Long-term (Operation) Impacts and Potential Mitigation
CHAPTER 3. LONG-TERM (OPERATION) IMPACTS AND POTENTIAL MITIGATION

This chapter describes the affected environment, potential long-term (operational) impacts, and mitigation measures for each element of the environment. Long-term impacts are defined as impacts that will be present after the project is built. These impacts could occur during construction of the project or during operation of the project, or in some cases, during both construction and operation of the project. For example, the project would require tree removal to ensure that the transmission lines maintain a certain clearance that is free of vegetation. The tree removal would occur during construction. However, because the trees removed would not be allowed to grow back after construction, tree removal is considered a long-term (operational) impact and is addressed in this chapter. Trees that are removed to make room for temporary access roads for purposes of constructing the project would be allowed to grow back after the access roads are removed and construction is complete. Tree removal for this type of activity is considered temporary and is addressed in Chapter 4, Short-term (Construction) Impacts.

3.1 LAND USE AND HOUSING

This section provides a project-level analysis of potential impacts to land use, Shorelines of the State (shorelines), and housing. The study area for the land use and housing analysis contains parcels that are included in or abutting PSE’s right-of-way surrounding the proposed route of all segments and options, as well as parcels in close proximity to the right-of-way (see Figure 3.1-1). This study area was selected because properties in close proximity to the right-of-way would have the greatest potential to be impacted by potential easement acquisition and associated structure removal and a change to a utility land use or intensification of the existing utility land use. For a more detailed description of the methodology used to determine the study area for the land use analysis, please see Appendix B.

This section describes existing land uses, zoning districts, and comprehensive plan land use designations in the study area, as well as broader land use patterns. It identifies unique land uses in the study area that were identified during scoping and the course of this analysis. Unique uses include those that may be more significantly affected by the project or those that are used by large numbers of people. These include the following:

- Schools
- Religious institutions
- Hospitals
- Libraries
- Parks, recreational areas, or other public gathering places
- Commercial or retail areas
- Transportation or other infrastructure

Methods for Studying Affected Environment

Information on land use and housing was obtained primarily from data maintained by the King County Assessor. Zoning, shoreline designations, and comprehensive plan data were obtained from the Partner Cities.
Figure 3.1-1. Study Area for Land Use and Housing

Source: King County, 2015; WA Ecology, 2014.
Areas adjacent to or close to the study area that are zoned or planned for higher intensity uses such as commercial or industrial are also identified. This section describes the number and type of residential properties in the study area, including the number of single-family and multi-family residential units adjacent to the project corridor. A general study of the impact of the project on property values in the City of Bellevue is found in the Phase 1 Draft EIS. Further analysis on the potential impact on property values for a smaller jurisdiction, the City of Newcastle, is found in Section 3.10, Economics.

### 3.1.1 Relevant Plans, Policies, and Regulations

Development within the study area must comply with a variety of policy documents and regulations adopted by local municipalities, including comprehensive plans, subarea plans, shoreline master programs, and land use standards. Development in proximity to utility infrastructure must also comply with PSE guidelines, which are shaped by National Electrical Safety Code (NESC) standards.

Comprehensive plans were analyzed at the program-level and were included as Appendix E in the Phase 1 Draft EIS. The only previously identified comprehensive plan that was updated following the publication of the Phase 1 Draft EIS is the Newcastle Comprehensive Plan (City of Newcastle, 2016a), which was adopted in March 15, 2016. The Newcastle Comprehensive Plan includes a new Utilities Element with policies that address collocation, undergrounding distribution lines, limiting vegetation disturbance, and promoting energy conservation efforts.

Subarea plans provide more detailed policies for a specific geographic area within the jurisdiction of a given comprehensive plan. Goals and policies of subarea plans that relate to electrical utility infrastructure in the context of development are typically similar to those of the applicable comprehensive plans, as outlined in Section 10.2.1 of the Phase 1 Draft EIS. Specific subarea policies relating to the project are included in Appendix B in this Phase 2 Draft EIS. If applicable, project inconsistencies with these subarea plans are described in Section 3.1.3.

The City of Bellevue and the City of Renton have Shorelines of the State within their boundaries that the project transmission lines would cross, Kelsey Creek and Cedar River (south of the Maple Valley Highway), respectively. Each adopted Shoreline Master Program (SMP) includes policies for uses and conservation of the ecological functions of their identified shorelines. Specific SMP policies relating to the project are included in Appendix B. If applicable, project inconsistencies are described in Section 3.1.3.

Zoning districts were evaluated to determine if an electrical utility line or electric utility equipment would be considered an allowed, conditionally allowed, or prohibited use, which is summarized in Appendix B. If applicable, inconsistencies are described in Section 3.1.3.

The City of Newcastle provides for a required setback of 5 feet for all buildings and structures from utility property or easement lines delineating the boundary of regional utility corridors (Newcastle Municipal Code [NMC] 18.12.130). The City of Newcastle applies this setback requirement to electrical transmission towers, since they meet the NMC definition of “structure.” In Newcastle, the easement for the Olympic Pipeline is generally centered within the PSE easement and varies in width, but is typically 50 feet. For the purpose of regulating electrical transmission towers, the pipeline easement is considered as a regional utility corridor for application of this setback standard. All electrical transmission towers would be required to be set back 5 feet outside of the boundaries of the Olympic Pipeline easement.
3.1.1.1 PSE Guidelines

To adhere to NESC standards, PSE has policy guidelines that govern development in proximity to 230 kV lines (Strauch, 2016). Development must be designed consistent with the following guidelines:

- Structures (e.g., mixed-use buildings, houses, sheds, pools, etc.) in the vicinity of the proposed transmission line route must allow adequate access and working space for operation and maintenance of PSE infrastructure.
- The appropriate minimum width for the transmission line right-of-way or easement must meet (or exceed) the NESC standards, which factor in considerations such as the distances that a wire could swing during high-wind conditions.

3.1.2 Land Use and Housing in the Study Area

The 18-mile corridor would extend from Redmond to Renton and also passes through the cities of Bellevue and Newcastle and a small portion of King County. See Figure 3.1-1 for a map of existing land uses. Based on a linear-feet breakdown of the study area, the most common existing land uses include:

- Residential (single-family and multi-family) (38 percent)
- Vacant land (16 percent)
- Commercial (11 percent)

The most common zoning category is single-family residential (60 percent of zoning districts and 58 percent of linear feet). These data were derived from each City’s zoning designations and grouped into broad zoning categories.

There are 783 single-family and 3,440 multi-family residences in the study area. Residences include single-family houses and individual units contained within one or more multi-family buildings.

Table 3.1-1 presents the existing land uses, neighborhood character, zoning, future land uses (comprehensive plan land use designations), and housing information for the parcels within the study area, broken down by segment and option.
<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Richards Creek Substation</strong></td>
<td></td>
</tr>
<tr>
<td>Existing Land Uses</td>
<td>Existing land use in the study area is utility, associated with PSE's property. Land uses surrounding the substation site include a mix of industrial, institutional, single-family residential, vacant lands, and utility (PSE’s Lakeside substation). A private school (Chestnut Hill Academy) is about 325 feet north of the substation site, adjacent to (and just east of) the Lakeside substation.</td>
</tr>
<tr>
<td>Neighborhood Character</td>
<td>The Richards Creek substation would be in an industrial neighborhood characterized by large warehouse and manufacturing buildings with large paved parking lots and driveways, and outdoor storage lots. To the east, there is a large, contiguous forested area surrounding the proposed substation that has wetlands and streams; to the south there is a transfer station; and just north of the forested area is a sports field for the Chestnut Hill Academy.</td>
</tr>
<tr>
<td>Zoning Districts</td>
<td>The proposed substation would be in the Light Industrial zoning district in Bellevue.</td>
</tr>
<tr>
<td>Future Land Uses</td>
<td>The Bellevue Comprehensive Plan designates this area as Light Industrial. This indicates that the neighborhood will continue to have industrial and manufacturing land uses into the foreseeable future.</td>
</tr>
<tr>
<td>Housing</td>
<td>There are no single-family or multi-family residences immediately adjacent to the proposed substation site.</td>
</tr>
<tr>
<td>Segment / Option</td>
<td>Land Use and Housing Characteristics</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td><strong>Redmond Segment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Existing land uses mostly include a mix of utility and multi-family residential (see the chart below for the percentage of the total study area within the Redmond Segment that each land use represents). Approximately 100 parcels are immediately adjacent to the existing corridor. Unique land uses within the study area include Willows Creek Neighborhood Park and Rose Hill Middle School.</td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>The Redmond Segment begins at the Sammamish substation, which is adjacent to large warehouse properties and forested land. The segment goes through two major residential neighborhoods: Willows/Rose Hill and Grass Lawn. The Willows/Rose Hill neighborhood is predominately a single-family neighborhood with a variety in home types, styles, and lot sizes and an abundance of trees. The Grass Lawn neighborhood is mostly single-family residential with a section of multi-family residential, including the Sixty-01 Condominium Complex, a gated residential community with a lake, mature landscaping, and streams. The Rose Hill Middle School is adjacent to the segment with play fields immediately adjacent to the corridor.</td>
</tr>
<tr>
<td><strong>Zoning Districts</strong></td>
<td>The existing corridor is located in six different zoning districts in the City of Redmond, including single-family residential, multi-family residential, industrial, and commercial districts.</td>
</tr>
<tr>
<td><strong>Future Land Uses</strong></td>
<td>The Redmond Comprehensive Plan land use designations along the segment are mostly single-family and multi-family residential, as well as parks/open space. The neighborhoods along this segment will continue to have commercial and industrial land uses near the Sammamish substation, and residential or open space land uses south of the substation into the foreseeable future. The policies specific to the Willows/Rose Hill and Grass Lawn neighborhoods indicate intent to preserve the current residential character while providing for compatible infill growth.</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>There are 75 single-family and 552 multi-family residences within this portion of the study area.</td>
</tr>
</tbody>
</table>
### Bellevue North Segment

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Existing land uses include mostly single-family residential homes (see the chart below for the percentage of the total study area in the Bellevue North Segment that each land use represents). Approximately 118 parcels are adjacent to the existing corridor. Unique land uses include Westminster Chapel and Viewpoint Park.</td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>The segment goes through the residential neighborhoods of Bridle Trails and Bel-Red. Bridle Trails is predominantly a single-family residential area, with large lots and mature evergreen trees. The portion of the Bellevue North Segment that goes through Bel-Red is just south of SR 520 and characterized by a large commercial property (misclassified as recreational land by King County Assessor information).</td>
</tr>
<tr>
<td><strong>Zoning Districts</strong></td>
<td>The existing corridor is located in four different zoning districts in the City of Bellevue, including single-family residential and commercial districts.</td>
</tr>
<tr>
<td><strong>Future Land Uses</strong></td>
<td>The Bridle Trails Subarea Plan land use designations within the segment study area include Single-Family Residential. A small portion of the segment goes through the Bel-Red Subarea Plan boundaries and has a future land use designation as General Commercial. Therefore, future land use in the study area is expected to mostly stay the same.</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>There are 102 single-family and no multi-family residences within this portion of the study area.</td>
</tr>
</tbody>
</table>
## Bellevue Central Segment, Existing Corridor Option

### Existing Land Uses
Existing land uses include mostly recreation (see the chart below for the percentage of the total study area within the Existing Corridor Option that each land use represents). Approximately 135 parcels are immediately adjacent to the existing corridor. Unique land uses include Glendale Country Club and Skyridge Park.

![Land Use Pie Chart]

### Neighborhood Character
The option route follows the existing corridor, which starts in the Bel-Red neighborhood just south of SR 520, and is characterized by large manufacturing and commercial spaces. The Bellevue Central Segment runs along the Wilburton (covered by the Wilburton/NE 8th Street Subarea Plan) and Crossroads neighborhood boundaries and the Woodridge and Lake Hills neighborhoods. The border between Wilburton and Crossroads neighborhoods is characterized by a mix of single-family and a multi-family development, with the exception of the Glendale Country Club, which is immediately adjacent to the option. The border of Woodridge and Lake Hills is mostly single-family housing and open spaces, and is covered by the Richards Valley Subarea Plan, the Eastgate Subarea Plan, and the SE Bellevue Subarea Plan. Several parks (including Kelsey Creek Park) are along the Existing Corridor Option.

### Zoning Districts
The existing corridor is located in 13 different zoning districts in the City of Bellevue, including single-family residential, multi-family residential, commercial, industrial, and mixed-use districts.

### Future Land Uses
The Bellevue Comprehensive Plan land use designations for this option include a mix of Single-Family and Multi-Family designations along the existing corridor. This indicates that the neighborhoods along this option will continue to have residential land uses into the foreseeable future. The policies specific to the Wilburton/Crossroads and Woodridge/Lake Hills neighborhoods indicate the intent to preserve the current residential character without limiting the potential for growth.

### Housing
There are 92 single-family and 1,318 multi-family residences within this portion of the study area.
<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bellevue Central Segment, Bypass Option 1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Existing land uses include mostly commercial, industrial, and vacant lands (see the chart below for the percentage of the total study area within Bypass Option 1 that each land use represents). Approximately 199 parcels are immediately adjacent to the corridor (existing and new). Unique land uses include large blocks of commercial and manufacturing along Northup Way, 132nd Ave NE, the International School and Bel-Red Road, Bannerwood Park, and Skyridge Park.</td>
</tr>
<tr>
<td><img src="image" alt="Land Use Pie Chart" /></td>
<td></td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>Bypass Option 1 goes through the neighborhoods of Bel-Red, Wilburton, Woodridge, and Lake Hills. In Bel-Red, the Bypass Option 1 corridor is characterized by large industrial and commercial spaces. In Wilburton (covered by the Wilburton/NE 8th Street Subarea Plan), Bypass Option 1 follows major street corridors that are lined with office parks and commercial spaces. In Woodridge, Bypass Option 1 follows the Lake Hills Connector road, which is lined with vacant or open space areas (classified as vacant lands by King County Assessor parcel information), as well as the existing corridor, which is lined by single-family residences. The Lakeside substation is in an area characterized by industrial utilities. This option also traverses areas covered by the Richards Valley Subarea Plan, the Eastgate Subarea Plan, and the SE Bellevue Subarea Plan. Several parks (including Kelsey Creek Park), government buildings, and a school (International School) lie along Bypass Option 1.</td>
</tr>
<tr>
<td><strong>Zoning Districts/Shoreline Environment Designation</strong></td>
<td>Bypass Option 1 (the existing and new corridors) would be located in a total of 21 different zoning districts in the City of Bellevue, including commercial, industrial, mixed-use, multi-family residential, and single-family residential districts. Lower Kelsey Creek is a Shoreline of the State and is regulated by Bellevue’s SMP. Lower Kelsey Creek includes the creek waters, underlying lands, and territory between 200 feet on either side of the top of the banks, plus associated floodways, floodplains, marshes, bogs, swamps, and river deltas. The shoreline environment designation in the study area is Urban Conservancy – Open Space Designation.</td>
</tr>
</tbody>
</table>
### Chapter 3: Long-term (Operation) Impacts and Potential Mitigation

**Land Use and Housing Characteristics**

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Future Land Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Within this portion of the study area, the future land use is anticipated to be mixed-use and commercial for the northern portion of the option, and transitioning into multi-family and single-family residential along the Lake Hills Connector. This option is also covered by several subarea plans. The Bel-Red Subarea Plan designates commercial development as a future land use; the Wilburton Subarea Plan designates commercial and multi-family for future development; the Woodridge and Lake Hills Subarea Plans would continue to develop with single-family residential. Bellevue intends for the Bel-Red Subarea to focus on nodal development, which means that the planned Sound Transit’s East Link light rail stations (anticipated to open in 2023) would be nodes around which development would be focused. The nodes would feature higher density buildings, with taller buildings toward the center of the nodes allowed with a variance process in exchange for various public amenities. Additionally, the Bel-Red Subarea Plan establishes policies to generate new jobs and new housing units; restore streams and ecological functions; construct new amenities such as parks, trails, and bike paths; and promote economic development. The Wilburton-Grand Connection planning initiative is an ongoing two-part project to improve non-motorized connectivity, as well as a re-visioning of the Wilburton Commercial Area. 1. The Grand Connection will improve pedestrian and cyclist connectivity from Meydenbauer Bay to the Eastside Rail Corridor, including a crossing over I-405 that will reconnect Downtown Bellevue and the Wilburton Commercial Area. Ultimately it will interface with the Eastside Rail Corridor, providing a comprehensive north-south and east-west non-motorized network. 2. The Wilburton Commercial Area planning initiative will identify land use, urban design, transportation, and environmental opportunities, including design guidelines addressing changes to floor area ratio, height, permitted uses, and design character.</td>
</tr>
</tbody>
</table>

| Future Land Uses | The Richards Valley Subarea Plan plans for future development that would not compromise the existing natural features of dense vegetation and wooded vistas. It includes policies for utilizing common corridors (places where utility infrastructure already exists) for new utilities and for placing them alongside transportation rights-of-way. The policies of each of these subarea plans support development that would accommodate continued residential and commercial growth in the foreseeable future. |

| Housing          | There are 54 single-family and 292 multi-family residences within this option. |
## Chapter 3

### Long-Term (Operation) Impacts and Potential Mitigation

#### May 2017

#### Land Use and Housing

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bellevue Central Segment, Bypass Option 2</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Similar to Bypass Option 1, existing land uses include mostly vacant, commercial, and industrial lands (see the chart below for the percentage of the total study area in Bypass Option 2 that each land use represents). Approximately 169 parcels are immediately adjacent to the corridor (existing and new). Unique land uses include large blocks of commercial and manufacturing along 132nd Ave NE and Bel-Red Road, Bannerwood Park, Skyridge Park, and Bellevue Foursquare Church.</td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>Bypass Option 2 goes through the neighborhoods of Bel-Red, Wilburton, and Woodridge. Bel-Red is characterized by large industrial and commercial spaces. Wilburton (covered by the Wilburton/NE 8th Street Subarea Plan), is characterized by major roads lined with industrial parks and commercial spaces. In Woodridge, single-family homes and open space characterize the land along the corridor, including Richards Road, which is predominantly single-family residences. The Lakeside substation is in an area characterized by industrial utilities. This option also traverses areas covered by the Richards Valley Subarea Plan, the Eastgate Subarea Plan, and the SE Bellevue Subarea Plan. Several parks (including Kelsey Creek Park), government buildings, and schools (International School and the Asian Pacific Language School) are along Bypass Option 2.</td>
</tr>
<tr>
<td><strong>Zoning Districts/Shoreline Environment Designation</strong></td>
<td>Bypass Option 2 (the existing and new corridors) would be located in 19 different zoning districts in the City of Bellevue, including commercial, industrial, mixed-use, multi-family residential, and single-family residential districts. Lower Kelsey Creek is a Shoreline of the State and is regulated by Bellevue’s SMP. Lower Kelsey Creek includes the creek waters, underlying lands, and territory between 200 feet on either side of the top of the banks, plus associated floodways, floodplains, marshes, bogs, swamps, and river deltas. Similar to Bypass Option 1, the shoreline environment designation in the study area is Urban Conservancy – Open Space Designation.</td>
</tr>
</tbody>
</table>
### Chapter 3: Long-Term (Operation) Impacts and Potential Mitigation

#### May 2017

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Future Land Uses</strong></td>
<td>Within this portion of the study area, the future land use is anticipated to be mixed-use and commercial for the northern portion of the option, and transitioning into multi-family and single-family residential along the Lake Hills Connector. The main difference between Bypass Option 1 and Bypass Option 2 is that this option travels down Richards Road and then follows SE 26th Street to connect with the existing corridor. The future land use on Richards Road is anticipated to be multi-family residential, with industrial development planned along the south side of SE 26th Street. This option is also covered by several subarea plans. The Bel-Red Subarea Plan designates commercial development as a future land use; the Wilburton Subarea Plan designates commercial and multi-family for future development; the Woodridge and Lake Hills Subarea Plans would continue to develop with single-family residential. Bellevue intends for the Bel-Red Subarea to focus on nodal development, which means that the planned Sound Transit’s East Link light rail stations (anticipated to open in 2023) would be nodes around which development would be focused. The nodes would feature higher density buildings, with taller buildings toward the center of the nodes allowed with a variance process in exchange for various public amenities. Additionally, the Bel-Red Subarea Plan establishes policies to generate new jobs and new housing units; restore streams and ecological functions; construct new amenities such as parks, trails, and bike paths; and promote economic development. The Wilburton-Grand Connection planning initiative is an ongoing two-part project to improve non-motorized connectivity, as well as a re-visioning of the Wilburton Commercial Area. 1. The Grand Connection will improve pedestrian and cyclist connectivity from Meydenbauer Bay to the Eastside Rail Corridor, including a crossing over I-405 that will reconnect Downtown Bellevue and the Wilburton Commercial Area. Ultimately it will interface with the Eastside Rail Corridor, providing a comprehensive north-south and east-west non-motorized network. 2. The Wilburton Commercial Area planning initiative will identify land use, urban design, transportation, and environmental opportunities, including design guidelines addressing, changes to floor area ratio, height, permitted uses, and design character. The Richards Valley Subarea Plan plans for future development that would not compromise the existing natural features of dense vegetation and wooded vistas. It includes policies for utilizing common corridors (places where utility infrastructure already exists) for new utilities and for placing them alongside transportation rights-of-way. The policies of each of these subarea plans support development that would accommodate continued residential and commercial growth in the foreseeable future.</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>There are 26 single-family and 530 multi-family residences within this option.</td>
</tr>
</tbody>
</table>
### Bellevue South Segment, Oak 1 Option

**Existing Land Uses**
Existing land uses mostly include recreation, commercial, and single-family residential homes (see the chart below for the percentage of the total study area in the Oak 1 Option that each land use represents). Approximately 318 parcels are immediately adjacent to the corridor (existing and new). Unique land uses include Sunset Park, King County Solid Waste Division Factoria Transfer Station, the I-90 crossing, Coal Creek Park, Tyee Middle School, Forest Hill Neighborhood Park, a large industrial/commercial area on Factoria Blvd SE, KidsQuest Children’s Museum, Bellevue Fire Station 4, St. Margaret’s Episcopal Church, Newport High School, Newport Covenant Church, and the Factoria Police Station.

![Land Use Pie Chart](chart.png)

**Neighborhood Character**
The option goes through the neighborhoods of Eastgate, Factoria, northwest Somerset, and Newport Hills. The Eastgate Subarea is characterized by the I-90 business corridor with commercial offices, high-tech industries, and commercial shopping centers. Factoria is characterized by single-family residential developments and small commercial spaces. The northwest Somerset area is a single-family residential development on a hilltop. The Newport Hills Subarea is made up of single-family and multi-family neighborhoods with a core commercial district in the center of the community. Several parks (including Sunset Park and Coal Creek Park), government buildings, and schools (Newport High School and Tyee Middle School) are along the Oak 1 Option.

**Zoning Districts**
The corridor (existing and new) would be located in a total of 17 different zoning districts in the City of Bellevue, including commercial, industrial, mixed-use, multi-family residential, and single-family residential districts.

**Future Land Uses**
The subarea plan policies of each of the subareas within the Oak 1 Option support growth in similar land use patterns as those that currently exist.

**Housing**
There are 212 single-family and 287 multi-family residences within this option.
### Bellevue South Segment, Oak 2 Option

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Existing land uses are mostly recreation, commercial, single-family residential, and institutional (see the chart below for the percentage of the total study area in the Oak 1 Option that each land use represents). Approximately 352 parcels are immediately adjacent to the corridor (existing and new). Unique land uses include Sunset Park, the I-90 crossing, large industrial/commercial areas on Factoria Blvd SE and Richards Road/SE 30th Street, King County Solid Waste Division Factoria Transfer Station, KidsQuest Children's Museum, Bellevue Fire Station 4, St. Margaret's Episcopal Church, Newport High School, Newport Covenant Church, Coal Creek Park, Tyee Middle School, Forest Hill Neighborhood Park, Factoria Police Station, KinderCare, and a Church of Jesus Christ of Latter-day Saints.</td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>The option goes through the residential neighborhoods of Eastgate, Factoria, Somerset, and Newport. The Oak 2 Option is similar in neighborhood character to the Oak 1 Option in Eastgate, Factoria, Somerset, and Newport. The Oak 2 Option would branch out from SE 38th Street and follow 123rd Ave SE south until it meets Coal Creek Pkwy SE/124th Ave SE in Factoria, which is characterized by a large commercial center on the east and I-405 on the west. Single-family and multi-family developments and Newport High School are at the south of 124th Ave SE as it meets Coal Creek Pkwy SE. Several parks (including Sunset Park and Coal Creek Park), government buildings, and schools (Newport High School and Tyee Middle School) are along the Oak 2 Option.</td>
</tr>
<tr>
<td><strong>Zoning Districts</strong></td>
<td>The corridor (existing and new) would be located in a total of 18 different zoning districts in Bellevue, including commercial, industrial, mixed-use, multi-family residential, and single-family residential districts.</td>
</tr>
<tr>
<td><strong>Future Land Uses</strong></td>
<td>Similar to the Oak 1 Option, the subarea plan policies of each of the subareas within the proposed Oak 2 Option support growth in similar land use patterns as those that currently exist.</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>There are 229 single-family and 463 multi-family residences within this option.</td>
</tr>
</tbody>
</table>
## Bellevue South Segment, Willow 1 Option

### Existing Land Uses
Existing land uses are predominantly recreation, single-family residential, and vacant lands (see the chart below for the percentage of the total study area in the Willow 1 Option that each land use represents). Approximately 212 parcels are immediately adjacent to the existing corridor. Unique land uses include Tyee Middle School, Forest Hill, King County Solid Waste Division, the I-90 crossing, Somerset Recreation Club, and Sunset Park.

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residential</td>
<td>19%</td>
</tr>
<tr>
<td>Commercial (Retail &amp; Office)</td>
<td>5%</td>
</tr>
<tr>
<td>Industrial</td>
<td>8%</td>
</tr>
<tr>
<td>Institutional</td>
<td>6%</td>
</tr>
<tr>
<td>Recreation</td>
<td>15%</td>
</tr>
<tr>
<td>Vacant</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
</tr>
</tbody>
</table>

### Neighborhood Character
The option goes through the neighborhoods of Eastgate, Somerset, and Newport Hills. The Eastgate Subarea is characterized by the I-90 business corridor with commercial offices, high-tech industries, and commercial shopping centers. Outside of the commercial center of Eastgate is single-family housing. The Somerset Subarea is a community of hilltop single-family homes. The Newport Hills Subarea is made up of single-family and multi-family neighborhoods with a core commercial district in the center of the community. Several parks (including Sunset Park and Coal Creek Park), a government building, and a school (Tyee Middle School) are along the Willow 1 Option.

### Zoning Districts
The existing corridor is located in nine different zoning districts in the City of Bellevue including commercial, industrial, multi-family residential, and single-family residential districts.

### Future Land Uses
The Bellevue Comprehensive Plan designates community business and light industrial in Eastgate, while the Somerset and Newport Hills communities would remain as single-family developments, with a commercial center in Newport Hills. The subarea plan policies of Eastgate, Somerset, and Newport Hills support growth in similar land use patterns as those that currently exist.

### Housing
There are 180 single-family and 10 multi-family residences within this option.
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Land Use and Housing Characteristics

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bellevue South Segment, Willow 2 Option</strong></td>
<td></td>
</tr>
<tr>
<td>Existing Land Uses</td>
<td>Existing land uses mostly include recreation, single-family residential homes, and institutional (see the chart below for the percentage of the total study area in the Willow 2 Option that each land use represents). Approximately 309 parcels are immediately adjacent to the corridor (existing and new). Unique land uses include Newport Children’s School, Holy Cross Lutheran Church, Newport Covenant Church, King County Solid Waste Division Factoria Transfer Station, Sunset Park, and the I-90 crossing.</td>
</tr>
<tr>
<td>[Diagram showing land use percentages]</td>
<td></td>
</tr>
<tr>
<td>Neighborhood Character</td>
<td>The Willow 2 Option would go through the same neighborhoods of Eastgate, Somerset, and Newport Hills as in the Willow 1 Option. However, at SE Newport Way, the option route would also follow SE Newport Way on the border of Factoria, heading south at Coal Creek Parkway SE. The Factoria/Somerset border is characterized by single-family residential developments and small commercial spaces. Several parks (including Sunset Park and Coal Creek Park), government buildings, and schools (Newport Children’s School, and Tyee Middle School) are along the Willow 2 Option.</td>
</tr>
<tr>
<td>Zoning Districts</td>
<td>The corridor (existing and new) would be located in a total of 13 different zoning districts in Bellevue including commercial, industrial, multi-family residential, and single-family residential districts.</td>
</tr>
<tr>
<td>Future Land Uses</td>
<td>The Bellevue Comprehensive Plan designates community business and light industrial in Eastgate. The Somerset Factoria and Newport Hills communities would remain as mostly single-family developments, with a commercial center in Newport Hills. The subarea plan policies of Eastgate, Somerset, Factoria, and Newport Hills support growth in similar land use patterns as those that currently exist.</td>
</tr>
<tr>
<td>Housing</td>
<td>There are 257 single-family and 221 multi-family residences within this option.</td>
</tr>
</tbody>
</table>
### Newcastle Segment

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Existing land uses are predominantly vacant (some of which are associated with May Creek Park). Non-vacant land uses are mostly comprised of single-family residential (see the chart below for the percentage of the total study area in the Newcastle Segment that each land use represents). Approximately 112 parcels are immediately adjacent to the existing corridor. Unique land uses include Newcastle City Hall, Seattle Revival Center, and May Creek Park (on the Newcastle/Renton border).</td>
</tr>
<tr>
<td><strong>Neighborhood Character</strong></td>
<td>The segment goes through the residential neighborhoods of Del Mar Village, Newport Woods, Eden’s Grove, Donegal, and Olympus. A portion of the segment also goes through the Community Business Center –Lake Boren Corridor, and is within the Community Business Center overlay. Del Mar Village is an apartment complex near a commercial center. Donegal and Olympus are single-family residential developments. A government building and a park (May Creek Natural Area) are along the segment.</td>
</tr>
<tr>
<td><strong>Zoning Districts</strong></td>
<td>The existing corridor is located in six zoning districts in Newcastle, including single-family residential, commercial, and recreation/open space.</td>
</tr>
<tr>
<td><strong>Future Land Uses</strong></td>
<td>The Newcastle Comprehensive Plan land use designations within this portion of the study area include Single-Family Residential and Multi-Family Residential. This indicates that the neighborhoods will continue to have residential land uses along the existing corridor into the foreseeable future. The policies specific to the Newcastle Comprehensive Plan indicate intent to preserve the current residential character while providing for concentrated growth where necessary.</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td>There are 89 single-family and 71 multi-family residences within this segment.</td>
</tr>
</tbody>
</table>
## Chapter 3
### Long-Term (Operation) Impacts and Potential Mitigation

#### Renton Segment

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Land Use and Housing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Land Uses</strong></td>
<td>Vacant land is the single largest land use category present (largely because this category includes large parcels associated with the bed and floodway of the Cedar River) by transportation (see the chart below for the percentage of the total study area in the Renton Segment that each land use represents). Approximately 185 parcels are immediately adjacent to the existing corridor. Unique land uses include Sierra Heights Elementary School, Renton Seventh-day Adventist Church, Church of Jesus Christ of Latter-day Saints, Renton Technical College, North Highlands Neighborhood Center, and a large commercial area along NE Sunset Blvd.</td>
</tr>
</tbody>
</table>

| Neighborhood Character | The segment goes through the residential neighborhoods of Honey Creek Ridge, Shadow Hawk, Liberty Ridge, Glencoe, and Sunset (Renton Highlands). Honey Creek Ridge, Shadow Hawk, Liberty Ridge, and Glencoe are predominantly single-family and multi-family planned-developments with designated park spaces. Sunset (Renton Highlands) is one of Renton’s older developed areas and is comprised of commercial and residential uses; it is currently being redeveloped with new multi-family, parks, library, and commercial land uses. Several parks (May Creek Greenway, Honey Creek Greenway, and the Cedar River Natural Zone) and two schools (Sierra Heights Elementary School and Renton Technical College) are along the segment. |

| Zoning Districts/Shoreline Environment Designation | The existing corridor would be located in 11 different zoning districts in Renton and unincorporated King County, including single-family residential, multi-family residential, industrial, recreation/open space, and mixed-use districts. The Cedar River is a Shoreline of the State and is regulated by Renton’s SMP. The shoreline environment designation in the study area is Urban Conservancy and Shoreline High Intensity. |

| Future Land Uses | The Renton Comprehensive Plan land use designations within this portion of the study area include Residential High and Residential Medium, which are developments that are higher in density than single-family lots. The comprehensive plan has policies that support infill development and a mix of land uses, which will encourage a higher density than current conditions. |

| Housing | There are 125 single-family and 295 multi-family residences within this segment. |
3.1.3 Long-term (Operation) Impacts Considered

3.1.3.1 Methods for Analyzing Long-term Impacts

This section evaluates the consistency of the project with the general regulatory framework, including applicable land use and shoreline goals and policies, zoning districts, and shoreline environment designations for each segment and option.

As part of the Phase 1 Draft EIS, the EIS Consultant Team examined potential changes in land use related to transmission lines and other utility components. Information was obtained from land use studies and an interview with a local assessor’s office (FCS, 2016). This section verifies that those findings apply to the alternatives considered as part of Phase 2.

The potential for the project to convert existing non-utility land uses to a utility use was considered. The evaluation included the potential for the project to physically separate existing neighborhoods. The potential for a loss of housing due to property acquisition was also considered.

Cellular phone transmitters affixed to existing poles would be removed with the existing poles. However, PSE would allow these transmitters to be replaced on the new poles, so no impacts are expected.

This analysis considered the potential for the presence of the new utility infrastructure to affect existing or future uses adjacent to the utility corridor. This included a review of PSE guidelines for high-capacity transmission lines and how they may affect new mid- or high-rise structures.

This section broadly evaluates the potential impacts that the new utility infrastructure could have on the character of neighborhoods near the corridor. Additionally, it describes mitigation measures to minimize or eliminate project impacts to land use and housing.

3.1.3.2 Magnitude of Impact

The following defines project-level long-term (operational) impacts to land use (existing and future), neighborhood character, zoning, and housing. The project would have an adverse impact on these elements if it caused a substantial disruption or change to existing or future land uses, neighborhood character, or housing stock. The magnitude of the potential land use impacts is classified as less-than-significant or significant, defined as follows:

- **Less-than-Significant**—Changes to the current conditions could result in a material change to study area land uses, or the overall land use pattern or neighborhood character. However, these changes would be considered less-than-significant if the changes are either supported by plans and policies, or can be mitigated adequately to avoid significant changes.

- **Significant**—Changes in study area land uses, the overall land use pattern, or the neighborhood character would be inconsistent with existing plans and policies, and cannot be
mitigated. Housing impacts would also be significant if the current housing stock of the study area would be diminished substantially, or changes in land use would not allow for planned growth or suitable housing.

3.1.4 Long-term Impacts: No Action Alternative

Under the No Action Alternative, the project would not be constructed and no impacts to land use and housing in the study area would occur from the proposed project.

However, as summarized in the Phase 1 Draft EIS, the declining reliability of electric power supply that could result from the No Action Alternative could be inconsistent with the Growth Management Act and various City policies that state the need to provide a balanced but reliable electrical utility infrastructure. Please see Sections 10.2.1 and 10.7.2 of the Phase 1 Draft EIS for further discussion on the Growth Management Act and its tie-in with land use considerations.

3.1.5 Long-term Impacts: Alternative 1 (New Substation and 230 kV Transmission Lines)

3.1.5.1 Impacts Common to all Components

The majority of the project would utilize PSE’s existing 115 kV transmission line corridor. For some of the route options (Bypass Option 1, Bypass Option 2, Willow 2, Oak 1, and Oak 2), the line would run along existing roadways. As described in Chapter 2, for the options that include diverging from the existing corridor, PSE prefers to place 230 kV lines in easements rather than on public right-of-way, because within public right-of-way, PSE can be required to move the lines to accommodate road expansion. If it is not possible to obtain an easement for a pole, PSE generally places the pole along the outermost part of the road right-of-way and acquires an easement on the adjacent private property to ensure that the necessary electrical clearances are met, typically 30 feet in width. No new property would be acquired for Alternative 1, although additional easements would need to be negotiated and acquired.

For the segments and options that utilize the existing corridor, PSE plans to remove and replace a majority of the 115 kV H-frame structures. Along the existing corridor, this planned pole replacement would not change the existing or future land uses, zoning designation, neighborhood character, or housing stock since it is already in use as a transmission line corridor and does not require additional easements or property acquisitions. Section 3.2 of this Phase 2 Draft EIS addresses potential impacts to scenic views and the aesthetic environment that may result from replacing the existing poles with taller pole types.

For the route options that deviate from the existing corridor (Bypass Option 1, Bypass Option 2, Willow 2, Oak 1, and Oak 2), the land on which PSE would potentially seek to acquire new easements constitutes a small portion of the total land in the study area and would not result in significant changes to the existing or future land uses or housing stock. The option routes follow existing transportation and utility corridors. In areas where PSE would seek to obtain easements, the land would remain with its current use, and utility facilities are permitted as an allowed or conditionally allowed use in all the applicable zoning districts. A conditional use requires a different procedural review process than an allowed use to ensure that the proposed use is compatible with the land use district and surrounding properties. The easement areas would not significantly impact future development, although the easement would permanently encumber the associated property (see Section 3.6 for a discussion on the impacts to recreational resources) and could limit the scale of
future development. Easements would include limitations such as the right of PSE to keep the area clear of vegetation that would present a hazard to the operation of the transmission lines. Additionally, for properties that require the acquisition of a new easement, no houses would need to be condemned or demolished, but there might be impacts to ancillary structures such as sheds or garages. Because the project would not result in the removal of existing housing, the impacts to housing are considered less-than-significant.

One of the major elements the EIS Consultant Team used to determine the level of impact is the project’s consistency with applicable plans and policies, including the city comprehensive plans and any subarea policies in the study area. A statement that the project is consistent with applicable plans and policies means that the project does not violate any of the policies outlined in the city comprehensive plan or any subarea plans that would apply to the study area. For example, several applicable subarea plans have statements that require or encourage the undergrounding of utility distribution lines, but do not specifically address the undergrounding of transmission lines. The project would therefore be consistent with the subarea plans in regards to their approach to undergrounding of distribution lines. While the project would not be in direct violation of the policies in the comprehensive and subarea plans, some policies indicate that the project could potentially have an impact on future development in some way. These were analyzed on a case-by-case basis to determine the level of significance. An example of this would be a policy that encourages the siting of buildings close to the street in areas that would need an easement for the transmission lines.

Land use is closely tied to several other environmental resources, such as scenic views and aesthetic environment as well as recreation. While the project would result in significant impacts to these resources within certain route options, the impacts are not anticipated to change the land use of the study area. For a detailed analysis of impacts related to scenic views and the aesthetic environment, please refer to Section 3.2. For a detailed analysis of the impacts to recreation resources, please see Section 3.6.

3.1.5.2 New Richards Creek Substation

There would be no long-term impacts to land use and housing from operation of the substation because the Richards Creek substation would be compatible with the existing and nearby land uses (industrial) and neighborhood character. In addition, the Richards Creek substation is consistent with future land uses of light industrial proposed for the parcel, and the Bellevue City Code (BCC 20.20) allows development of “utility facilities” under a Conditional Use Permit. The Richards Creek substation would not cause any housing impacts because no housing sites are on or adjacent to the proposed substation site.
3.1.5.3 Redmond Segment

Potential types of new uses and development along the Redmond Segment are regulated by the City of Redmond Zoning Code Redmond Municipal Code Title 21. The potential impacts to land use and housing for the Redmond Segment would be less-than-significant because the project is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Redmond Comprehensive Plan and the Grass Lawn and Willows Rose Hill Subarea policies. Zoning districts in the study area allow electrical utility facilities as a permitted or a conditional use. However, the City would require PSE to obtain an Essential Public Facilities permit rather
than a zoning Conditional Use Permit. See Section 10.2.1 of the Phase 1 Draft EIS for more information about Essential Public Facilities.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family and multi-family residential. The project would use an existing utility corridor and not require any new easements from adjoining properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are projected to be mostly Single-family and multi-family residential. The project would use an existing utility corridor and would not interfere with planned development.

- **Shorelines:** There are no designated shorelines in this segment.
3.1.5.4 Bellevue North Segment

Potential types of new uses and development along the Bellevue North Segment are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for the Bellevue North Segment of the project are considered less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Bellevue Comprehensive Plan and Bridle Trails and Bel-Red Subarea policies. Zoning districts in the study area allow electrical utility facilities as a conditional use.
- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family residential. The project would use an existing utility corridor and not require any new easements from adjoining properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be mostly single-family residential. The project would use an existing utility corridor and would not interfere with planned development.

- **Shorelines:** There are no designated shorelines in this segment.
3.1.5.5 Bellevue Central Segment, Existing Corridor Option

Potential types of new uses and development along the Bellevue Central Segment, Existing Corridor Option, are regulated by the City of Bellevue City Code (BCC, Title 20). The East Bellevue Community Council (EBCC) has approval-disapproval authority over certain land use actions within a portion of this option. PSE selected two route options (Bypass Option 1 and Bypass Option 2) to examine in the Phase 2 Draft EIS that would not be within EBCC jurisdiction, in case the EBCC denies permit approval. The potential impacts to land use and housing for the Bellevue Central Segment (Existing Corridor Option) of the project are considered less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.
• **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Bellevue Comprehensive Plan and Bel-Red, SE Bellevue, Wilburton/NE 8th Street, and Eastgate Subarea policies. The Richards Valley Subarea Plan includes a policy of co-locating utility and transportation rights-of-way and states that “common corridors” (areas that already contain power lines) should be used to reduce visual impacts. Zoning districts in the study area allow electrical utility facilities as a conditional use.

• **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of mostly single-family residential. The project would use an existing utility corridor and not require any new easements from adjoining properties.

• **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be mostly single-family and multi-family residential. The project would use an existing utility corridor and would not interfere with planned development.

• **Shorelines:** There are no designated shorelines in this option.
3.1.5.6  Bellevue Central Segment, Bypass Option 1

Potential types of new uses and development along the Bellevue Central Segment, Bypass Option 1, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for Bypass Option 1 would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Bel-Red, SE Bellevue, Wilburton/NE 8th Street, and Eastgate Subarea policies. The Bellevue Comprehensive Plan’s Utilities Vision includes a policy to encourage consolidation of existing facilities and a policy to discourage locating aerial facilities in corridors where none currently
exist. The new corridor for this option would potentially conflict with these two policies, though
the impacts would be less-than-significant because the design of the overall project does rely on
the existing transmission corridor whenever possible. The Richards Valley Subarea Plan includes
a policy of co-locating utility and transportation rights-of-way and states that “common
corridors” (areas that already contain power lines) should be used to reduce visual impacts.
Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the
  existing land use pattern of commercial uses to the north and west, and open space and single-
family residential to the south. In the portion of the option using the existing corridor, new
easements would not be required on adjoining properties. The transmission lines would also use a
new corridor, which would require new easements. New easements are not anticipated to affect
adjacent land uses since they would be negotiated with the property owner and would not
interfere with the current use of adjacent properties.

- **Future Land Use Pattern:** The project would
  not impact future land uses, which are anticipated to be mixed use, commercial, single-
family residential, and multi-family residential. In the new corridor, new buildings on parcels
encumbered by an easement would have to limit building in the easement section to adhere to the
NESC safety standards, which could limit development opportunities on these parcels.
Future land use in the Bel-Red Subarea focuses on development nodes around future light rail
stations, with the tallest buildings planned near the center of the nodes. The closest node would
be a potential transit station at 130th Avenue NE and NE 16th Street, approximately one block
from the Bypass Option 1 alignment. Additionally, the Wilburton/NE 8th Street
Subarea Plan allows “flexibility for commercial buildings to be sited near frontage property lines,”
which could be an impact on parcels with an easement. If a parcel in this subarea is encumbered by an easement, potential new buildings
would only be able to build up to the negotiated easement area and not the frontage property lines
as the subarea plan encourages. This impact would be less-than-significant because the majority
of parcels within the subarea would not be encumbered by new easements. Above is a map of a
portion of the proposed easement areas (in pink) for the north section of the option, which shows
how much of the affected parcels would be encumbered by an easement.

- **Shorelines:** All new or expanding electrical utility facilities proposed in the Shoreline Overlay
  District would need Shoreline Conditional Use Permit approval (LUC 20.25E.110 and
20.25E.180), completion of an alternative siting analysis (LUC 20.20.255.D), and compliance
with decision criteria and design standards (LUC 20.20.255). This option would make one
crossing of Kelsey Creek (a Shoreline of the State). This would be a less-than-significant impact
because the project would adhere to the Conditional Use Permit processes.
3.1.5.7 Bellevue Central Segment, Bypass Option 2

Potential types of new uses and development along the proposed Bellevue Central Segment, Bypass Option 2, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for Bypass Option 2 would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Bel-Red, SE Bellevue, Wilburton/NE 8th Street, and Eastgate Subarea policies. The Bellevue Comprehensive Plan’s Utilities Vision includes a policy to encourage consolidation of existing facilities and a policy to discourage locating aerial facilities in corridors where none currently exist.
exist. The new corridor for this option would potentially conflict with these two policies, although the impacts would be less-than-significant because the design of the overall project does rely on the existing transmission corridor whenever possible. The Richards Valley Subarea Plan includes a policy of co-locating utility and transportation rights-of-way and states that “common corridors” (areas that already contain power lines) should be used to reduce visual impacts. Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character**: The project would not impact the existing land use pattern of commercial uses to the north and west, or single-family and multi-family residential along Richards Road. In the portion of the option using the existing corridor, new easements would not be required on adjoining properties. The transmission lines would use a new corridor, which would require new easements. New easements are not anticipated to affect adjacent land uses since they would be negotiated with the property owner and would not interfere with the current use of the properties.

- **Future Land Use Pattern**: The project would not impact future land uses, which are anticipated to be mostly commercial, mixed-use, single-family residential, and multi-family residential. In the new corridor, new buildings on parcels encumbered by an easement would have to limit building in the easement section to adhere to the NESC safety standards, which could limit development opportunities on these parcels. Future land use in the Bel-Red Subarea focuses on development nodes around future light rail stations, with the tallest building height near the center of the nodes. The closest node would be a potential transit station at 130th Avenue NE and NE 16th Street, approximately three blocks from the Bypass Option 1 alignment. Additionally, the Wilburton/NE 8th Street Subarea Plan allows “flexibility for commercial buildings to be sited near frontage property lines,” which could be an impact on parcels with an easement. If a parcel in this subarea is encumbered by an easement, potential new buildings would only be able to build up to the negotiated easement area and not the frontage property lines as the subarea plan encourages. This impact would be less-than-significant because the majority of parcels within the subarea would not be encumbered by new easements. Above is a map of a portion of the proposed easement areas (in pink) for the south section of the option that shows how much of the affected parcels would be encumbered by an easement.

- **Shorelines**: All new or expanding electrical utility facilities proposed in the Shoreline Overlay District would need Shoreline Conditional Use Permit approval (LUC 20.25E.110 and 20.25E.180), completion of an alternative siting analysis (LUC 20.20.255.D), and compliance with decision criteria and design standards (LUC 20.20.255). This option would make one crossing of Kelsey Creek (a Shoreline of the State). This would be a less-than-significant impact because the project would adhere to the Conditional Use Permit processes.
3.1.5.8 **Comparison of Bellevue Central Options**

In the Bellevue Central Segment, all three options would meet the requirements of comprehensive plans, subarea plans, and zoning district land use regulations. However, two of the three options (Bypass Option 1 and Bypass Option 2) would require new easements. These easements would be negotiated with property owners along the option routes. Utility easements would likely interfere with subarea policies that allow for or encourage building close to the street edge. Option 2 uses more of the existing corridor in the Bel-Red Subarea; therefore, easements would affect fewer properties. Both of the options that include new easements would traverse recreation areas, where the project would cause significant impacts (see Section 3.6, *Recreation*). The potential impacts to land use and housing are compared below by option (Table 3.1-2).

**Table 3.1-2. Comparison of Bellevue Central Options**

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Potential for Inconsistency with Plans, Policies, and Regulations</th>
<th>New Easements Proposed for New Corridor</th>
<th>Presence of Shoreline of the State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Corridor Option</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Bypass Option 1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Bypass Option 2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
3.1.5.9  Bellevue South Segment, Oak 1 Option

Potential types of new uses and development along the Bellevue South Segment, Oak 1 Option, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for the Oak 1 Option would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Richards Valley, Factoria, Eastgate, and Newport Hills Subarea policies. The Factoria Subarea Plan includes a policy of minimizing disruptive effects of utility construction on non-property
owners, motorists, and pedestrians. Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of recreation, commercial, or single-family residential. In the portion of the option using the existing corridor, new easements would not be required on adjoining properties. The transmission lines would also use a new corridor, which would require new easements. New easements are not anticipated to affect existing adjacent land uses since they would be negotiated with the property owner and would not interfere with the current use of the properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be mostly single-family residential, industrial, and commercial. In the new corridor, new buildings on parcels encumbered by an easement would have to limit building in the easement section to adhere to the NESC safety standards, which could limit development opportunities on these parcels. Both the Factoria and Newport Hills Subarea Plans include policies allowing or encouraging buildings to abut or come close to the street edge. If a parcel in these subareas is encumbered by an easement, potential new buildings would only be able to build up to the negotiated easement area and not the frontage property lines as the subarea plans encourage. This impact would be less-than-significant because the majority of parcels within the subareas would not be encumbered by new easements. Above is a map of a portion of the proposed easement areas (in pink) for the north section of the option that shows how much of the affected parcels would be encumbered by an easement.

- **Shorelines:** There are no designated shorelines in this option.
3.1.5.10 Bellevue South Segment, Oak 2 Option

Potential types of new uses and development along the Bellevue South Segment, Oak 2 Option, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for the Oak 2 Option would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below. The impacts are summarized below.

- Consistency with Plans, Policies, and Regulations: The project would be consistent with Richards Valley, Factoria, Eastgate, and Newport Hills Subarea policies. The Bellevue Comprehensive Plan’s Utilities Vision includes a policy to encourage consolidation of existing facilities and a policy to discourage locating aerial facilities in corridors where none currently
exist. The new corridor for this option along SE 38th Street (the only location where there are no existing aerial facilities) would potentially conflict with these two policies, although the impacts would be less-than-significant because the design of the overall project relies on the existing transmission corridor whenever possible. The Factoria Subarea Plan includes a policy of minimizing disruptive effects of utility construction on non-property owners, motorists, and pedestrians. Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of recreation, multi-family residential, or institutional. In the portion of the option using the existing corridor, new easements would not be required on adjoining properties. The transmission lines would also use a new corridor, which would require new easements. New easements are not anticipated to affect existing adjacent land uses since they would be negotiated with the property owner and would not interfere with the current use of the properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be single-family residential, industrial, and commercial. In the new corridor, new buildings on parcels encumbered by an easement would have to limit building in the easement section to adhere to the NESC safety standards, which could limit development opportunities on these parcels. Both the Factoria and Newport Hills Subarea Plans include policies allowing or encouraging buildings to abut or come close to the street edge. If a parcel in these subareas is encumbered by an easement, potential new buildings would only be able to build up to the negotiated easement area and not the frontage property lines as the subarea plans encourage. This impact would be less-than-significant because the majority of parcels within the subareas would not be encumbered by new easements. Above is a map of a portion of the proposed easement areas (in pink) for the north section of the option that shows how much of the affected parcels would be encumbered by an easement.

- **Shorelines:** There are no designated shorelines in this option.
### 3.1.5.11 Bellevue South Segment, Willow 1 Option

Potential types of new uses and development along the Bellevue South Segment, Willow 1 Option, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for the Willow 1 Option would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Bellevue Comprehensive Plan and the Richards Valley, Factoria, Eastgate, and Newport Hills Subarea policies. The Factoria Subarea Plan includes a policy of minimizing disruptive effects of
utility construction on non-property owners, motorists, and pedestrians. Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family residential. The option would use the existing corridor and not require any new easements from adjoining properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be single-family residential, industrial, and commercial. The project would use the existing corridor and would not interfere with planned development.

- **Shorelines:** There are no designated shorelines in this option.
3.1.5.12 Bellevue South Segment, Willow 2 Option (PSE's Preferred Alignment)

Potential types of new uses and development along the Bellevue South Segment, Willow 2 Option, are regulated by the City of Bellevue City Code (BCC, Title 20). The potential impacts to land use and housing for the Willow 2 Option would be less-than-significant because it is consistent with city and subarea plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Richards Valley, Factoria, Eastgate, and Newport Hills Subarea policies. The Bellevue Comprehensive Plan’s Utilities Vision includes a policy to encourage consolidation of existing facilities and a policy to discourage locating aerial facilities in corridors where none currently
exist. The new corridor for this option along SE Newport Way (the only location where there are no existing aerial facilities) would potentially conflict with these two policies, although the impacts would be less-than-significant because the design of the overall project relies on the existing transmission corridor whenever possible. The Factoria Subarea Plan includes a policy of minimizing disruptive effects of utility construction on non-property owners, motorists, and pedestrians. Zoning districts in the study area allow electrical utility facilities as a conditional use.

- **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family residential, institutional, or recreation. In the portion of the option using the existing corridor, new easements would not be required on adjoining properties. The transmission lines would also use a new corridor, which would require new easements. New easements are not anticipated to affect existing adjacent land uses since they would be negotiated with the property owner and would not interfere with the current use of the properties.

- **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be single-family residential, multi-family residential, industrial, and commercial. In the new corridor, new buildings on parcels encumbered by an easement would have to limit building in the easement section to adhere to the NESC safety standards, which could limit development opportunities on these parcels. Both the Factoria and Newport Hills Subarea Plans include policies allowing or encouraging buildings to abut or come close to the street edge. If a parcel in these subareas is encumbered by an easement, potential new buildings would only be able to build up to the negotiated easement area and not the frontage property lines as the subarea plans encourage. This impact would be less-than-significant because the majority of parcels within the subareas would not be encumbered by new easements. Above is a map of a portion of the proposed easement areas (in pink) for the option that shows how much of the affected parcels would be encumbered by an easement.

- **Shorelines:** There are no designated shorelines in this option.
### 3.1.5.13 Comparison of Bellevue South Options

In the Bellevue South Segment, all but the Willow 1 Option would involve a new corridor, which would require new easements along the route. These easements would be negotiated with property owners along the option, but, like the Bellevue Central Segment options, would include areas that have policies that allow for or encourage development close to the parcel frontage. The Willow 1 Option follows the existing corridor, but the remaining options include new routes that would pass through recreation areas and cause significant impacts (see Section 3.6, *Recreation*). The potential impacts to land use and housing are compared below by option (Table 3.1-3).

#### Table 3.1-3. Comparison of Bellevue South Options

<table>
<thead>
<tr>
<th>Segment / Option</th>
<th>Potential for Inconsistency with Plans, Policies, and Regulations</th>
<th>New Easements Proposed for New Corridor</th>
<th>Presence of Shoreline of the State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oak 1 Option</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Oak 2 Option</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Willow 1 Option</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Willow 2 Option</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
3.1.5.14 Newcastle Segment

Potential types of new uses and development along the Newcastle Segment are regulated by the City of Newcastle’s Municipal Code (NMC, Title 18). The NMC allows development of a “Utility Facility – Regional” under a Conditional Use Permit. The potential impacts to land use and housing for the Newcastle Segment would be less-than-significant because it is consistent with city plans, and would not adversely affect existing and future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Newcastle Comprehensive Plan. Zoning districts in the study area allow electrical utility facilities as a conditional use. The placement of the poles is consistent with the required setback of 5 feet from the Olympic Pipeline easement.
• **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family residential. The project would use the existing corridor and not require new easements from adjoining properties.

• **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be single-family and multi-family residential. Future land use designations were developed based on the assumption that the transmission facility would remain and be upgraded. The project would use the existing corridor and would not interfere with planned development.

• **Shorelines:** There are no designated shorelines in this segment.
### 3.1.5.15 Renton Segment

Potential types of new uses and development along the Renton Segment are regulated by the City of Renton’s development regulations (RMC Title IV) and the Renton SMP. The potential impacts to land use and housing for the Renton Segment would be less-than-significant because it is consistent with city plans, and would not adversely affect existing or future land use patterns. The impacts are summarized below.

- **Consistency with Plans, Policies, and Regulations:** The project would be consistent with the Renton Comprehensive Plan. Zoning districts in the study area allow electrical utility facilities as a conditional use.
• **Existing Land Use Pattern and Neighborhood Character:** The project would not impact the existing land use pattern of single-family residential. The project would use the existing corridor and not require new easements from adjoining properties.

• **Future Land Use Pattern:** The project would not impact future land uses, which are anticipated to be mostly single-family residential, mixed-use, and commercial. The project would use the existing corridor and would not interfere with planned development.

• **Shorelines:** The Renton Segment would go through the Shoreline High Intensity and Urban Conservancy Shoreline Environment Designations. The SMP defines Major Service Utilities as public or private utilities that provide services beyond Renton boundaries, such as electrical transmission lines 55 kV or greater. Any new major utilities in these shoreline environment designations would be allowable through the approval of a Shoreline Conditional Use Permit. The project would include replacing existing transmission lines and would not involve the placement of poles outside of the existing corridor or change the height of the wires. The current H-frame structures would be replaced by monopoles with a smaller footprint and would not be placed within any buffer area. These changes are considered a “new use” under RMC 4-3-090E and therefore require a Shoreline Conditional Use Permit. This would be a less-than-significant impact because the project would adhere to the Shoreline Conditional Use Permit process.
3.1.6 Mitigation Measures

Mitigation measures are implemented to lessen or eliminate the adverse impacts associated with a proposed action. Mitigation can be achieved through avoidance, minimization, rectification, elimination, compensation, or monitoring of environmental impacts (WAC 197-11-768). Such measures can be suggested by the applicant or mandated through regulations. They can be applied prior to construction (e.g., through design changes), during construction, or during operation of the project. In general, mitigation measures applied prior to construction or during operation address long-term impacts. Conversely, mitigation applied during construction is often used to address short-term, construction-related impacts.

For land use, regulations and comprehensive plan and subarea plan policies were reviewed to identify mitigation measures. Mitigation measures specified by code would be required, whereas mitigation measures based on plan policies would be at the discretion of the applicant to adopt or the local jurisdictions to impose as a condition of project approval. This section addresses only the mitigation measures for land use and housing impacts. For an expanded discussion on mitigation measures related to impacts to scenic views and the aesthetic environment, see Section 3.2. For an expanded discussion on mitigation measures related to critical areas compliance, see Section 3.3. Because several of the options would go through or require easements on property that is used for recreation, there are impacts associated with these options. Please refer to Section 3.6 to view the mitigation measures related to recreation.

3.1.6.1 Regulatory Requirements

All of the segments and options would need to meet the regulations of the zoning districts that they traverse (where either the project would be constructed or an easement would be required). In areas where the use is not allowed outright within a zoning district, a Conditional Use Permit would be required. Adherence to the zoning regulations of each jurisdiction is generally not appealable, and would provide some mitigation for project-related impacts to land use. Mitigation requiring specific design features would be developed during the design stage (prior to construction). The applicable regulations are presented in Appendix B. The setback requirement from the Olympic Pipeline easement in Newcastle is described in Section 3.1.1, Relevant Plans, Policies, and Regulations.

Conditional Use Permit review processes vary by jurisdiction, but often include requirements of public notice and a level of quasi-judicial review. The Conditional Use Permit process can be used to reduce land use impacts because the decision criteria used by each jurisdiction in this review include elements such as compatibility with the comprehensive plan and consideration of the impact on neighboring land uses and property. Measures required through the conditional use permit process are generally appealable within the regulation of the specific jurisdiction. Such measures could include those listed under potential mitigation measures below.

In Newcastle, PSE could apply for a variance from the setback requirement, which could enable the use of shorter poles in that segment, as discussed in Section 3.2, Scenic Views and the Aesthetic Environment. Similar to the conditional use review process, variance approval requires a determination that granting the variance would not harm adjacent land uses.

3.1.6.2 Potential Mitigation Measures

Potential mitigation measures are summarized below based on review of the comprehensive plan and subarea plan policies. Through its subarea planning policies, the City of Bellevue encourages
development of multi-story buildings built up to or near the parcel frontage or street edge in Central and South Bellevue (see Appendix B), which PSE considered during its planning process for the project. The following mitigation measures could be used to reduce potential impacts associated with easements that could prevent construction that conforms to this desired development pattern.

**Prior to Construction**

- Select the route that requires the least number of properties where easements would restrict future development in areas with policies encouraging building up to or close to the street edge.
- Construct taller transmission lines so that wires would clear the tops of buildings sufficiently to meet NESC standards if such development were to occur in the future.
- Design transmission lines to extend as far as possible over the street right-of-way to minimize the amount of easement and clearance needed adjacent to the right-of-way.
- Underground sections of the transmission lines where inconsistencies with the comprehensive plan policies regarding aerial facilities would otherwise occur.

Undergrounding of transmission lines is not required by any of the subarea plans in the study area. If a City does request that a portion of the transmission line be placed underground, PSE would work with the City to determine the cost of undergrounding and how a tariff may apply. Where undergrounding of distribution lines is required, PSE would do so along with telecommunication lines.