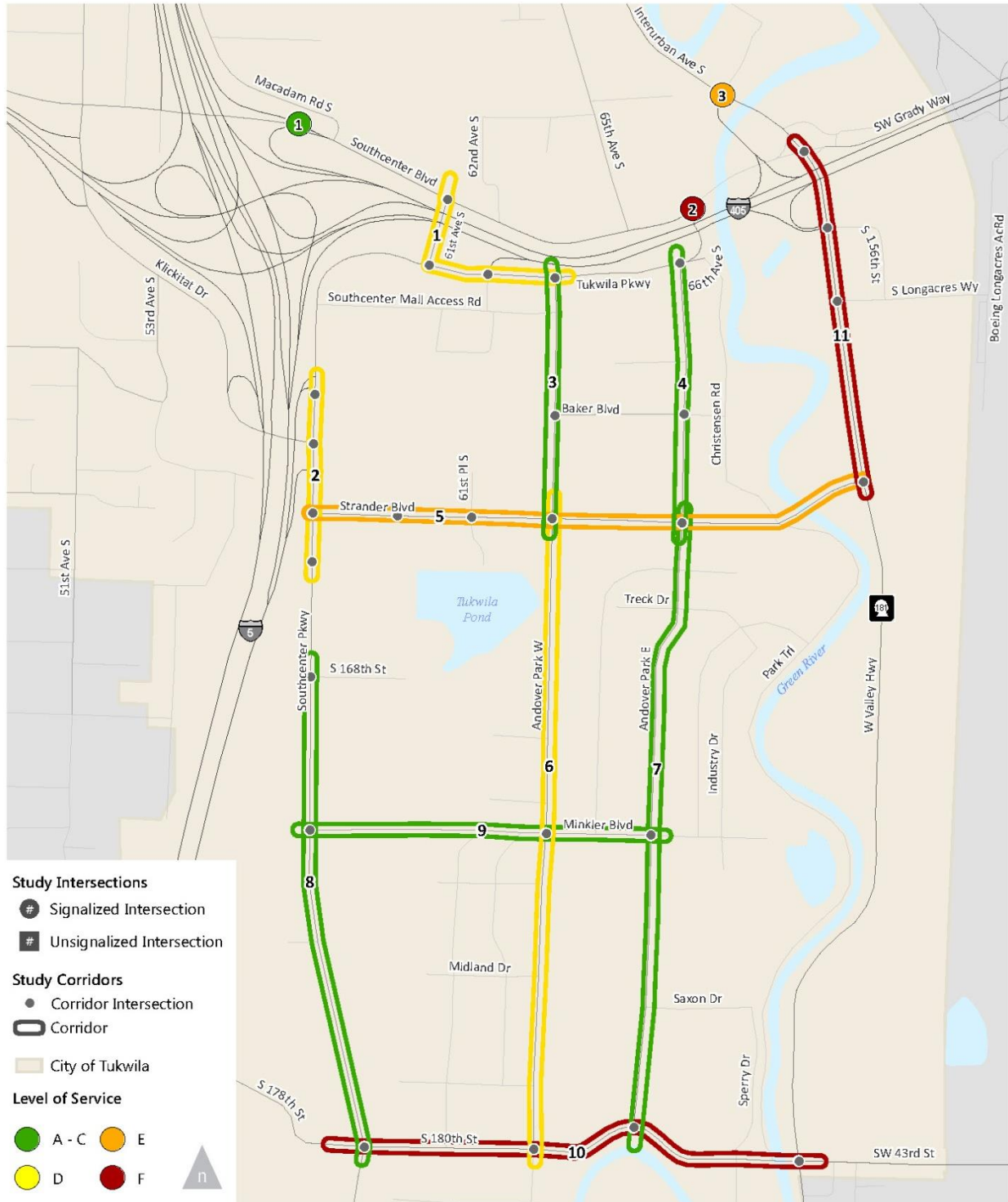


Figure 3.12

Proposed Action/High Intensity Alternative PM Peak Hour Level of Service (2031)

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Pedestrian and Bicycle Operations

The Southcenter Subarea Plan provides guidelines and incentives intended to transform a suburban commercial center into a walkable mixed-use urban center. The plan would modify the street network from a limited number of superblocs to a fine-grained pattern of new interconnected streets and shorter blocks. The combination of smaller block sizes with compact, mixed-use development would make walking and biking viable alternatives to driving. The Proposed Action/High Intensity Alternative's mix and density of land use would be more conducive to pedestrian and bicycle mobility, and would likely support the City's non-motorized policies to a greater degree than the No Action Alternative.

Transit Operations

Higher densities and a more urban mix of land uses under the Proposed Action/High Intensity Alternative, compared to the No Action Alternative, would be more conducive to transit service and would support the City's transit policies. In order to realize the full potential of the existing transit facilities in the Southcenter area, existing barriers to visibility, access, and convenience will be removed. Development within walking distance of transit stations will provide much enhanced connectivity to and from transit facilities as well as promoting system ridership. The improved pedestrian and bicycle network described above will also complement transit access and connectivity, ultimately improving the transit experience for Southcenter residents, employees, and visitors.

Additional traffic congestion could cause some increased transit travel times on key routes. As shown in Table 3.11, intersection and corridor LOS will be somewhat worse between the No Action and the Proposed Action/High Intensity Alternatives, with a significant LOS impact at Southcenter Boulevard/66th Avenue S. As described later in this document, the City of Tukwila has identified a mitigation to reduce congestion at this important transit intersection. Additional LOS impacts were identified on the S 180th Street and West Valley Highway corridors which could negatively affect transit travel times and schedule maintenance. Key bottlenecks on these corridors include the Strander Boulevard/West Valley Highway intersection, and the S 180th Street/West Valley Highway intersections. As described in the mitigation section below, the City has identified an option to increase the capacity of the Strander Boulevard/West Valley Highway intersection. In addition, City staff has identified long-term options to increase the capacity of the Green River crossings through new potential bridges. The City also has the option of implementing transit signal priority (in addition to existing TSP along the F-Line route) and other technological enhancements at key intersections and along key corridors if transit performance becomes a significant issue in the future.

As Southcenter matures, the City of Tukwila will actively work with transit agencies to ensure that transit operations on key corridors is considered to ensure that Southcenter transitions away from an auto-oriented suburban commercial area and into an urban center with a more balanced mode split.

Safety

There are no identifiable safety impacts from the proposed development of the Proposed Action/High Intensity Alternative. The Southcenter Subarea Plan promotes the construction of additional bicycle and pedestrian facilities to further increase safety for non-motorized modes. The plan also encourages the redevelopment of streetscapes to deemphasize motorized traffic and slow down vehicles, thus further calming traffic, reducing the potential for conflicts, and reducing the severity of any collisions. Lastly, the City maintains a robust and active transportation safety monitoring program to proactively address potential transportation safety issues. An example is the ongoing project to reduce left-turn conflicts on Andover Park West between Tukwila Parkway and Baker Boulevard.

Parking

The City of Tukwila establishes minimum parking requirements for new development or redevelopment. Since the SEIS is nonproject in nature and specific development proposals are not evaluated, it cannot be determined whether the parking proposed for future development projects would comply with zoning requirements. However, individual applicants would be required to show in their development applications how they will accommodate on-site parking that is required under the City code.

In addition to promoting more balanced land uses and a better walking and cycling environment, the proposed Southcenter development regulations would require less parking compared to the No Action Alternative. No significant parking impacts are anticipated in conjunction with the Southcenter Subarea Plan.

Construction

During development of the Proposed Action/High Intensity Alternative, construction activities would periodically and temporarily disrupt all modes of traffic. However, development of the Subarea is expected to occur incrementally over a period of 20 years, in response to public investments, incentives, and market-driven renovations and expansions rather than under a single development proposal. Also, all building permits issued by the City are reviewed and conditioned to mitigate construction traffic impacts. No significant construction traffic impacts are anticipated in conjunction with the Southcenter Subarea Plan.

Air Quality

The results of the transportation air quality analysis modeling analysis for the 2031 Action/High Intensity Alternative are presented in Table 3.12. As shown, the calculated worst-case CO concentrations with the project at the highest volume/most congested intersection in the study area are far below the levels allowed by the applicable 1 and 8-hour CO ambient air quality standards. These results suggest that CO concentrations near the worst-operating intersection within the subarea plan area would not exceed either the 35-ppm 1-hour or 9 ppm 8-hour ambient air quality standards, under the 2031 Action/High Intensity Alternative. Although modeled subarea-related traffic delays would almost double in 2031 over those in 2013,

maximum predicted CO concentrations decrease in 2031 due to vehicle emissions reduction measures that will be implemented by federal and state regulatory requirements in future years. Based on this finding, the proposed plan would not be expected to result in any significant air quality impacts due to its effect on the surface roadways in the area. See Appendix E for a detailed description of the transportation air quality analysis methodology, assumptions and results.

Table 3.12 – 2031 Proposed Action/High Intensity Alternative Air Quality Model-Calculated Maximum CO Concentrations (ppm)			
Location	Averaging Time	2031 Action Alternative	NAAQS Limit
S 180 th Street/ West Valley Highway	1-hour	5.4	35.0
	8-hour	3.8	9.0

Notes: All CO concentrations include a background concentration of 3.0 parts per million (ppm)

8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations by a persistence factor of 0.7 (based on EPA guidance)

Source: ENVIRON, 2013

3.3.3.3 Mitigation Measures

The following significant adverse transportation impacts were identified for the Proposed Action and High Intensity Alternatives:

- Intersection 2: Southcenter Boulevard / 66th Avenue South
- Corridor 10: S 180th Street
- Corridor 11: West Valley Highway

Each of these study locations will operate with unacceptable LOS F in the future. However, mitigation measures have been identified for all three locations and, if implemented as part of the pending update to the Transportation Element of the Comprehensive Plan, no significant adverse unavoidable impacts would remain.

1. At the **Southcenter Boulevard / 66th Avenue South** intersection, the westbound approach on Southcenter Boulevard could be restriped without widening the roadway to mitigate the impact from the Proposed Action/High Intensity Alternative. The existing three lanes could be configured with one through lane and two left turn lanes. Note that this is a relatively minor improvement which the City could implement in the short term. This mitigation would decrease the average delay at this intersection to 36 seconds under the Proposed Action/High Intensity Alternative in 2031 and the intersection would operate at LOS D.
2. Along the **West Valley Highway** corridor, the following possible improvements are recommended at the Strander Boulevard / West Valley Highway intersection as modifications to the existing project design:

- Add a westbound right turn lane on Strander Blvd at least 300 feet in length
- Increase the length of the westbound left turn pocket on Strander Blvd as much as feasible
- Widen the eastbound approach on Strander Blvd to include two left turn lanes, a through lane, and a shared through-right lane
- Add right turn overlap phases to the southbound and westbound right turn movements on Strander Blvd

This intersection will be reconstructed as part of the Strander Boulevard extension to the new Tukwila Sounder Station. However, the existing project design would operate with unacceptable LOS in the future. If the modifications listed above were incorporated into the final design of this intersection, the average delay along the West Valley Highway would be 59 seconds under the Proposed Action and High Intensity Alternatives in 2031 and the new level of service would be LOS E.

Note that both the Southcenter Boulevard/66th Avenue South and West Valley Highway projects have been identified in the upcoming Transportation Element of the updated Comprehensive Plan.

3. The significant increase in delay along the **South 180th Street** corridor is primarily caused by increased delay at the intersection with West Valley Highway. There are several contributing factors which make it difficult to mitigate the impact at this location. West Valley Highway is owned and operated by WSDOT as State Route 181 and any improvements to this road must be coordinated with and approved by WSDOT. At S 180th Street / West Valley Highway, there is no available right-of-way to expand either S 180th Street or West Valley Highway without a significant adverse impact to businesses along the roads. The width of South 180th Street is limited by available right-of-way on both the east and wide sides of the Green River as well as the width of the current Green River Bridge. The Green River runs along the west side of West Valley Highway and there is no available right-of-way on the east side of the street. Both of these factors make widening of West Valley Highway difficult.

One proposed mitigation measure identified in the Transportation Background Report to the City's Comprehensive Plan is the construction of an additional crossing over the Green River at Minkler Boulevard. This would relieve congestion at the S 180th Street crossing by providing an alternate route for traffic to cross the Green River. However, this project needs to be coordinated with and approved by WSDOT and the City would need to commit to funding and constructing this major piece of infrastructure.

In view of these difficulties, the impact could also be mitigated by amending the comprehensive plan to allow for a LOS exception along this corridor, similar to the exceptions for Strander Boulevard and portions of Andover Park East. Alternatively, the corridor definition could be updated to remove the South 180th Street / West Valley Highway intersection from the corridor. While these two alternatives would not improve traffic operations along the corridor, they would

address the LOS E impact condition on the corridor identified in the SEIS. Tolerating additional traffic congestion along the S 180th Street corridor may be reasonable during the PM peak hour considering the future transformation of the Southcenter Subarea into a more urban environment.

3.3.3.4 Significant Unavoidable Adverse Impacts

Projected household and employment growth will unavoidably increase traffic congestion in the Southcenter Subarea, with or without the Proposed Action and the performance of some road corridors and/or intersections will decrease below adopted levels of service. Reasonable mitigation measures have been identified for the three adverse transportation impacts described above. No significant and unavoidable adverse transportation impacts were identified.

Appendix A.

Tukwila Environmental Documents, Adopted Regulations & Plans

A. Previously Prepared Environmental Documents

Element	Document/ Date	Issues/Analysis	Study Area	Summary of Impacts & Mitigation
Earth	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Erosion, landslide, seismic hazards and soil contamination due to development according to the Comp. Plan.	City-wide	Impacts: Increased development potential in several soil erosion, landslide, and seismic hazard areas. Will contribute to water pollution and can result in damage to property. Mitigation: New development will comply with development review process that includes project specific mitigating measures.
Land Use	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Land use, open space network, neighborhoods, shorelines	City-wide, including Urban Center	Impacts: Potential impacts from a change in zoning from commercial to TUC zoning include impacts to public services, infrastructure, ambient noise and air quality, traffic circulation, and visual quality. Mitigation: Comprehensive goals & policies will serve to mitigate potential adverse land use impacts. GMA concurrency requirements, capital facilities planning (both city & non-city owned agencies), Shoreline Master Program, development standards, and design guidelines will also serve as mitigation measures.
Land Use	Tukwila Comprehensive Plan EIS Addendum addressing 2015 Update	Land use, shorelines, building & site design, signage	Urban Center	Impacts: No significant or cumulative impacts anticipated from comprehensive plan goals and policies update. Some reduce potential environmental impacts.
Land Use	Tukwila Comprehensive Plan EIS Addendum addressing Implementing Zoning Code Amendments	Land use	City-wide, including Urban Center	Impacts: No significant or cumulative impacts anticipated.
Air Quality	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Auto emissions, air traffic, residential, industrial/commercial sites and construction	City-wide	Impacts: Emissions from regional highways, airports, manufacturing, commercial/industrial, and residential uses contribute to air pollution. Auto emissions are the single largest contribution. As development increases degradation of air may continue. Mitigation: City will comply with all federal, state, and regional air pollution regulations, encourage non-motorized transportation and enhance the CTR programs.
Air Quality	Westfield Mall	Ozone, particulate matter,	Southcenter	Impacts: Dust from excavation, construction equipment engines, odors

	Expansion Draft & Final EIS (2004)	carbon monoxide	Mall -subarea w/in Urban Center	during paving renovations to existing buildings, and construction related traffic delays and reduced travel speeds are air quality impacts from expansion of the mall. Increased peak hour traffic would be operational impacts. Mitigation: Adhere to City regulations and to applicable mitigation measures in the <i>Guide to Handling Fugitive Dust from Construction Projects</i> . Implement transportation demand measures to improve mobility.
Water	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Surface water, ground water, floodplains and flooding hazards.	City-wide/ applies to Green River and several wetlands w/in Urban Center.	Impacts: Development may increase peak water flows on hillsides due to removing vegetation and detention increasing soil saturation. Urban runoff and soil runoff impact surface water quality as non-point source polluters. Industrial uses and wastewater treatment plants impact water quality as point source polluters. Mitigation: City will comply with all regulations. Control sedimentation from current and future land use and use special drainage facilities to control urban runoff.
Water	Westfield Mall Expansion Draft & Final EIS (2004)	Water quantity, water quality	Southcenter Mall -subarea w/in Urban Center	Impacts: Impervious surface would remain the same, continued absence of flow control, potential for water quality improvement. Covered parking structures could reduce impact on stormwater. Cumulative impacts to water quality not anticipated.
Plant and Animal life	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Streams and waterways, wetlands, critical habitats, animal species, plant species	City-wide/ Applies to wetlands and shorelines w/in Urban Center.	Impacts: Wetlands and shorelines are threatened by encroaching development and water pollution. Mitigation: The City should minimize Clearing and grading during construction. City should protect wetlands and shorelines. Catalog unique or significant plans and animals, restoration of local streams and rivers, and include habitat areas and linkages in facility designs.
Plant and Animal life	Westfield Mall Expansion Draft & Final EIS (2004)	Plants and animals	Southcenter Mall - subarea w/in Urban Center	Impacts: No significant or cumulative impacts anticipated from mall expansion because area is already highly developed.
Environmental Health	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Noise	City-wide & Urban Center	Impacts: The expansion of Sea-Tac and King County International Airport could impact the northern and western portions of the City. Transportation rights-of-way are another noise source that will increase in medium and higher density growth areas. Passenger rail systems also have potential to increase ambient noise conditions. Mitigation: Develop and adopt noise ordinance (completed), work with airports to develop operational noise mitigation techniques, ensure street speeds match land use patterns.
Population and Housing	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Population and housing	City-wide & Urban Center	Impacts: Creation of residential housing in the Pacific Highway Corridor and the TUC could impact traffic, noise and air quality. Development of housing close to higher intensity uses could be a significant impact. City will continue to have consistency between the city and countywide housing policies. Mitigation: Develop guidelines for affordable housing projects, identify programs that could increase home ownership and strategize to create landscape buffers to minimize impacts when housing abuts other land uses.

Cultural & Historical	Central Link Draft(1998) & Final EIS (1999)	Historic and Archaeological Resources	Proposed Light Rail Corridors through City	<p>Impacts: No known/recorded archaeological sites in Urban Center. High-probability area near Southcenter Mall. Impacts could occur if resources are present. Along alignments in City, important paleontological (fossil deposits) are present. No historical resources would be affected by rail corridors in TUC.</p> <p>Mitigation: NRHP-eligible archaeological sites must be taken into consideration during project planning/design, and data recovery and monitoring during construction.</p>
Public Services	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Fire, police protection, parks and recreation, schools and human services.	City-wide	<p>Impacts: Increased densities in both residential and commercial areas could affect fire and police service capabilities related to total volume of calls for service. New public recreation resources are being developed to satisfy future demand. Future capital facility improvements will need to be supplied to meet the increases in school age children attending the Renton and Tukwila School Districts. The Human Services Office will likely have the capability to meet the needs of the community.</p> <p>Mitigation: Potential development of a GMA impact fee for the school districts, preparation of long-range strategic plan for school districts, continued reliance on the six-year financial planning program, further development of police and fire strategic plans, and emphasis on public safety issues through design criteria and project review.</p>
Public Services	Westfield Mall Expansion Draft & Final EIS (2004)	Fire and police services	Southcenter Mall -subarea w/in Tukwila Urban Center (TUC)	<p>Impacts: Calls for service would increase for fire, EMS, and police services during construction and operation of the expansion.</p> <p>Mitigation: Work with fire department regarding fire land access issues and replace existing fire alarm system. Implement construction security measures and incorporate security features into expansion.</p>
Public Utilities	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Water, sewer, surface water, solid waste, electrical, natural gas and telecommunications.	City-wide	<p>Impacts: Water, sewer, and surface water systems represent major utilities impacted by growth and all three have separate analysis prepared. Majority of problems relate to system deficiencies, distribution, service, and general maintenance and operations. Long term funding for utility improvements will need to be addressed.</p> <p>Mitigation: Service capacities are met either through City CIP programs or through plans of utility service providers. City should review long-term demand and shortfalls as part of facility planning, and telecommunications towers should be shared between different companies.</p>

Public Utilities	Westfield Mall Expansion Draft & Final EIS (2004)	Water supply, stormwater, sewer, solid waste, electricity, natural gas, communications	Southcenter Mall –subarea w/in TUC	<p>Impacts: There will be an increase in water usage and existing water pipes may be impacted and need to be relocated. New sewer lines would be necessary and sewage flow would increase. Solid waste generation would increase; however, recycling would also increase. Electricity use would increase and there may be impacts to distribution and capacity of the system; may also be temporary service interruptions. The existing natural gas system, located on the roof, would have to be replaced and there would be an increase in natural gas usage. Demand for communications would increase and require expansion or relocation.</p> <p>Mitigation: Schedule interruptions to utility service during hours with least impact, route new sewage flow to the Metro line, dispose of construction related waste properly; incorporate PSE recommendations for electrical use.</p>
Aesthetics	Tukwila Comprehensive Plan Draft & Final EIS (1995)	Community image and aesthetics	City-wide & TUC	<p>Impacts: With the projected increase in population will come an increase in density and a change in the physical character of the areas. A range of visual impacts may occur, including the reduction of natural open spaces, alterations in “the sense of place” in various communities, and the disturbance of viewsheds with increased building heights and densities, particularly in the TUC.</p> <p>Mitigation: Implement design review for multifamily, commercial and industrial development. Require streetscape designs, i.e. inclusion of street trees, lighting, and sidewalk features, to lessen visual impacts of development.</p>

B. Previously Adopted Regulations

Element	Document/ Date	Issues/Analysis	Study Area	Summary/Mitigation
Earth	Environmentally Sensitive Areas (18.45.120) - 2010/12	Areas of potential geologic instability, abandoned mine areas	City-wide; applies to erosion hazard potential area between Southcenter Pkwy and I-5 in TUC	Summary: Designates, rates and provides buffers for areas of potential geologic instability. Outlines uses, exemptions, alterations and potential mitigation for development in an area of potential geologic instability.
Water	Environmentally Sensitive Areas (18.45.080 and 18.45.100) – 2010/12	Wetlands and watercourses	City-wide; applies to Green River and several wetlands w/in TUC	Summary: Includes designations, ratings and buffers for wetlands and watercourses. Also includes allowed uses, alterations and mitigation measures for development within or near wetlands and watercourses.

Water	Shoreline Overlay (18.44) - 2011	Designates all shorelines within the City as “urban” and identifies development requirements	City-wide; applies to Green River w/in TUC.	Summary: Regulates development in shoreline areas, includes general shoreline regulations, management environments, river environment, and specific use regulations.
Water	Stormwater Management (14.30) - 2010	Storm water management for development	City-wide	Summary: Includes regulations and guidelines to control adverse impacts associated with surface water runoff, establishes storm drainage standards and adopts the Storm Water Management Plan. Regulations are enforced through development review.
Water	Floodplain Management (16.52) - 2004	Special flood hazard areas and Floodways	City-wide, applies to TUC area	Summary: Includes regulations and guidelines to minimize public and private losses due to flood conditions. Activity in these areas is also subject to state and federal standards.
Plant and Animal life	Environmentally Sensitive Areas (18.45.150) - 2010	Fish and Wildlife Habitat Conservation Areas	City-wide	Summary: Designates, rates and provides buffers for areas of potential fish and wildlife habitat conservation areas. Outlines uses, exemptions, alterations and potential mitigation for development for these areas.
Plant and Animal life	Tree Regulations (18.54) - 1995	Tree preservation	City-wide	Summary: Mitigate environmental consequences of land development, promote environmental building and site planning, regulate clearing of trees and understory, and maintain and enhance aesthetic ecological and economic benefits provided by vegetation.
Public Utilities	Utility Concurrency Standards (14.36) - 2004	Water and sewer availability	City-wide	Summary: Requires land use decisions involving projects that need water or sewer to obtain certificate of availability from appropriate purveyor. Certificate must show availability of water and capability of system to deliver.
Public Facilities and Services	Concurrency Management (9.50) – 2005/07	Transportation facilities, and public facilities and services availability	City-wide	Summary: Establishes a concurrency management system and test to determine that public facilities and services (transportation, water, sewer, and stormwater) necessary to support development are available when needed, without decreasing current service levels below established minimum standards.
Historic/ Archaeo-logical	Archaeological/ paleontological resources (18.50.110) - 2004	Archaeological and paleontological preservation	City-wide	Summary: Requirements for development where archaeological or paleontological resources may be located or have been found during excavation.
Transportation	Transportation Concurrency Standards & Impact Fees (9.48) - 2005/11	Traffic impacts	City-wide	Summary: Imposes impact fees to offset the impacts of new development on the transportation system. Fees based on net new PM peak hour trips
Transportation	Commute Trip Reduction Plan and Program Requirements (9.44) - 2008	Improve air quality, reduce traffic congestion, and minimize energy consumption	City-wide	Summary: Requires employer based programs that encourage employees to find alternative to drive-alone commuting. Presents strategies to be undertaken by an employer to achieve commute trip reduction goals for each goal year.

Transportation	Walk and Roll: City of Tukwila's Non-Motorized Plan (2009)	Bicycle and pedestrian infrastructure design & planning	City-wide, some specific to the Urban Center	Summary: Bicycle and pedestrian infrastructure design standards, designation & adoption of bicycle friendly routes, walking trails and connections, performance goals & measurements, and a list of recommended projects.
Aesthetics	Board of Architectural Review (18.60) - 2012	Site and building design	City-wide, some specific to the Urban Center	Summary: Establishes a design review & approval process for projects meeting minimum thresholds for design review – administratively or by Board of Architectural Review (BAR). Thresholds vary by zoning district. Provides design review criteria for structures, site, landscaping, buildings, and signage.
Aesthetics	Sign and Visual Communication Code (Title 19) - 2010	Signs	City-wide, some specific to the Urban Center	Summary: Regulates sign placement and characteristics (size, style, etc.) to protect the public health, safety & welfare; and to increase the effectiveness of visual communication in the City. In the TUC area, provides an “opt out” of the requirements provision, provided certain criteria are met.

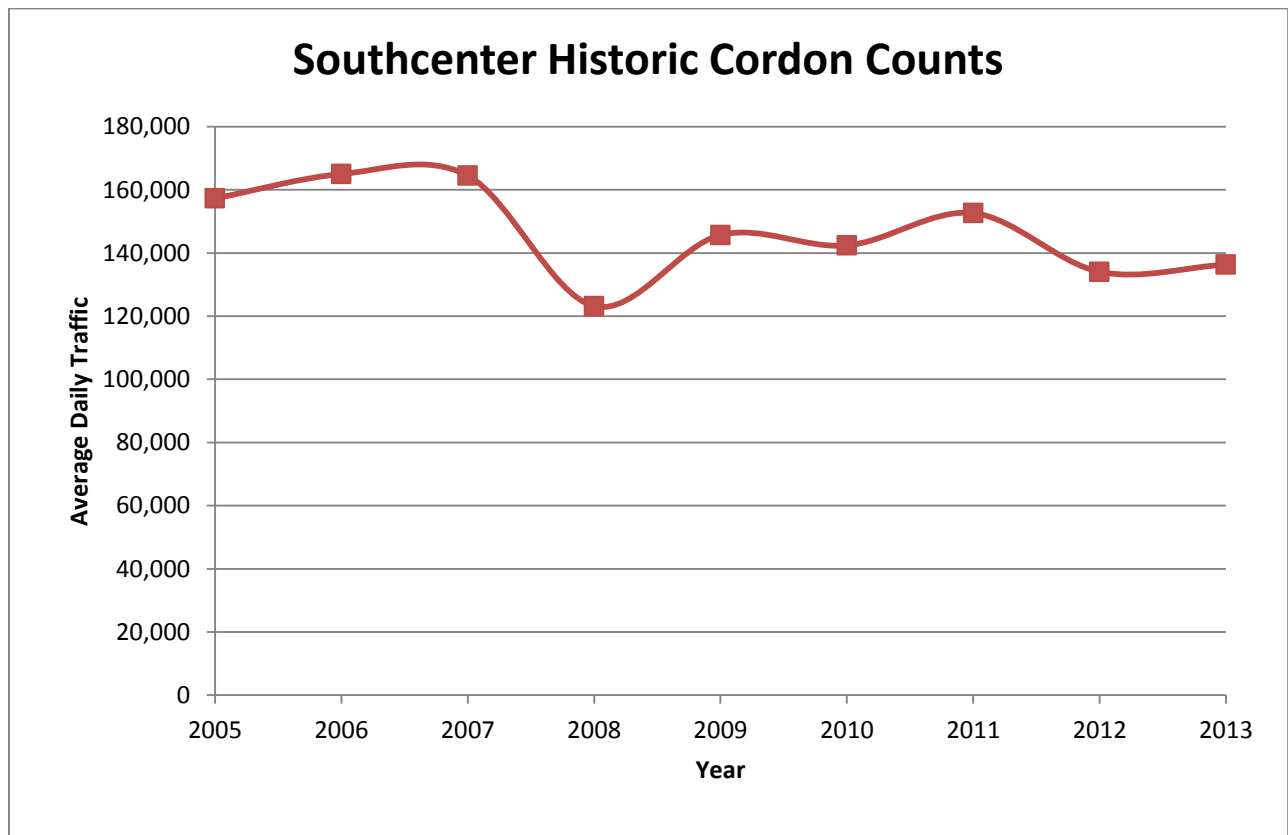
C. Previously Adopted Utility Plans

Element	Document	Issues/Analysis	Study Area	Summary/Mitigation
Water	Gilliam Creek Basin Stormwater Management Plan (2001)	Gilliam Creek stormwater management, water quality, habitat, etc.	TUC located within Gilliam Creek watershed	Summary: Description of the drainage basin, water quality fish habitat and recommended capital improvement projects and programmatic actions. Mitigation: City should pursue grants and loans for funding capital improvement projects, implement a system development charge for new development and redevelopment, increase permit review fees to directly cover the cost of development review, work with other jurisdictions and encourage developer participation in regional stormwater facilities.
Water	2007 Water System Plan Update	Water system requirements	City-wide	Summary: Identifies present and future water system needs, sets means for addressing those needs, demonstrates system has operational, technical, managerial and financial capabilities to meet local, state and federal regulations.
Water	City of Tukwila Comprehensive Surface Water Management Plan (2003)	Watercourses, wetlands, and infrastructure.	City-wide/ Identifies projects w/in the TUC	Summary: Designed to protect watercourses, wetlands, and infrastructure, protect public health and safety, maintain City's surface water system, meet regulatory requirements, and educated citizens and employees. Identifies capital improvement projects for the water system.
Water	Shoreline Master Plan/ Shoreline Element of Comprehensive Plan update (2011)	Shoreline requirements for the Green River	City-wide/ Applies to Green River w/in TUC	Summary: Designates the City's shoreline “Urban” and includes goals and policies for seven program elements (economic development, public access, circulation, recreation, shoreline use, conservation, historical/ cultural) to guide and implement the Shoreline Master Program.
	2006 Sewer	Sanitary sewer system	City-wide	Summary: Identifies present and future sewer system needs, sets means for

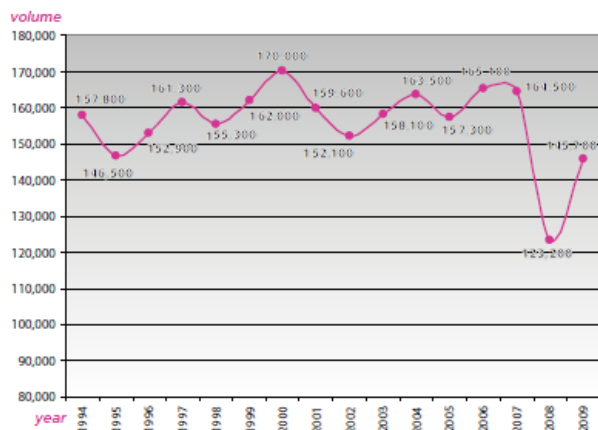
Sewer	System Plan Update	requirements		addressing those needs, demonstrates system has operational, technical, managerial and financial capabilities to meet local, state and federal regulations.
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Appendix B. Historic Traffic Volumes

The chart below shows the average daily traffic counts that enter the Southcenter area. As shown in the chart, the counts have remained fairly steady since 2009 and have remained lower than the prerecession peak traffic observed in the late 2000's.



Southcenter Cordon Volume Chart



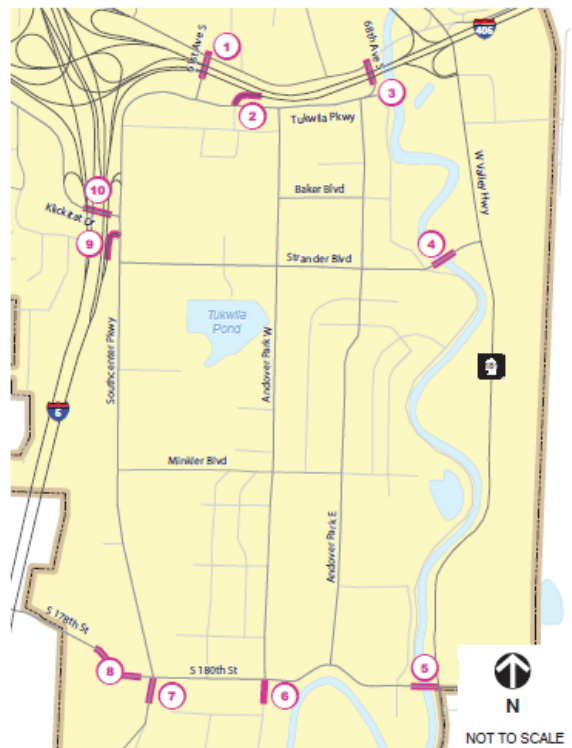
Southcenter: Cordon Locations*

1. 61st Avenue S at I-405
2. I-405 On Ramp from Tukwila Parkway
3. 68th Avenue S at I-405
4. Strander Boulevard at Green River
5. S 180th Street at Green River
6. Andover Park West south of S 180th Street
7. Southcenter Parkway south of S 180th Street
8. S 178th Street west of Southcenter Parkway
9. I-5 Northbound Off Ramp to Southcenter Parkway
10. Klickitat Drive at I-5

* Cordon counts are designed to calculate the total vehicle volumes entering and leaving an area by collecting data at all major access and egress locations.

LEGEND

- Entry & Exit Location
- City of Tukwila



Appendix C. Additional Intersection LOS

The following table summarizes the level of service for the intersections used to calculate corridor level of service in the Southcenter Subarea for each of the analysis scenarios.

Table C-1 – Additional Intersection Level of Service			
Location	Existing Delay (s) / LOS	No Action Delay (s) / LOS	Proposed Action/High Intensity Delay (s) / LOS
Baker Blvd / Andover Park E	16 / B	11 / B	12 / B
Baker Blvd / Andover Park W	16 / B	19 / B	15 / C
I-405 NB Ramps / W Valley Hwy	11 / B	16 / B	22 / C
I-5 Off-Ramp / Southcenter Pkwy	32 / C	58 / E	62 / E
Longacres Way / W Valley Hwy	14 / B	20 / C	19 / B
Minkler Blvd / Andover Park E	19 / B	13 / B	17 / B
Minkler Blvd / Andover Park W	62 / E	22 / C	26 / C
Minkler Blvd / Southcenter Pkwy	14 / B	15 / B	17 / B
S 168th St / Southcenter Pkwy	6 / A	31 / C	26 / C
S 180th St / Andover Park E	21 / B	30 / C	31 / C
S 180th St / Andover Park W	43 / D	42 / D	51 / D
S 180th St / Southcenter Pkwy	41 / D	20 / C	21 / C
S 180th St / W Valley Hwy	122 / F	>150 / F	>150 / F
Southcenter Blvd / 61st Ave S	43 / D	70 / E	71 / E
Southcenter Blvd / W Valley Hwy	141 / F	108 / F	112 / F
Strander Blvd / 61st Pl S	66 / E	27 / C	26 / C
Strander Blvd / Andover Park E	39 / D	38 / D	41 / D
Strander Blvd / Andover Park W	56 / E	52 / D	55 / D
Strander Blvd / Mall SW Drwy	55 / D	18 / B	22 / C
Strander Blvd / Southcenter Pkwy	38 / D	24 / C	26 / C
Strander Blvd / W Valley Hwy	39 / D	>150 / F	>150 / F
Tukwila Pkwy / 61st Ave S	27 / C	32 / C	35 / D
Tukwila Pkwy / Andover Park E / 66th Ave S	24 / C	23 / C	24 / C
Tukwila Pkwy / Andover Park W	24 / C	18 / B	18 / B
Tukwila Pkwy / I-405 NB On-Ramp	14 / B	15 / B	16 / B

Source: Fehr & Peers, 2013.

Appendix D

Land Use Forecasts

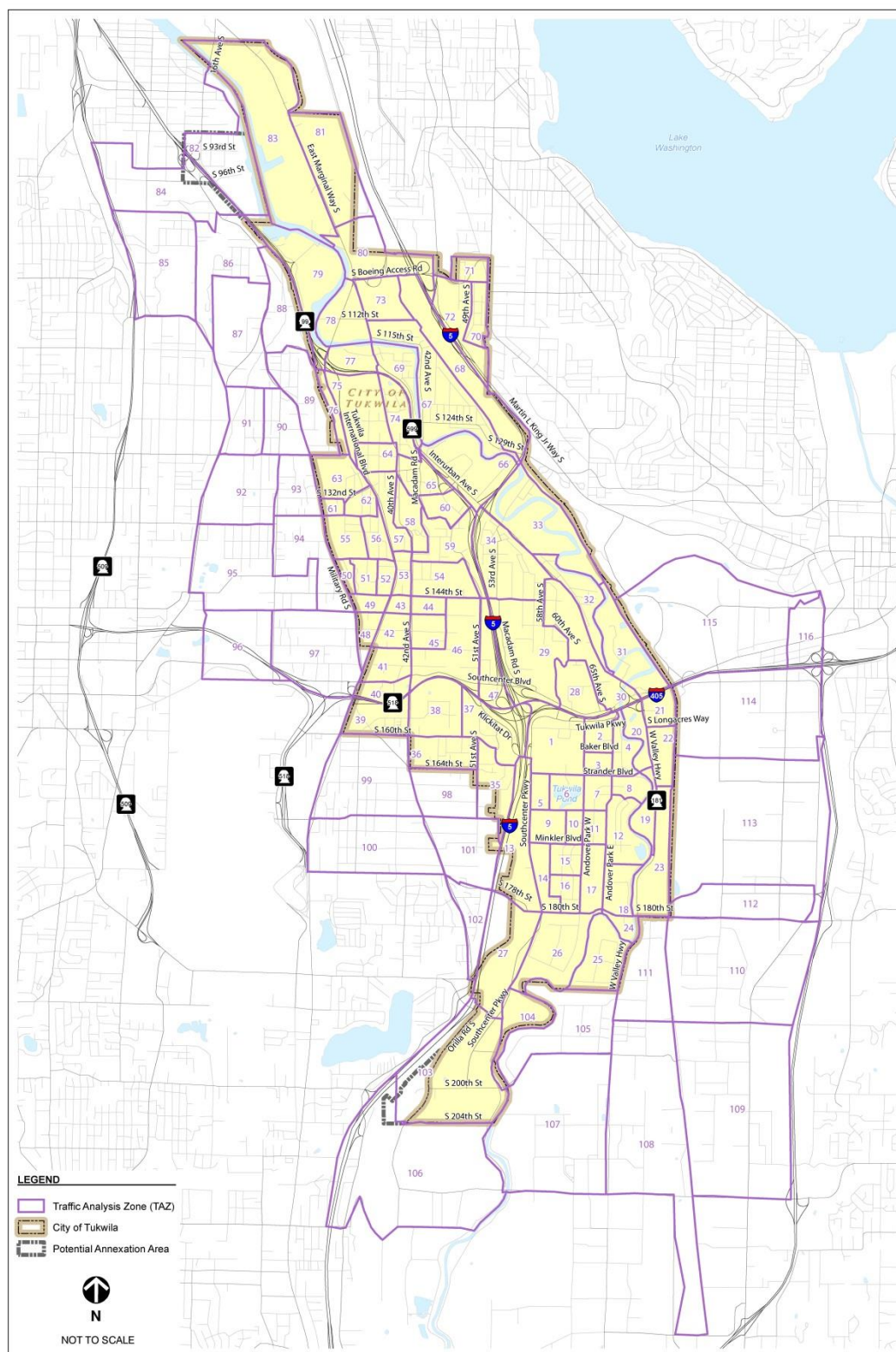
The following table summarizes the land use in the City of Tukwila for each of the 3 analysis scenarios. The TAZ structure within the City of Tukwila is shown in **Figure D-1**.

Table D-1 – Land Use Data for the City of Tukwila						
TAZ	2013 Existing		2031 No Action		2031 Action/High Intensity	
	Households	Employment	Households	Employment	Households	Employment
1	0	6,166	0	7,704	223	7,754
2	0	734	0	734	141	866
3	0	294	350	424	141	426
4	0	943	0	943	304	984
5	0	518	0	518	161	800
6	0	378	0	378	146	528
7	0	749	0	749	311	1,219
8	0	551	0	551	236	592
9	0	931	0	931	147	1,607
10	0	1,004	0	1,004	147	1,276
11	0	550	0	550	0	618
12	0	1,063	0	1,063	0	1,131
13	2	702	2	702	2	1,106
14	0	1,172	0	1,172	0	1,645
15	0	559	0	559	0	627
16	0	271	0	271	0	339
17	0	604	0	604	0	672
18	0	1,139	0	1,139	0	1,207
19	1	316	1	316	21	551
20	2	181	2	181	256	270
21	0	248	300	248	300	278
22	0	255	0	255	199	358
23	3	928	3	928	3	1,153
24	0	713	0	713	0	781
25	0	1,100	0	1,100	0	1,325
26	1	1,115	112	3,551	112	3,551
27	4	86	115	3,637	115	3,551
28	113	525	155	597	155	597
29	1,080	111	1,102	271	1,102	271
30	563	281	596	281	596	281
31	0	781	12	941	12	941
32	8	950	8	1,335	8	1,335
33	88	128	100	353	100	353
34	558	370	588	530	595	530
35	132	5	199	5	199	5
36	224	56	224	56	224	56
37	5	0	67	0	67	0
38	127	6	189	6	189	6
39	214	252	251	472	251	472
40	353	13	383	93	383	93
41	271	188	304	268	304	268
42	162	75	211	184	211	184
43	95	49	222	78	122	78
44	35	7	97	7	97	7

Table D-1 – Land Use Data for the City of Tukwila

TAZ	2013 Existing		2031 No Action		2031 Action/High Intensity	
	Households	Employment	Households	Employment	Households	Employment
45	66	6	128	6	128	6
46	475	36	507	36	507	36
47	18	239	30	311	30	311
48	123	267	168	517	168	517
49	279	141	306	170	306	170
50	85	8	147	8	147	8
51	158	18	191	18	191	18
52	149	150	176	179	176	179
53	114	42	444	151	162	151
54	89	40	151	40	151	40
55	98	18	160	18	160	18
56	158	17	201	247	201	247
57	188	58	215	221	215	221
58	64	2	126	2	126	2
59	158	22	220	22	220	22
60	20	721	20	946	20	946
61	34	12	96	12	96	12
62	112	4	182	4	188	4
63	77	234	100	306	100	306
64	104	52	116	92	116	92
65	71	135	100	389	100	389
66	0	3,125	0	3,351	0	3,351
67	392	274	404	278	404	278
68	0	0	0	0	0	0
69	109	1	171	1	171	1
70	128	4	150	4	150	4
71	41	5	103	5	103	5
72	13	35	75	35	75	35
73	0	250	0	1,200	0	1,200
74	15	2,341	15	2,381	15	2,381
75	10	1,582	10	2,532	10	2,532
76	13	101	13	326	13	326
77	0	807	0	847	0	847
78	0	2,540	0	3,490	0	3,490
79	0	213	0	1,163	0	393
80	0	500	0	500	0	500
81	0	361	0	1,311	0	1,311
83	17	6,110	17	7,061	17	7,061
103	16	2	127	3,553	127	3,552
104	0	0	112	3,551	112	3,551

Source: Fehr & Peers, 2013.



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Appendix E.

Detailed Transportation Air Quality Analysis

August 8, 2013

MEMORANDUM

To: Lynn Miranda, City of Tukwila
CC: Chris Breiland, Fehr & Peers

ENVIRON Project No: **29-31914A**

From: Richard Steffel

Project Name: Tukwila Subarea Plan Air Quality
Review

Subject: Signalized Intersection Air Quality Impact Evaluation

This memo documents the air quality modeling assessment conducted by ENVIRON International Corporation (ENVIRON) to examine the air quality implications of the Tukwila Subarea Plan. This review is based on consideration of projected traffic volumes and operational conditions within the Tukwila Southcenter area. Based on this assessment, traffic due to the proposed plan would have a minimal effect on air quality. The remainder of this memo provides the bases for this conclusion.

PROJECT DESCRIPTION

The city of Tukwila's Subarea Plan is intended to guide future development for Tukwila's urban center, the Southcenter area. The plan establishes a planning and design framework to regulate land use and development for the next 20 years to improve the area's vitality, functionality, and sustainability. The Subarea Plan is intended to enhance pedestrian amenities, transit, and bicycle facilities, stimulate residential and office development near the Southcenter Transit Center and the Tukwila Longacres Sounder commuter rail/Amtrak station, and restore the Tukwila pond and the portion of the Green River that passes through Southcenter with the intent of bolstering the area's market position and drawing power. The Subarea Plan is not a transportation plan per se, in that it does not plan for or fund specific transportation projects.

AIR QUALITY INTRODUCTION

Air quality is generally assessed in terms of whether concentrations of air pollutants are higher or lower than ambient air quality standards set to protect human health and welfare. Ambient air quality standards are set for what are referred to as "criteria" pollutants (e.g., carbon monoxide - CO, particulate matter, nitrogen dioxide - NO₂, and sulfur dioxide - SO₂). Three agencies have jurisdiction over the ambient air quality in the Tukwila/Southcenter area: the U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the

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Puget Sound Clean Air Agency (PSCAA). These agencies establish regulations that govern both the concentrations of pollutants in the outdoor air and rates of contaminant emissions from air pollution sources. Although their regulations are similar in stringency, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the EPA standards apply. These standards have been set at levels that EPA and Ecology have determined will protect human health with a margin of safety, including the health of sensitive individuals like the elderly, the chronically ill, and the very young.

Ecology and PSCAA maintain a network of air quality monitoring stations throughout the Puget Sound area. In general, these stations are located where there may be air quality problems, and so are usually in or near urban areas or close to specific large air pollution sources. Other stations located in more remote areas provide indications of regional or background air pollution levels. Based on monitoring information for criteria air pollutants collected over a period of years, Ecology and EPA designate regions as being "attainment" or "nonattainment" areas for particular pollutants. Attainment status is therefore a measure of whether air quality in an area complies with the federal health-based ambient air quality standards for criteria pollutants. Once a nonattainment area achieves compliance with the National Ambient Air Quality Standards (NAAQSs), the area is considered an air quality "maintenance" area.⁽²²⁾ The primary aspect of the air quality review described here was to consider whether ambient air quality would continue to comply with the NAAQSs with the proposed plan in place, and thus, whether traffic would be likely to result in any potentially significant adverse air quality impacts.

The project area is considered in attainment for all air pollutants except carbon monoxide (CO). Much of the Seattle urban area was once classified as nonattainment for CO, but has long since attained the standard. Thus the area is now considered an air quality maintenance area for CO. This status means air quality is generally good throughout the area except under certain circumstances that tend to promote poor air quality for short periods of time. Examples include hot days during which ground-level ozone concentrations can increase, and cold stagnant wintertime periods of poor dispersion when particulate matter concentrations from fuel combustion sources can adversely affect air quality.

Some transportation projects within air quality maintenance areas are subject to a set of federal and state "conformity" rules intended to prevent such projects from worsening air quality. Washington state has adopted rules (WAC 173-420) developed by its departments of Transportation and Ecology to accomplish air quality conformity assessments through three levels of review. These rules are intended to prevent regionally significant transportation projects from either causing or contributing to localized air quality problems. In this instance, although traffic volume increases related to planned growth and development are expected with the alternatives considered in the proposed subarea plan, the plan does not include specific transportation components that trigger an air quality conformity review at this stage. Instead, future transportation infrastructure projects that include configuration or capacity revisions

⁽²²⁾ Areas that were once classified as nonattainment that have since attained the standard are classified as maintenance areas in perpetuity, or until such time as the standard that was the basis of the nonattainment designation is vacated.

affecting major roadways would be required to consider transportation conformity under separate review(s). The air quality analysis reported here included a SEPA-level "hot-spot" analysis that assessed potential impacts from transportation sources.

AIR QUALITY IMPACT ASSESSMENT METHODS

Screening Review

ENVIRON screened project-affected signalized intersections for possible "hot-spot" modeling based on review of intersection level of service (LOS) and delay in future years. The worst-performing intersections, highlighted in [Table 1](#), were compared with other recent quantitative assessments that evaluated intersections with similar LOS, volumes, and cumulative p.m. peak-hour delays. These studies concluded that no impacts were expected to occur using what were then the latest emission factors and EPA approved models. As a result, all but one of the plan-affected intersections can be eliminated as a potential source of air quality impacts based on this screening review.

In contrast, the intersection of South 180th Street with West Valley Highway is expected to have a cumulative delay of 455 hours under the 2030 Action alternative ([Table 2](#)). Projected future operational conditions at this intersection were worse than those considered in recent quantitative assessments because the projected delay is worse than the intersections evaluated in these studies. Consequently, the intersection of South 180th Street / West Valley Highway was evaluated with detailed air quality modeling based on the scenario with the worst delay, the 2030 p.m. peak Action alternative.

Table 1. Southcenter Subarea Plan – Intersection LOS

#	Intersection Location	2013 Existing		2030 No Action		2030 Action	
		Delay	LOS	Delay	LOS	Delay	LOS
1	S 180th Street / Southcenter Parkway	41	D	20	C	21	C
2	S 180th Street / Andover Park W	43	D	42	D	51	D
3	S 180th Street / W Valley Highway **	122	F	220	F	230	F
4	Minkler Boulevard / Southcenter Parkway	14	B	15	B	17	B
5	Minkler Boulevard / Andover Park W	62	E	22	C	26	C
6	Strander Boulevard / Southcenter Parkway	38	D	24	C	26	C
7	Strander Boulevard / Andover Park W	56	E	52	D	55	D
8	Strander Boulevard / Andover Park E	39	D	38	D	41	D
9	Strander Boulevard / W Valley Highway	39	D	166	F	83	F
10	I-5 NB Off-ramp / Southcenter Parkway	32	C	58	E	62	E
11	Tukwila Parkway / 61st Avenue S	27	C	32	C	35	D
12	I-405 NB Ramps / W Valley Highway	11	B	16	B	22	C
13	Southcenter Boulevard / W Valley Highway	141	F	108	F	112	F
14	I-405 SB Ramps / W Valley Highway	36	D	51	D	57	E
15	Southcenter Boulevard / 68th Avenue S	47	D	106	F	36	D
16	Southcenter Boulevard / 61st Avenue S	43	D	70	E	71	E
17	Southcenter Boulevard / I-405 SB Off-ramp	29	D	15	B	15	B
18	Tukwila Parkway / Andover Park E	24	C	23	C	24	C
19	Tukwila Parkway / Andover Park W	24	C	18	B	18	B

Notes: Highlighted cells indicate intersections with most congested levels of service.
 ** indicates intersection selected for review with detailed air quality modeling

Source: Fehr & Peers 2013

Table 2. Existing and Future Traffic Conditions at S 180th St/West Valley Highway

	2013 Existing	2030 No Action	2030 Action	2030 Action Synchro Approach Delay (seconds)	2030 Project Change from No Action
P.M. Peak Hour Volumes by Intersection Movement	254	110	95	37.4	(15)
	898	1,040	1,115	86.3	75
	152	500	495	467.1	(5)
	378	250	300	340.1	50
	850	1,265	1,250	226.1	(15)
	126	325	325	-	-
	89	380	385	454.5	5
	872	1,315	1,375	262.1	60
	512	130	150	42.8	20
	82	140	150	-	10
	760	1,295	1,285	185.8	(10)
	414	225	200	205.4	(25)
Total Vol	5,387	6,975	7,125		150
Pk Hr Delay	122 secs/veh	220 secs/veh	230 secs/veh	231 secs/veh	10 secs/veh
Pct Change		80.3%			4.5%
Cumulative Pk Hr Delay	183 hrs	426 hrs	455 hrs		29 hrs
Pct Change		133.5%			6.8%
Source: Fehr & Peers 2013					

Quantitative Modeling Assessment

The air quality impact review consisted of a microscale CO "hot-spot" analysis using computer models recommended or required by EPA guidelines and/or air quality rules. The assessment considered air quality due to emissions from the traffic sources in the future year (2030). While an air quality conformity assessment would entail a more extensive review extending farther into the future (i.e., 2040), considering the potential impacts from the single worst-case intersection can provide adequate review when conformity does not pertain. As shown in [Table 1](#), the intersection selected for evaluation using dispersion modeling is the worst operating intersection in the study area. Because the intersection LOS is worse with the action alternative than with No Action, the potential air quality impacts – with or without the project – at any other intersection would be less than at this intersection with the proposed plan. The modeling analysis reported here therefore provides a sufficient consideration of the future air quality implications of the subarea plan.⁽²³⁾ The specific models and analysis methods are described below.

⁽²³⁾ An air quality conformity assessment for a transportation project requires modeling of existing conditions and future "with" and "without" project conditions in the opening and the design years of the project. But in the absence of a "regionally significant" transportation project, the air quality conformity rules do not apply.

MOVES2010b - Emission Factor Modeling

Traffic-related air quality dispersion modeling requires estimates of vehicle emission rates for the years of interest. Under current air quality rules, the U.S. EPA vehicle emissions factor model MOVES2010b is now required to generate "emission factors" for this purpose. The Puget Sound Regional Council (PSRC), Ecology, and other agencies have developed standard inputs for use in MOVES modeling for analyses of various plans and projects. Vehicle emission factors are calculated in grams of pollutant per vehicle mile-of-travel based on a wide array of vehicle classes, basic emission rates, driving patterns, separation of start and running emissions, and fleet composition. ENVIRON employed the following assumptions in the MOVES modeling:

- Traffic volume data provided by Fehr and Peers
- King County meteorology and vehicle database files provided by PSRC (Rebecca King, email July 9, 2013); files include vehicle age distribution, I&M coverage, fuel supply, and fuel formulation - all developed by Ecology for the 2011 emissions inventory
- Methodology based on EPA guidance⁽²⁴⁾
- Each approach and departure link was assumed to be 1,000 feet long at zero percent grade with vehicles traveling at an average speed of 15 mph; queue links 500 feet (length of queue link is irrelevant) at zero average speed
- MOVES operated in Inventory Mode/Project scale using road type "Urban Unrestricted" for January weekday, hour 5 p.m. for CO Running Exhaust and CO Crankcase Running Exhaust emissions for all fuel types, all vehicle classifications
- MOVES operated using default Link Drive Schedule and Operating Mode Distribution
- Average emission rates calculated using EPA MOVES post processing scripts and extracted from SQL output files

Dispersion Modeling

ENVIRON used the EPA CAL3QHC dispersion model (version 04244) to calculate peak-hour CO concentrations near the single most project affected intersection. CAL3QHC is designed to calculate pollutant concentrations caused by transportation sources. It considers "free-flow" and "queue" emissions based on MOVES emission factors together with intersection geometry, wind direction, and other meteorological factors.

The following assumptions and parameters were used in the CAL3QHC modeling. These factors are consistent with the Washington State CO SIP, CO Maintenance Plan, and EPA guidance for dispersion modeling:

- Meteorological parameters included a 1,000-meter mixing height, low wind speed (1 meter/second), and a neutral atmosphere (Class D)

⁽²⁴⁾ U.S. Environmental Protection Agency (EPA), December 2010, *Using MOVES in Project-Level Carbon Monoxide Analyses*, Transportation and Regional Programs Division Office of Transportation and Air Quality
EPA-420-B-10-041

- Modeling evaluated 72 wind directions (in 5 degree increments) to ensure worst-case conditions were considered for each receptor location
- A "background" 1-hour carbon monoxide concentration of 3 ppm was assumed to represent other sources in the project area
- The modeling configuration considered road links extending up to 1,000 feet from the single worst-operating intersection in the study area
- Both free-flow and queue links were configured approaching and departing the intersection
- Near-road receptors were placed along both sides of each roadway about 3, 25, 50, and 100 meters from cross streets, 3 meters from the nearest traffic lane, and 1.8 meters above the ground (typical sidewalk locations at breathing height)
- Modeled calculated 1-hour CO concentrations were converted to represent 8-hour concentrations using a 0.7 "persistence factor" (i.e., the ratio of 8-hour to 1-hour CO concentrations) to represent variability in both traffic volumes and meteorological conditions.

AIR QUALITY IMPACT ASSESSMENT RESULTS

The results of the CAL3QHC dispersion modeling analysis for the 2030 Action alternative are presented in [Table 3](#). As shown, calculated worst-case CO concentrations with the project at the most project-affected intersection are far below the levels allowed by the applicable 1 and 8-hour CO ambient air quality standards. These results suggest that CO concentrations near the worst-operating intersection within the subarea plan area would not exceed either the 35-ppm 1-hour or 9-ppm 8-hour ambient air quality standards, under the 2030 Action alternative. Although project-related traffic delays almost double in 2030 over those in 2013, maximum predicted CO concentrations decrease in 2030 due to vehicle emissions reduction measures implemented by federal and state regulatory requirements in future years. Based on this finding, the proposed plan would not be expected to result in any significant air quality impacts due to its effect on the surface roadways in the area.

Table 3. Model-Calculated Maximum CO Concentrations (ppm)

Location	Averaging Time	2030 Action Alternative	NAAQS Limit
S 180 th Street/ West Valley Highway	1-hour	5.4	35
	8-hour	3.8	9
Notes: All CO concentrations include a background concentration of 3.0 parts per million (ppm) 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations by a persistence factor of 0.7 (based on EPA guidance)			

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CONCLUSIONS

Based on a screening review of signalized intersections within the subarea plan area and a quantitative modeling analysis of the single worst-operating intersection in the area, no significant air quality impacts would be expected with the 2030 Action alternative. Consequently, no operational or structural air quality mitigation measures are necessary or proposed at this time.