

# Puget Sound Energy – Energize Eastside Conditional Use Permit Decision Criteria Analysis & Response Memorandum – Redmond Segment

Puget Sound Energy, Inc. (PSE) proposes the construction of a new substation in South Bellevue (the “Richards Creek substation”) and the upgrade of approximately 16 miles of two existing transmission lines operating at 115 kilovolt (kV) to 230 kV lines (herein referred to as 230 kV lines) and continued aggressive conservation (collectively the “Energize Eastside Project” or the “Project”). The new substation, upgraded lines, and aggressive conservation are needed to address electrical system deficiencies identified during federally-required planning studies. This Project significantly improves reliability for Eastside communities, including the City of Redmond (City), and will supply the additional electrical capacity needed for current and anticipated growth.

The existing system is not robust enough to maintain reliable service if the entire existing PSE Eastside electric system facility is taken out of service at one time. Therefore, the Energize Eastside Project will be constructed in two phases. This will allow PSE to keep the existing 115 kV facilities partially in-service during construction, allowing PSE to maintain reliable service to all customers during construction.

The second phase, which includes the “Redmond Segment”, is the focus of this application and includes upgrading approximately 2 miles of existing 115 kV lines with 230 kV lines between the Sammamish substation and the Redmond/Bellevue city boundary. This upgrade includes replacing existing wood H-frame poles (which have 2-3 poles each) with steel monopoles. After deliberate review and extensive stakeholder input, PSE proposes to undertake this work in the existing transmission line corridor rather than siting a new corridor through Redmond neighborhoods that currently lack a transmission line corridor. Within the existing utility corridor, the proposed pole locations for the rebuilt lines will generally be in the same locations as the existing poles. Use of the existing corridor (which has housed transmission lines since the 1920s and 30s) minimizes potential impacts to the environment (e.g., vegetation management, aesthetic impacts) and to adjacent uses to the fullest extent feasible. Selective tree removal will also be required within the managed corridor to meet federal vegetation management requirements and PSE standards.

## **RZC 21.76.070(K)(4): Conditional Use Decision Criteria**

Per Redmond Zoning Code (RZC) 21.04.030, regional utilities require a Conditional Use Permit (CUP), which is a Type III Review (RZC Table 21.76.050B) in the City. The following section demonstrates PSE’s compliance with the City’s Conditional Use Decision Criteria (RZC 21.76.070(K)(4)):

A. *The conditional use is consistent with the RZC and the Comprehensive Plan;*

**Response:** The proposed transmission line upgrade is consistent with the application requirements of the RZC as evidenced throughout the documentation provided by this CUP application.



PSE has a statutory duty to provide safe and reliable power at a reasonable cost (see Revised Code of Washington (RCW) 80.28.010(2)). The Project is a key electrical infrastructure project needed to bring a 230 kV power source to the Eastside region, including the City. As required by the state Growth Management Act (GMA), one of the elements that must be addressed in the City’s Comprehensive Plan is Utilities.

The expansion of the PSE Sammamish to Talbot Hill transmission corridor is shown on Map UT-2 of the Comprehensive Plan. PSE is proposing to replace two existing 115 kV transmission lines with two 230 kV transmission lines within the existing corridor. PSE does not propose a change in use.

In addition, the proposed transmission line upgrade is consistent with the City’s Comprehensive Plan. As stated in the introduction to the Land Use Element of the Comprehensive Plan:

*The Land Use Element is designed to help Redmond achieve its vision for a city that has gracefully accommodated growth and change, while ensuring that the community’s high quality of life, cherished natural features, distinct places and character are retained*

As explained in further detail below, the following policies support these goals and are applicable to the proposed Project transmission line upgrade:

<b>General Utility Policies</b>	
<p><b>UT-1:</b> Ensure that adequate public utilities and facilities are planned for, located, extended, and sized consistent with the planned growth described in the Goals, Vision and Framework Policies; Annexation and Regional Planning; and Land Use Elements.</p>	<p><b>Response:</b> The Project is needed because an additional 230 kV power source and substation are required to serve the Eastside region, inclusive of Redmond, and meet federal planning requirements. PSE studies have consistently concluded that the power source must be centrally located in the defined Eastside region. The transmission lines will connect the new power source (a new transformer in the Richards Creek substation) with existing 230 kV substations in the region in Redmond, at the Sammamish substation, and in Renton, at the Talbot Hill substation.</p> <p>This Project will serve all uses in the Eastside service area, including industrial, commercial, residential, and public facilities in the City.</p> <p>The City is made up of a mix of land uses that have developed around the utility corridor that was established in the late 1920s and early 1930s. The corridor is identified in the Utilities Element of the Comprehensive Plan on both Map UT-1</p>

	<p>(Existing Electrical Facilities) and Map UT-2 (Proposed Electrical Facilities).</p> <p>The proposed transmission lines will be sited in the existing utility corridor and traverse a variety of land uses including single-family residential, multi-family residential, industrial and commercial districts. The corridor predates the 1960s when vigorous residential development began in the City and the existing land use patterns already integrate the utility facilities, keeping the proposed Project compatible and consistent with local context and land use patterns.</p> <p>This conclusion is confirmed by the FEIS, which found that impacts to land use will be “be less-than-significant because [the proposed Project] is consistent with City and subarea plans, and would not adversely affect existing or future land use patterns.” FEIS at 4.1-7.</p>
<p><b>UT-2:</b> Design and maintain public utility facilities to meet service standards identified in the Capital Facilities Element and corresponding functional plans.</p>	<p><b>Response:</b> PSE is the electrical service utility for Redmond. PSE plans, constructs, and maintains the necessary electrical services required by its customers. The Redmond utility plan focuses on developing and maintaining utilities at the appropriate levels of service in order to accommodate growth. The Project is subject to the electrical, non-city managed utilities, plan components.</p>
<b>Economic Considerations</b>	
<p><b>UT-9:</b> Promote the efficiency of utility placement both in cost and timing through methods such as the following:</p> <ul style="list-style-type: none"> <li>• Collocate public and private utilities in shared trenches or utility corridors, provided that such joint use is consistent with limitations as may be prescribed by applicable legal and safety considerations;</li> <li>• Coordinate facility planning so that utilities may locate in transportation corridors and other dedicated rights-of-way;</li> </ul>	<p><b>Response:</b> The proposed transmission line upgrade is located within an existing corridor that was established in the late 1920s and early 1930s and is mostly composed of easements on private property. Residential and commercial development has occurred around the easement areas, limiting public access. Additionally, much of the corridor is either located within private backyards and is fenced off, preventing connectivity between properties, or is undeveloped with no public access.</p> <p>Consistent with this criterion, the new transmission lines would be constructed within PSE’s existing 115 kV transmission</p>

<ul style="list-style-type: none"> <li>• Provide timely notice to utilities or coordinate with them when the construction or repair of existing and new roadway, bridges or sidewalks is anticipated;</li> <li>• Provide a reasonable regulatory climate, recognizing that utilities provide a critical service to the community;</li> <li>• Provide expeditious permitting, recognizing that avoiding utility project delay can minimize service disruptions and associated costs for residents and businesses;</li> <li>• Design new public infrastructure to allow for projected future utilities that may be placed within those facilities at a later time; and</li> <li>• Encourage joint use of utility corridors for utilities, recreation and appropriate non-motorized connections.</li> </ul>	<p>line corridor, which is co-located in the same corridor as two existing petroleum pipelines. Use of the existing transmission line corridor is the most efficient in both cost and timing for the proposed system upgrade. Anticipated construction coordination would need to occur with Olympic Pipe Line Company, which operates petroleum pipelines generally located along the PSE easement.</p>
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**Environmental Considerations**

<p><b>UT-11:</b> Balance the need for provision of utilities at a reasonable cost with the need to protect the environment and natural resources.</p>	<p><b>Response:</b> The proposed transmission line replacement will have temporary construction impacts on surrounding environment and natural resources as some of the transmission poles are within critical areas. Siting of poles within wetlands has been minimized to the maximum extent possible through design.</p> <p>Construction impacts will be minimized to the greatest extent feasible through use of existing or historic access routes that were used for initial pole installation and/or maintenance activities. As required by state law, utility locates will be performed prior to ground disturbing activities to avoid any potential conflicts. Appropriate temporary erosion control measures will be used during work activities. A safe work area will be established around each pole removal and installation location, providing space for placing equipment, vehicles, and materials. PSE will also comply with all City codes relating to hours of construction and noise.</p> <p>PSE will work with individual property owners to restore areas impacted during</p>
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	<p>construction to its previous or an improved state. PSE will mitigate in-kind as required by applicable regulations when restoration is not possible. All applicable codes and standards will be followed during design and construction, including electrical, stormwater and erosion control, tree protection, and noise.</p> <p>PSE's proposed use of the existing utility corridor minimizes impacts on surrounding neighborhoods by preventing impacts in new areas. The properties adjacent to the proposed Project are already occupied by transmission lines and, to some extent, the adjacent vegetation is already maintained for this use. To minimize impacts, including those to vegetation and aesthetics to surrounding neighborhoods, replacement poles were sited in proximity to existing pole locations.</p> <p>In addition, the use of steel monopoles instead of other designs regularly used to support high voltage transmission lines (e.g., lattice), reduces potential aesthetic and ground disturbing impacts.</p>
<p><b>UT-12:</b> Design, locate and construct facilities to minimize adverse impacts to the environment and to protect environmentally sensitive areas. Take into account both individual and cumulative impacts. Minimize impacts through actions such as:</p> <ul style="list-style-type: none"> <li>• Using construction methods and materials to prevent or minimize the risk of overflows into watercourses and water bodies;</li> <li>• Locating utility corridors in existing cleared areas;</li> <li>• Locating utility facilities and corridors outside of wetlands;</li> <li>• Minimizing crossings of fish-bearing watercourses;</li> <li>• Using biostabilization, riprap or other engineering techniques to prevent erosion where lines may need to follow steep slopes; and</li> </ul>	<p><b>Response:</b> Appropriate temporary erosion control measures will be used during work activities.</p> <p>Existing poles within wetlands will be replaced outside of wetland areas to the greatest extent feasible. Buffer impacts will be limited to the pole footprint and selective vegetation management activities required by federal clearance standards.</p> <p>The transmission line will use an existing utility corridor. The lines will cross six streams in the corridor (Stream CR01/Upper Willows Creek, Stream CR02, Stream CR03, Stream CR04, Stream CR05, and Lower Willows Creek). However, the aerial crossing of the transmission line will not impact the streams or jurisdictional shorelines and no-in water work will occur. No natural open surface water systems in Redmond will be affected by the Project.</p>

<ul style="list-style-type: none"> <li>• Minimizing corridor widths.</li> </ul>	
<p><b>UT-15:</b> Require reasonable screening or architecturally compatible design of above ground utility facilities, such as transformers and associated vaults. Promote high-quality design of utility facilities through measures such as:</p> <ul style="list-style-type: none"> <li>• Use of varied and interesting materials,</li> <li>• Use of color,</li> <li>• Additions of artwork, and</li> <li>• Superior landscape design.</li> </ul>	<p><b>Response:</b> The use of the existing utility corridor is the most effective method of ensuring area compatibility, as the proposed route replaces existing equipment rather than creating new corridors. In addition, the replacement of H-frame poles with fewer steel poles helps to reduce visual interference and is arguably an improvement from existing conditions. Pole finishes can also enhance integration with various settings.</p> <p>Transmission poles do not naturally blend in with the surrounding environment. PSE is proposing to offset the aesthetic impacts through: pole design and finish selection (e.g., galvanized or self-weathering tool) based on neighborhood context; replacing poles as close to existing pole locations as possible; consolidating two lines on one pole where feasible; reducing the overall number of poles; and designing poles to the minimum height necessary based on topography, site context, and electrical design standards.</p> <p>Based on the professional assessment performed by Power Engineers, the pole finish selected for Redmond is self-weathering steel (reddish-brown to brown, depending on age).</p> <p>Self-weathering steel poles can start out with the expected gray coloring; however, it is typically a light brown as would be expected with new oxidation. As the steel poles continue to oxidize, they progress to an orange coloring and eventually to a deep dark brown coloring. The time it takes for this color transition is dependent on the climate where the poles are installed.</p> <p>Self-weathering steel provides a more organic look than galvanized steel that helps poles to blend into wooded areas. It has been proposed for sections of this Project where forested conditions occur, and deep brown coloring would blend well with the surrounding vegetation and background.</p>

	<p>Please see the Pole Finishes Report prepared by Power Engineers that was submitted with the CUP application for this Project.</p>
<p><b>Energy – Service Overview</b></p>	
<p><b>UT-58:</b> Work with energy service providers to ensure energy facility plans reflect and support Redmond’s Land Use Plan and that energy resources are available to support the Land Use Plan.</p>	<p><b>Response:</b> The Project is needed because an additional 230 kV power source is required to serve the Eastside region, inclusive of Redmond, and meet federal planning requirements. PSE studies and annual review have consistently concluded that the power source must be centrally located in the defined Eastside region. The transmission lines will connect the new power source (a new transformer) with existing 230 kV substations in the region in Redmond, at the Sammamish substation, and in Renton, at the Talbot Hill substation.</p> <p>This Project will serve all uses in the Eastside service area, including industrial, commercial, residential, and public facilities in the City.</p> <p>The City is made up of a mix of land uses that have developed around the utility corridor that was established in the late 1920s and early 1930s. The corridor is identified in the Utilities Element of the Comprehensive Plan on both Map UT-1 (Existing Electrical Facilities) and Map UT-2 (Proposed Electrical Facilities).</p> <p>The proposed transmission lines will be sited in the existing utility corridor and traverses a variety of land uses including single-family residential, multi-family residential, industrial, and commercial districts. The corridor predates the 1960s when vigorous residential development began in the City and the existing land use patterns already integrate the utility facilities, keeping the proposed Project compatible and consistent with local context and land use patterns.</p> <p>This conclusion is confirmed by the FEIS, which found that impacts to land use will be “be less-than-significant because [the proposed Project] is consistent with City and subarea plans, and would not adversely</p>

	affect existing or future land use patterns.” FEIS at 4.1-7.
<p><b>UT-60:</b> Coordinate and seek to cooperate with other jurisdictions when energy transmission facility additions or improvements cross jurisdictional boundaries. Include efforts to achieve consistency between jurisdictions in permit timing.</p>	<p><b>Response:</b> The proposed transmission line upgrade is a linear utility project that crosses through multiple jurisdictions (including the cities of Redmond, Bellevue, Renton, and Newcastle; collectively “Partner Cities”). In addition, because some of the early route alternatives crossed through the City of Kirkland, Kirkland participated in the Environmental Impact Statement (EIS) process, but, under PSE preferred design Kirkland is no longer impacted by the Project. The north segment of this Project will traverse Redmond and Bellevue while the south segment will traverse the cities of Bellevue, Renton, and Newcastle. Significant outreach and coordination efforts have occurred to inform potentially affected entities about the proposed Project, a process reflected in the Phase 1 and Phase 2 Draft Environmental Impact Statements (DEIS), which were developed co-operatively by the Partner Cities. King County was invited to participate in the EIS process with the Partner Cities, but declined.</p>
<p><b>Energy – Electrical Energy and Facilities</b></p>	
<p><b>UT-61:</b> Recognize the current Electrical Facilities Plan, authored by Puget Sound Energy, as the facility plan for electrical utilities serving Redmond and the vicinity. Use this plan, where it is consistent with Redmond’s land use goals, as a guide in identifying and preserving utility corridors and locating electrical facilities.</p>	<p><b>Response:</b> The need for additional 230 kV capacity in the Eastside region was identified and has been included in PSE’s <i>Electrical Facilities Plan for King County</i> (“Plan”), since 1993. As explained in the Plan, “[t]he 230 kV sources for the 115 kV system in northeast King County are primarily the Sammamish and Talbot Hill substation. The loads on the 230- 115 kV transformers in these stations will be high enough to require new sources of transformation.” Additionally, the “Lakeside 230 kV Substation project [now referred to as Energize Eastside] will rebuild two existing 115 kV lines to 230 kV between Sammamish and Lakeside [where PSE proposes the construction of the Richards Creek substation], and between Lakeside and Talbot Hill.”</p>
<p><b>UT-62:</b> Allow electrical utility facilities as a permitted use where appropriate to ensure</p>	<p><b>Response:</b> Two of the zoning districts the Project corridor is located within (BP and</p>



<p>that land is available for the siting of electrical facilities.</p>	<p>MP) allow electrical utility facilities as a permitted use. However, the other four zoning districts (R-4, R-5, R-6, and R-12) consider such facilities as conditional uses. As such, the Project requires a CUP from the City which is the subject of this application.</p>
<p><b>UT-63:</b> Coordinate with Puget Sound Energy or any successor when considering land use designations or new development in the vicinity of proposed facility locations that might affect the suitability of the designated areas for location of facilities.</p>	<p><b>Response:</b> The proposed transmission lines will be sited in the existing utility corridor and traverses a variety of land uses including single-family residential, multi-family residential, industrial and commercial districts. The corridor predates the 1960s when vigorous residential development began in the City and the existing land use patterns already integrate the utility facilities, keeping the proposed Project compatible and consistent with local context and land use patterns.</p> <p>This conclusion is confirmed by the FEIS, which found that impacts to land use will be “be less-than-significant because [the proposed Project] is consistent with City and subarea plans, and would not adversely affect existing or future land use patterns.” FEIS at 4.1-7.</p>
<p><b>UT-64:</b> Encourage pruning of trees to direct growth away from overhead utility lines, education about proper placement and choice of landscape plants, and encourage phased replacement of vegetation located improperly in the right-of-way. To the extent possible, maintain ecological functions and values when managing vegetation located in critical areas.</p>	<p><b>Response:</b> Vegetation in the existing corridor is routinely managed. The corridor was initially disturbed during the original transmission line construction, and disturbance from vegetation maintenance is regular and ongoing.</p> <p>Selective tree canopy will be removed as part of the transmission line upgrade. Strict federal clearance requirements must be met with the upgrade from a 115 kV transmission corridor to a 230 kV transmission corridor, resulting in additional vegetation management within the existing corridor.</p> <p>Additionally, PSE is considering only transmission-line compatible trees and shrubs within the corridor for plantings. This vegetation is typically native to the Pacific Northwest.</p> <p>The proposed mitigation for wetland and buffer impacts caused by the Project will be mitigated using the best available science in compliance with RZC 21.64, the City’s critical</p>

	<p>areas code. Mitigation specifics are presented in the associated Critical Areas Report.</p>
<p><b>UT-65:</b> Ensure that pruning of trees necessary for safe and reliable utility service is performed in an aesthetic manner to the greatest extent possible and performed according to professional arboricultural specifications and standards.</p>	<p><b>Response:</b> Selective tree canopy will be removed as part of the transmission line upgrade. Strict federal clearance requirements must be met with the upgrade from a 115 kV transmission corridor to a 230 kV transmission corridor, resulting in additional vegetation management within the existing corridor.</p> <p>To mitigate for loss of significant trees in the transmission corridor, PSE is proposing mitigation ratios that meet or exceed regulatory standards. PSE will work with individual property owners to replace trees on private property. Where individual property owners decline to have new trees planted onsite, PSE will work with the City to place additional trees offsite.</p> <p>PSE is required by federal standards to maintain safe clearances between vegetation and utility lines. The upgraded transmission lines will have to comply with PSE's 230 kV vegetation management standards, which generally require removal of trees located in the wire zone that have a mature height of more than 15 feet. Taller trees within the transmission right-of-way may also be affected depending on tree species, tree health, distance from the wires, and topography.</p> <p>PSE has been meeting with property owners along the existing corridor to discuss tree replacement and will continue to work together to develop property-specific landscaping and tree replacement plans.</p>
<p><b>UT-66:</b> Discourage the use of herbicides to control vegetative growth around utility facilities, encourage alternative methods such as mowing or selective treatment, and encourage more environmentally friendly herbicides.</p>	<p><b>Response:</b> PSE uses an Integrated Vegetation Management approach to manage incompatible vegetation within its utility corridors. PSE contractors employ state licensed applicators and works with them to establish a mix of EPA registered herbicides that are applied at the lowest amount to attain the required control of incompatible vegetation. Establishing a plant community dominated by low growing species using</p>

	selective herbicide application has been shown to be very effective.
<p><b>UT-67:</b> Require designs that incorporate known and accepted low-cost technological methods of reducing magnetic fields or the exposure to them when siting high-voltage electrical facilities until further research provides more information on the health effects of electromagnetic fields. Methods may include:</p> <ul style="list-style-type: none"> <li>• Line configurations that reduce field strength,</li> <li>• Sufficient right-of-way widths, and</li> <li>• Sufficient height of lines from the ground for high-voltage transmission facilities.</li> </ul>	<p><b>Response:</b> PSE has conducted studies on potential health effects of the proposed transmission line upgrade, which have been peer reviewed through the State Environmental Policy Act (SEPA) review and drafting of an EIS for this Project. In particular, the EIS looked at electric and magnetic fields (EMF) and pipeline safety.</p> <p>As outlined in the <i>Final EIS (FEIS)</i>, no unavoidable significant adverse impacts were identified that could result from the Project related to health effects.</p>
<p><b>UT-89:</b> Require proposed developments, expansions of existing uses and construction projects, both public and private, located near hazardous liquid pipeline to:</p> <ul style="list-style-type: none"> <li>• Show the location of the liquid pipeline corridors in relation to proposed structures, utilities, or clearing and grading activities;</li> <li>• Use techniques prior to and during construction to minimize the potential for disturbing the pipeline;</li> <li>• Identify and mitigate potential erosion over pipelines from stormwater discharge;</li> <li>• Use setbacks and other site design techniques to minimize the potential hazard; and</li> <li>• Develop emergency plans as appropriate.</li> </ul>	<p><b>Response:</b> PSE has proactively addressed potential safety concerns related to construction safety and the potential for interactions between the Project and two collocated Olympic Pipeline petroleum pipelines. The EIS concluded that while there are safety risks for occupants of adjacent properties associated with the high voltage lines and the presence of the Olympic Pipeline system, these risks will not increase with the Project, and will likely be reduced. Additionally, DNV-GL modelling confirmed that fault potential, shock potential, and A/C interference (all of which are safety concerns in a collocated corridor) are all below industry safety standard thresholds. PSE continues to coordinate with Olympic Pipeline to ensure that PSE’s design and construction activities are planned with safety input from Olympic. In addition to ensuring that PSE’s transmission poles are located a safe distance from the pipelines, where pipelines are adjacent, PSE’s construction plan involves physically locating the pipeline ahead of construction to further mitigate any potential impact. Pipeline safety mitigation measures are described in the EIS, pp. 4.9-39-40.</p>
<p><b>UT-90:</b> Coordinate with the pipeline operator when developments are proposed near a</p>	<p><b>Response:</b> PSE regularly coordinates with other non-city utilities, including monthly</p>

<p>hazardous liquid pipeline corridor to reduce the potential for problems. Methods include but are not limited to:</p> <ul style="list-style-type: none"> <li>• Notifying the pipeline operator of proposed development projects located within one-quarter mile of a pipeline corridor;</li> <li>• Seeking the pipeline operator’s participation in preconstruction meetings for projects located within 150 feet of a pipeline corridor;</li> <li>• Requesting the operator to determine if additional measures above the normal locating process are necessary to physically verify pipeline locations before proceeding to develop; and</li> <li>• Seeking monitoring by the pipeline operator of development that involves land disturbance or other significant work within the pipeline corridor, or within 30 feet of a pipeline, whichever is greater.</li> </ul>	<p>meeting with the Olympic Pipeline company to discuss and coordinate on the Project. This ongoing coordination aids in PSE ensuring that its construction and operational planning is integrated with other co-located facilities.</p>
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**Natural Element**

The proposed transmission line replacement will have impacts on environmental resources within the City.

<p><b>Environmentally Critical Areas</b></p>	
<p><b>NE-18:</b> Use science-based mitigation to offset unavoidable adverse impacts to critical areas.</p> <p><b>NE-19:</b> Implement monitoring and adaptive management to programs and critical areas mitigation projects to ensure that the intended functions are retained and, when required, enhanced over time.</p> <p><b>NE-22:</b> Allow modification of critical areas where they have low ecological value and the function and values will be fully replaced. Avoid land uses and developments that are incompatible with environmentally critical areas.</p>	<p><b>Response:</b> Proposed mitigation to compensate for permanent impacts to wetlands and buffers will occur on site, to include mitigation included within the Willows Creek Stream Relocation Project, as described in the <i>Conceptual Mitigation Plan, Energize Eastside Project</i> (HDR 2021). The Willows Creek Stream Relocation Project will establish a new stream channel in proximity to the historic Willows Creek stream channel and connect the upper and lower segments of Willows Creek, to improve watershed function and riparian habitat. See attached Critical Areas Report and Conceptual Mitigation Plan for more information.</p>

<b>Geologically Hazardous Areas</b>	
<p><b>NE-27:</b> Avoid and/or minimize potential impacts to life and property from geologic hazards such that the site is rendered as safe as one not containing such hazard.</p>	<p><b>Response:</b> There are landslide and erosion hazard areas in the Project area within a system of ravines and ridges north of Redmond Way. The steep slopes are undeveloped. Some of the selected tree removal that is proposed will occur in the ravines and the steep slopes. There are no mapped faults in the Project area (Washington Department of Natural Resources [WDNR] 2019) and no surface expression of faulting or rupturing relating to seismic events was observed in the area.</p> <p>Disturbance will be limited to the minimum necessary within geo hazard areas, including limiting equipment access and disturbance areas. All disturbed areas will be restored.</p>
<p><b>NE-28:</b> Require appropriate levels of study and analysis as a condition to permitting construction within Geologically Hazardous Areas, ensure sound engineering principles are used based on the associated risk in these areas, and appropriately limit land uses in areas of Geologically Hazardous Areas.</p>	<p><b>Response:</b> The Targeted Critical Areas Geologic Hazards Evaluation Report (March 2019) evaluates potential hazards and recommended mitigation measures (taken in conjunction with the geotechnical design report (GeoEngineers 2016)). Structures proposed for this Project will be limited to power poles. Site improvements (pole replacement, temporary access routes, and vegetation management/tree removal) are not anticipated to adversely impact the natural contour of the slopes. The proposed site activities that include temporary and minor grading for access and work areas during construction will maintain overall existing site topography once the locations are restored.</p> <p>Impacts from the construction activities will be mitigated by designing and constructing the poles in accordance with the geotechnical design report (GeoEngineers 2016).</p>
<p><b>NE-33:</b> Promote sound development practices, including Best Management Practices (BMPs), to limit erosion and sedimentation during construction.</p> <p><b>NE-35:</b> Require that construction, maintenance, and operation of development in Seismic Hazard Areas minimizes hazards</p>	<p><b>Response:</b> A temporary erosion and sediment control (TESC) plan will be developed for the Project. Necessary best management practices (BMPs) will be used as appropriate, including chipping and scattering of removed vegetation.</p>

<p>to persons, property, and natural resources within the Seismic Hazard Area and the entire community.</p>	<p>Disturbance will be limited to the minimum necessary within geo hazard areas, including limiting equipment access and disturbance areas. All disturbed areas will be restored.</p>
<p><b>Wetlands</b></p>	
<p><b>NE-63:</b> Use federal mitigation sequencing guidelines when reviewing projects impacting wetlands. This involves, in the following order: avoiding the impact altogether by not taking a certain action or parts of actions; minimizing the impact by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources or environments.</p>	<p><b>Response:</b> Engineering and environmental constraints were evaluated by PSE during Project planning to avoid and minimize impacts associated with the Project.</p> <p><u>Avoidance:</u> The proposed Project utilizes the existing transmission line corridor and associated disturbance areas. The proposed pole locations have been adjusted to avoid wetlands/streams and buffers wherever feasible. To the degree possible, work areas and stringing sites will be located to result in the least amount of overlap with Project area wetlands and buffers. Wherever feasible, access routes, work areas, and stringing site locations will avoid native shrubs.</p> <p><u>Minimization:</u> To minimize impacts to wetlands, work will be conducted during the dry season, to the extent possible. Temporary access routes have been designed to minimize impacts to wetlands/streams and their buffers. Mats will be laid down over wetland vegetation to access poles and prevent potential damage associated with heavy equipment. Temporary access routes will avoid crossing stream channels or ditches to the extent practical; if a temporary stream or ditch crossing is necessary, the crossing will be matted and no impacts are anticipated. Temporary access routes will avoid areas with forest cover.</p> <p>Identification of trees for trimming or removal followed a methodology allowing for the greatest possible retention of trees in the corridor. See the Critical Areas Report for more information.</p>
<p><b>NE-64:</b> Ensure the amount of mitigation required reflects the value and function of the wetlands affected by the project, the risk that the mitigation may fail, the temporal loss of wetlands functions and values, the spatial</p>	<p><b>Response:</b> PSE is proposing on-site mitigation to compensate for permanent impacts to wetlands and associated buffer areas from proposed poles, and for vegetation conversion associated with</p>

<p>locations of the mitigation, and the difficulty of replacing many wetlands functions and values. For these reasons, require in general a significantly larger area of mitigation than the area of wetlands impacted.</p>	<p>trimming or removal of trees. Wetland mitigation ratios set forth in RZC 21.64.030 would be followed. See the Critical Areas Report for more information.</p>
<p><b>NE-65:</b> Pursue opportunities to enhance and restore degraded wetlands.</p>	<p>Proposed mitigation to compensate for permanent impacts to wetlands and buffers will occur on site, to include mitigation included within the Willows Creek Stream Relocation Project. The Willows Creek Stream Relocation Project will establish a new stream channel in proximity to the historic Willows Creek stream channel and connect the upper and lower segments of Willows Creek, to improve watershed function and riparian habitat. See attached Conceptual Mitigation Plan for more information.</p>
<p><b>Fish and Wildlife Habitat</b></p>	
<p><b>NE-90:</b> Protect Core Preservation Areas within the city.</p> <p><b>NE-91:</b> Restore and enhance degraded or lower-quality habitat within Core Preservation Areas.</p>	<p><b>Response:</b> While there are no Fish and Wildlife Habitat Conservation Areas mapped within the study area, core preservation areas also include wetlands and streams and their associated buffers, as described in the attached Critical Areas Report. Therefore, all stream and wetlands in the Project area would also be considered Fish and Wildlife Habitat Conservation Areas. See the Critical Areas Report for more information.</p>
<p><b>NE-99:</b> Give special consideration to conservation and protection measures to preserve and enhance anadromous fisheries.</p>	<p><b>Response:</b> No in-water work is proposed as part of the Project.</p> <p>Mitigation for Project wetland and buffer impacts will be done through the Willows Creek Stream Relocation Project, which will establish a new stream channel in proximity to the historic Willows Creek stream channel and connect the upper and lower segments of Willows Creek, improving watershed function and riparian habitat. See attached Conceptual Mitigation Plan for more information.</p>
<p><b>NE-106:</b> Use a majority of native vegetation that is supportive of wildlife instead of nonnative plant species and eliminate the use of invasive species when landscaping</p>	<p><b>Response:</b> Vegetation in the existing corridor is routinely managed. The corridor was initially disturbed during the original transmission line construction, and</p>

<p>for new developments adjacent to wildlife habitats.</p> <p><b>NE-107:</b> Ensure management of noxious weeds and invasive species are an integral part of landscape plans for new development. Work with King County and Washington State to target the management of noxious weeds.</p>	<p>disturbance from vegetation maintenance is regular and ongoing.</p> <p>Selective tree canopy will be removed as part of the transmission line upgrade. Strict federal clearance requirements must be met with the upgrade from a 115 kV transmission corridor to a 230 kV transmission corridor, resulting in additional vegetation management within the existing corridor.</p> <p>Additionally, PSE is considering only transmission-line compatible trees and shrubs within the corridor for plantings. This vegetation is typically native to the Pacific Northwest.</p>
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- B. *The conditional use is designed in a manner which is compatible with and responds to the existing or intended character, appearance, quality of development, and physical characteristics of the subject property and immediate vicinity;*

**Response:** The Project is compatible with and responds to the existing character, appearance, quality of development, and physical characteristics of the subject property and immediate vicinity. Because the Project is sited in an existing corridor shared with another utility (the Olympic Pipeline system), the Project will both improve reliability to adjacent uses and will not introduce a change in land use. It will consolidate the transmission lines onto fewer poles, which, although larger, will not increase visual clutter and could reduce it in some areas. The collocation of PSE’s utility structures with the Olympic Pipeline system also consolidates vegetation impacts to a single corridor in the City (e.g., trees cannot be planted above Olympic’s pipelines and must be managed for collocation with PSE’s transmission line poles). Various pole treatments will be employed to complement the natural environment, and vegetation management will maintain the general appearance of landscaping in a similar manner as the present. Although a number of trees will be removed, the remaining and proposed trees will partially screen views of the taller poles. Reinstallation of telecommunications facilities on the same transmission facilities following construction will ensure that there will not be an increase in the number of telecommunications facilities to the maximum extent feasible.

The transmission line corridor is an existing utility corridor that was established in the late 1920s and early 1930s. The current uses adjacent to the corridor were developed over time as areas were annexed into the City and these areas became denser and populated. As such, the utility corridor is part of the existing character of these areas. PSE is proposing to replace the existing 115 kV transmission poles with steel poles to accommodate 230 kV conductors. The poles will generally be installed in the same location or in close proximity to the existing poles. In most cases, the number of poles will be reduced from four to one or two. The consistency of the proposed transmission lines with other uses in the vicinity was confirmed by the FEIS, which found that impacts to land use will “be less-than-significant because [the proposed Project] is consistent with City and subarea plans, and would not adversely affect existing or future land use patterns.” FEIS at 4.1-7.



The FEIS found that impacts to the aesthetic environment on the Redmond segment would be less-than-significant. Contrast with the natural environment would increase because the poles would be approximately 30 to 40 feet taller than the existing poles on average, with a typical pole height of approximately 91 to 102 in the Redmond Segment depending on the pole configuration. The new poles would be taller than much of the surrounding vegetation, and additional clearing would be required, particularly in areas where a large number of trees are within the transmission line corridor. Tree removal would be most noticeable south of Redmond Way and from Old Redmond Road to the southern terminus of the segment. Because the tree removal would occur within the existing corridor, the degree of contrast created by the clearing would be minor. The pole height and configuration would increase the contrast with surrounding residential development. Despite the height increase and additional clearing, the built environment would be unchanged because transmission lines already exist in the corridor. The new transmission line would have consistent form and height throughout the segment and would reduce visual clutter by reducing the number of poles. FEIS at 4.2-15 – 16.

In many areas, PSE further proposes using a *delta* conductor configuration that uses less hardware rather than the arguably more impactful rectilinear design assessed in the EIS and to some extent mimics natural forms (i.e., the triangular shapes are consistent with a tree shape). By limiting the area of visual impact and mirroring other natural elements, PSE can effectively mitigate aesthetic impacts and ensure consistency with adjacent uses.

- C. *The location, size, and height of buildings, structures, walls and fences, and screening vegetation for the conditional use shall not hinder neighborhood circulation or discourage the permitted development or use of neighboring properties;*

**Response:** The Project will not add or increase traffic; therefore, neighborhood circulation will not be affected.

The Redmond segment of the proposed transmission line upgrade will also not discourage development or use of neighboring properties. PSE proposes siting the north segment along the same corridor used by existing transmission lines. This corridor has been established for almost a century. Because adjacent land uses and properties already integrate transmission line facilities, they will not be materially impacted by replacement of the existing transmission line facilities. The consistency of the proposed transmission lines with other uses in the vicinity was confirmed by the FEIS, which found that impacts to land use will “be less-than-significant because [the proposed Project] is consistent with City and subarea plans, and would not adversely affect existing or future land use patterns.” FEIS at 4.1-7.

As additional evidence of the fact that the Project will not discourage adjacent permitted uses, the FEIS concluded that aesthetic impacts to properties in the vicinity of the proposed transmission line would be less than significant:

“The segment is located within PSE’s existing corridor, and the degree of contrast with the existing environment would be minimal. Impacts to scenic views are unlikely due to the presence of dense vegetation and tall tree stands. The project would be consistent with existing plans and policies.” FEIS at 4.2-15.

- D. *The type of use, hours of operation, and appropriateness of the use in relation to adjacent uses minimize unusual hazards or characteristics of the use that would have adverse impacts;*

**Response:** The proposed Project in Redmond would be located in an existing high voltage transmission line corridor. As extensively studied in the FEIS, the Project will not cause any unusual hazards that would have adverse impacts (see, e.g., FEIS Ch. 4.8). The siting of a transmission line upgrade in this corridor is wholly consistent with adjacent uses.

- E. *The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood;*

**Response:** The transmission line upgrade will not add to or conflict with traffic during operations. The transmission line will cross high above certain streets, but will not introduce any hazard or conflict.

- F. *The conditional use will be supported by adequate public facilities or services, and will not adversely affect public services to the surrounding area or conditions are established to mitigate adverse impacts on such facilities;*

**Response:** The transmission line upgrade will consist of replacing two existing 115 kV transmission lines within an existing 100-foot wide corridor, with two 230 kV lines in the same corridor. No new permanent access or other additional public facilities will be required to accommodate the upgraded lines.

PSE's proposed Project will also not interfere with public services in this surrounding area and so there is no need for mitigation.

### **RZC 21.76.070(B)(3): Criteria Applicable to All Land Use Permits**

- a. *Consistency. Land use permits are reviewed by the City to determine consistency between the proposed project and the applicable regulations and Comprehensive Plan provisions.*
- i. *A proposed project's consistency with the City's development regulations shall be determined by consideration of:*

- A. *The type of land use;*

**Response:** The Project is proposing upgrading an existing Regional Utility along the alignment. Land uses along the Redmond Segment of the alignment include a mix of utility, single-and-multi-family residential land uses. Zoning within the alignment includes: single-family urban residential (R-4, R-5 and R-6), multi-family urban residential (R-12), business park (BP), and manufacturing park (MP). In residential zones (R-4, R-5, R-6 and R-12), Regional Utilities are an allowed use with an approved Conditional Use Permit (RZC 21.04.030A). In non-residential zones (BP and MP), Regional Utilities are permitted (RZC 21.04.030B). PSE's proposed transmission line upgrade does not propose a change in use and so will continue to be consistent with adjacent uses. Additionally, 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.

*B. The level of development, such as units per acre or other measures of density;*

**Response:** The Project would not develop structures that would require measures of density; this criterion is not applicable to this Project.

*C. Availability of infrastructure, including public facilities and services needed to serve the development; and*

**Response:** The Project would replace an existing transmission line in order to increase capacity to meet future electricity demand in Redmond and on the Eastside, thereby ensuring the reliable delivery of electricity to PSE customers. Because the project is itself infrastructure, this criterion is not applicable to this Project.

*D. The character of the development, such as development standards.*

**Response:** The proposed Project is a linear facility and so the character of development changes as you move down the existing high voltage transmission line corridor. The character of development in the surrounding built environment is characterized by single-story and two-story single family homes, three-story condominium complexes, a middle school, a range of commercial buildings, industrial parks and warehouses, the existing two single-circuit 115 kV on H-frame poles (approximately 60-feet in height) and the Sammamish substation, which is adjacent to large warehouse properties and forest land. The Project is located within PSE's existing corridor and would not contrast with the character of the existing development environment. The Sammamish substation and Rose Hill substation upgrades would be entirely within the existing footprint. The Project would replace existing transmission line poles and wire and would not affect the character of the surrounding built environment.

*ii. Upon review of a land use permit and accompanying site plan, the decision maker shall determine whether building design and/or site design complies with the following provisions:*

*A. The Comprehensive Plan, RZC 21.02, Preface, RZC Article I, Zone-Based Regulations, RZC Article II, Citywide Regulations, and the Appendices that carry out these titles;*

**Response:** A site plan is not required for this Project. The overall vision for Redmond's infrastructure is that, *"Infrastructure and services meet the needs of a growing population and promote a safe and healthy community."*

The Project would be consistent with the Redmond Comprehensive Plan and applicable subarea plans. As discussed, zoning districts in the study area allow electrical utility facilities as either a permitted or a conditional

use. More specifically, the Project complies with the following policies within the Comprehensive Plan:

*LU-14: Encourage the provision of needed facilities that serve the general public, such as facilities for education, libraries, parks, culture and recreation, police and fire, transportation and utilities. Ensure that these facilities are located in a manner that is compatible with the City's preferred land use pattern.*

The Project would use an existing utility corridor and not require any new easements from adjoining properties.

*UT-62: Allow electrical utility facilities as a permitted use where appropriate to ensure that land is available for the siting of electrical facilities.*

The Project will utilize existing PSE facilities and transmission corridors for the Project upgrades. Project siting will occur in the existing transmission corridor, and Project impacts will be of-a-kind to current siting.

In addition, the preferred alignment was chosen based on a number of design constraints to be consistent with the RZC Articles I and II. Design constraints included prioritizing existing PSE facilities and infrastructure, construction methods, and pole and wire characteristics. The preferred alignment had the best probability of meeting the screening considerations while avoiding potential risks associated with the Project by following the existing alignment, staying within easements and adhering to site constraints.

*B. The provisions of RMC Title 15, Buildings and Construction, that affect building location and general site design;*

**Response:** The Project complies with RMC Title 15, Buildings and Construction as applicable. The Project is a linear transmission line replacement, not a single site or building; as such only Chapter 15.24 Clearing, Grading, and Storm Water Management is applicable. Clearing, grading and storm water management requirements have been applied to the Project as provided in the *Stormwater Site Plan* (HDR 2021), which is included with this CUP application.

*C. The Washington State Environmental Policy Act (SEPA) if not otherwise satisfied;*

**Response:** The proposed transmission line upgrade is a linear utility Project that crosses through multiple jurisdictions (including the cities of Redmond, Bellevue, Renton and Newcastle; collectively "Partner Cities"). In addition, because some of the early route alternatives crossed through the City of Kirkland, it also participated in the EIS process. The Phase 1 and Phase 2 DEIS, along with the FEIS, were developed co-operatively by the Partner Cities. The FEIS was issued March 1, 2018.

*D. RZC Article VI, Review Procedures, to the extent it provides the procedures to ensure compliance with the requirements in subsections B.3.a.ii.B and B.3.a.ii.C of this section;*

**Response:** Through Project design and the permit review process, the proposed Project will comply with the requirements in RZC Article VI, Review Procedures, subsections B.3.a.ii.B and B.3.a.ii.C.

*E. Both within and outside Transition Overlays, decision makers authorized by the RZC to decide upon discretionary approvals may condition such approvals and development permits, including but not limited to site plan approvals, to minimize adverse impacts on other properties and uses, and to carry out the policies of the Comprehensive Plan.*

**Response:** The Project is not without or outside Transition Overlays; therefore, this criterion is not applicable to this Project.