

# CANYON PARK SUBAREA

# Existing Conditions **DRAFT**

## Contents

<b>Introduction</b> .....	<b>3</b>
Study Area .....	3
Subarea Planning Process .....	5
Summary of Phase 1: Canyon Park Vision .....	5
<b>Land Use Patterns</b> .....	<b>7</b>
Current Policies and Plans .....	7
Current Land Use Patterns and Conditions .....	13
Implications and Opportunities .....	23
<b>Employment and Market Assessment</b> .....	<b>24</b>
Current Policies and Plans .....	24
Description of Current Conditions .....	26
Implications and Opportunities .....	37
<b>Natural Environment</b> .....	<b>38</b>
Current Policies and Plans .....	38
Description of Current Conditions .....	38
Implications and Opportunities .....	55
References .....	56
<b>Transportation</b> .....	<b>57</b>
Current Policies and Plans .....	58
Description of Current Conditions .....	62
Implications and Opportunities .....	73

<b>Public Services .....</b>	<b>80</b>
Current Policies and Plans .....	80
Current Conditions.....	81
Implications and Opportunities .....	86
<b>Utilities &amp; Stormwater.....</b>	<b>87</b>
Current Policies and Plans .....	87
Description of Current Conditions.....	89
Opportunities and Implications .....	98
<b>Community Design .....</b>	<b>101</b>
Current Policies and Plans .....	101
Description of Current Conditions.....	112
Implications and Opportunities .....	125
<b>Glossary .....</b>	<b>126</b>

# Introduction

The updated Canyon Park Subarea Plan will provide a framework to achieve Bothell's vision for Canyon Park. It will likely encourage a more walkable, accessible, livable, amenity-rich, and competitive job center than previous plans have accomplished. Phase 1, completed in 2018, included the development of the Canyon Park Vision, a community vision for the center. Phase 2, the development of the Canyon Park Subarea Plan to be crafted in 2019, will refine and lay out policies and strategies to implement the Vision.

The plan will also satisfy regional growth goals identified in the Puget Sound Regional Council's (PSRC) 2018 Regional Centers Framework Update and VISION 2040 plan (or VISION 2050 depending on timing). Regional Growth Centers are urban areas throughout the Puget Sound designated to play a regional role in job and housing growth. They are supported by infrastructure and transportation investments.

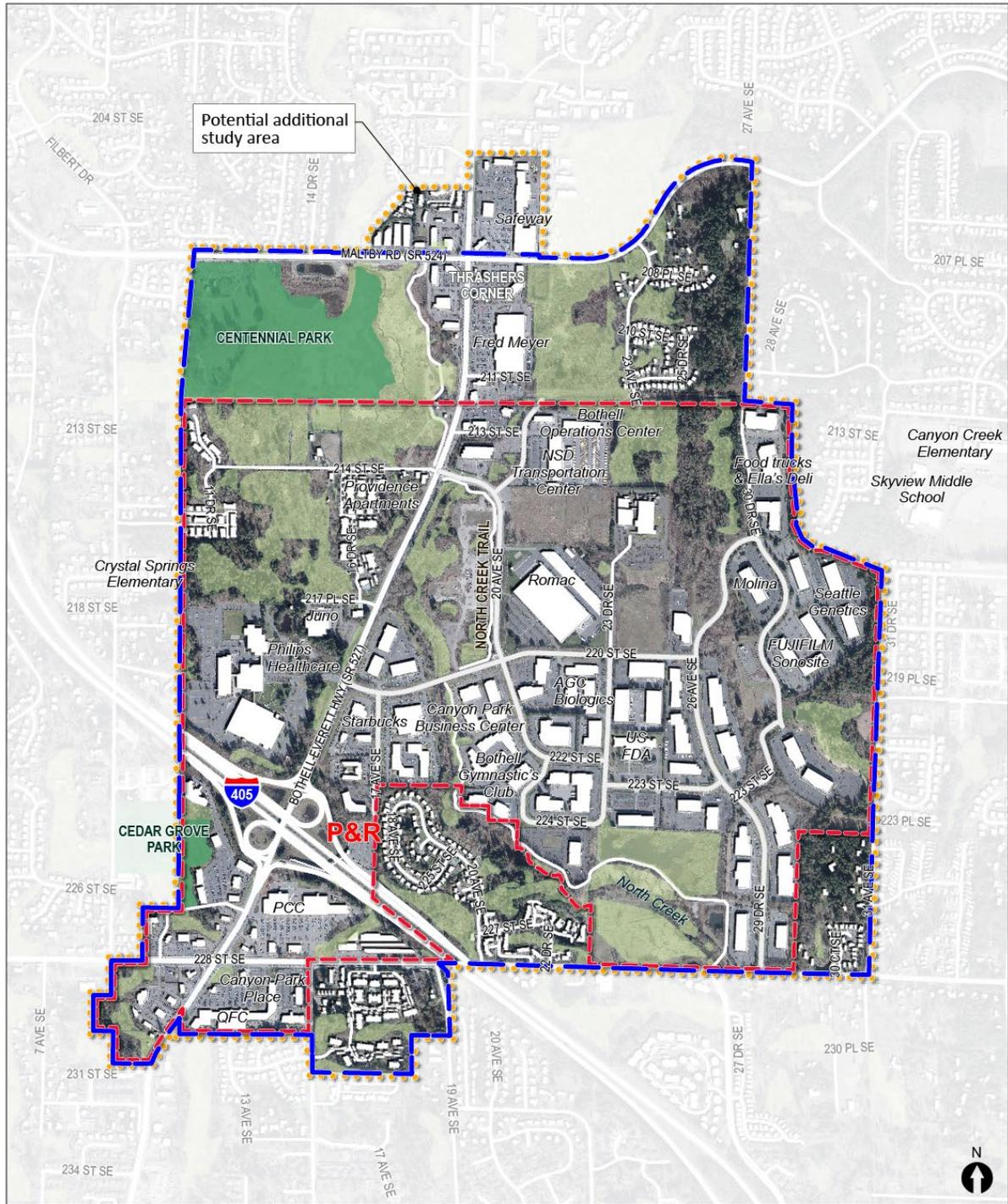
## Study Area

Canyon Park will likely be studied at multiple scales. Three boundaries may be used, including:

- Canyon Park Subarea – the boundary used in the *Imagine Bothell...Comprehensive Plan* for the purposes of neighborhood planning,
- Regional Growth Center – a smaller boundary developed per past PSRC guidance to establish a regionally designated center eligible for federal/regional transportation funding (see the Land Use Pattern's PSRC Centers Requirements section for more information), and
- Additional area to include in study – a larger boundary developed for this plan to include Thrasher's Corner for greater opportunity for neighborhood-oriented planning and development.

In addition, the study area includes the "Canyon Park Business Park," a smaller area of flexible buildings housing a variety of businesses.

Figure 1. Canyon Park Study Area



### Canyon Park Study Area

0 0.125 0.25 0.5 Miles

- Canyon Park Subarea
- Regional Growth Center
- Additional area to include in study
- Park
- Wetland
- P&R Park & Ride

# Subarea Planning Process

Bothell is working with a team of land use, economic and demographic analysis, transportation, urban design, environmental systems, and infrastructure planning consultant team to investigate current conditions and trends, engage community members to refine the vision and identify potential actions, and strategize steps forward. The process includes environmental analysis of the plan.

The planning process includes the following steps:

- **Existing conditions report.** This document outlines the team's understanding of Canyon Park's baseline conditions. The team will share these findings with Canyon Park stakeholders and local government representatives to refine the Vision Report's goals.
- **Community engagement.** The team is using an online survey to determine the engagement strategy and hear participants' initial thoughts in moving from the Vision phase to Phase 2 planning. The team will hold three focus groups with business and property owners at the alternatives development, preferred alternative selection, and implementation strategy phases. The team is making a concerted effort to engage small business owners to ensure their voices are represented in the plan. Canyon Park residents, as well as citywide community members, will have opportunities to influence the alternatives analysis and selection and plan implementation strategies.
- **Land use alternatives.** Bothell staff, the consultant team, and community members will collaboratively develop alternatives to understand impacts of potential future scenarios.
- **Analysis and preferred alternative.** The team will analyze and present the alternatives at a public event to select a preferred alternative.
- **Subarea plan.** The team will recommend policies and measures to support land use regulations and design guidelines updates, regional growth center needs, a multimodal transportation hub, economic development, affordable housing, mixed-use and people-oriented character, infrastructure actions, environmental enhancements, and accessible open space and recreation.
- **Environmental analysis.** The team will document potential environmental impacts of the alternatives to ensure compliance with the State Environmental Policy Act (SEPA).
- **Implementation strategy.** The team will recommend implementation measures and drafted updated policies, development regulations, and design guidelines.

## Summary of Phase 1: Canyon Park Vision

Bothell undertook the Canyon Park Vision in 2018 following the City Council's commitment to update the Canyon Park Subarea Plan to comply with the new PSRC framework criteria as part of an update of the overall Canyon Park Subarea Plan. Developing the Canyon Park Vision was the first phase of the process; it involved engagement with key stakeholders, analysis of the baseline economic and infrastructure conditions, and assessment of the center's development potential. This led to a high-level vision for Canyon Park, including the following four key elements:

- **An Economic Driver.** Canyon Park serves as a regional business hub for the life sciences and biomedical industries. It is a designated urban center and is a place of innovation and growth.
- **A Multifaceted Neighborhood.** Canyon Park is a dynamic neighborhood with a diverse mix of housing, office, retail and public space. It serves both Bothell residents and employees coming from throughout the region.
- **Connected to the Natural Environment.** Canyon Park is defined by its unique access to the natural environment and blend of urban wetlands, creeks, and interconnected trails.
- **A Transportation Hub.** Canyon Park is a transportation hub with infrastructure serving employees and residents commuting to and from the neighborhood as well as commuters traveling to other areas.

Relevant policies in the Vision Report are addressed in each of the sections that follow in this document.

# Land Use Patterns

## Current Policies and Plans

### Comprehensive Plan Land Use Policies

The *Imagine Bothell...* Comprehensive Plan Vision summarizes the desired land use pattern including the following elements promoting opportunities for employment, housing, and commercial uses, and natural system protection. A vision element promoting Bothell as a multimodal job hub with recreation and services is applicable as well to the Canyon Park subarea.

- Celebrates and respects its picturesque setting by achieving harmony between the built and natural environments.
- Fosters the fulfillment of human potential through an assortment of employment, educational, recreational and cultural opportunities available to individuals and families of all ages, incomes and ethnic backgrounds.
- Maintains strong residential neighborhoods through public investments in physical improvements intended to enhance neighborhood identity and through public policy decisions intended to protect neighborhoods from intrusion by incompatible uses.
- Provides commercial areas which offer multiple transportation modes including walking, bicycling and a variety of transit choices; are vibrant and inviting by design; and are located and sized to ensure adequate selection and availability of goods and services for all Bothell residents.
- Provides an appealing business environment and thriving employment "hub" for residents of North King County and South Snohomish County, offering job opportunities which are generated by diverse, sustainable and environmentally sound economic activities; sufficient in number and concentrations to support employee-oriented transit, recreation and human services; and located in settings characterized by high quality design; thereby placing Bothell at a competitive advantage with its peer cities for attracting and retaining businesses, and generating economic value for the community.

The Canyon Park Subarea Plan element includes Regional Growth Center policies that promote:

- The Canyon Park regional activity center should provide opportunities for businesses to start and grow in Bothell, and for employees to work close to home...
- Four locations west of SR-527, east of SR-527, and southwest of I-405 are "designated for residential dwellings at densities controlled by site and building envelope regulations." Other policies indicate that Canyon Park should provide for a range of housing alternatives within the Subarea for persons of varying incomes and lifestyles and which support the various commercial and business park employment centers.

Actions intended to ensure quality development and environmental quality include:

- Undertake an Urban Design Study for the Canyon Park Subarea and for lands designated as the Canyon Park Regional Growth Center. This Urban Design Study should be a comprehensive review and analysis of opportunities and constraints, an investigation of appropriate land uses, urban design concepts, site, infrastructure, building design, and other features that support a successful Regional Activity Center.
- Participate to the fullest extent possible with Snohomish County in implementing the North Creek Watershed Management Plan, identifying and implementing further actions which will aid in reducing the rate and volume of flows, improving water quality and encouraging improved fish habitat.

Other civic and recreation uses are promoted to support the Canyon Park job and residential center per Element actions:

- Pursue acquisition and development of park sites to serve the Subarea based on the City's Parks, Recreation and Open Space Action Program. It is recognized that such parks, while serving the Subarea, may or may not be located within the Subarea.
- Extend the North Creek regional trail system through the Subarea, making appropriate connections to the Snohomish County regional system.

## PSRC Centers Requirements

In 2018, the Puget Sound Regional Council approved a Regional Centers Framework Update. Each Regional Growth Center like Canyon Park will be redesignated as a center subject to the following requirements:

- Adopted center plan (subarea plan, plan element or functional equivalent) is completed by 2020.
- Designation of the regional center in the adopted local comprehensive plan and countywide planning policies.

*Discussion: The City has designated the Canyon Park Regional Growth Center in its Comprehensive Plan. It has a related Canyon Park Subarea Plan element that has a larger/different boundary. The City has initiated the update of the Canyon Park Subarea Plan to refine and implement its vision and strategies for the area; this will lead to an amended Comprehensive Plan.*

By 2025, the first monitoring review, existing regional growth centers will be expected to fully meet eligibility and designation criteria similar to new centers, including:

- **Local Commitment.** Evidence center is a local priority and sponsor city/county has sustained commitment over time to local investments in creating a walkable, livable center.

*Discussion: The Canyon Park Subarea Plan will identify multimodal transportation improvements and amenities to encourage a walkable, livable center.*

- **Center Plan Update.** An updated center plan (subarea plan, plan element or functional equivalent that provides detailed planning or analysis) that addresses regional guidance, and plans for a mix of housing and employment, bicycle and pedestrian infrastructure, amenities, and a street pattern that supports walkability.

*Discussion: The City can update its Canyon Park Subarea Plan by 2025 either through the Comprehensive Plan periodic review in 2023 or otherwise amend it as needed by 2025.*

- **Housing Need.** Assessment of housing need, including displacement risk, as well as documentation of tools, programs, or commitment to provide housing choices affordable to a full range of incomes and strategies to further fair housing.

*Discussion: The Canyon Park Subarea Plan will address housing opportunities including the feasibility of affordable housing incentives and requirements.*

- **Capital Investments.** Capital investments by the local government in the center in the current or prior 6-year capital planning cycle, and commitment to infrastructure and utilities in the jurisdiction's capital improvement program sufficient to support center growth, pedestrian infrastructure, and public amenities.

*Discussion: The Canyon Park Subarea Plan will identify capital investments in and around the subarea, particularly transportation, as well as other needed improvements to advance multimodal transportation and improved design and landscaping as well as other amenities.*

- **Center Criteria.** Consistent with designation criteria for size, planning, transit, market potential, and role for new regional growth centers ... (See Table 1) Existing centers will remain designated if they do not meet the new center density criteria, provided that the center is consistent with other criteria identified in this section.

*Discussion: The current RGC boundary at 733 acres and the full Study Area at 1,037 gross acres exceeds the maximum size requirements of new centers. See Table 1. PSRC guidelines do not identify if size requirements are gross or net acres. Based on the minimum density of population and jobs to newly designate a center, the RGC approaches 18 activity units per gross acre and exceeds it based on net parcel acres. The additional study area has a similar density of activity units as the rest of the RGC. The net density would be higher if removing private roads or parcels with significant critical areas.*

**TABLE 1. ACTIVITY UNITS CURRENT**

ACTIVITY UNITS	REGIONAL GROWTH CENTER	SUBAREA (NON RGC)	ADDITIONAL STUDY AREA	FULL STUDY AREA
<b>Population<sup>1</sup></b>	1,773	1,191	115	3,079
<b>Employment<sup>2</sup></b>	10,833	609	326	11,767
<b>Gross Acres</b>	733	280	24	1,037
<b>Activity Units per Gross Acre</b>	17.2	6.4	18.5	14.3
<b>Net Acres<sup>3</sup></b>	673	239	23	935
<b>Activity Units per Net Acre</b>	18.7	7.5	18.9	15.9

<sup>1</sup> ESRI Business Analyst – 2018 population, accessed 2019.

<sup>2</sup> ESD Covered Employment, 2017, accessed from PSRC

<sup>3</sup> Excludes non-parcel areas but retains private roads.

*The Subarea Plan will identify opportunities to increase jobs and housing in the center to help achieve 45 activity units per acre.*

- **Market Study.** Regional growth centers that have existing density levels below the level required for new regional centers at the time of the review must complete a market study to evaluate the potential for and opportunities to best support center growth. The market study must consider a planning horizon reasonably beyond the monitoring period (2025). The market study should show how the center can meet targeted levels of growth within the planning period. The jurisdiction should demonstrate its work to address opportunities identified in the market study.

*Discussion: The Canyon Park Vision Report and Subarea Plan includes market evaluation, such as for mixed uses/affordable housing.*

Per the Center Criteria above, new centers and redesignated centers monitored through 2025 should meet the following parameters in Table 2. The Canyon Park Regional Growth Center will be designed to meet the Urban Growth Center requirements through the Subarea Plan.

**TABLE 2. PSRC CENTERS CRITERIA 2025+**

Urban Growth Center	Metro Growth Center
<p><b>Definition</b></p> <p>These centers have an important regional role, with dense existing jobs and housing, high-quality transit service, and planning for significant growth. These centers may represent areas where major investments – such as high-capacity transit – offer new opportunities for growth.</p>	<p><b>Definition</b></p> <p>These centers have a primary regional role – they have dense existing jobs and housing, high quality transit service, and are planning for significant growth. They will continue to serve as major transit hubs for the region. These centers also provide regional services and serve as major civic and cultural centers.</p>
<p><b>Criteria</b></p> <p>Center must meet each the following criteria:</p> <ul style="list-style-type: none"> <li>• <b>Existing density.</b> 18 activity units per acre minimum</li> <li>• <b>Planned target density.</b> 45 activity units per acre minimum</li> </ul>	<p><b>Criteria</b></p> <p>Center must meet each the following criteria:</p> <ul style="list-style-type: none"> <li>• <b>Existing density.</b> 30 activity units per acre minimum</li> <li>• <b>Planned target density.</b> 85 activity units per acre minimum</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Mix of uses.</b> Regional growth centers should have a goal for a minimum mix of at least 15% planned residential and employment activity in the center.</li> <li>• <b>Size.</b> 200 acres minimum - 640 acres maximum (may be larger if served by an internal, high capacity transit system)</li> <li>• <b>Transit.</b> Existing or planned fixed route bus, regional bus, Bus Rapid Transit, or other frequent and all-day bus service. May substitute high-capacity transit mode for fixed route bus. Service quality is defined as either frequent (&lt; 15-minute headways) and all-day (operates at least 16 hours per day on weekdays) –or- high capacity</li> <li>• <b>Market potential.</b> Evidence of future market potential to support planning target</li> <li>• <b>Role.</b> Evidence of regional role</li> <li>• Clear regional role for center (serves as important destination for the county)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Mix of uses.</b> Regional growth centers should have a goal for a minimum mix of at least 15% planned residential and employment activity in the center.</li> <li>• <b>Size.</b> 320 acres minimum - 640 acres maximum (may be larger if served by an internal, high capacity transit system)</li> <li>• <b>Transit.</b> Existing or planned light rail, commuter rail, ferry, or other high capacity transit with similar service quality as light rail. Service quality is defined as either frequent (&lt; 15-minute headways) and all day (operates at least 18 hours per day on weekdays) –or- high capacity (e.g., ferry, commuter rail, regional bus, Bus Rapid Transit). Evidence the area serves as major transit hub and has high quality/high capacity existing or planned service.</li> <li>• <b>Market potential.</b> Evidence of future market potential to support planning target</li> <li>• <b>Role.</b> Evidence of regional role:</li> </ul>

Urban Growth Center	Metro Growth Center
<ul style="list-style-type: none"> <li>• Jurisdiction is planning to accommodate significant residential and employment growth under Regional Growth Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Clear regional role for center (for example, city center of metropolitan cities, other large and fast-growing centers; important regional destination)</li> <li>• Jurisdiction is planning to accommodate significant residential and employment growth under Regional Growth Strategy</li> </ul>

Source: Puget Sound Regional Council 2018.

# Current Land Use Patterns and Conditions

## Current Land Use

The Canyon Park study area is in north Bothell, extending from the intersection of 208<sup>th</sup> Street SE (SR 524) and SR 527 on the north to 228<sup>th</sup> St S on the south and from 10<sup>th</sup> Avenue SE approximately on the west to 31<sup>st</sup> Avenue SE on the east. The study area is comprised of about 1,037 acres and contains the approximately 735-acre Canyon Park Regional Growth Center (RGC). Within the study area a small amount of residential development is located south of in the northeast, south central and southeast parts of the subarea and along 214<sup>th</sup> Street SE west of SR 527. Outside the study area are moderate and low density residential and retail uses. The most prevalent land uses in the study area include commercial trade and service uses, undeveloped land, and manufacturing. See Table 3 and Figure 2.

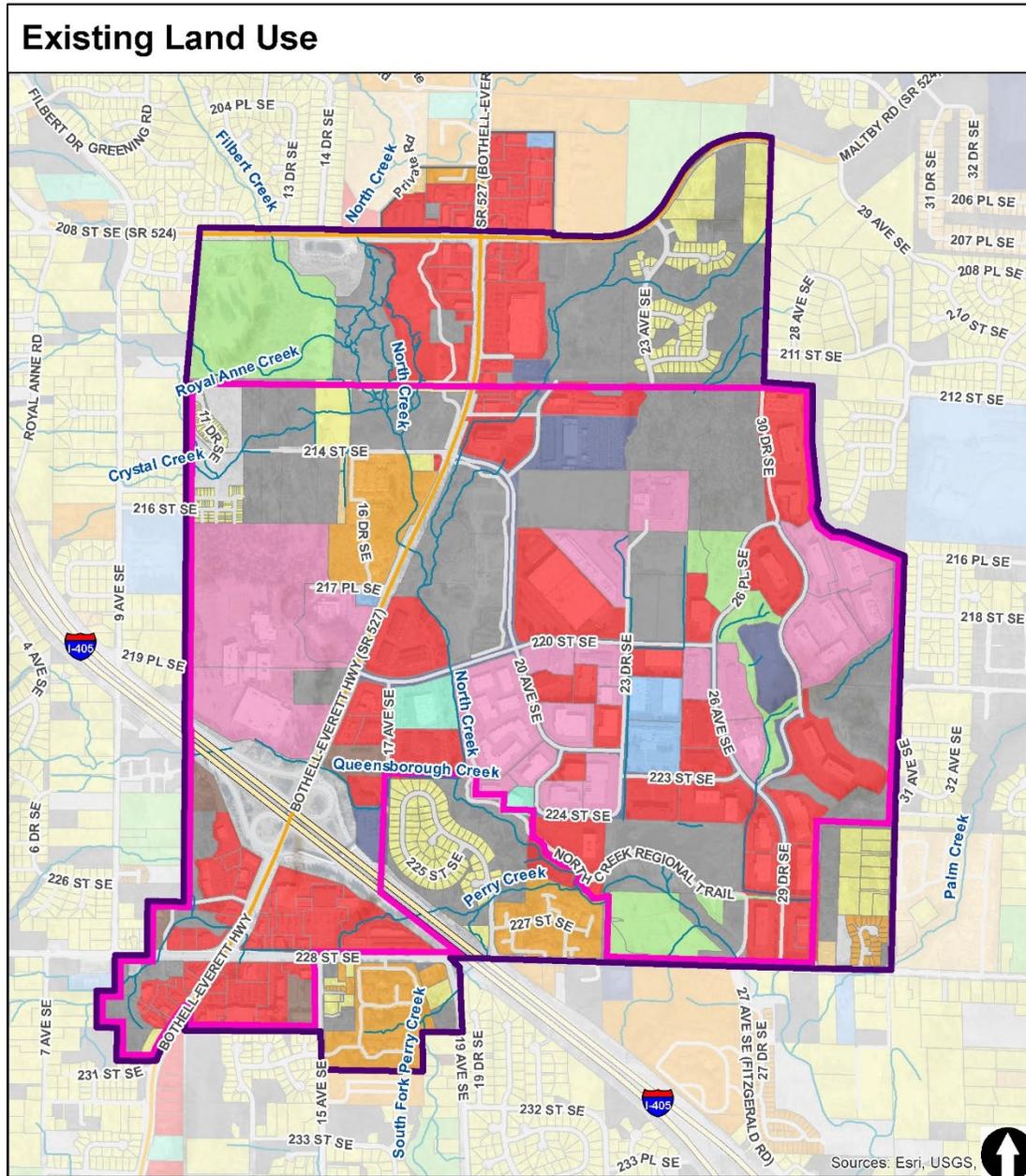
**TABLE 3. CANYON PARK CURRENT LAND USE – FULL STUDY AREA**

Use	Acres	Percent
Commercial Trade and Services	245.2	26%
Government and Education	11.4	1%
Lodging and Group Quarters	11.2	1%
Manufactured Housing	3.4	<1%
Manufacturing	148.4	16%
Multifamily Residential	54.8	6%
Other	13.6	1%
Parks, Trails, and Open Space	60.8	7%
Religious and Cultural Activities	7.4	1%
Single Family Residential	57.4	6%
Transportation and Utilities	48.6	5%
Undeveloped Land (Common Areas)	38.8	4%
Undeveloped Land (Water Retention Area)	20.6	2%
Undeveloped Land	213.2	23%
Total	934.8	100%

Source: Snohomish County Assessor, BERK 2019

The Primary Investment Area (see Figure 5) as established during the Visioning Phase is mostly in commercial trade and services use, with some undeveloped land. Infill Development Opportunities areas are mostly in manufacturing with areas in commercial trade and services, and government uses. In areas where no change is expected, there are often single family, manufactured housing, multifamily, and parks, trails, and open space areas. The Unknown/TBD area is largely in commercial trade and services use.

Figure 2. Canyon Park – Existing Land Use



### Canyon Park Subarea

0 0.1 0.2 0.4 Miles

- Canyon Park Subarea
- Regional Growth Center
- Additional Area to Include in Study
- Rivers and Streams

#### Land Use Category

- |                               |                                   |
|-------------------------------|-----------------------------------|
| Single Family Residential     | Religious and Cultural Activities |
| Manufactured Housing          | Resource Production               |
| Multifamily Residential       | Manufacturing                     |
| Lodging and Group Quarters    | Transportation and Utilities      |
| Commercial Trade and Services | Parks, Trails, and Open Space     |
| Government and Education      | Undeveloped Land                  |
|                               | Other                             |

Source: Snohomish County Assessor, BERK 2019.

# Comprehensive Plan Land Use and Zoning

Most of the land in the study area is designated and zoned Residential-Activity Center (R-AC) which allows for different mixes of residential, commercial, and industrial uses. See Table 4 and Figure 3.

In general, low density residential areas outside of the designated Regional Growth Center (RGC) are regulated through a single zoning designation. Commercial areas, including all areas within the RGC, are regulated through a combination of zoning designations.

Bothell Municipal Code (BMC) Title 12 contains the zoning regulations that control the location and development of land within the city of Bothell. Zoning classifications may be applied separately or, where more than one category of land use is designated as appropriate by the Imagine Bothell... Comprehensive Plan, in combination. Where more than one classification is designated, the most permissive regulations of the combined zones shall apply, unless specifically provided otherwise (BMC 12.04.020). BMC Chapter 12.48 contains subarea-specific zoning regulations that are applicable in addition to the city-wide zoning regulations; where more restrictive, subarea regulations take the place of city-wide zoning regulations.

**TABLE 4. CANYON PARK LAND USE DESIGNATIONS AND ZONING DISTRICTS – FULL STUDY AREA**

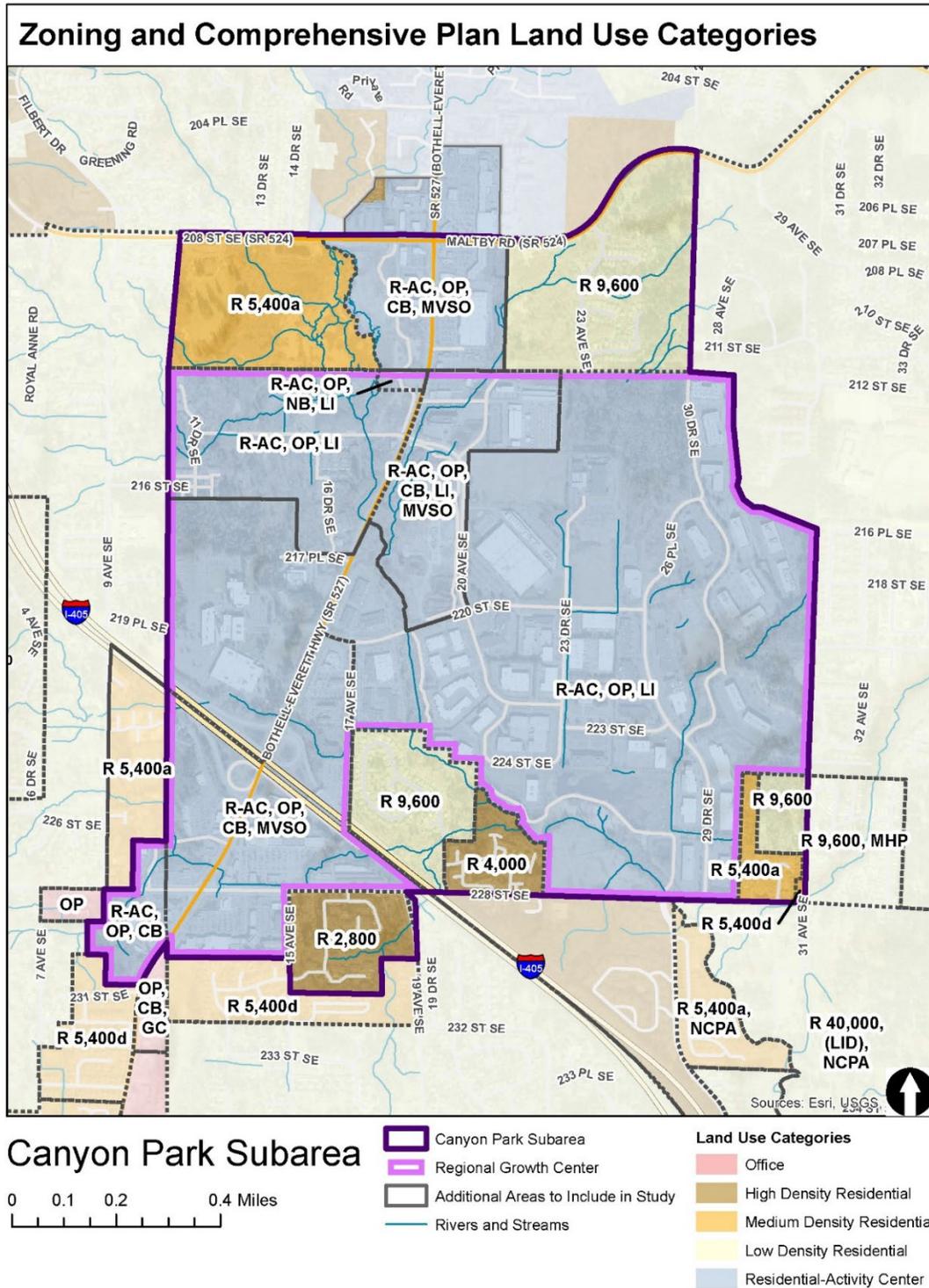
Category	Acronym	Acres	Percent
Residential 1 dwelling unit per 2,800 sq. ft. of net buildable area	R 2,800	24.2	3%
Residential 1 dwelling unit per 4,000 sq. ft. of net buildable area	R 4,000	13.7	1%
Residential 1 dwelling unit per 5,400 sq. ft. of net buildable area (attached or detached units permitted)	R 5,400a	55.9	6%
Residential 5,400 sq. ft. minimum lot size (only detached units permitted)	R 5,400d	0.3	0%
Residential 9,600 sq. ft. minimum lot size	R 9,600	105.8	11%
Residential-Activity Center <sup>1</sup> Office-Professional, Community Business	R-AC, OP, CB	14.9	2%
Residential-Activity Center, Office-Professional, Community Business, Light Industrial, Motor Vehicle Sales Overlay	R-AC, OP, CB, LI, MVSO	55.3	6%
Residential-Activity Center, Office-Professional, Community Business, Motor Vehicle Sales Overlay	R-AC, OP, CB, MVSO	106.4	11%
Residential-Activity Center, Office-Professional, Light Industrial	R-AC, OP, LI	535.0	57%
Planned Community Business - Snohomish County	PCB	2.8	0%
Mobile Home Park - Snohomish County <sup>2</sup>	MHP	1.9	0%
Urban Center - Snohomish County <sup>2</sup>	UC	18.7	2%
Grand Total		934.8	100%

<sup>1</sup>Number of units controlled by site and building envelope regulations.

<sup>2</sup>Snohomish County designations are confined to the Additional Area for Study north of SR 524, outside the adopted Canyon Park Subarea.

Source: City of Bothell, BERK 2019.

Figure 3. Zoning and Comprehensive Plan Categories



Source; City of Bothell, BERK 2019.

## Comprehensive Plan Designations

**Residential – Activity Center (R-AC):** This designation shall provide for multi-family residential development in designated activity centers, and is intended to promote a variety of housing types in sufficient numbers to support a range of shopping, dining and entertainment opportunities within those centers. No specific density is prescribed: the number of units which may be constructed on an individual property or within the center shall be controlled by site and building regulations concerning height, parking, landscaping, setbacks and other aspects of development.

**Office-Professional (OP):** This designation shall include personal and professional service businesses which commonly locate in office buildings, such as banks, medical and dental clinics, accounting, law, real estate, insurance, travel agencies and similar businesses.

**Community Business (CB):** This designation comprises most retail, dining, entertainment and similar businesses which are conducted primarily indoors. Such uses include but are not limited to grocery stores, drug stores, furniture stores, clothing stores, book stores, music stores, restaurants, movie theaters, and bowling alleys.

**General Commercial (GC):** This designation comprises more intensive retail and service uses than described under Community Business above. General Commercial uses typically require outdoor display and/or storage of merchandise and tend to generate noise as a part of their operations. Such uses include but are not limited to auto, boat and recreational vehicle sales lots, tire and muffler shops, equipment rental, and mini-warehouses and vehicle storage.

**Motor Vehicle Sales Overlay (MVSO):** This overlay designation shall allow motor vehicles sales on properties designated Community Business (CB) in specified locations where such development has been determined to be appropriate due to meeting three or more of the following criteria:

- Abut an arterial street;
- Adjacent to an intersection of two State Routes;
- The presence of intense retail activities in the vicinity including proximity to properties currently conducting motor vehicle sales; and
- The presence of an existing screening type landscape buffer or the ability to create such a buffer between any property designated MVSO and residential properties.

Policies concerning the design and/or operation of motor vehicles sales shall be set forth in the Subarea Plan in which a MVSO is located. The Motor Vehicle Sales Overlay provides for an additional use within, but does not replace, the underlying plan designation.

**Light Industrial (LI):** This designation comprises non-polluting manufacturing and processing, wholesaling, warehousing and distribution and other similar activities. Such uses tend to require large buildings and to generate more large truck traffic than do other types of land uses.

**Park (P):** This designation shall include public neighborhood, community and regional parks and recreation facilities. Potential sites for parks and recreation facilities shall be denoted on the plan map by the letter P in brackets to indicate that a facility is appropriate in an area but that the exact location may not yet be determined. Depiction of an existing or potential park site shall not supersede the underlying Comprehensive Plan designation.

**Open Space (OS):** This designation shall be assigned to land which has been preserved as undisturbed natural open space, through purchase by the City or other public entity, acquisition of development rights, or other mechanism. Potential dedicated open space is denoted on the land use allocation map by the letters OS in brackets to indicate that preservation of land as open space is appropriate, but that the exact location and amount of land to be reserved may not yet be determined. It is intended that a corridor with a minimum width of 50 feet to enhance wildlife movement shall be preserved within these areas. Depiction of existing or potential open space shall not supersede the underlying Comprehensive Plan designation. The basis for establishment of an open space system shall be the existing network of heavily treed steep slopes, wetlands and waterway corridors depicted in Figure LU-54. A second component of open space is the aesthetic concept termed the 'feathered edge'. The feathered edge comprises the silhouette of hillside or hilltop coniferous trees against the sky, and is an important part of Bothell's visual character. Such treed areas also provide habitat and retard erosion and runoff. Trees which constitute the feathered edge typically are those located along ridgelines and for a distance of 50 to 75 feet or more downhill from the ridgelines. The City shall strive to preserve the feathered edge through the imposition of clearing restrictions on development proposals located on or near ridgelines and hilltops. The feathered edge is mapped on Figure LU-65.

**R 9600:** This designation provides for detached residential development at minimum lot sizes of 9,600 square feet, or as amended by land use techniques including, but not limited to, clustering, planned unit development, Low Impact Development, lot size averaging and lot rounding and other applicable development policies regulations and standards, and compatible uses such as schools and churches. In the R 9,600 designation, limited lot size averaging shall be allowed. Under this approach, the total area of all lots within a proposed R 9,600 subdivision divided by the number of lots shall amount to an average lot area of at least 9,600 square feet: 20 percent of lots in such a subdivision may be smaller than 9,600 square feet, but no smaller than 8,400 square feet nor larger than 14,400 square feet.

**R 5400a, R2800:** These designations shall provide for attached or detached residential development at one dwelling unit per 5,400 and 2,800 square feet of net buildable area, or as amended by land use techniques including, but not limited to, clustering, planned unit development, Low Impact Development, lot size averaging and lot rounding and other applicable development policies regulations and standards, and compatible uses such as schools, churches and day care centers. Generally, these designations are appropriate for land which is located convenient to arterials and to business and commercial activity centers.

## Buildable Land Capacity

Under the State of Washington Growth Management Act, each County and City is required to provide sufficient land capacity for added population to meet growth targets assigned by counties in consultation with cities. Many counties including Snohomish and King Counties also assign housing and employment targets.

Bothell found that its 2014 Comprehensive Plan did not provide enough population capacity. In 2015, Bothell added opportunities for mixed uses in the Canyon Park study area. The capacity for jobs and housing was increased by amending the zoning of portions of the study area to include the Residential-Activity Center designation; see Table 5 and Table 6.

**TABLE 5. BOTHELL COMPREHENSIVE PLAN POPULATION CAPACITY**

County (portion)	2014 OFM*Pop. Est.	2035 Pop. Target (net)	Current (2014) plus target population	Pop. Capacity (2014 Pop. + Pop. capacity)	Population Capacity Surplus (+) or Deficit (-)	Canyon Park: Additional population capacity
King	24,610	6,495	31,105	35,263	+4,158	
Snohomish	17,020	6,940	23,960	20,406	-3,544	4,498
<b>Totals</b>	<b>41,630</b>	<b>13,435</b>	<b>55,065</b>	<b>55,669</b>	<b>See note</b>	

\*Washington State Office of Financial Management

Note: A total population capacity is not given for both combined counties, since surplus in one county cannot be used to offset a deficit in another county. All numbers in the above table are stated in terms of population (persons)

**TABLE 6. BOTHELL COMPREHENSIVE PLAN EMPLOYMENT CAPACITY**

County (portion)	Employment Target (2035) (additional jobs)	2035 Employment Capacity (surplus jobs [+] or deficit [-])	Canyon Park: <b>Additional employment capacity</b>	Expanded Red Barn Village
King	3,097	6,344 (+3,247)		
Snohomish	4,960	5,500 (+540)	753	807

Note: Current employment figures are not shown due to the constantly changing nature of employment numbers.

The Canyon Park study area is mostly developed or partially developed. A small amount is in active permit review, or in the “pipeline”, and some is redevelopable or vacant. About one third of the land is mapped as critical area and protected from alteration. See Table 7.

**TABLE 7. CANYON PARK PROPERTY BUILDABLE LAND STATUS**

<b>Property Status</b>	<b>Acres</b>	<b>Critical Area Acres</b>
Developed	472.5	245.3
Partially-Used <sup>1</sup>	352.4	48.4
Pipeline <sup>2</sup>	30.7	3.1
Redevelopable <sup>3</sup>	33.4	2.7
Vacant	45.8	2.4
<b>Grand Total<sup>4</sup></b>	<b>934.8</b>	<b>302.0</b>

<sup>1</sup>Partially-Used: For commercial, industrial, and mixed-use zones, the floor area ratio is usually less than 25% and the building improvement to land value ratio is greater than 100%.

<sup>2</sup>Pipeline: Properties in permit review.

<sup>3</sup>Redevelopable: For multi-family, commercial, industrial, or mixed-use zoned or designated land, existing buildings valued at less than 100% of the land value are usually considered potentially redevelopable.

<sup>4</sup>Total acres are net parcel acres excluding public rights of way. With rights of way total acres are 1,037.

Source: Snohomish County Tomorrow 2012, Snohomish County Assessor 2018, BERK 2019.

The *2012 Buildable Lands Report for Snohomish County* calculated capacity in the Canyon Park Study Area based on Vacant and Redevelopable Land. Redevelopable lands includes parcels where the improvement value is less than 100% of the land value. The City added capacity for mixed uses on Redevelopable land in its 2015 Comprehensive Plan as described above.

It appears that Partially Developed Land was not identified in the *2012 Buildable Lands Report* and not in the City's capacity analysis of its 2015 R-AC additions in the Canyon Park area. See Figure 4. The 2012 Buildable Lands Report defines Partially Developed land as developed to 25% of allowed building space even if building value exceeds more than 100% of the land value.

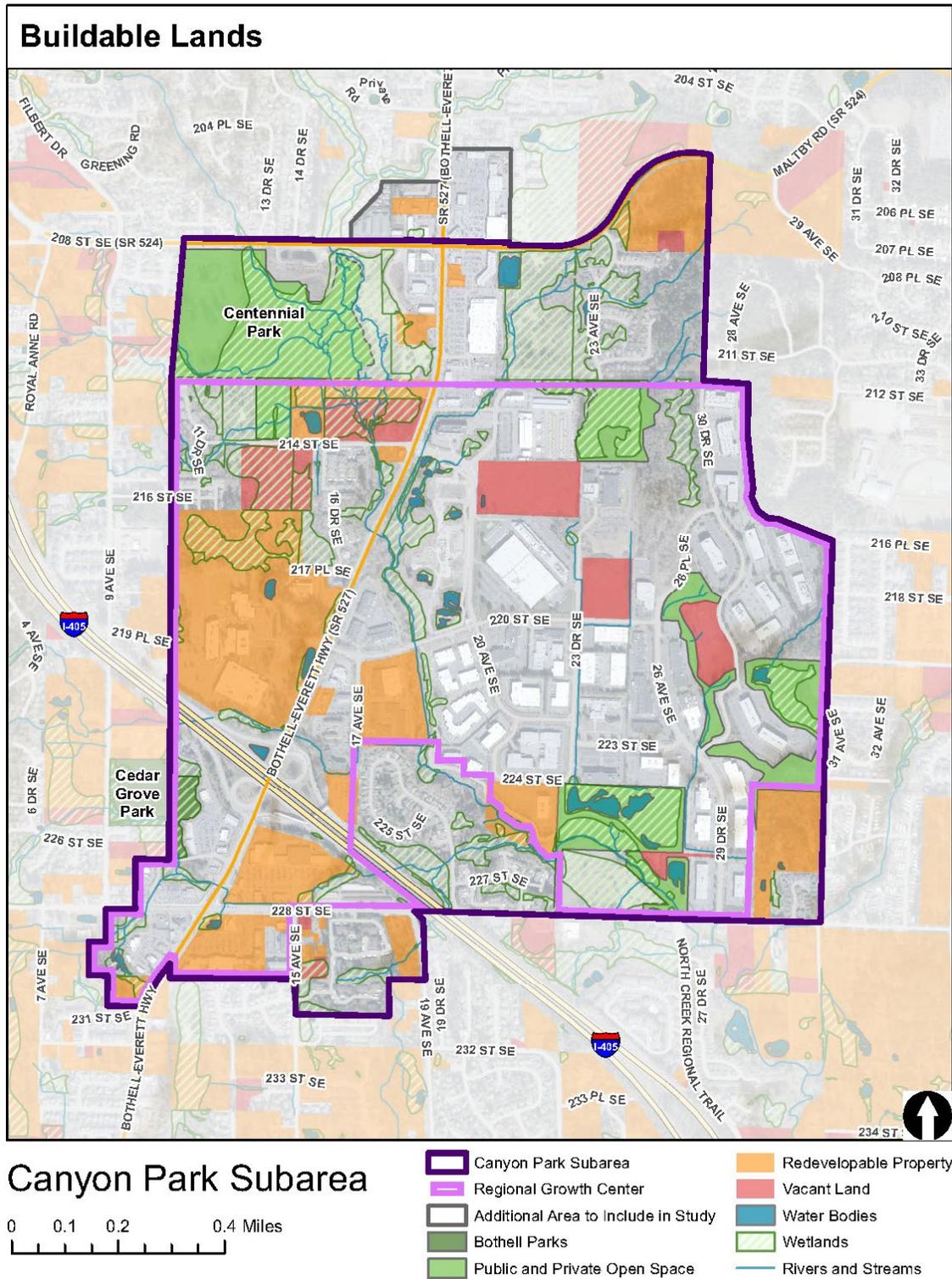
Figure 5 and Table 8 show updated population and employment capacity conditions based on updated Snohomish County data (excluding critical areas and applying similar market availability factors as the 2012 report). The resulting population capacity is similar to the City's results in 2015 (4,350 versus 4,498) and the employment results are greater. Adjusting some of the assumptions about the share of property that could be used for residential and commercial in mixed use formats could alter the results (e.g. greater population, less employment).

**TABLE 8. CANYON PARK CAPACITY REVIEW**

	Full Study Area Population Capacity	RGC Population Capacity	Full Study Area Employment Capacity	RGC Employment Capacity
Redevelopable Land	284	126	448	393
Partially Developed Land	2,204	1,652	3,704	3,508
Pipeline Development	1,600	1,600	6	0
Vacant	262	196	795	746
<b>Total</b>	<b>4,350</b>	<b>3,574</b>	<b>4,953</b>	<b>4,647</b>

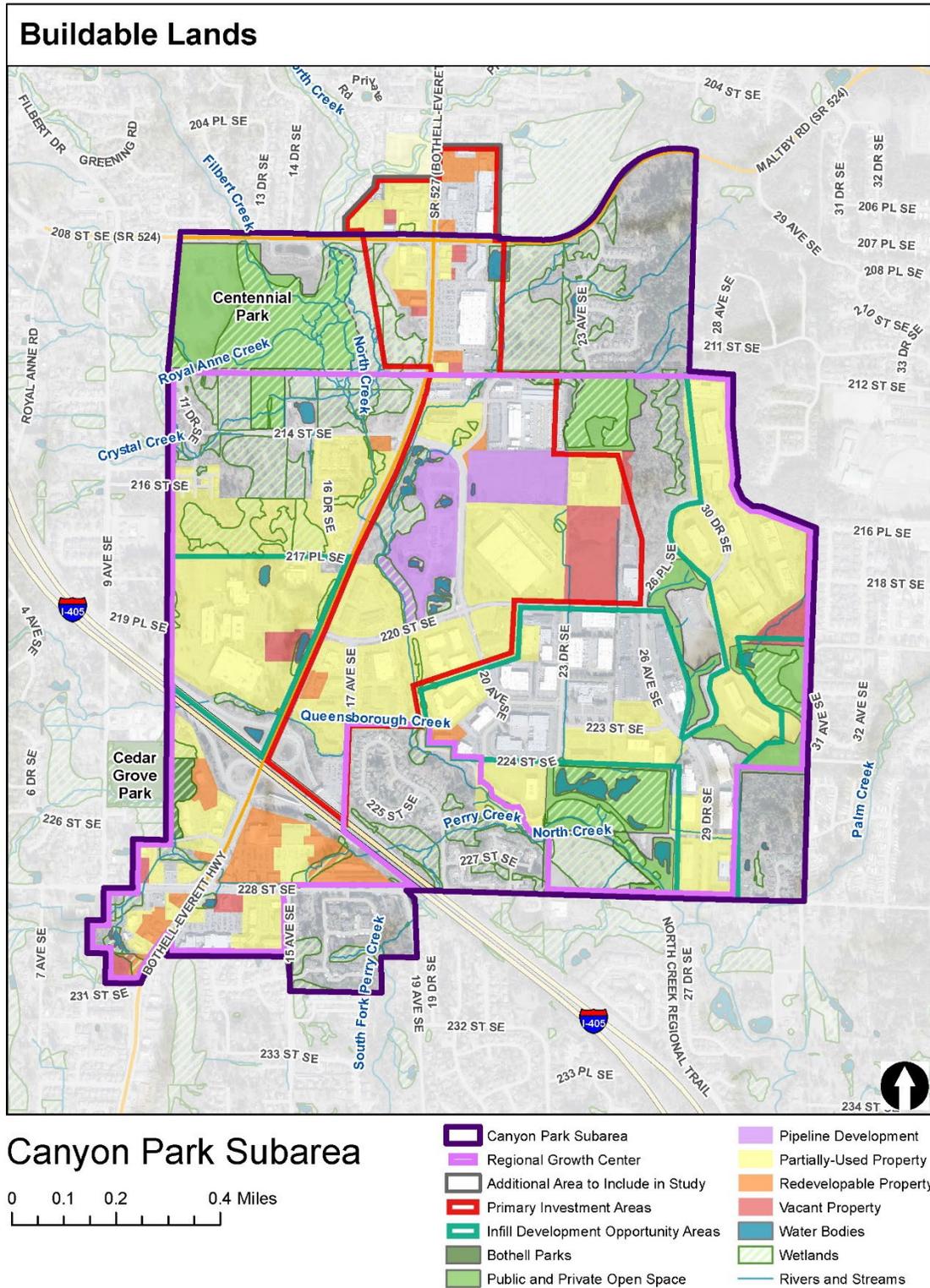
Source: Snohomish County Tomorrow 2012, Snohomish County Assessor 2018, BERK 2019.

Figure 4. Canyon Park Buildable Lands Map 2012



Source: Snohomish County Tomorrow 2012, BERK 2019.

Figure 5. Canyon Park Buildable Lands Map 2018



Source: Snohomish County Tomorrow 2012, Snohomish County Assessor 2018, BERK 2019.

Adding buildable land capacity to the Comprehensive Plan reported capacity, the maximum activity units per net acre by 2035 is projected to be 31 in the RGC. To achieve 45 activity units per acre in the RGC, some additional job or housing density opportunities could be added in the subarea planning process.

**TABLE 9. ACTIVITY UNITS – CURRENT AND 2035 PROJECTED CURRENT PLANS**

Activity Units	Regional Growth Center Current	Regional Growth Center 2035	Full Study Area Current	Full Study Area 2035
Population <sup>a</sup>	1,773	5,347	3,079	7,429
Employment <sup>b</sup>	10,833	15,480	11,767	16,720
Gross Acres	733	733	1,037	1,037
Activity Units per Gross Acre	17.2	28.4	14.3	23.3
Net Acres <sup>c</sup>	673	673	935	935
Activity Units per Net Acre	18.7	31.0	15.9	25.8

Notes/Sources:

a ESRI Business Analyst – 2018 population, accessed 2019.

b PSRC 2017.

c \*Excludes non-parcel areas but retains private roads

## Implications and Opportunities

### Regional Growth Center Boundaries

PSRC maximum size requirements are set at 640 acres. The current RGC gross acres exceed that standard, as does the larger 1,037 study area. PSRC guidance does not specify gross or net acres.

Through the subarea planning process, the City could consult PSRC on use of gross or net acres. The City could also consider modifying RGC boundaries to retain and add dense job and housing areas and areas that have potential to grow further, and to remove lower density areas that have less relationship to the growth center boundaries and that are not anticipated to grow more.

PSRC guidance indicates centers should have 18 job and population activity units currently and 45 activity units in the future. The current RGC and the Canyon Park Subarea Plan study area do not meet this standard today. The capacity under current zoning would produce less than 45 activity units in the future. There is an opportunity to address added opportunities for jobs and housing in the study area through changes in height, uses, density, and other measures.

# Employment and Market Assessment

The study area for the Canyon Park Regional Subarea Plan represents a major employment hub in the City of Bothell. The primary focus of this has been the Canyon Park Regional Growth Center (RGC) located within the area, which was designated by the PSRC in 1995. This has meant that the neighborhood has been identified to help fulfill regional targets for both residential density and employment intensity in the city and county. To date, significant employment has been supported by the 300-acre Canyon Park Business Center, including light manufacturing and scientific businesses related to biotechnology and medical equipment. The Thrasher's Corner Community Activity Center to the north also provides significant neighborhood and regional commercial uses at the junction of SR 527 and SR 524.

The role of the Canyon Park neighborhood in the economy of Bothell is expected to evolve over time. Expected changes in regional transportation systems will provide more accessibility for the Canyon Park neighborhood, and there is capacity to support additional population and employment growth in the area into the future. This also means that the types of land uses and patterns of development will be changing over time. Understanding the current conditions for real estate, development, and economic activity is essential in guiding future growth in this area to maintain and enhance the benefits of this job center while taking advantage of other opportunities for residential and institutional development.

This section provides information related to the current market conditions and local employment in the study area. This includes:

- Information on current policies and plans applicable to employment and real estate development in this area; and
- Key market and development characteristics related to economic activity and future growth.

## Current Policies and Plans

Under current policies and plans, the Canyon Park study area represents a distinct area in transition. While the RGC within the study area has been recognized as a major job center for the city and region, there has been an effort through policies and initiatives to re-envision this area as a more urban, transit-supported mixed-use hub that includes more residential and retail activity. This reflects a distinct shift in this area and will be supported by ongoing investments in transit.

### 2015 Comprehensive Plan

The *Imagine Bothell...* Comprehensive Plan (2015 revision) includes several distinct policies related to the development of the Canyon Park RGC. Aside from general economic development policies, these components of the Plan highlight the future transition of the RGC into an urban, mixed-use neighborhood while maintaining its role as a regional job center. Relevant portions of the Plan include the following:

- The Economic Development element of the Plan includes goals and policies directed to maintaining employment growth, diversity, and opportunities for the residents of the city and

the region overall. Under this element, the Canyon Park RGC is designated as a "Regional Activity Center" and recognized as having a regional draw for both employment and commercial activity.

- Policy ED-P25 indicates that the City intends for the Canyon Park Regional Activity Center, and the Canyon Park and Thrasher's Corner Community Activity Centers, to become more vital and sustainable mixed-use urban centers. This is supported by Action ED-A33, which calls for adding housing and retail through retrofitting business parks and improving pedestrian connections in the area.
- Plan and code amendments from 2002 eliminated residential density limits from the Canyon Park Regional Activity Center and Community Activity Center. The 2015 Plan provides a revised R-AC (Residential - Activity Center) designation for Canyon Park, which allows for the development of mixed-use residential/commercial projects in the study area. This has allowed sites in the study area to be developed as residential or mixed-use residential/commercial projects.
- Under Action LU-A6, a Transfer of Development Rights (TDR) program was envisioned for this area and other potential urban nodes in the city as part of a potential Local Infrastructure Project Area (LIPA), to be explored as part of an urban design study of the RGC. Although this has not yet been implemented, the designation of the RGC as a receiving site under a TDR program could allow for additional height and density for employment and residential uses.

## 2015 Canyon Park Subarea Plan

The 2015 Subarea Plan for the Canyon Park neighborhood is incorporated into the 2015 *Imagine Bothell... Comprehensive Plan* and includes more detailed policies about the concept and role for the area. Parts of the current Subarea Plan relevant to market conditions and economic development include the following:

- Land Use Policy 1 in the Subarea Plan envisions that the current Thrasher's Corner and Canyon Park Community Activity Centers will remain as neighborhood retail and commercial centers, respectively, providing a mix of uses that supports street-level activity. This includes incorporating residential development into mixed-use projects and incorporating public gathering places to encourage social interaction and community identity.
- Under Land Use Policy 1, the Canyon Park Regional Activity Center is envisioned as an opportunity for both employment growth and supporting residential and mixed-use development in key areas. New residential uses are envisioned as providing a variety of housing types to encourage local employees to live close to where they work.
- Development opportunities for businesses are encouraged through Community Business, Office-Professional, and Light Industrial designations in the subarea.

## VISION 2040 and Framework

Under the current PSRC regional growth strategy (VISION 2040), regional growth is intended to be accommodated within the RGCs as "major focal points of higher density population and employment, served with efficient multimodal transportation infrastructure and services". As

such, countywide targeting processes are used to allocate specific local housing and employment targets to centers like the Canyon Park RGC to accommodate a large proportion of growth.

## Description of Current Conditions

### Employment and Industries

The total employment of the study area was estimated to be approximately 10,000 jobs in 2018, or about 30% of the total employment in the City of Bothell. A breakdown of employment in the study area by sector is provided in Figure 6, and major employers in the area include:

- Philips / Advanced Technology Laboratories Inc, (medical ultrasound systems)
- Seattle Genetics (biotechnology / cancer therapy)
- Romac (water and wastewater pipe products)
- AGC Biologics (biotechnology / protein-based therapeutics)
- Pacific Medical Centers (healthcare services)
- Juno Therapeutics (biotechnology / manufacturing)
- Astarte Biologics (biotechnology / medical research product manufacturing)
- Leviton Network Solutions (home electronics)
- US Food and Drug Administration (regulatory agency)
- Ventec Life Systems (medical product manufacturer / respiratory care)
- T-Mobile (phone / telecommunications)
- Element (materials testing)
- Fred Meyer (general retail)

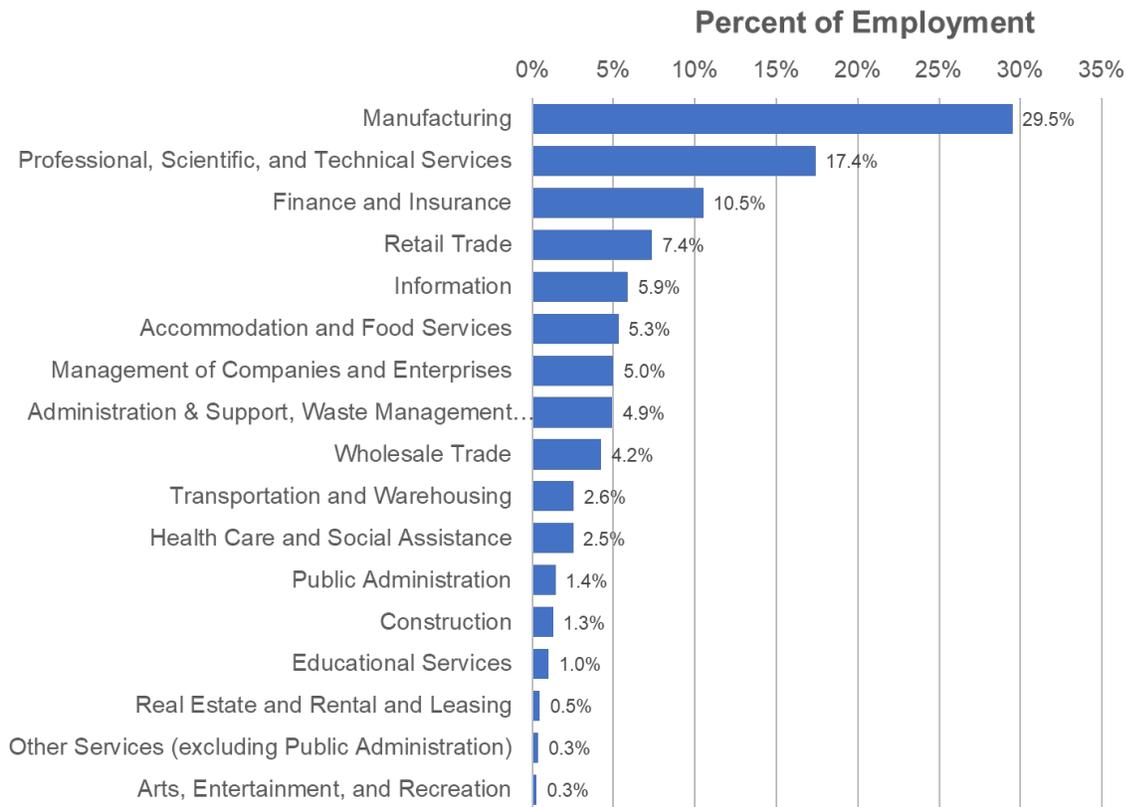
Key characteristics of local employment include the following:

- This area includes a distinct biotechnology cluster, with a significant proportion of the employment in both manufacturing and professional/technical services in the area. These activities are related primarily to the production of biotechnology and medical products, including therapeutic treatments in oncology and immunology. Recognizing the specific needs of businesses in this cluster and developing new amenities and services to support these industries can help to promote the economic health of this job center.
- A wide spectrum of other businesses is also located within the Canyon Park Business Park, which is situated inside of the broader study area. Many of the uses found in the Business Park are likely drawn by the need for flex space and available rents. These include businesses such as See Kai Run (children's clothing), Bothell Gymnastics Club (children's athletics), Grand Event Rentals (party equipment rental), 3Wire Group (food service equipment repair), and Xcelerate Driving School (driving education). An evolution towards higher quality office space in this area could potentially displace these types of businesses,

especially as many of these businesses rely on the lower leasing costs of flex space in the Business Park.

- There are retail commercial businesses in the study area, which are found primarily in centers close to the SR 527 / I-405 junction and to the north of the study area in Thrashers Corner. However, these businesses are not well connected to much of the Business Park, and there are only limited retail and restaurant offerings found within the Business Park itself.

Figure 6. Proportion of local employment, by sector, 2015.



Source: US Census Bureau, 2018.

## Real Estate Market Data

A summary of the total amount of commercial real estate in the Canyon Park study area is provided in Table 10. Information on the real estate market conditions for the area is provided in Figures 7 and 8, with 5-year average growth rates in lease rates provided in Table 10.

Comparisons to these local conditions are provided using broader statistics from the Seattle metro region.

Key elements from these statistics include the following:

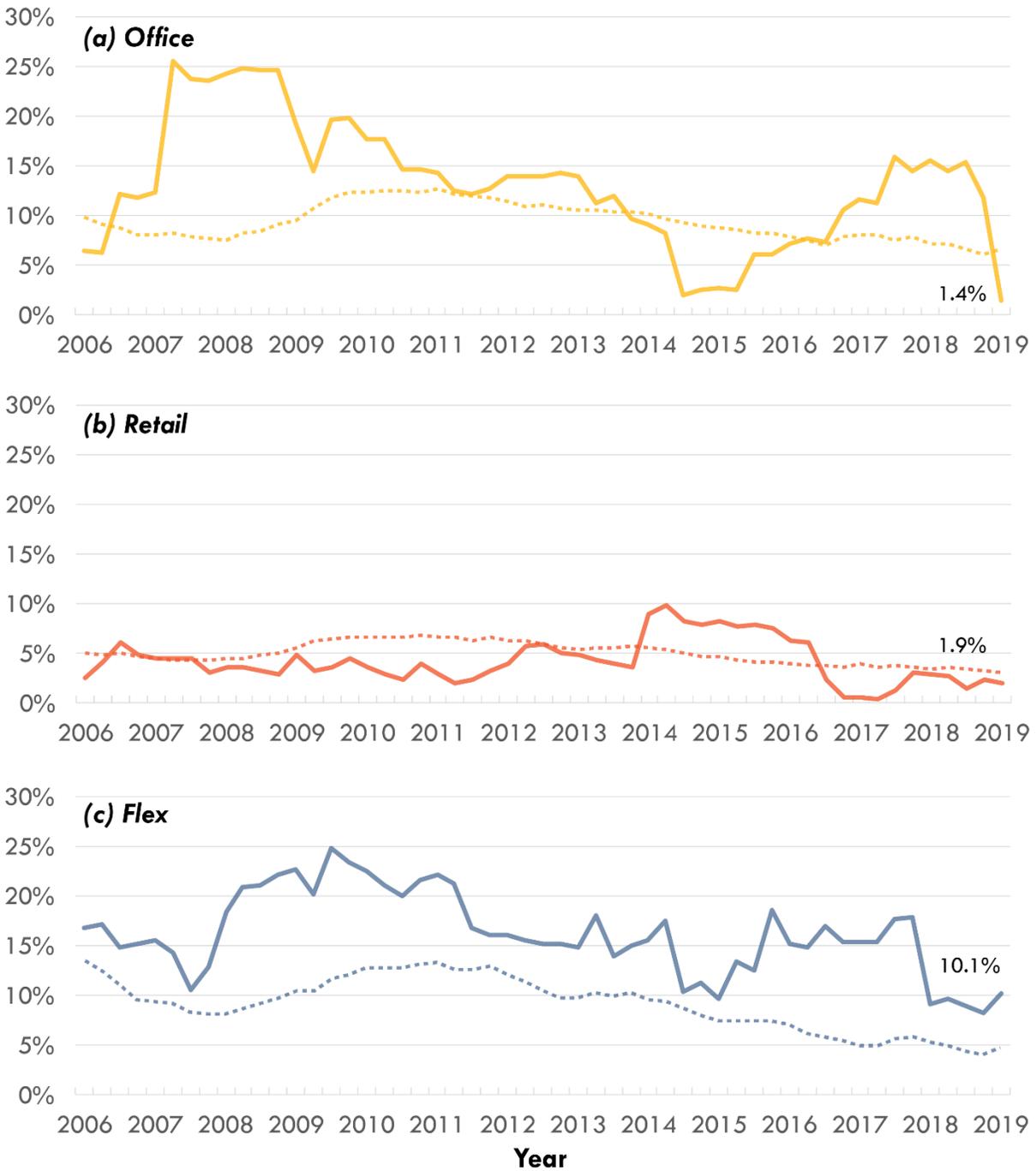
- The primary role of the Canyon Park area has been as a job center, accommodating business activity in available office and flex space in the neighborhood. Rents for office space tend to be slightly lower with slightly higher rents for flex space than average, and the area has a notable number of scientific, research, and light manufacturing uses that may require a larger amount of cheaper space.
- Flex space in the study area, which largely accommodates light manufacturing and professional and scientific services businesses in the area, draws slightly higher rents than regional market averages, but has consistently had higher vacancy rates than other flex space in the regional market.
- Office space in the Canyon Park area tends to have lower rents than the regional average. While vacancy rates have generally been higher, these rates were lower than regional averages for 2014–2016 and have very recently declined below the regional average as well.
- Vacancy rates for retail space in the area has been consistently lower than the regional average, with rents that have been higher. This development type is primarily associated with the uses to the north of the study area along SR 527, within and just outside of Thrashers Corner.
- Overall, the growth in local lease rates over the past five years has been notable but slightly lower than the regional average, especially with respect to office space. While this can help to support tenants that require lower cost spaces, it may also indicate that this area may be less competitive in attracting higher-end tenants into available spaces.
- Local retail rents suggest a higher likelihood that mixed-use development in the neighborhood could be feasible and profitable, especially with restaurant and retail uses that complement existing uses in the area.
- Plans to promote new development in the neighborhood should balance the appeal of more intensive mixed-use development with the need to retain affordable space for businesses like the current tenants of the Business Park and surrounding areas. The conversion of flex space and increases in rents could result in the loss of affordable space for tenants, including startups and small businesses, and increase turnover in the area.

**TABLE 10. COMMERCIAL INVENTORY SQUARE FOOTAGE, CANYON PARK STUDY AREA, 2019.**

<b>Real Estate Type</b>	<b>Total Square Footage</b>	<b>% of Total</b>
Flex	2,326,369	43%
Office	1,632,064	30%
Retail	742,103	14%
Industrial	421,594	8%
Other	338,598	6%
<b>Total</b>	<b>5,460,728</b>	

Figure 7. Vacancy rates, Canyon Park study area and region, 2006–2018.

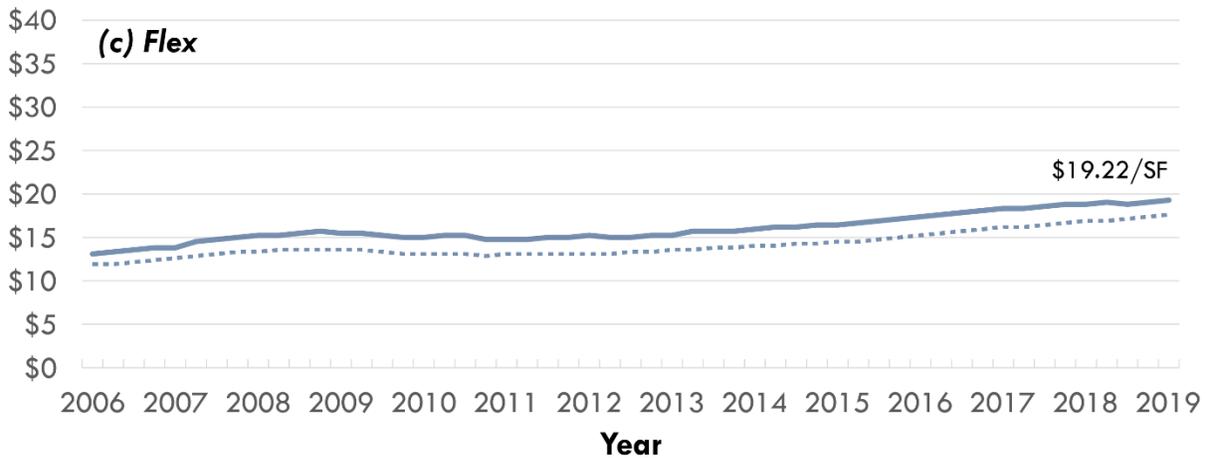
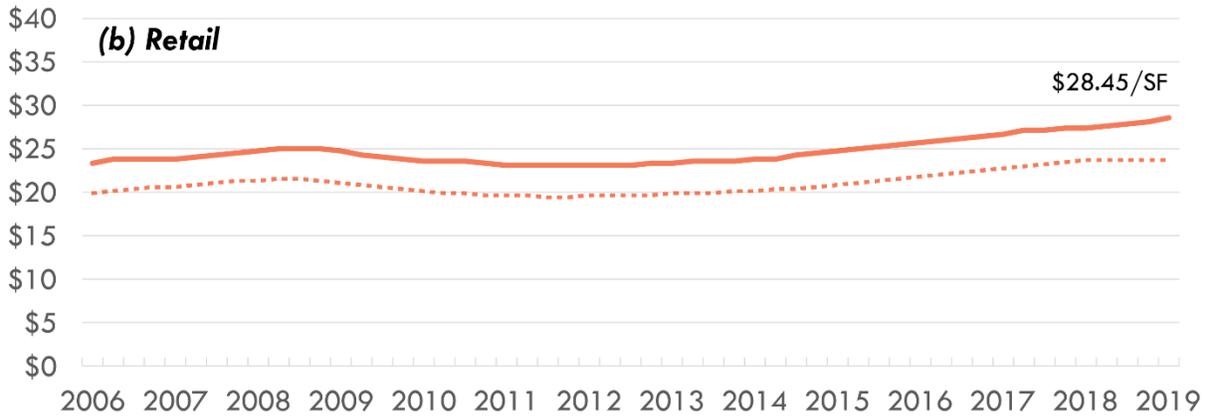
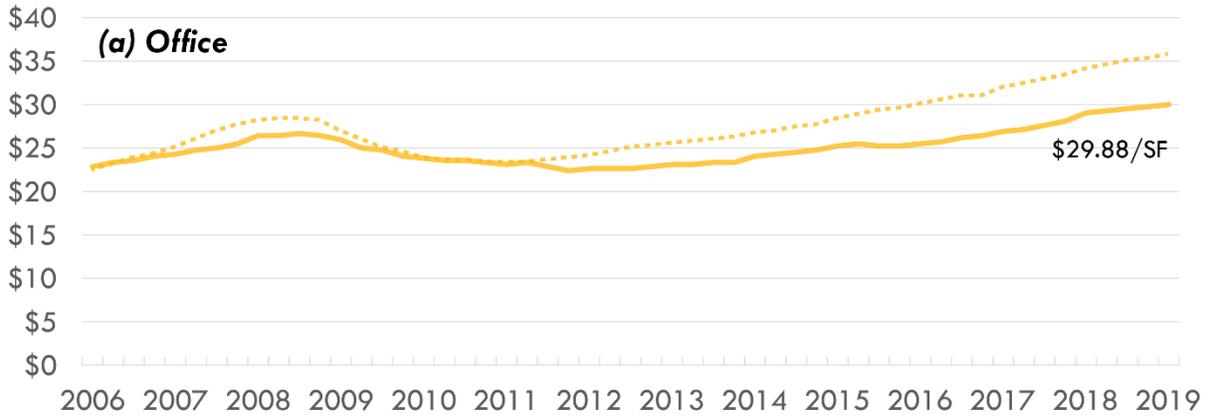
**Vacancy Rate**



Source: CoStar, 2019.

Figure 8. Rent rates per square foot, Canyon Park study area and region, 2006–2019.

**Rent / SF**



Source: CoStar, 2019.

**TABLE 11. LEASE RATES AND GROWTH, CANYON PARK STUDY AREA AND REGION, 2019.**

Type	Study Area		Region	
	5-Year Growth Rate	Average Rent/SF, 2019Q1	5-Year Growth Rate	Average Rent/SF, 2019Q1
Flex	4.2%	\$19.22	5.0%	\$17.58
Office	4.6%	\$29.88	6.3%	\$35.72
Retail	3.7%	\$28.45	3.9%	\$23.78

## Land Ownership

A map of land ownership in the study area is provided in Figure 9. Major owners of property in the study area include the following:

**TABLE 12. MAJOR PROPERTY OWNERS, CANYON PARK STUDY AREA**

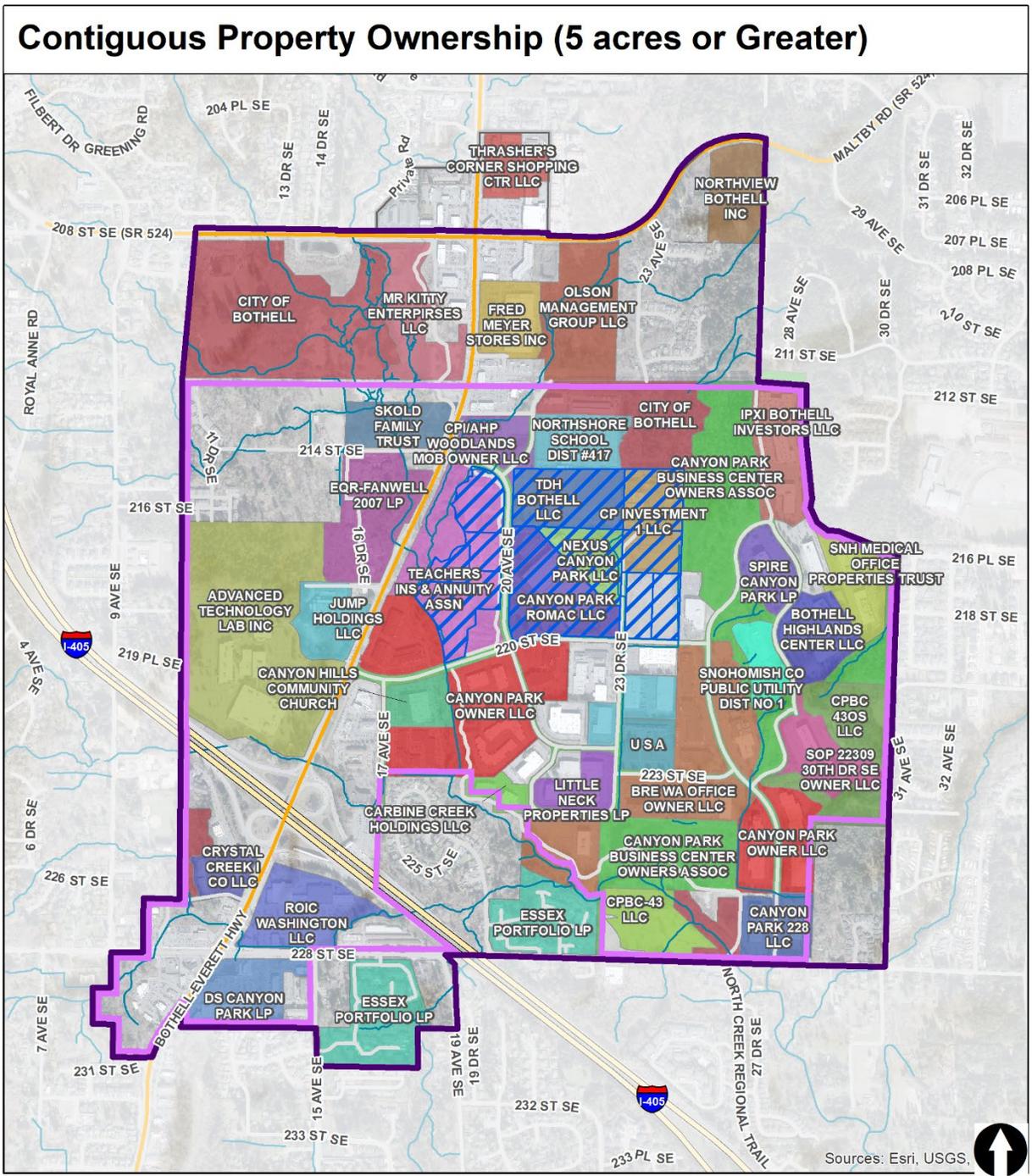
Property Owner	Acres
Canyon Park Business Center Owners Association	85.9
City of Bothell	74.6
Advanced Technology Laboratories, Inc	57.1
Canyon Park Owners LLC	50.3
BRE WA Office Owner LLC	36.9
Essex Portfolio LP	30.5
Teachers Insurance & Annuity Association	28.4
Olson Management Group LLC	18.9
EQR-Fanwell 2007 LP	18.1
CPBC 43OS LLC	17.2
Northshore School District #417	16.2
Canyon Park ROMAC LLC	16.0

Source: Snohomish County Department of Assessments, 2018.

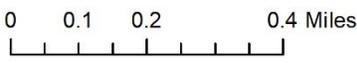
Current property ownership patterns indicate the following:

- The City of Bothell is the largest property holder in the area. These properties include Centennial Park, the City Operations Center, and areas around North Creek. Other institutional landowners are also present in the area, including the Northshore School District, Snohomish Public Utility District No. 1, the US Food and Drug Administration, and the Washington State Department of Transportation.
- The Canyon Park Business Center Owners Association is the largest landholder in the area, with about 86 acres of land within the study area. These lands reflect a significant portion of land within the Canyon Park Business Park and include a significant portion of the lands that would likely be redeveloped as part of revised planning for this area.
- The second-largest private property holder in the area, Advanced Technology Lab Inc, currently holds the Phillips site in the western portion of the subarea. Although these holdings are significant, there are concerns about wetlands and critical areas on this site that may prevent their use for future expansions of facilities on these properties.
- In addition to these sites, there are several other properties in the area that are owner-occupied. This includes the 16-acre ROMAC property and other smaller properties within the Canyon Park Business Center. Businesses on these sites are likely to be more stable in the long-term if rents in the area increase.
- Although the Canyon Park Business Center Owners Association and other locally-focused real estate owners are major landholders in this area, there are several properties that are also controlled by regional and national real estate investment companies. This includes the largest holder of commercial rental property in the study area: BRE WA Office Owner LLC, a subsidiary of Equity Office Properties Trust.
- Companies in the area also control a significant amount of residential property in the study area, including Equity Residential and Essex Portfolio LP, which hold major multifamily developments.

Figure 9. Property ownership, contiguous properties of 5 acres or more, Canyon Park subarea.



### Canyon Park Subarea



- Canyon Park Subarea
- Regional Growth Center
- Additional Area to Include in Study
- Residences Permitted by CC&Rs
- Rivers and Streams

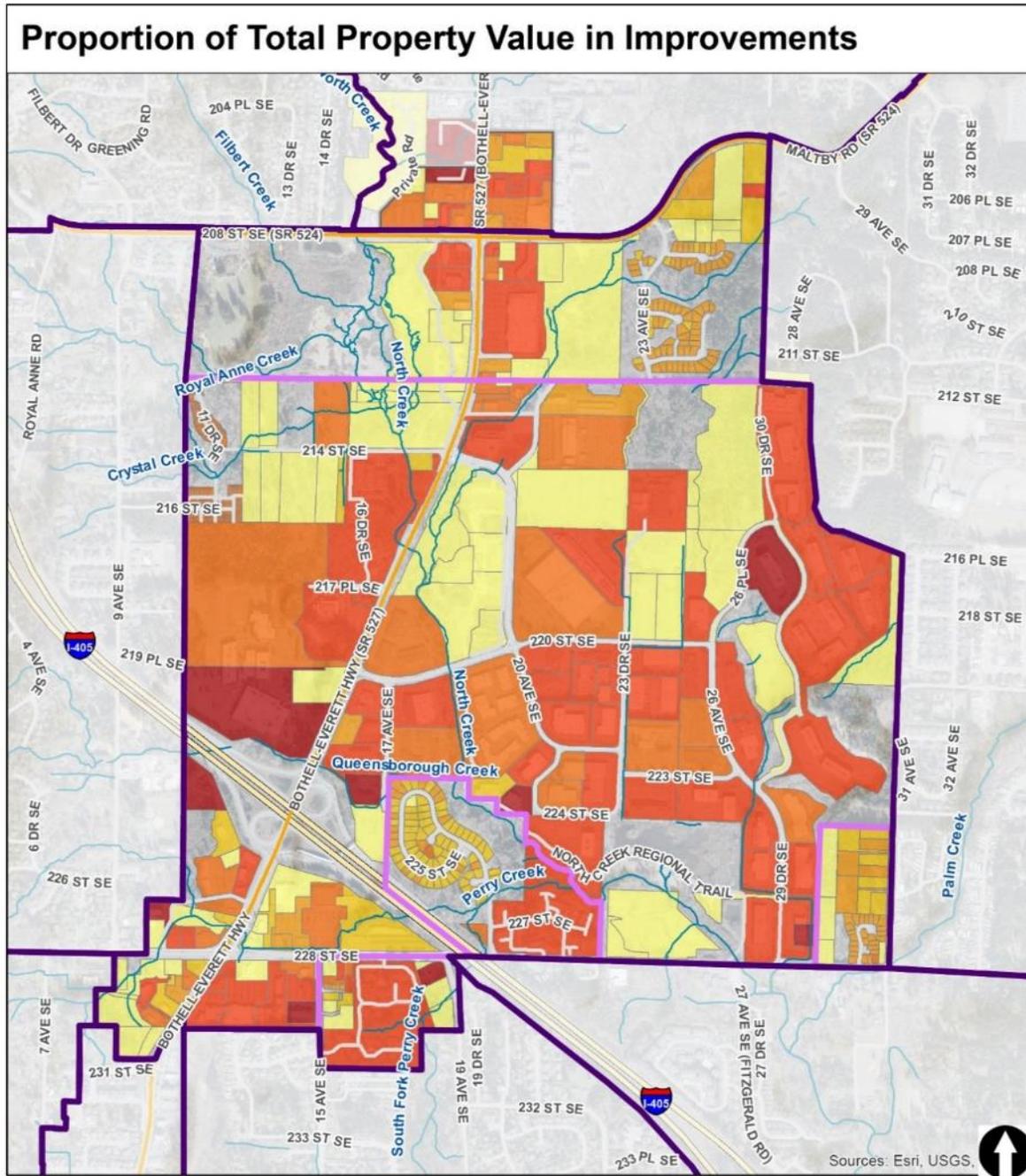
## Land and Building Value Assessment Ratios

Figure 10 provides an assessment of the proportion of the total value of a developed site determined to be from improvements. This is intended to show sites where lower levels of improvement value would suggest development and/or redevelopment opportunities.

The distribution of improvement value in the area indicates the following:

- There are significantly underbuilt parcels located within the Business Park towards the center of the study area. Note that these sites are where residential development is now permitted under the Covenants, Conditions and Restrictions (CC&Rs) for the Business Park and include sites where development applications are currently pending or interest in development has otherwise been expressed (CP Investment #1 and Teachers Insurance and Annuity Association sites, respectively).
- Over the commercial parcels in the area, developed properties generally have assessed improvement values (i.e. value of structures) that constitute greater than 50% of the assessed total value of the parcel. This suggests that under the current real estate market, existing improvements represent higher and better uses that will not likely change in the short-term. This may change based on longer-term trends and investments in the neighborhood, such as with the addition of BRT along SR 527 and I-405, and with possible future investment in neighborhood amenities.
- The existing Canyon Park Office Center property to the north of the current park-and-ride is a Class B office space built in 1990 that has a higher proportion of assessed land value in improvements. At present, this site would be more challenging to redevelop than other locations, especially without increases in allowable development intensity above current zoning regulations. However, improved transit access could provide a significant increase in value and present a possible driver for future redevelopment.

Figure 10. Proportion of total assessed property value in assessed improvement value, 2018.



### Canyon Park Subarea

0 0.1 0.2 0.4 Miles

- Canyon Park Subarea
- Regional Growth Center
- Additional Area to Include in Study
- Rivers and Streams

#### Improvement Value/Total Value

- 0-20%
- 20-40%
- 40-50%
- 50-65%
- 65-85%
- 85-100%

# Implications and Opportunities

From the assessment of current market and economic conditions, the following considerations should be incorporated into planning:

- The Canyon Park study area includes a large job center that incorporates a major biotechnology cluster in the flex and office space found in the Canyon Park Business Park. This area is flanked to the north and south by nodes of retail, service, and restaurant uses that could be positioned to support mixed-use development in this area.
- Although there are examples of businesses in the study area that own the spaces they currently occupy, there are also a number that occupy leased space. Given that flex rents in this area are generally lower than the regional average, many of these businesses may be vulnerable to increases in lease rates if more services and higher-quality amenities are offered.
- There are pending opportunities in the center of the study area for multifamily residential development that could begin to promote the RGC as an integrated live-work area versus an employment center alone. Long-term development of mixed uses, however, will likely require redevelopment of existing flex and office space in the Business Park.
- Areas adjacent to the existing park-and-ride will be well-positioned for future redevelopment that can take advantage of improved transportation accessibility. However, the level of existing investment on these sites, especially on the parcel directly adjacent to the park-and-ride, may delay this redevelopment in the short term.

# Natural Environment

## Current Policies and Plans

To refine and implement the goals of the Washington State Growth Management Act (GMA), the City of Bothell developed the *Imagine Bothell... Comprehensive Plan* containing specific goals and policies that relate to the natural environment and also outline an initial Canyon Park Subarea Plan. As noted in the Comprehensive Plan, the Canyon Park Subarea contains many natural resources including Shorelines of the State, salmonid-bearing streams, steep slopes, wetlands, and wildlife habitat. Goals of the *Imagine Bothell... Comprehensive Plan* seek to preserve, protect and enhance sensitive features of the natural environment while supporting responsible development that encourages economic growth.

The City regulates critical areas in accordance with the Bothell Municipal Code, Title 14, Chapter 14.04, Critical Area Regulations. Shorelines of the State and associated wetlands and critical areas within shoreline jurisdiction are managed under the City's Shoreline Master Program (SMP). The current SMP was adopted in March 2013. According to the SMP, in the Canyon Park Subarea, shoreline jurisdiction includes North Creek plus 200 feet from the ordinary high-water mark, as well as floodways, floodplain areas including the 100-year floodplain, and associated wetlands. Wetlands that extend beyond the 200-foot shoreline area, but contiguous with it, are subject to SMP jurisdiction. Shoreline designations within the Canyon Park Subarea include Natural, High Intensity, Urban Conservancy, and Shoreline Residential.

A small portion of the study area north of 208<sup>th</sup> Street SE / Maltby Road is currently located in unincorporated Snohomish County. Any proposed activities in unincorporated Snohomish County may be subject to critical area regulations contained in Title 30 (Unified Development Code) of the Snohomish County Code. The Snohomish County SMP would also apply if this portion of the study area includes lands within shoreline jurisdiction of North Creek.

## Description of Current Conditions

General conditions in the Canyon Park Subarea for each of the five regulated critical areas (wetlands, critical aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas) are described below. The Canyon Park Subarea boundaries plus a small area to the north (see Figure 1) mark the study area limits for this existing conditions study.

### Wetlands

Many wetlands have been identified within the Canyon Park Subarea, as documented by the City of Bothell (Figure 11). While mapped wetland areas generally appear consistent with field observations, wetland boundaries and conditions often change over time. Site-specific studies are necessary to determine the presence, absence, or change of wetland conditions for individual projects.

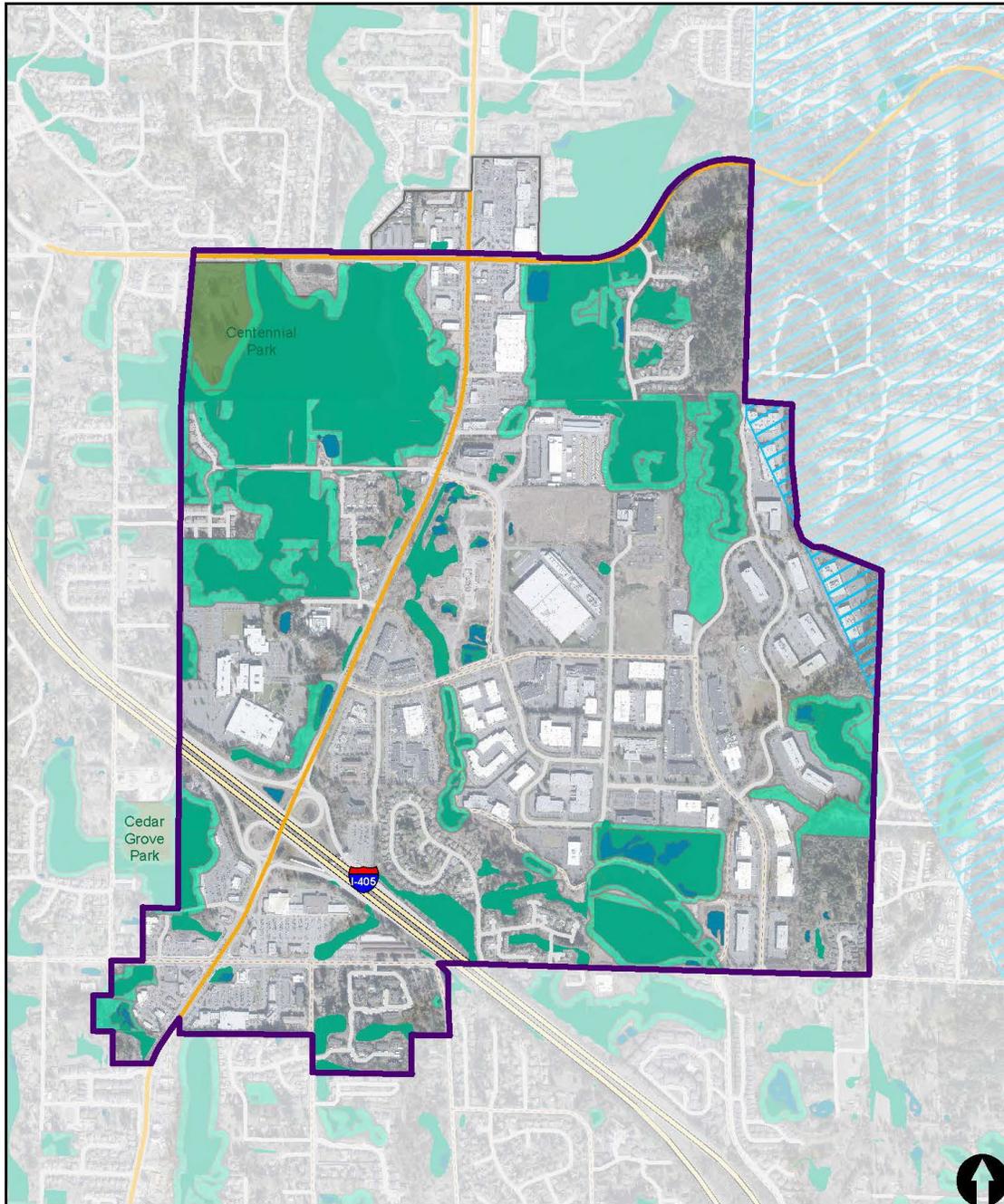
The largest remaining wetland areas in the Canyon Park Subarea are located in the northwest corner of the subarea near Centennial Park (and extending south), the northeast corner of the subarea between Thrasher's Corner and single-family residential development, and at the south end of the subarea, near North Creek. These large wetland units provide important functions and values to the Canyon Park area.

Wetlands continuous with and within 200 feet of a Shoreline of the State are managed under the City's SMP. Several wetlands associated with North Creek fall within shoreline jurisdiction including the large wetland complexes on the north (near Centennial Park) and south sides of the subarea.

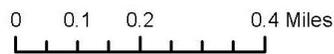
Wetland functions are influenced by physical, chemical, and biological processes that occur within a wetland unit and in the surrounding landscape. In Washington, wetlands are rated based upon three primary functions: water quality, hydrologic, and habitat (Hruby 2014). Wetlands perform water quality and hydrologic functions through a number of processes including water filtration, shoreline stabilization, and flood-water detention. Wetlands also have the potential to support a variety of wildlife species depending upon type and number of vegetation classes and hydroperiods present. Anadromous and resident fish, amphibians, reptiles, mammals, birds, and countless invertebrate species utilize wetland habitats during some portion of their life history cycles. Wetlands can also have cultural and socioeconomic value; and offer opportunities for recreation, education, and research.

Wetland processes that alleviate flooding, improve stormwater control, provide erosion protection, and improve water quality are particularly valuable to protect infrastructure and limit the effects of development on the City's natural resources. Riverine wetlands associated with North Creek are particularly significant because the creek and several of its tributaries support populations of listed salmonids (discussed further in the Fish and Wildlife Habitat Conservation Areas section).

Figure 11. Canyon Park Subarea Existing Conditions: Wetlands and Critical Aquifer Recharge Areas.



**Canyon Park Subarea:**  
Wetlands and Critical Aquifer Recharge Areas



- Canyon Park Subarea
- Additional Area to Include in Study
- Trails
- USEPA Sole Source Aquifer
- Bothell Parks
- Wetlands
- Wetland Buffers
- Water Bodies

Critical area buffers are based on City of Bothell data, retrieved December 2018; not all buffers for wetlands/streams are shown.

Upland vegetated buffer areas protect wetland functions from effects of surrounding land uses. The factors that influence the performance of a buffer include vegetative structure, percent slope, soils, and buffer width and length. Wetland buffers in urban settings commonly include invasive species such as Himalayan blackberry and infrastructure intrusions. Degraded buffer areas provide an opportunity to improve wetland conditions within the City through restoration or enhancement. Wetland buffer widths required by the City of Bothell are provided in Table 13 below based upon wetland category and the associated habitat score. Wetland buffers are depicted in Figure 11 based upon data managed by the City; buffer information is not available for all wetlands depicted. The City is currently in the process of updating their critical areas ordinance.

**TABLE 13. ASSIGNED WETLAND BUFFERS IN BOTHELL**

Wetland Category	Habitat Score	Standard Buffer Width	Minimum Buffer Width
I	20 or greater	125 feet	100 feet
	Less than 20	100 feet	75 feet
II	20 or greater	125 feet	100 feet
	Less than 20	100 feet	75 feet
III	20 or greater	100 feet	75 feet
	Less than 20	75 feet	50 feet
IV	--	50 feet	37.5 feet

Source: City of Bothell Municipal Code

## Critical Aquifer Recharge Areas (CARAs)

The City of Bothell defines Critical Aquifer Recharge Areas (CARAs) as “areas designated by WAC 365-190-080(2) that are determined to have a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2)” (Bothell Municipal Code, Section 14.04.005). An aquifer is a geologic formation that readily transmits water to wells or springs. Where the surficial geology consists of glacial deposits, aquifers are typically the sand and gravel-dominated deposits where there is ample pore space for infiltrated water to be stored and discharged.

CARAs in the Canyon Park Subarea are mapped by Snohomish County’s Planning & Development Services’ (PDS) interactive mapping application (PDS Map Portal). The PDS Map Portal CARAs include the following features: WA Dept. of Health Wellheads, WA Dept. of Health

Wellhead Protection Areas, United States Environmental Protection Agency (USEPA) Sole Source Aquifers, and Snohomish County Wellhead Protection Areas. Of these features, only one USEPA Sole Source Aquifer (Cross Valley Aquifer Area) is present within Bothell city limits; and only a narrow margin of the Cross Valley Aquifer Area is located in the Canyon Park Subarea (Figure 11).

## Frequently Flooded Areas

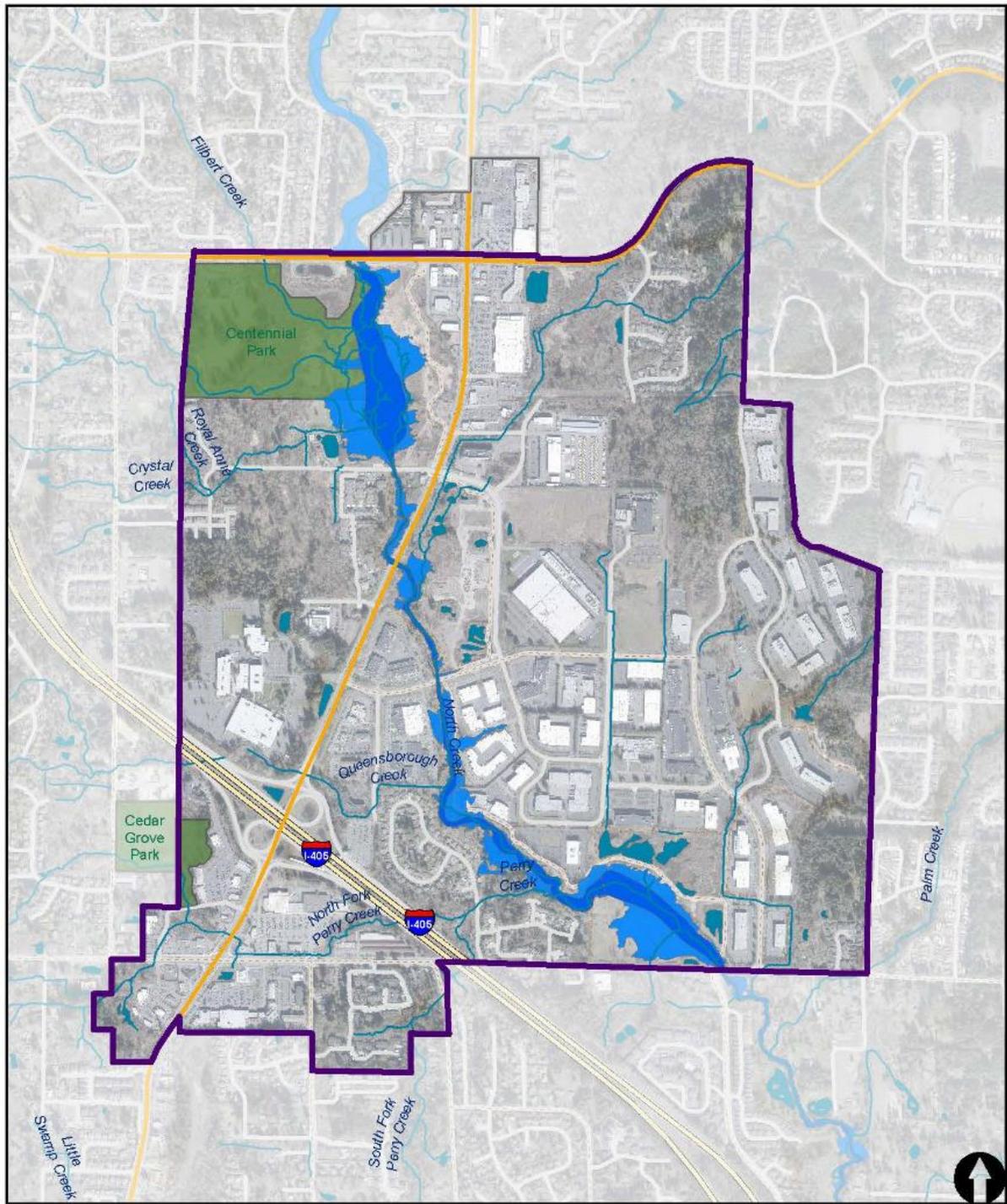
Frequently flooded areas (FFA) are regulated to manage potential risks to public safety. Such areas commonly overlap riparian and buffer areas which also provide valuable instream habitat benefits, such as recruitment of large woody debris, naturally vegetated areas, temporary floodwater storage to attenuate flows, and others. The City of Bothell defines “frequently flooded areas” or “flood hazard areas” under BMC 14.04.005 as lands in the floodplain subject to a one percent or greater chance of flooding in any given year. Such flooding would result from a “base flood” with an average 100-year return frequency, or 100-year flood. According to the code definition, these areas could include, but are not limited to, streams, lakes, wetlands and their associated floodplains, flood fringes, or Federal Emergency Management Agency (FEMA) floodway. Per Bothell code, frequently flooded areas consist of the following components:

- A. *“Floodplain” means the total area subject to inundation by the base flood.*
- B. *“Flood fringe” means that portion of the floodplain outside of the FEMA floodway which is covered by floodwaters during the base flood; it is generally associated with standing water rather than rapidly flowing water.*
- C. *“FEMA floodway” means the channel of the stream and that portion of the adjoining floodplain which is necessary to contain and discharge the base flood flow without increasing the base flood elevation more than one foot.*

The basin of interest within the Canyon Park Subarea is the North Creek Basin. Urban development has altered flows in this basin, creating new flooding problems. Natural floodplains have been modified over decades of clearing, farming, and development.

FFAs are mapped along North Creek within the Canyon Park Subarea (Figure 12). Flooding within the subarea, with its small- to mid-sized streams, is most often triggered by heavy rains, and exacerbated by runoff from impervious surfaces related to development throughout the entire North Creek basin, extending into the headwaters in Snohomish County. FEMA Mapping covering the study area identifies Zone X and Zone AE floodplains along North Creek. Areas with low to moderate risk of flooding are designated Zone X. High risk flood areas determined by base floodplain elevations are designated Zone AE. The City’s 2015 *Imagine Bothell...* Comprehensive Plan and Code Update includes mapping of the 100-year floodplain along North Creek.

Figure 12. Canyon Park Subarea Existing Conditions: Frequently Flooded Areas



Canyon Park Subarea: Flood Areas



- Canyon Park Subarea
- Additional Area to Include in Study
- Trails
- Bothell Parks
- Rivers and Streams
- Floodway
- Floodplain
- Water Bodies

## Geologically Hazardous Areas

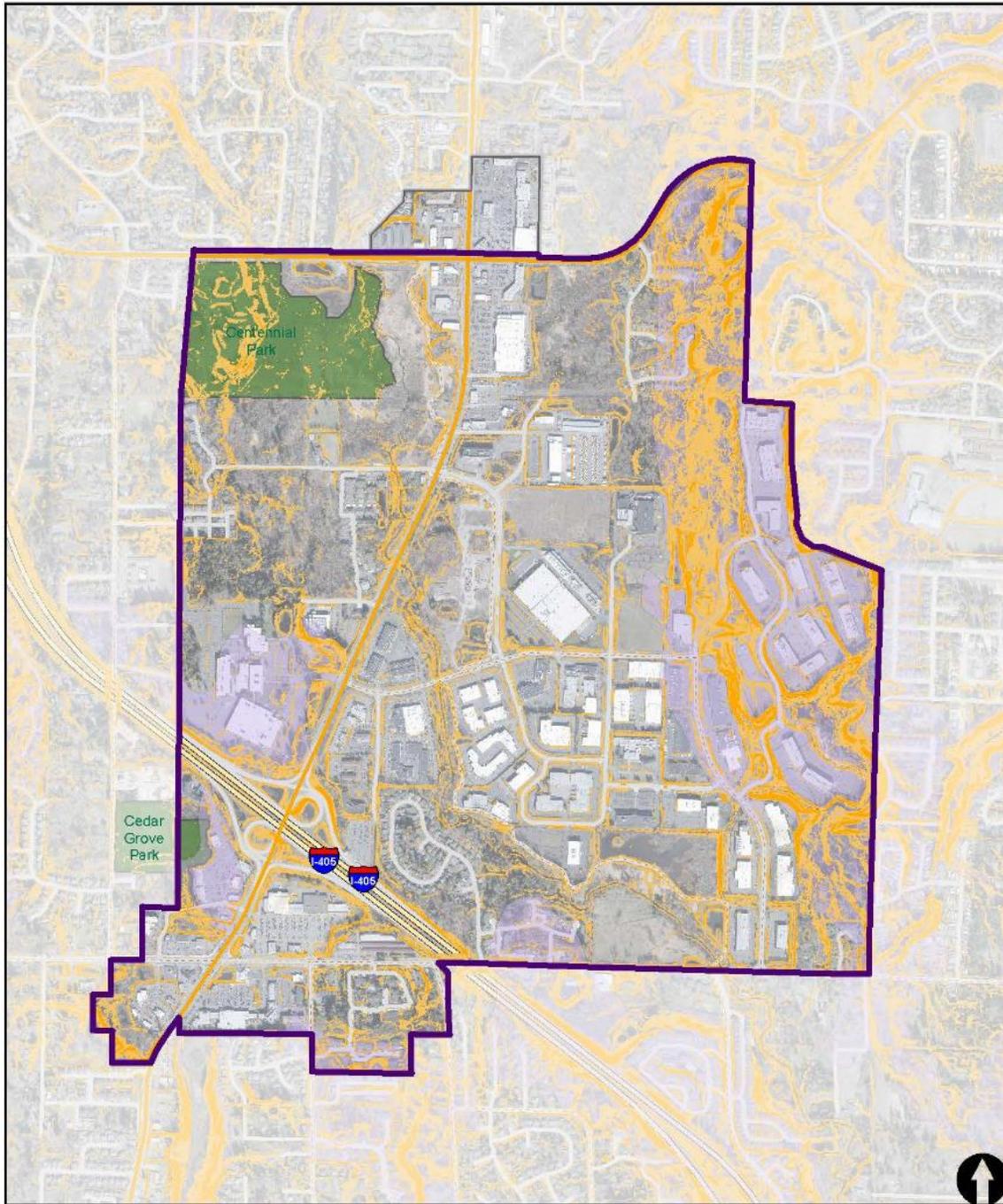
Geologically Hazardous Areas “include areas susceptible to erosion, sliding, earthquake, or other geological events” (BMC 14.04.800). The four types of geologically hazardous areas in the City of Bothell include:

- A. *Erosion hazard;*
- B. *Landslide hazard;*
- C. *Seismic hazard; and*
- D. *Other geologic events including mass wasting, debris flows, rock falls, and differential settlement.*

Like frequently flooded areas, in contrast to most other GMA-mandated critical areas where the goal is to protect a valued resource, the purpose of regulating activities in geologically hazardous areas is not so much to protect the area, but to protect the public from the hazard represented by the area.

Based upon the City’s interactive map (COBMap), the Canyon Park Subarea contains erosion hazard areas (Figure 13). Areas identified as liquefaction- and landslide-prone deposits occur outside of subarea boundaries. Erosion hazard areas are present on the west side of the Bothell-Everett Highway, north and south of Interstate-405; south of Perry Creek near the Salmon Run at Perry Creek Apartments; and in association with steep slope gradients along the eastern portion of the subarea.

Figure 13. Canyon Park Subarea Existing Conditions: Geologically Hazardous Areas



Canyon Park Subarea: Geohazards

0 0.1 0.2 0.4 Miles

- Canyon Park Subarea
- Additional Area to Include in Study
- Trails
- Bothell Parks
- Low Slope (15-40%)
- Steep Slope (>40%)
- Erosion Hazard Areas

## Fish and Wildlife Habitat Conservation Areas

Per Bothell Municipal Code (BMC) 14.04.005, Fish and Wildlife Habitat Conservation Areas (FWHCAs) are “*areas necessary for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created as designated by WAC 365-190-080(5).*” These areas include:

1. *Areas with which state or federally designated endangered, threatened, and sensitive species have a primary association;*
2. *State priority habitats and areas associated with state priority species;*
3. *Habitats of local importance, including but not limited to areas designated as priority habitat by the Washington State Department of Fish and Wildlife;*
4. *Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat, including those artificial ponds intentionally created from dry areas in order to mitigate impacts to ponds;*
5. *Waters of the state, including lakes, rivers, ponds, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington;*
6. *Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and*
7. *State natural area preserves and natural resource conservation areas.*

Known FWHCAs in the Canyon Park Study Area include North Creek, tributary streams passing through and entering North Creek and wetlands (discussed previously). Some state priority species may utilize habitat available in the subarea, often collocated with the critical areas described previously. Each type of FWHCA present or potentially occurring in the Canyon Park Subarea are described below.

### Rivers and Streams

The Canyon Park Subarea contains a network of streams (see Figure 14). The main stream, North Creek, is a defining landscape feature, flowing north to south through the subarea. North Creek is approximately 13 miles long. Its headwaters are located roughly five miles to the north, on a plateau near Everett Mall. From there, it descends through a valley that gradually broadens as it approaches its confluence with the Sammamish River.

North Creek supports runs of federally listed (threatened) Chinook salmon (*O. tshawytscha*) and steelhead trout (*O. mykiss*), as well as coho salmon (*O. kisutch*), a federal species of concern, and sockeye (*O. nerka*), kokanee (*O. nerka*); and coastal cutthroat trout (*O. clarkii*) (Kerwin 2001), all of which are Washington State Priority Species. Table 14 identifies the priority fish species occurring within the Canyon Park Study Area’s water bodies as reported for Watershed Resource Inventory Area (WRIA) 8 and in Washington Department of Fish and Wildlife (WDFW) Priority Habitat Species (PHS) data (WDFW n.d.).

**TABLE 14. PRIORITY FISH SPECIES OCCURRENCE IN THE CANYON PARK STUDY AREA**

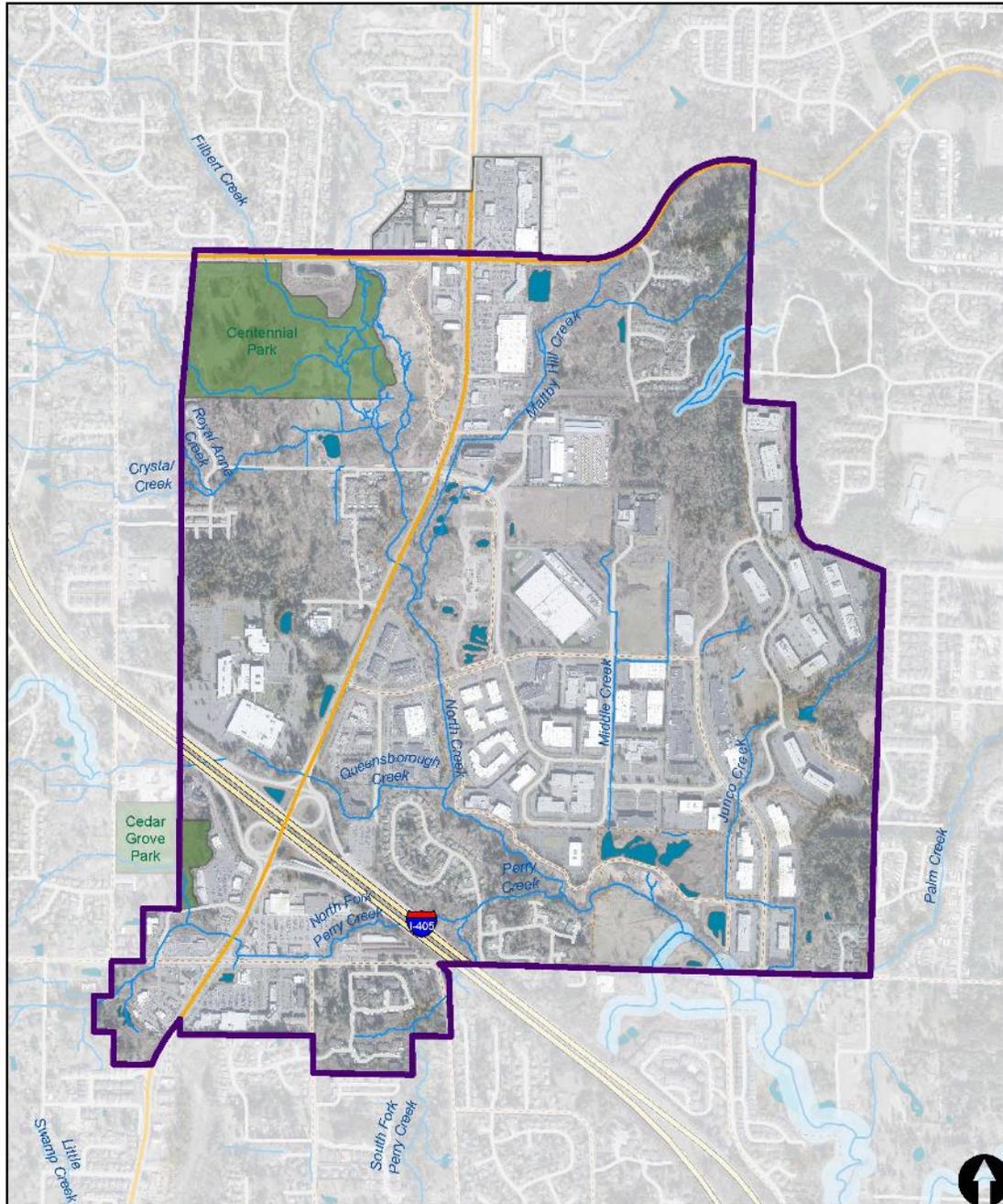
<b>Common Name</b>	<b>Scientific Name</b>	<b>State Status</b>	<b>Federal Status</b>	<b>Water Bodies with Documented Occurrence in the Study Area</b>
Puget Sound Chinook Salmon	<i>Oncorhynchus tshawytscha</i>	Candidate	Threatened	North Creek
Puget Sound Steelhead	<i>O. mykiss</i>	--	Threatened	North Creek
Puget Sound-Strait of Georgia Coho Salmon	<i>O. kisutch</i>	--	Species of Concern	North Creek and lower tributary sections
Sockeye/Kokanee Salmon	<i>O. nerka</i>	--	--	North Creek
Rainbow Trout	<i>O. mykiss</i>	--	--	North Creek
Cutthroat Trout	<i>O. clarkii</i>	--	--	North Creek and lower tributary sections

Source: WRIA 8, WDFW

Throughout the North Creek basin, including within the Canyon Park Subarea, channel complexity and connectivity with the floodplain and adjacent stream reaches have been reduced due to road crossings/culverts, streambank hydromodification, channel incision and instability, and historical and on-going clearing and development in riparian areas. Changes in land-use practices have reduced native riparian forests, altered remaining riparian vegetation, limited in-stream large woody debris recruitment, increased stream temperatures, and altered basin hydrology. The present 2-year flood discharge exceeds the historical 100-year discharge, and 100-year flows have increased by 50 percent (Kerwin 2001).

Along the upstream portion of the subarea associated with Centennial Park (Reach 2, in the Bothell SMP), the well-vegetated streambanks result in relatively stable banks and limit the *rate* of potential channel migration and associated erosion. However, since the reach lies in a low-gradient, depositional area which presently exhibits some channel braiding, channel locations, forms, and braiding patterns can be expected to evolve over time. The broad floodplains are largely depositional areas (Figure 15).

Figure 14. Canyon Park Subarea Existing Conditions: Streams



**Canyon Park Subarea: Streams**

0 0.1 0.2 0.4 Miles

- Canyon Park Subarea
- Additional Area to Include in Study
- Trails
- Bothell Parks
- Rivers and Streams
- Stream Buffers
- Water Bodies

Throughout the remaining, more developed portions of the subarea (i.e., the Regional Growth Center), dense bank vegetation is present along many sections and some areas of armoring remain from past agricultural and commercial land uses. These well-vegetated streambanks as supplemented by armoring result in relatively stable banks and the rate of channel migration and associated erosion is expected to be limited (Figure 16). Where bank erosion does occur, actions will likely be taken to the extent needed to prevent significant channel migration and thereby protect existing development and associated infrastructure. (The section of North Creek within the Regional Growth Center is designated as Reach 3, in the Bothell SMP).



*Figure 15. Extensive riparian floodplain wetlands within the study area along North Creek at Centennial Park. Taken by The Watershed Company, December 2018.*



*Figure 16. Armored and vegetated section of North Creek, centrally located in Canyon Park near 220<sup>th</sup> St. SE. Taken by The Watershed Company, April 2017.*

Water quality parameters were researched on the Washington Department of Ecology website. The Water Quality Assessment Categories referenced below are defined as follows:

*Category 5 (303(d) list) – polluted waters requiring a Total Maximum Daily Load (TMDL) or similar improvement project.*

*Category 4 – impaired waters not requiring a TMDL. 4a – TMDL already in place. 4b – other control program in place. 4c – not suited to a TMDL.*

*Category 3 – Insufficient data to assess water quality for a given parameter (not included below).*

*Category 2 – Waters of Concern.*

*Category 1 – Meets water quality standards.*

North Creek within the Canyon Park Subarea boundaries is on the State's 303(d) list in Category 5 for dissolved oxygen, temperature, and bioassessment, and Category 4a for fecal coliform bacteria. Of note, North Creek is assigned a Category 1 within the study area for the following parameters, and so meets water quality standards for them: ammonia, arsenic, copper, mercury, selenium, and zinc.

In addition to North Creek, seven small, similarly-sized North Creek tributary streams occur within the Canyon Park Subarea. These are mapped on Figure 14. From south to north along the west side of North Creek they are Perry, Queensborough, Royal Anne, and Filbert Creeks. Along the east side, also from south to north, are Junco, Middle, and Maltby Hill Creeks. Palm Creek farther to the southeast is just outside the subarea boundary. Several of these, including Queensborough, Junco, and Maltby Hill Creeks, have been the subject of past relocation and enhancement projects associated with Canyon Park development. A relocated and largely recovered section of Junco Creek is pictured in Figure 17, below.



*Figure 17. A relocated section of North Creek tributary Junco Creek, located behind (east of) 22745 29th Dr SE #200, northeast of the intersection of 228<sup>th</sup> St. SE and 29th Dr SE. Photo taken by The Watershed Company, April 2017*

With the possible exception of Middle Creek, which flows through a large detention facility, these tributary streams are likely used by resident cutthroat trout and juvenile coho salmon, with some use by adult coho along their lower sections as they approach North Creek. These creeks typically headwater in areas of fairly dense residential development and then cross more naturally-vegetated, often-wetland open space areas as they near North Creek. Filbert and Maltby Hill Creeks are both included in the North Creek TMDL for fecal coliform bacteria (Category 4a), and each is also listed as Category 5 for dissolved oxygen and temperature.

The City of Bothell's stream classification system and associated buffer widths under the current code are reported in Table 15. The City is currently in the process of updating their critical areas ordinance.

**TABLE 15. ASSIGNED STREAM BUFFERS IN BOTHELL**

<b>Stream Type</b>	<b>Standard Buffer Width</b>	<b>Reduced Buffer With Enhancement</b>
Type S; or shorelines of the state, or shorelines of statewide significance	100 feet*	75 feet
Type F; or other salmonid bearing streams	100 feet	75 feet
Type Np, or other, perennial, non-salmonid bearing streams	75 feet	50 feet
Type Ns; or other intermittent, non-salmonid bearing streams	50 feet	25 feet

\*Except that the main stem of North Creek located between 240th Street SE and 228th Street SE shall have a stream buffer width of 150 feet.

Source: City of Bothell Municipal Code

## Wildlife Observations

The Canyon Park Subarea includes some large patches of natural vegetation that provide habitat functions to various wildlife species. Retained vegetation patches are often collocated with regulated critical areas (i.e., streams and wetlands) and on steep slopes. These habitat patches are utilized by urban wildlife species.

During field investigations, wildlife species observations were limited to common winter birds (e.g., robin, sparrows, junco, towhee, waterfowl) and North American beaver. The North American beaver presence is discussed because of its implications to the associated stream and wetland systems. The species is regulated as a furbearer by Washington State, subject to trapping licensing, seasons, and other rules. On December 27, 2018, one beaver was observed in flooded riverine wetland southeast of the intersection of Bothell-Everett Highway and 214<sup>th</sup> Street SE. It was observed near a den constructed on what is presumably the edge of road fill associated with Bothell-Everett Highway (Figure 18). Recent beaver activity was apparent during the site visit – large amounts of vegetation had recently been cut and an active dam was obstructing water flow (Figure 19), causing flooding in (and potentially expanding) wetland areas in the vicinity.



*Figure 18. Beaver den in riverine wetland adjacent to Bothell-Everett Highway. Taken by The Watershed Company, December 2018.*



*Figure 19. Beaver dam and recent cuttings in riverine wetland south of 214<sup>th</sup> Street SE. Taken by The Watershed Company, December 2018.*

## Habitat for Priority Species

Vegetation patches in the Canyon Park Subarea have the potential to provide habitat for State priority species but are unlikely to be associated with federally listed species (except for salmonids in North Creek). No state natural area preserves and natural resource conservation areas are known to exist in the subarea. The interactive online application, Priority Habitats and Species (PHS) on the Web (WDFW n.d.), shows no priority species occurrences, breeding areas, regular concentrations, communal roosts, or mitigations corridors as being located within the Canyon Park Subarea.

The greatest potential for priority species presence is in the large riverine wetland complex east of Centennial Park and the ponded wetlands located south of existing businesses in the southern portion of the subarea. At both locations, a variety of vegetation types, hydroperiods, and the presence of nearby standing snags increase the potential of the sites to support priority species. Both locations have also become local birding “hotspots,” for eBird users (eBird 2012) (hotspots known as “Centennial Park” and “Canyon Park Wetlands”). eBird is an application that allows recreational to professional birders to document bird observations, publicly. eBird data is not peer-reviewed or verified, but generally trusted. Based on eBird hotspot data and field observations, the priority species in Table 16 may utilize habitat in the Canyon Park Subarea during some stage of their life history.

**TABLE 16. PRIORITY SPECIES**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Status</b>	<b>WDFW Priority Area</b>	<b>Notes</b>
Pileated Woodpecker	<i>Dryocopus pileatus</i>	State Candidate	Breeding Areas	No breeding areas identified. Likely utilizes large trees in retained forests and standing snags as foraging habitat.
Snow Goose	<i>Chen caerulescens</i>	Priority Species	Regular concentrations	Occasional winter migrant.
Trumpeter Swan	<i>Cygnus buccinator</i>	Priority Species	Regular concentrations	Occasional winter migrant.
Band-tailed Pigeon	<i>Patagioenas fasciata</i>	Priority Species	Regular concentrations	Bird observations rare.
Vaux’s Swift	<i>Chaetura vauxi</i>	State Candidate	Breeding Areas Communal Roosts	Relatively uncommon in summer. Likely forages over open water and wetlands.
Great Blue Heron	<i>Ardea herodias</i>	Priority Species	Breeding Areas	No known rookeries present. Regularly uses wetland and riparian areas for foraging.
Columbian Black-tailed Deer	<i>Odocoileus hemionus columbianus</i>	Priority Species	Regular Concentrations Migration Corridors	May occasionally utilize forested habitat or cleared areas in the Canyon Park Subarea.
Western Toad	<i>Bufo boreas</i>	State Candidate	Any occurrence	Suitable habitat exists, but no known occurrences.
Cavity-nesting Ducks	--	Priority Species	Breeding Areas	No known breeding areas present in the subarea; suitable breeding habitat may exist.

# Implications and Opportunities

The Canyon Park Subarea includes high quality business park uses within the City of Bothell. Existing development is interspersed with retained natural areas that include several types of critical areas, which inhibit the development potential of those lands. Consideration and incorporation of critical areas into Canyon Park Subarea plans will streamline future development proposals, ensure public safety, and provide functions and values to the Canyon Park community.

Beaver presence was documented in one wetland directly adjacent to Bothell-Everett Highway in the subarea. Beaver may also be present in the nearby Centennial Park riverine wetland system. Beaver create dynamic hydrologic systems. In natural settings, the effect of beaver in a landscape results in an increase in certain habitat features (e.g., open water ponds, stumps, and downed wood) which improve habitat functions for some wildlife species. However, in urban areas, beaver activity can result in regular infrastructure flooding, causing maintenance issues and increased maintenance costs. Specifically, current beaver activity and its effects on stream boundaries, wetland edges, and flood levels should be strongly considered in association with any proposal to develop nearby land (i.e., Canyon Park Apartments). The updated Canyon Park Subarea Plan could consider policies that would encourage the preservation of beaver activities while preventing damage to current and future infrastructure.

There are opportunities present within the Canyon Park planning area to combine the natural and built environments in such a way as to allow people to enjoy aspects of the natural setting and also to feel a part of it. Intertwined wetland and stream habitats may be made more accessible and showcased as amenities to include educational and recreational features, such as might be experienced and enjoyed along trails and at viewpoints. A basic trail system exists, and additional viewpoints and interpretive signage could be added, for example, to identify where it might be possible to view spawning and migrating salmon along North Creek or to highlight bird-watching “hotspots” that are currently utilized within the subarea. Additional trail sections could be added where opportunities are identified.

Wetland, stream, and buffer enhancement opportunities are present in the Canyon Park Subarea. The most valuable enhancement areas are located within the North Creek corridor. Restoration activities could mitigate for potential development impacts to critical areas. If the City anticipates a future mitigation need based upon necessary subarea improvements, an advance mitigation plan could be considered to off-set impacts and optimize functional lift of critical areas. Advance mitigation results in ecological benefits, permitting efficiencies, and master planning consistency.

For those in the community interested in hands-on participation, an ongoing program of invasive vegetation removal within the already-established natural areas could be initiated, including replacement with native plants. This would improve the quality of habitat without the need for an expanded buffer footprint using scarce additional space. Design, permitting, and construction needs and costs for such a program would be relatively low, and timelines between conception and implementation short. Community- and volunteer-oriented weed control and replanting projects can give residents and workers a reason to get off the trail, build a sense of community, and take ownership of their surroundings.

# References

eBird. 2012. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available: <http://www.ebird.org>. (Accessed: December 27, 2018).

Kerwin, J., 2001. Salmon and Steelhead Habitat Limiting Factors Report for the Cedar - Sammamish Basin (Water Resource Inventory Area 8). Washington Conservation Commission. Olympia, WA.

Washington Department of Fish and Wildlife (WDFW). (n.d.). WDFW Interactive Mapping Programs. Available: <http://wdfw.wa.gov/mapping/>. (Accessed: December 27, 2018).

# Transportation

This section summarizes the transportation conditions for the Canyon Park subarea. A smaller portion of the Canyon Park subarea is designated as a PSRC Regional Growth Center (shown in yellow in the Figure 20). The City is expected to grow by 24,400 residents and 12,800 employees between 2010 and 2040, and Canyon Park subarea has been zoned to accept some of this forecasted growth.

The area experiences heavy vehicle congestion during commute hours from 1) people traveling to this mostly employment-oriented business park and 2) people traveling through this area to access regional facilities for longer distance trips. In addition, the business park is limited to three signalized access points (214th Street and 220th Street from SR 527, and 29th Drive SE from 228th Street SE). Within the business park, all internal roads are privately owned and likely do not meet City standards. While this area is limited in vehicle connectivity to the City's street system, it does have amenities such as landscaped sidewalks on at least one side of most roadways of varying quality. The sidewalk conditions likely depend on how recently the buildings on the adjacent parcels were built or redeveloped. The area also has the multi-use North Creek Trail (with plans for future connections to the north), a transit park-and-ride, and future enhanced transit service from Community Transit and Sound Transit. The following chapter includes a more detailed discussion of auto, freight, transit, bike and walking modes in the study area, including a summary of relevant transportation plans and policies.

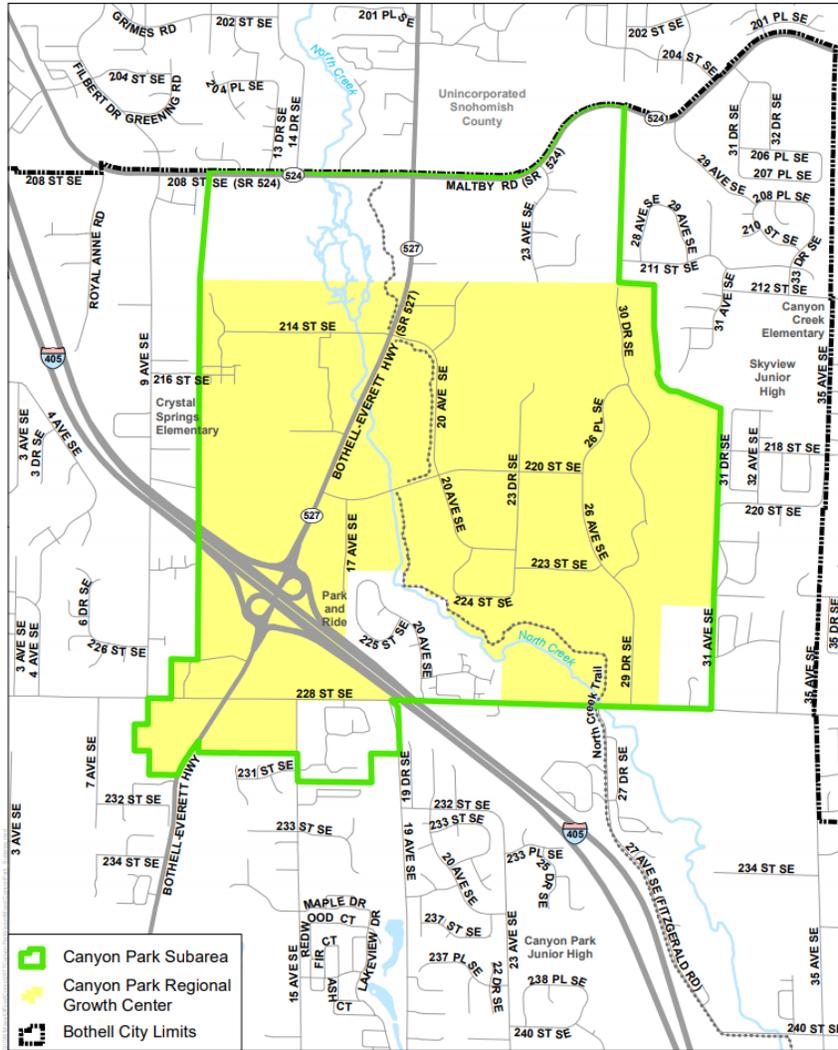


Figure 20. Study Area Road Network

## Current Policies and Plans

Relevant policies and plans relevant to the subarea are summarized below.

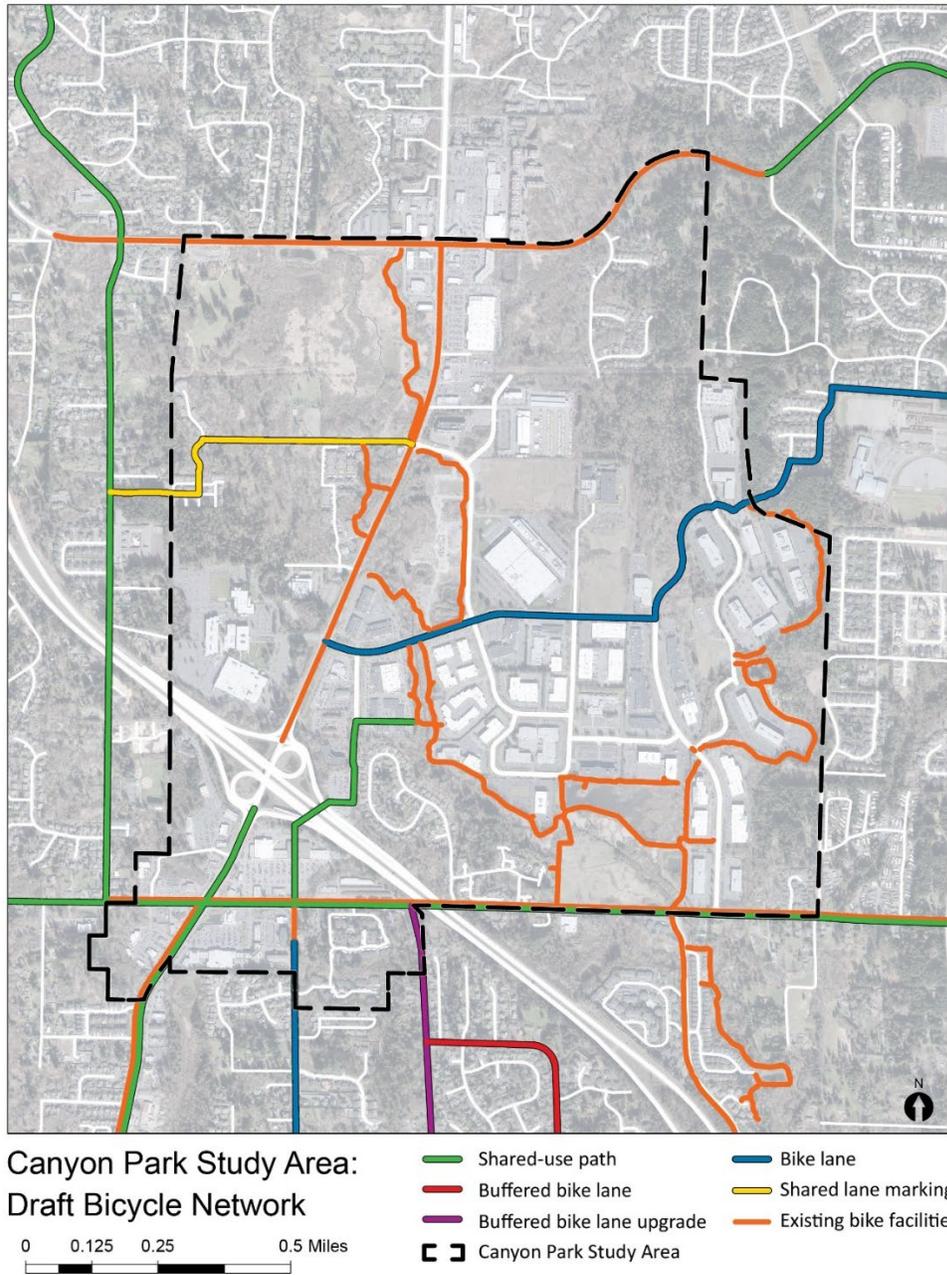
### 2015 Comprehensive Plan Update – Transportation Element

The Transportation Element provides guiding goals and policies to support the City’s growth through 2035. The Transportation Element of the 2015 *Imagine Bothell...* Comprehensive Plan outlines a level of service (LOS) standard based on the average delay that is measured at intersections along a corridor during the PM peak hour. In Bothell, allowable average corridor delay is LOS E. While a specific intersection may operate at worse conditions, the goal of this standard is to evaluate the corridor as a whole and ensure consistent flow. This transportation analysis for varying levels of growth will focus on three corridors adjacent to the study area (SR 527/Bothell-Everett Highway, SR 524/Maltby Road, and 228th Street SW/SE).

## Draft Citywide Bicycle Plan (under development)

The City is currently developing a Citywide Bicycle Plan. A draft plan includes goals to create a complete network of safe, low-stress on and off-street bicycle facilities. A specific goal to link the bicycle network with land uses and destinations identifies creating bicycle connections within the Canyon Park Regional Growth Center, along with other major employment centers. The proposed bicycle network near the study area is shown in Figure 21.

Figure 21. Draft Bicycle Network Plan



Source: City of Bothell (draft plan), 2019

# Transit Service Enhancement from Community Transit and Sound Transit

Community Transit has a new Bus Rapid Transit (BRT) Green Line that began service in March 2019. This will provide transit service between the Canyon Park park-and-ride with stops along SR 527 to Mill Creek and terminate at the Seaway Transit Center near Everett/Boeing. Three stops will be in the study area: Canyon Park park-and-ride, SR 527/220th Street (Canyon Park entrance), and SR 527/208th Street.

The Sound Transit 3 program includes I-405 BRT service between Lynnwood, Bellevue, Renton, and Burien. Operations are scheduled to begin in 2024 and will include a stop at the Canyon Park park-and-ride.



Figure 22. Map of Swift Green Line Route. Community Transit, 2019.

## Canyon Park Vision

The City went through a Phase I visioning process for the Canyon Park Subarea. Transportation and mobility goals included the following:

- New connections to the North Creek Trail and enhancement of existing trail infrastructure
- Improved access to the park-and-ride facility and transit services
- Focus on improved transit services and non-motorized infrastructure for Canyon Park employees
- Design of updated street cross sections to balance needs of trucks, commuters and residents
- Explore public-private partnerships to fund improvements to private roads and to facilitate transferring these roads to public ownership and maintenance.

## WSDOT I-405 Direct Access Ramps

Currently there are express toll lanes on I-405 through Bothell. The I-405 Master Plan identified the need for direct access ramps from I-405 to the Canyon Park park-and-ride near SR 527, although this project component is still unfunded. These ramps would connect with 17th Avenue SE and would be available for use by transit and express toll lane users. If this is built in the future, it would direct additional traffic into the business park along 17th Avenue SE.



Figure 23. Rendering of proposed direct access ramps at I-405 to Canyon Park park-and-ride.

Source: WSDOT, 2019.

# Description of Current Conditions

The transportation conditions in the subarea are summarized below:

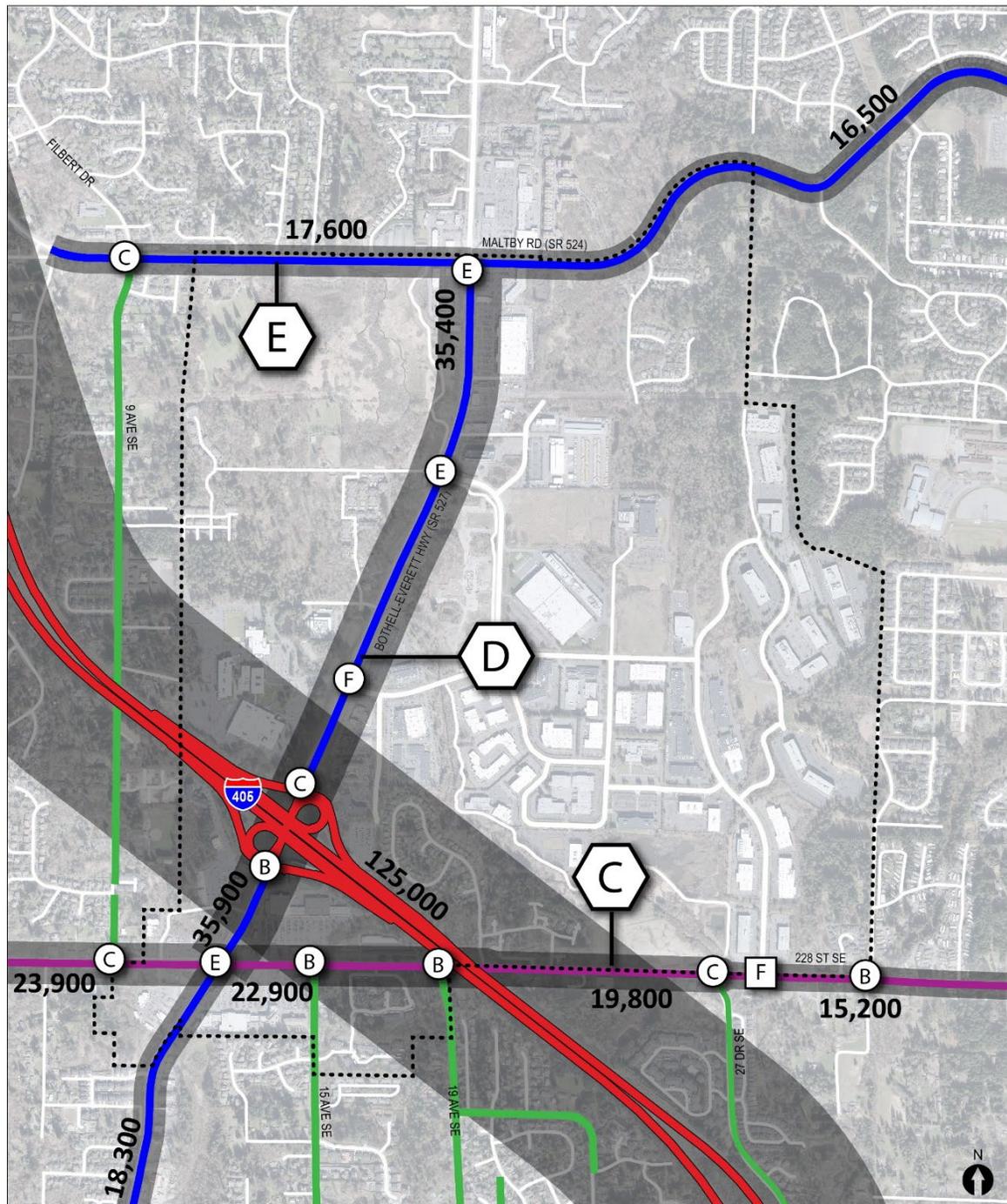
- Major roadways through the subarea have recurrent, peak hour commute congestion
- Within the business park, low volume streets generally provide a pleasant walking experience. Low volume streets can provide a lower stress biking experience, however the only dedicated bicycle facility is the North Creek Trail traversing diagonally through the business park. Despite speed limits of 25 mph, wide lanes may be encouraging drivers to speed through the area, detracting from walking and biking safety and comfort.
- During the weekends/evenings, streets within the business park are empty due to lack of residential units, little activity, and limited connectivity
- The lack of connectivity within the business park and to the adjacent street network contributes to this imbalanced network of congested major streets and quiet, sometimes empty, internal roads.

More detailed information is provided in the following subsections.

## Street Network

A map of the City's street network and functional classification system is shown in Figure 24. The Canyon Park Subarea is generally bounded by 9<sup>th</sup> Avenue SE (collector road to the west), SR 524 (principal arterial to the north), 228<sup>th</sup> Street SE (minor arterial to the south) and 31<sup>st</sup> Avenue SE (local street to the east). The area also has the principal arterial SR 527/Bothell/Everett Highway traversing north-south through the subarea and includes the I-405/SR 527 interchange in the southwest portion of the study area. Table 17 describes in more detail the different roadway types.

Figure 24. Roadway Functional Classification and Traffic Volumes



Canyon Park Study Area:  
Roadway Classification



- Canyon Park Study Area
- Limited Access Highway
- Principal Arterial
- Minor Arterial
- Collector
- Corridor Level of Service
- Signalized Concurrency Intersection
- Unsignalized Concurrency Intersection
- 19,800** Avg Daily Vehicle Count (2014)
- Line weight represents traffic volume

Source: 2015 *Imagine Bothell...* Comprehensive Plan

**TABLE 17. ROADWAY CLASSIFICATIONS**

Roadway	Description	Example	Photo
<b>Limited Access Highways</b>	State routes provide connections between cities and carry high volumes of traffic. They are grade separated and have limited access through ramps.	<b>I-405</b> <b>SR-522 (east of 112<sup>th</sup> Avenue NE)</b>	
<b>Principal Arterial</b>	Principal arterials tend to carry the next highest volume of traffic. They serve regional through trips and connect Bothell with the rest of the region.	<b>SR-527/ Bothell-Everett Highway</b> <b>SR-524/Maltby Road/S 208th St</b> <b>SR-522/ Bothell Way</b>	
<b>Minor Arterial</b>	Minor arterials are designed for higher volumes, but they tend not to be major regional travel ways. Minor arterial streets provide inter-neighborhood connections.	<b>228<sup>th</sup> Street SE</b> <b>Beardslee Boulevard</b> <b>120<sup>th</sup> Avenue NE</b> <b>Meridian Avenue S</b>	
<b>Collectors</b>	Collectors distribute trips between local streets and arterials and serve as transition roadways to or from commercial and residential areas. Collectors have lower volumes than arterials and must balance experience for all modes.	<b>9th Avenue SE</b> <b>Fitzgerald Road</b> <b>27th Avenue SE</b> <b>North Creek Parkway</b>	
<b>Local Roads</b>	Local streets are the lowest functional classification, providing circulation and access within residential neighborhoods.	<b>104<sup>th</sup> Avenue NE</b> <b>220<sup>th</sup> Street SE</b> <b>96<sup>th</sup> Avenue NE</b> <b>112<sup>th</sup> Avenue NE</b>	

Source: Fehr & Peers, Google Maps, 2019.

## Auto/Freight

The study area is in a constrained location at the crossroads of I-405 on and off-ramps, SR 527, and SR 524. As such, these adjacent roads carry high volumes of both regional and local trips. During the online public outreach process of the Phase I visioning process, transportation access to and from the Canyon Park area was a frequently raised concern.

Access to the business park is difficult because it is limited to only three points: 220th and 214th Street SE from SR 527 on west side of the business park and 29th Drive SE from SE 228th Street on the south side of the business park. All internal roads are privately owned and likely do not meet City standards. There are no motorized access points on the east side of the business park and only local business driveway access on the north side. This means that the majority of people accessing Canyon Park are funneled to only three main access points that are reached via congested corridors. During a site visit, long queues were observed on SR 527 heading northbound as early as 3 pm.

### Intersection and Corridor Level of Service (LOS)

The City of Bothell uses a corridor LOS approach, which captures the average delay experienced by drivers over a length of roadway. Specifically, the City evaluates traffic congestion at the corridor level, as measured by the volume-weighted average delay of vehicles at individual intersections. The corridor LOS is more influenced by higher volume signalized intersections than lower volume intersections which tend to be unsignalized. The corridor approach provides the City some flexibility in identifying capital improvements along its most important arterial routes.

Seven major corridors were evaluated for LOS operations. These corridors were selected because they represent the city's key principal and minor arterials that run along primarily high density/commercial corridors and are listed below. The three bolded corridors are directly adjacent to the study area:

- 1. SR 524 (208th Street SE/Maltby Road) Corridor between 9th Ave. SE and SR 527**
- 2. 228th Street SW/SE Corridor between 4th Avenue W and 39th Avenue SE**
3. SR 522 (NE Bothell Way) Corridor between 96th Avenue NE and Kaysner Way
4. Beardslee Boulevard/NE 195th Street Corridor between NE 185th Street and 120th Avenue NE
- 5. SR 527/Bothell-Everett Highway/Bothell Way Corridor between SR 524 and SR 522**
6. 39th/35th Avenue SE/120th Avenue NE/NE 180th Street Corridor between SR 524 and 132nd Avenue NE
7. NE 145th Street/Juanita-Woodinville Way/NE 160th Street between 100th Avenue NE and 124th Avenue

A map of the corridors and the Comprehensive Plan's 2014 reported intersection and corridor LOS results are shown in Figure 24. An updated analysis with recent traffic counts show that the 2018/2019 PM LOS results are similar to the Comprehensive Plan's 2014 results, which show the three adjacent concurrency corridors operating between LOS C/D conditions and meet the City's LOS E standard. Over the next 20 years, the traffic volumes on the concurrency corridors adjacent to the study area (228th Street SE, SR 527, and SR 524) are expected to grow 1 to 2

percent annually. All three adjacent corridors are expected to degrade to an average LOS E condition by 2035. While the corridors are expected to meet the LOS E standard in 2035, the following individual intersections near the subarea are expected to operate at LOS F: 228th Street SE/9th Avenue SE, 228th Street SE/SR 527, and SR 527/220th Street SE.



Figure 25. Example northbound queueing on SR 527 during PM peak hour (looking southbound).

## Transit

Current transit service is provided by Community Transit and Sound Transit along SR 527, SE 228th Street, and I-405. Service is provided between the study area and Downtown Bothell, UW Bothell/Cascadia College, Boeing/Everett, Mill Creek, Lynnwood/Edmonds Community College, Downtown Seattle, and Kirkland/Bellevue. The Canyon Park park-and-ride is located at the southwest quadrant of the business park with a freeway stop near I-405. The park-and-ride lot offers approximately 300 parking stalls, which are often nearly fully utilized (90 percent occupancy on a typical weekday). This park-and-ride stop has the highest transit activity compared to all other transit stops in the subarea. There were approximately 630 weekday boardings and alightings combined at the park-and-ride's three bus bays in fall 2017 per Community Transit.

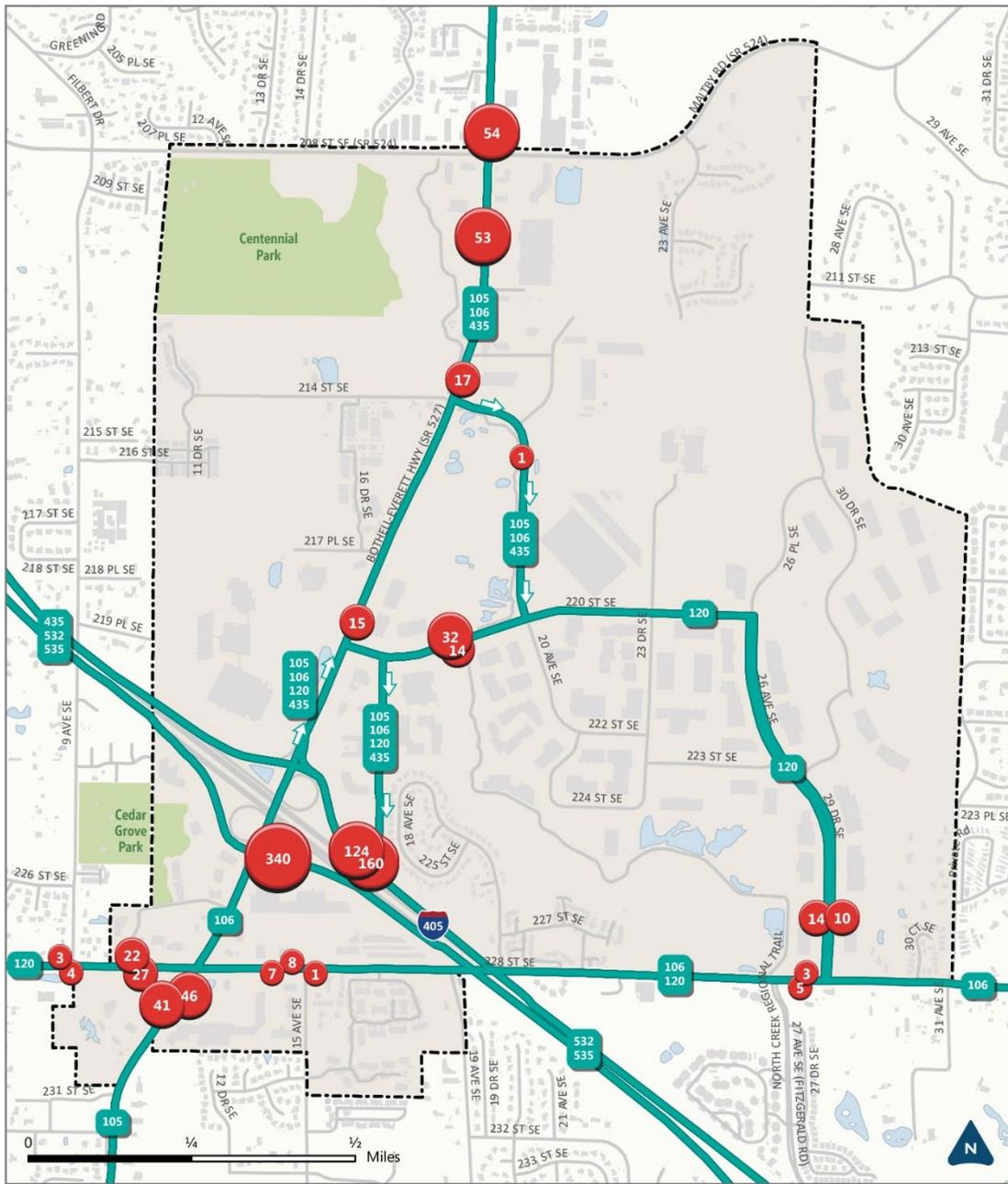


*Figure 26. Canyon Park Park-and-Ride Transit Stop near I-405*

Existing transit routes, stops, and average weekday boardings and alightings are shown in Figure 28. There are several Community Transit lines that serve the Canyon Park park-and-ride and nearby business park. Routes 105, 106, 120, and 435 all serve the park-and-ride and stop at 220<sup>th</sup> Street SE and 17<sup>th</sup> Avenue SE on the southwest edge of the business park. Routes 105 and 106 extend north to south from the Mariner park-and-ride/Hardeson Road in Everett to UW Bothell and Cascadia College. Route 120 operates east-west from the Edmonds park-and-ride in Lynnwood to the Canyon Park park-and-ride. Lastly, route 435 operates north-south through Canyon Park from Mill Creek to Downtown Seattle. As shown in the following figure, most of these transit routes travel southbound towards the Canyon Park park-and-ride through the business park on 20<sup>th</sup> and 17<sup>th</sup> Avenue SE, and then head northbound on SR 527 away from the business park.

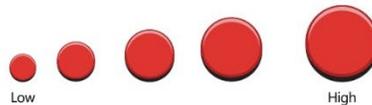
Sound Transit Express route 535 and 532 operate on I-405 from Bellevue to Lynnwood or Everett. Both routes have an I-405 stop at the Canyon Park park-and-ride.

Figure 27. Community Transit Routes within Canyon Park



**Canyon Park  
Existing Transit Boardings and Alightings**

Average Weekday Boardings and Alightings (Oct. 2017)



Source: Fehr & Peers, Community Transit (Oct 2017)

One issue with the park-and-ride is that transit riders arriving at the transit station still need to access office buildings spread across the business park campus. It is an approximately 0.7 mile walk from the park-and-ride to the center of the business park, and over a mile walk to the northeast edge of the business park. Route 120 passes through the center of the business park with half-hour frequency throughout the week. In addition to route 120, one employer's solution to this first-mile/last-mile problem is to provide a circulating shuttle between the park-and-ride and various buildings in the business park.



*Figure 28. Community Transit Route within Canyon Park.*



*Figure 29. Internal circulator shuttle stop in northeast area of Canyon Park.*

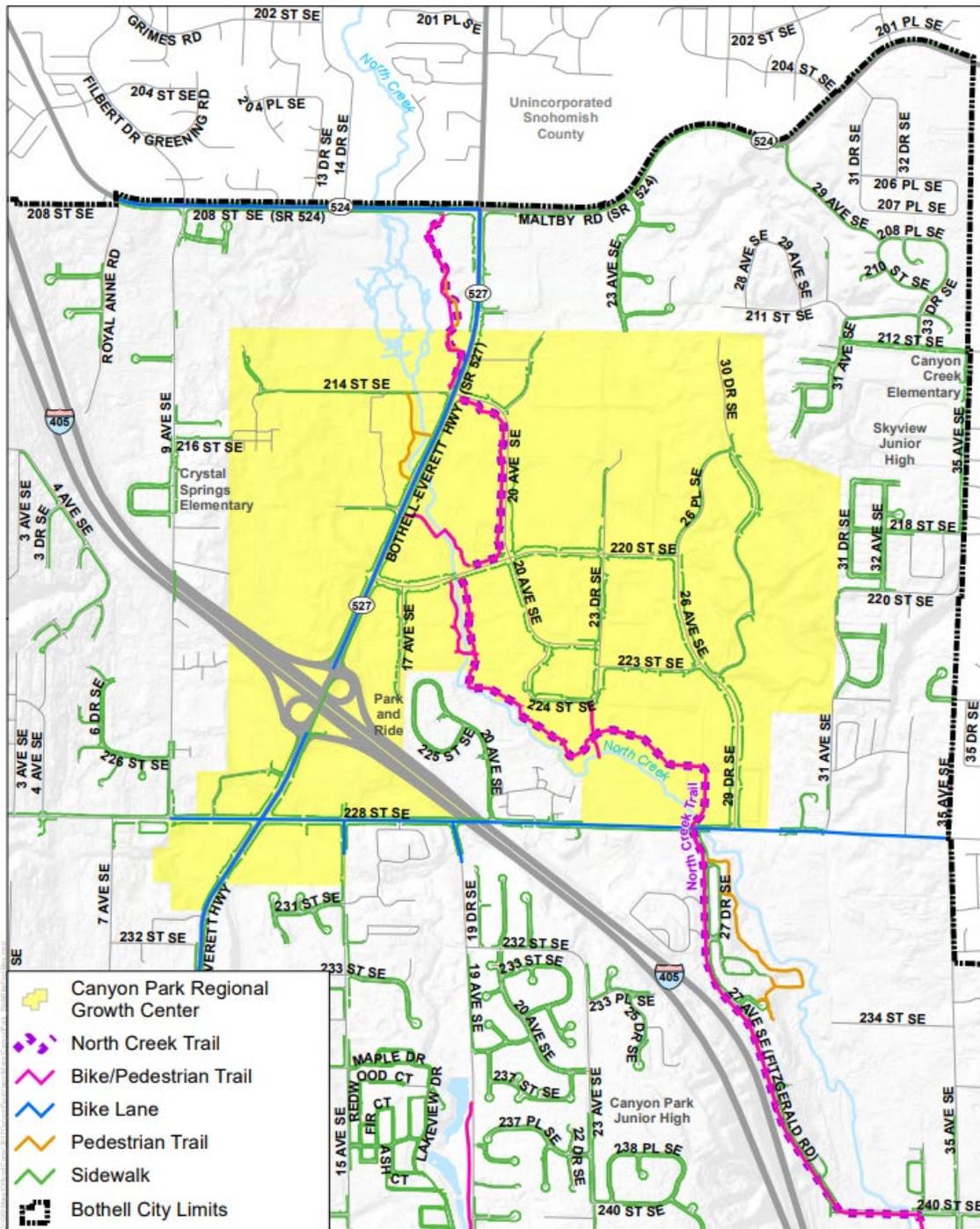
## Facilities for Walking and Biking

Generally, access to the study area from SR 527 is good for people walking and biking given the high vehicle volumes on the corridor. There are sidewalks for people to walk on and SR 527 has bicycle lanes, which help connect to the North Creek Trail in the Canyon Park area. While these facilities are available, it can be stressful riding a bike on a state route with five high speed travel lanes. During a site visit, few people were observed walking or biking on the street. Signalized crosswalks are available to access the business park at 220th and 214th Streets. Wait times and crossings distances can be long given the number of travel lanes at the intersection.



*Figure 30. Bike lanes on SR 527 adjacent to Canyon Park Business Park*

Once inside the business park, the environment transitions from a heavily travelled auto corridor to a more pleasant atmosphere with landscaped buffers, sidewalks, and a tree-lined corridor. Figure 31 shows the existing walking and biking facilities in the study area. Generally, sidewalks exist throughout the business park on at least on one side of the roadway, however there are a few locations with no sidewalks at all. The quality of the sidewalks varies depending on how recently adjacent buildings have been built or redeveloped. For example, many places do not have accessibility design elements, such as truncated dome pads at curb ramps. People walking and biking in the study area can also use the multi-use North Creek Trail traversing through the study area. Within the business park there is one missing connection of the North Creek Trail along 220th Street SE.



## Canyon Park Walking & Biking Facilities



Figure 31. Existing walking and biking facilities in the Canyon Park Subarea.

One of the challenges for people walking and biking through the area is limited wayfinding signage to help direct people to trails or destinations. The combination of limited signage, larger sized buildings on large parcels, and limited through streets within the business park can make it difficult for people to walk from one place to another.



*Figure 32. Examples of walking and biking facilities in the study area, including marked crosswalks, North Creek Trail, and sidewalks with landscaped buffers from vehicle traffic.*

# Implications and Opportunities

High-level observations about the challenges in the Canyon Park area are summarized in the table below. Potential opportunities to address some the challenges are included. These opportunities will be explored during this subarea planning process.

**TABLE 18. CANYON PARK AREA OBSERVATIONS AND OPPORTUNITIES**

Observations	Opportunities
Congestion on adjacent access roads	<p>Explore new road connections to reduce demand on SR 527 corridors. Potential road extensions could connect west to 9th Avenue SE or northeast to SR 524.</p> <p>However, these areas may be constrained by wetlands.</p>
Congestion on I-405	Continue coordinating with WSDOT to explore opportunities to ease I-405 congestion, such as adding a second toll lane on I-405
Leverage Planned Transit Improvements	<p>SWIFT Green line (2019) and I-405 BRT system (2024) will provide enhanced non-SOV access to the business park.</p> <p>These transit improvements can be marketed to help attract companies, employees, and support planned growth.</p>
First / Last Mile access from park-and-ride	<p>Free bike or scooter share program (Spin, Limebike, etc.)</p> <p>Free subarea shuttle circulator for all employees/residents. Hours of service may need to be adjusted to meet future land use growth, including new residential units.</p> <p>Explore opportunities for Transportation Network Companies (TNCs) to serve residents and employees.</p>
Leverage/Embrace North Creek Trail	<p>Define a bicycle route - “Canyon Park Loop”</p> <p>Add improved wayfinding signage to destinations/trail crossings</p>
Improve pedestrian/bicycle access to subarea	<p>Create a ‘Gateway’ entrance at 220th or 214th Street. Create a new Street Design Standard for the segment to improve bicycle and pedestrian access.</p> <p>Explore opportunities for additional safe crossings of major arterials and I-405, such as SR 527 near I-405 or north of SR 524/Maltby Road if the subarea boundary changes.</p>

Source: Fehr & Peers, 2019.

In addition to these potential opportunities, Table 19 shows in more detail a list of planned transportation improvements to the Canyon Park area from the Phase I Visioning process. These projects will be further evaluated as part of this study.

**TABLE 19. CANYON PARK AREA – PLANNED TRANSPORTATION IMPROVEMENTS**

<b>Project</b>	<b>Description</b>	<b>Completion Date/Source</b>	<b>Comments</b>
SWIFT Green Line	Frequent transit connections between Canyon Park P&R to Boeing. Would intersect existing Swift line on Highway 99	2019 Community Transit	Improved transit to/from the project area. Employers can market transit amenities to employees.  Unfunded future SWIFT extension is planned south on SR 527 to Downtown Bothell. Other unfunded new SWIFT lines would operate though the county including one along SR 524.
ST3 I-405 BRT Project	Enhanced service connection between Lynnwood TC, Bothell/Canyon Park P&R, Bellevue, Renton, and Burien.	2024 ST 3 Project Map	Provides enhanced regional transit access to the study area. Employers can market transit amenities to employees. Note that riders would still need to travel from the P&R to the office buildings.
North Creek Trail – Section 4	Complete missing link along SR 524 from Section 3 to the west.	By 2023. Bothell 2018 – 2023 TIP	Completes non-motorized access to business park.
Fitzgerald Road Improvements: 240th Street SE to 228th Street SE	Widen road to add curb/gutter and sidewalks	TBD.	Unfunded. Improves non-motorized access to business park from the south.

Project	Description	Completion Date/Source	Comments
		Bothell Public Works Needs List <sup>1</sup>	
9th Avenue SE Widening: 228th St SE to SR 524	Upgrade road to Collector road standards, including improvements at the 228th and SR 524 intersections	TBD. Bothell Public Works Needs List	Unfunded. Improves another north-south road in the area, which may help relieve some of the traffic demand on SR 527.
SR 527 (211th Street SE to north of SR 524)	Adds third northbound through lane. Add southbound left turn lane at SR 524 (2 left). Also known as SR 527/SR 524 Intersection Improvements	TBD. Bothell Public Works Needs List	Unfunded. Provides more through capacity on SR 527.
228th Street SE and Fitzgerald Road	Adds eastbound right turn pocket	TBD. Bothell Public Works Needs List	Unfunded. Improves traffic flow along 228th St SE.
228th Street SE and 29th Drive SE	Adds westbound right turn pocket.	TBD. Bothell Public Works Needs List	Unfunded. Improves traffic operations/flow along 228th St SE.
228th Street SE and 31st Avenue SE	Adds westbound right turn pocket.	TBD. Bothell Public Works Needs List	Unfunded. Improves traffic operations/flow along 228th St SE.

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<sup>1</sup> Public Works Needs List. City of Bothell. Updated 10/31/2016.  
<http://www.ci.bothell.wa.us/DocumentCenter/Home/View/3106>

<b>Project</b>	<b>Description</b>	<b>Completion Date/Source</b>	<b>Comments</b>
220th Street SE and SR 527	Adds eastbound left turn lane (2 left).	TBD. Bothell Public Works Needs List	Unfunded. Improves traffic operations at 220th St SE intersection.
214th Street SE and SR 527	Re-channelizes westbound through/left lane to through/right.	TBD. Bothell Public Works Needs List	Unfunded. Improves traffic operations at 214th St SE intersection.
Adaptive Signal Control Phase 1 along SR 527	Improve traffic signal control to be more responsive to vehicle demand through the corridor.	TBD. Snohomish County Transportation Improvements.	Will improve traffic flow on SR 527, one of the main roads to access the study area.
I-405 - SR 522 to SR 527 Capacity Improvements Project	<ul style="list-style-type: none"> <li>• Widen I-405 for dual Express Toll Lanes (ETLs) in both direction between SR 522 and SR 527</li> <li>• Build a partial direct access ramp at SR 527 (to east, north and south) to provide connections to the Canyon Park park-and-ride</li> <li>• Add direct access ramps at SR 522 interchange</li> </ul>	2024	Part of I405 ETL project. Design funding obtained and design is underway.
I-405 Widening and SR 527 Interchange Improvements	Widening I-405 to add a second Express Toll lane from SR 522 to I-5 in Lynnwood. Improve SR 527 and I-405 Interchange	2030 PSRC Transportation 2040 Plan <sup>2</sup> .	Financially Constrained. \$399.4 M

<sup>2</sup> Draft Regional Transportation Plan – 2018. Appendix G (PSRC, December 2017)

Project	Description	Completion Date/Source	Comments
			Duel toll lanes can help with traffic flow along I-405. Interchange improvements could improve the walking environment across I-405 to the project area.
SR 527 / 228th Street to I-405 Improvements	Intersection improvements to be coordinated with I-405/ SR 527 Interchange improvement project described above.	2030 PSRC Transportation 2040 Plan.	Financially Constrained. \$20.6 M  Could identify how to make the congested intersection operate more efficiently near the project area.
SR 527 Add Southbound Lane from SR 524 to 220th Street SE	Prepare plans, specifications, and estimates to add third southbound lane, as well as associated intersection revisions adjacent to the project corridor.	2025 PSRC Transportation 2040 Plan.	Financially Constrained. \$14.1 M  Increases capacity to help traffic flow through the corridor.
Bothell Way NE Widening (Reder Way to 240th St NE)	Widen Bothell Way NE from 2 lanes to 5 lanes; 2 through-lanes in each direction, a two-way left turn where needed, intersection improvements, protected bicycle lanes, landscaping strips, and sidewalks between Reder Way and 240 <sup>th</sup> St NE.	Capital Facilities Plan 2019- 2025/TBD	Design starts 2022

Project	Description	Completion Date/Source	Comments
<p>19<sup>th</sup> Ave NE and 232<sup>nd</sup> St SE Pedestrian and Bicycle Improvements</p>	<p>Three segments included in this project:</p> <ul style="list-style-type: none"> <li>• West side of 19<sup>th</sup> Ave SE between 228<sup>th</sup> St SE and 232<sup>nd</sup> St SE</li> <li>• North side of 232<sup>nd</sup> St SE between 19<sup>th</sup> Ave SE and 23<sup>rd</sup> Ave SE</li> <li>• East side of 23<sup>rd</sup> Ave SE between 232<sup>nd</sup> St SE and 237<sup>th</sup> St SW</li> </ul> <p>Proposed improvements include a sidewalk, bicycle lane, curb and gutter, storm drainage, ADA curb ramps, and a pedestrian crossing at 232<sup>nd</sup> St SE/19<sup>th</sup> Ave SE.</p>	<p>Capital Facilities Plan 2019-2025/Construction begins Spring 2019</p>	
<p>228th St SE Corridor Improvements (Meridian Ave to Fitzgerald Rd)</p>	<p>No definitive work scope. Planning and alternative analyses need to be completed.</p>	<p>Transportation Needs Lis (2018)</p>	<p>Increases capacity to help traffic flow through the corridor.</p>
<p>Bothell Everett Hwy/228th St SE Intersection Capacity Improvements</p>	<p>No definitive work scope. Planning and alternative analyses need to be completed</p>	<p>Transportation Needs Lis (2018)</p>	<p>Increases capacity to help traffic flow through the corridor.</p>

<b>Project</b>	<b>Description</b>	<b>Completion Date/Source</b>	<b>Comments</b>
228th St Widening (35th St SE – 39th Ave NE)	Widening 228th St SE to four or five lanes between 35th Ave SE and 39th Ave SE. It will also include intersection improvements at 228th St SE & 35th St SE and 228th St & 39th Ave SE, including adding an eastbound  right turn pocket at the 228th St SE and 35th St SE intersection	CFP 2019 - 2025	Increases capacity to help traffic flow through the corridor.

# Public Services

This section addresses public services provided in the Canyon Park study area in terms of fire protection, parks, and schools; service provider levels of service are also described.

[City does not have a police level of service we can add discussion if the issue of safety and private roads is an issue.] Police staffing levels are based upon a comprehensive analysis of the individual jurisdiction, its demographics, daytime population, transportation, crime statistics and other specific factors. This level of analysis was not included in this Phase.]

See also the Community Design section for a discussion of civic facilities and the public realm that contribute to the area's character and urban design.

## Current Policies and Plans

The City of Bothell and special districts provide public services to the Canyon Park subarea. Per the *Imagine Bothell... Comprehensive Plan*, there is an adopted level of service that guide operations and capital facilities.

The Capital Facilities Plan Element establishes a fire and emergency medical services policy based on a response time:

*CF-P3 Fire and Emergency Medical Services level of service guideline.  
Fire stations should be located and staffed so as to facilitate achievement and maintenance of the adopted overall response time operational level of service guideline of 7 minutes and 15 seconds, 90 percent of the time.  
Implementation of this policy may entail actions including, but not limited to, instituting efficiencies at existing stations; relocating stations; constructing new stations; or a combination thereof.*

The Capital Facilities Plan Element indicates that the City has not adopted a quantifiable level of service guideline but will monitor the need over time:

*CF-P4 Police level of service guideline.  
At the writing of the 2015 Plan Update, the Public Safety Building and the North Bothell Satellite Office, located in the Public Works Operation Center (PWOC), are collectively sized and located to accommodate staff necessary to meet Bothell's service delivery needs well beyond the 2035 horizon of the Plan. Accordingly, a quantifiable level of service guideline is not warranted for this update, as no significant expanded or new city police facilities are anticipated over the 20-year period. Future periodic Plan updates should revisit the adequacy of police facilities when those updates are performed, to determine whether a specific level of service guideline is warranted to provide direction for future police capital investments.*

The City has adopted a Parks and Recreation Element with detailed levels of service by park type but has summarized the overall need to a collective acres per 1,000 population:

*CF-P5 Parks level of service guideline.  
Achieve and maintain a foundation level of service of 4.5 acres of developed, operational and functional parkland per 1,000 population. A foundation level of service implies a base or threshold level that satisfies the basic recreational needs of the community.*

The City has adopted an education level of service per Northshore School District plans:

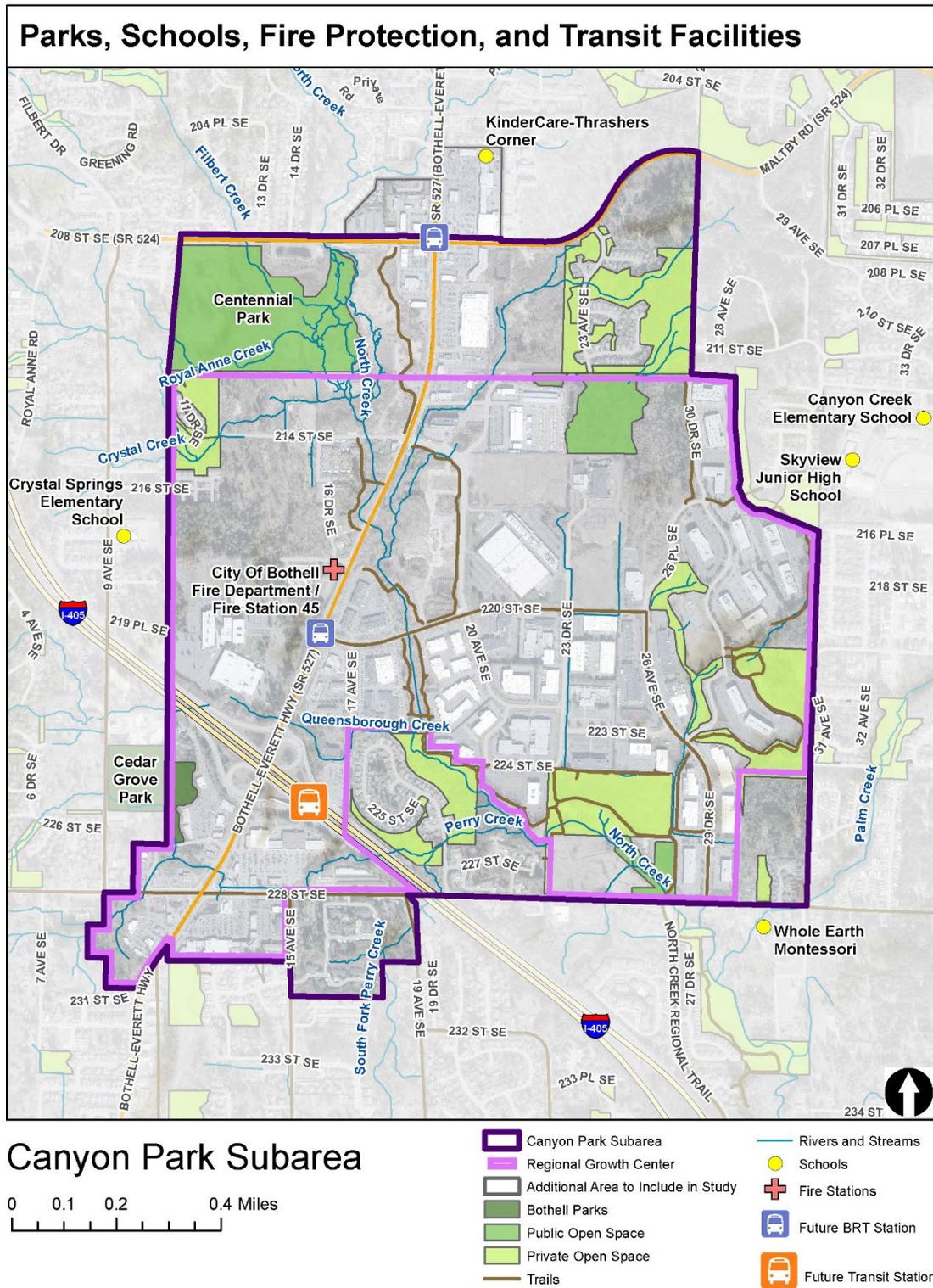
*CF-P9 Public schools  
K – 12 education.  
The City adopts by reference the Northshore School District’s capital facilities plan, as adopted and periodically amended by the Northshore School District Board of Directors; and the Edmonds School District’s capital facilities plan, as adopted and periodically amended by the Edmonds School District Board of Directors (Appendices CF-A-11 and CF-A-12); including any level of service guidelines contained therein.  
Support the collection of school impact mitigation fees based on the methodologies contained in the capital facilities plans of the Northshore School District and the Edmonds School District. The two school districts’ capital facilities plans, as amended yearly, are adopted by reference as part of the Imagine Bothell...Comprehensive Plan for the purpose of providing a policy basis for collection of school impact fees and as a reference for the consideration of whether or not appropriate provision is made for schools and school grounds when reviewing applications for subdivisions and residential planned unit developments.*

*Higher education.  
The City adopts by reference the University of Washington Bothell and Cascadia College 2010 Master Plan (Revised 2011) (Appendix CF-A-13) and future revisions thereto as may be adopted by the institutions over time.*

## Current Conditions

The location of emergency service facilities, parks, and schools is illustrated on Figure 33. There is one fire station, two public parks and a range of public and private open spaces, and several trails. There are no schools inside the subarea but several on the periphery that serve the study area.

Figure 33. Public Facilities Map



Source: City of Bothell, BERK, 2019.

## Emergency Services

There is one City of Bothell Fire Department station in the study area, Canyon Park Fire Station, located at 1608 217th Pl. SE, housing the following apparatus:

- 1—Fire Engine
- 1—Aid Unit
- 1—Reserve Fire Engine

The portion of the study area north of SR 524 in unincorporated Snohomish County is served by Fire District 10. Fire District 10 is served by the Bothell Fire Department including the City's Canyon Park Fire Station above, and the Queensborough Firehouse, Station 44 at 330 228th St. SW.

## Parks

The City owns Centennial Park, Cedar Grove Park, and other open space in the Canyon Park Study Area.

Centennial Park is 54 acres in size and is addressed at 1130 - 208th St SE, Bothell, WA 98021. The features onsite include:

- Historical North Creek Schoolhouse rental space
- Small picnic shelter & BBQ
- Restroom
- Open green space
- Wetlands and trails
- Parking

Centennial Park is considered a Regional Facility. Regional Facilities are recommended for 0.2 acres per 1,000 population. See Table 20.

Cedar Grove Park is 13.75 acres straddling the western study area and is considered a Community/Open Space recommended for 1.1 acres per 1,000 population. See Table 20. The park contains:

- Large Picnic Shelter
- Restrooms
- BBQ/Grill
- Picnic Tables
- Children's Playground
- Basketball Court
- Sports Field
- Wetland Boardwalk
- Parking

The City has adopted an acres-based level of service standard. The City is updating its plans in 2019 which may alter the level of service.

**TABLE 20. CITY OF BOTHELL PARKS LEVEL OF SERVICE**

<b>Park Facilities</b>	<b>Recom- mended Standard Acres Per 1,000 Pop.</b>	<b>Existing Inventory (Acres)</b>	<b>Demand/ Goal 2014 (Acres)</b>	<b>Additional Need 2014 (Acres)*</b>	<b>Demand/ Goal 2025 (Acres)</b>	<b>Demand/ Goal 2025 (Acres)</b>
<b>Core Parkland</b>						
Mini	0.1	10.42	4.05	-6.37	4.45	-5.97
Neighborhood	1.1	13.65	44.59	30.94	48.95	35.3
Community	1.2	53.92	48.65	-5.24	53.4	-0.52
Athletic Fields	0.8	24.30	32.43	8.13	35.6	11.3
Total Core Parkland	3.2	102.29	129.72	27.43	142.4	40.11
<b>Other Park and Recreation Lands</b>						
Open Space	1.2	157.93	48.1	-109.83	53.4	-104.53
Regional	0.2	12.5	8.02	-4.48	8.9	-3.6
Total Other Parks and Recreation Lands**	1.4	170.43	56.12	-114.31	62.3	-108.13
Total	4.5	272.72				

\*Negative number indicates surplus acreage

\*\*Does not include Wayne Golf Course as the City does not own the land.

Note: 2014 City of Bothell population = 40,540

Development is required to pay impact fees to address system improvements needed to serve new growth. City plans show a deficit in some park types based on planned levels of growth and the City's levels of service.

## Schools

There are no schools inside the study area, but Northshore School District Facilities are located nearby including:

- Canyon Creek Elementary School/ Skyview Junior High School
- Crystal Springs Elementary School

The Northshore School District has a level of service based on the number of students per classroom at different grade levels.

**TABLE 21. LEVEL OF SERVICE – NORTHSHORE SCHOOL DISTRICT**

Grade Level	# of Scheduled Teaching Stations	Minimum Level of Service
K - 6	513	24
7 - 9	237	27
10 - 12	231	27
<b>Total</b>	<b>981</b>	

Source: 2018 Northshore School District Capital Facilities Plan

Student generation rates vary by dwelling unit type, with greater student generation for single family units than for multifamily units:

**TABLE 22. STUDENT GENERATION RATES – NORTHSHORE SCHOOL DISTRICT**

Grade Level	Student Generation Factors – Single Family	Student Generation Factors – Multi Family (more than 1 bedroom)
Elementary	.359	.062
Middle	.120	.031
High School	.094	.042
<b>Total</b>	<b>.573</b>	<b>.135</b>

Source: 2018 Northshore School District Capital Facilities Plan

Based on expected demand and levels of service, the school district’s capital plans include an expansion of Canyon Creek Elementary School / Skyview Junior High School of 200 students in K-5 and 200 students in 6-8 grade levels. This is scheduled for construction in 2020.

Development contributes impact fees to address the cost to construct new or expanded facilities.

# Implications and Opportunities

Future growth in the Canyon Park study area will increase the demand for emergency services, parks, and schools. Advanced planning for facilities consistent with the Capital Facilities Element can help ensure services and facilities are adequate at the time of development. Connecting public parks and open spaces and trails to private ones can increase amenities in the subarea.

# Utilities & Stormwater

## Current Policies and Plans

The Bothell Canyon Park Sub Area water and wastewater utilities are serviced by Alderwood Water and Waste Water District (AWWD). These policies and plans were generally broad in nature and limited in scope. The following specific policies were noted:

### *Imagine Bothell...* Comprehensive Plan, Capital Facilities Element

The following City of Bothell Comprehensive Plan polices apply to Water and Wastewater utilities within the City limits:

#### CF-P6 Potable Water Supply, Storage and Distribution Level of Service Guidelines

- Potable Water Supply – Comply with Washington State Department of Health (WSDOH) requirements concerning provision for peak day demand and maintenance of drinking water quality. In accordance with the Growth Management Act (GMA), the City will monitor water service and withhold development approvals that would cause the level of service to decline below adopted standards.
- Potable Water Storage – Comply with WSDOH requirements regarding operational, equalizing, standby, fire suppression, and dead storage requirements.
- Potable Water Distribution – Comply with WSDOT requirements related to minimum system pressures and fire flow requirements.
- Portions of the water plans of Alderwood, Northshore, and Woodinville water and sewer districts which affect the Bothell Planning Area as such plans exist and may hereafter be amended, are adopted as part of this Comprehensive Plan.

#### CF-P7 Wastewater Collection and Treatment Guidelines

- Comply with Washington State Department of Ecology (WSDOE) criteria for sewer works design.
- Achieve and maintain secondary treatment, including peak flow periods.
- Portions of the sanitary sewer system plans of Alderwood, Northshore, and Woodinville water and sewer districts which affect the Bothell Planning Area as such plans exist and may hereafter be amended, are adopted as part of this Comprehensive Plan.

## Alderwood Water and Wastewater District

The following regulatory requirements are required by AWWD policy section of the Water and Wastewater Comprehensive Plans:

- General Sewer Plan requirements under the Washington Administrative Code (WAC) 173-240-050
- Water System Plan requirements under the Washington Administrative Code (WAC) 246-290-100
- 1990 Growth Management Act (GMA), Revised Code of Washington (RCW) Chapter 36.70A
  - Consistency between land use and utility plans
  - Focus growth in urban areas to reduce sprawl; and
  - Ensure adequate public facilities and services are available or provided at the time of development (known as “concurrency”) to ensure health, safety, and high quality of life.
- Comprehensive Plans and Planning Document reviews for consistency:
  - Bothell Comprehensive Plan and Water System Plan
  - Snohomish County Comprehensive and Hazard Mitigation Plans
  - King County Regional Water Services Plan
  - Northshore, Silver Lake, and Mukilteo Wastewater/Sewer Plans
  - Cross Valley, Mukilteo, Silver Lake Water Plans
  - Other local jurisdiction sewer and water plans (i.e. Brier, Edmonds, Everett, Lynnwood, Mill Creek, Mountlake Terrace, and Mukilteo.)

## Regional Wastewater Service Plan Conveyance Policies and 20-Year Peak Flow Standard

RWSP conveyance policies are codified in the King County Code 28.86.060 and are intended, in part, to guide the planning, design, and construction of Conveyance System Improvement (CSI) projects to accommodate increased flows over a 30-year period (through 2030). The 2017 CSI Program Update addresses the following key RWSP conveyance policies:

**Conveyance Policy (CP-1):** To protect public health and water quality, King County shall plan, design, and construct county wastewater facilities to avoid sanitary sewer overflows. The 20-year peak flow storm shall be used as the design standard for the County’s separated wastewater system.

**Conveyance Policy (CP-2):** King County shall construct the necessary wastewater conveyance facilities, including, but not limited to pipelines, pumps, and regulators, to convey wastewater from component agencies to the treatment plants for treatment and to convey treated effluent to water bodies for discharge. Conveyance facilities shall be constructed during the planning period of the currently adopted RWSP to ensure that all treatment plants can ultimately operate at their rated capacities. To prevent sanitary sewer overflows, King County adopted a 20-year peak flow capacity standard for regional conveyance facilities in the separated portion of its service area (KCC 28.86.060). To meet this standard, facilities are designed to have capacity to convey peak flows of a magnitude that can be expected on an average of once every 20 years (a 20-year return interval). This return interval corresponds to a 5 percent chance that such flows or higher would occur in any given year and a 63 percent chance that such flows would occur in any 20-year period.

## Plans and Supporting Information

For the preparation of this existing conditions report the following plans and supporting information were reviewed:

- *Imagine Bothell...* Comprehensive Plan, July 7, 2015
- Alderwood Water and Wastewater District, Comprehensive Wastewater Plan (WWCP), September 2017
- Alderwood Water and Wastewater District, Comprehensive Water Plan (WCP), September 2017
- King County Wastewater Treatment Division
  - 2013 Regional Wastewater Services Plan Comprehensive Review  
[https://your.kingcounty.gov/dnrp/library/wastewater/wtd/construction/Planning/RWSP/ComprehensiveReview/13/2013\\_RWSPComprehensiveReview.pdf](https://your.kingcounty.gov/dnrp/library/wastewater/wtd/construction/Planning/RWSP/ComprehensiveReview/13/2013_RWSPComprehensiveReview.pdf)
  - Wastewater Services Plan 2017 Annual Report  
<https://www.kingcounty.gov/~media/depts/dnrp/wtd/capital-projects/system-planning/RWSP/docs/2017-RWSP-Annual-Report.ashx?la=en>
  - Regional Needs Assessment, Conveyance System Improvement Program, May 2015  
[https://your.kingcounty.gov/dnrp/library/wastewater/csi/2017-update/1505\\_Final-RNA-web.pdf](https://your.kingcounty.gov/dnrp/library/wastewater/csi/2017-update/1505_Final-RNA-web.pdf)
  - 2017 Conveyance System Improvements (CSI) Program Update  
<https://www.kingcounty.gov/services/environment/wastewater/csi/~/~link.aspx?id=CE0E78FB032A47AF9AE39D5DD6FD8262>
  - North Creek Interceptor Project, Capital Projects Page  
<https://www.kingcounty.gov/depts/dnrp/wtd/capital-projects/active/north-creek-interceptor.aspx>

## Description of Current Conditions

The Canyon Park Sub-Area currently receive water and sewer services from Alderwood Water and Wastewater District (District / AWWD) (see Figure 34 and Figure 35). The District is a special purpose district that provides water and sewer service to 34,710 retail and 167,500 residential customers in Snohomish County. The service areas for water and sewer service cover approximately 39 and 44 square miles, respectively. The district also sells water to adjacent municipal agencies and has a corporate boundary of 51 square miles which includes water wholesale. Alderwood's service area is divided into five basins, with the Canyon Park Sub-Area located within the North Creek Basin.



## Sanitary Sewer

Alderwood collects wastewater from most of the area of Bothell located within Snohomish County, except for a small sub-area that is served by the City of Bothell. The entire Canyon Park Sub-Area is served by Alderwood and is located within the District's North Creek Drainage Basin service area. This basin drains through a series of collector pipes, ranging from 10" diameter to 18" diameter, into the North Creek Interceptor which is owned by King County Wastewater Treatment Division. The North Creek Interceptor is approximately 6.6 miles long and flows into King County's North Creek Trunk line. From the North Creek Trunk, flows are conveyed for treatment by King County Department of Natural Resources (KCDNR) to the Brightwater Wastewater Treatment Plant.

King County's Wastewater Treatment Division acquired ownership of the Trunk Mains within Alderwood Water & Wastewater District in 2001. The North Creek Trunk Mains and Interceptor are managed through their Conveyance System Improvement Program, which is a component of the overarching King County's Regional Wastewater Services Plan.

### King County Wastewater Treatment Division

In 2015, King County performed a Regional Needs Assessment as a precursor to their regular Conveyance System Improvement Plan Update process from 2007. Based on the County's Regional Wastewater Service Plan (RWSP) 20-year peak-flow design standard, the assessment identified several short-term capacity improvements to the North Creek Interceptor and Trunk Main needed to meet projected growth and service demands over a 30-year period (through 2030). Based on a review of the Regional Wastewater Services Plan 2017 Annual Report, and the North Creek Interceptor Project [home page](#), the project has reached substantial completion at the time of this existing conditions report.

### Alderwood Water and Wastewater District

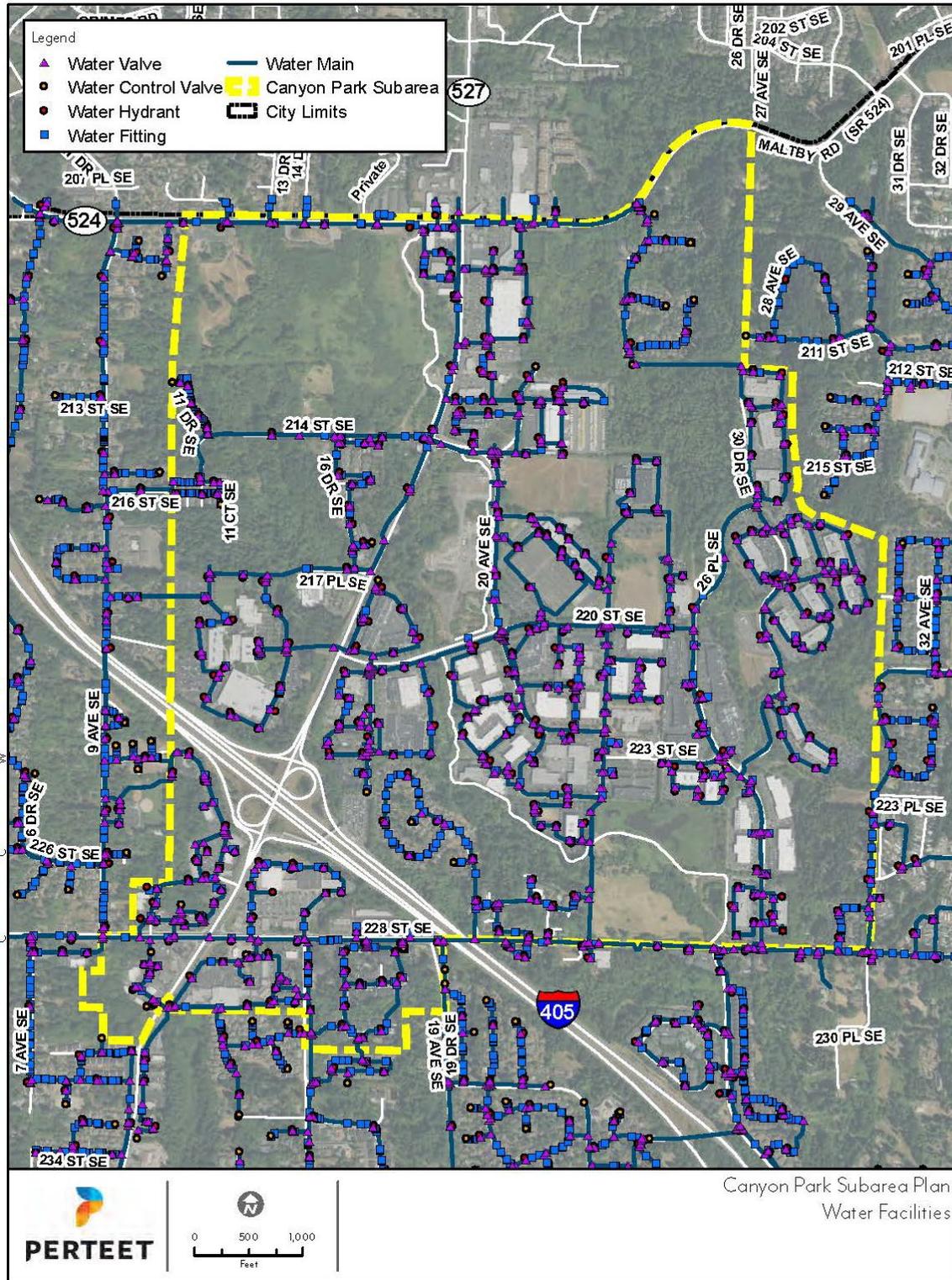
The District constructs, maintains, operates, replaces, repairs, and manages the portions of the water and wastewater infrastructure located within the North Creek Basin, not otherwise owned by King County, by way of an Interlocal Agreement with Bothell. The wastewater system map is attached as Figure 34. There are three major District trunk lines within the basin, the Queensborough Interceptor, Olympus Meadows Trunk, and Penny Creek Trunk as well as miles of collection and conveyance within the service area. There is one pump station located in the basin, lift station 11 located at McCollum Park on 128<sup>th</sup> Street SE in Everett. All of the flows conveyed through collection, conveyance, pump station 11, and the trunk mains located within the basin flow into the North Creek Interceptor owned by King County.

The District Comprehensive plan identified 12 separate Conveyance system deficiencies and 33 collection system deficiencies within the North Creek Drainage Basin. Of these projects, four of the conveyance system deficiencies were under construction by King County and two of the collection system deficiencies were constructed since the 2009 Comprehensive Plan. Most of the conveyance system improvements (three) were related to the construction of the King County North Creek Interceptor and one was related to the Olympus Meadows Trunk Sewer.

Within the Canyon Park Subarea Plan, there were nine AWWD capital projects, either collection or conveyance, and three King County capital projects (all related to the North Creek Trunk or\ North Creek Interceptor) that were located within the boundaries of the Canyon Park Sub-Area.

It should be noted that, as of the 2017 Comprehensive Plan Update, the District is implementing flow monitoring to assess whether the assumptions made when evaluating conveyance capacity had been potentially overstated. The results of this flow rate monitoring may be used to re-evaluate system capacity and demand calculations, which can directly correlate to the number of identified deficiencies. Until such a time when the flow monitoring results can be analyzed, and additional modeling based on the results can be performed, the findings in the 2017 Comprehensive Plan should be considered the best available information.

Figure 35. Water Facilities Map



Source: City of Bothell; Alderwood Water and Wastewater District; King County

# Water

## Source and Infrastructure

The Canyon Park Sub-Area is served by AWWD. The District's water supply is purchased from the City of Everett, which provides water to the majority of southwest Snohomish County. Everett's water supply comes from Spada Lake, located about 25 miles east of Everett. Water is pumped from Spada Lake to the Chaplain Reservoir. Everett's water filtration plant provides filtering, chlorination, and fluoridation. Once the water is treated, it is pumped through transmission lines to Everett's reservoir #3, which supplies water to AWWD pump stations #1 and #2. These pumps deliver the water to the District storage facilities.

The District purchases over half of the water produced and treated by Everett to service retail and wholesale customers. In order to provide service, the District owns, operates, and maintains the infrastructure needed for storage, transmission, and distribution to their retail and wholesale customers. This infrastructure includes storage facilities (tanks, reservoirs, and standpipes), pumping stations, disinfection facilities, wells, pressure reducing valve (PRV) stations, interties, meters, and a network of transmission, distribution, and service lines. See Figure 35 for the water system map.

## Service Areas

The District's system is broken into service areas roughly by pressure zone (designated by elevation above sea level). The majority of the Canyon Park Sub-Area of Bothell is primarily located the District's 520 pressure zone, with a portion in the northwest corner of the Sub-Area being served by the 635 pressure zone. Water is primarily supplied to the 520 pressure zone via the 635 pressure zone through pressure reduction valve (PRV) stations, with backup storage provided by Reservoirs No. 1, 2, and 3 and Clearview Reservoir. Within the 520 pressure zone, there are also three additional storage facilities, Nike Tanks 1 and 2 and the Canyon Park Standpipe Tank. Both the Nike and Canyon Park tank sites have disinfection facilities. PRV stations located within the 520 zone include 49<sup>th</sup> Avenue SE, 196<sup>th</sup> Street SE, 228<sup>th</sup> Street SW, Richmond/Filbert Road, and Lockwood Road/Locust Way sites. In addition to the facilities located within these zones, the District has a variety of buildings and maintenance facilities needed to provide services and operations.

## Supply Agreement

To assure adequate supply of water, the District has a wholesale agreement for the purchase of water from Everett. The supply agreement was established in 1960, with the latest amendment in 2005. This agreement currently has an expiration date of 2055 and has a peak volume of 106 million gallons/day. The District, in turn, has several Interlocal Water Supply Agreements with Bothell, Cross-Valley, Mukilteo and Silver Lake. It also maintains Franchise Agreements for direct service to Brier, Bothell, Mill Creek, Mukilteo, Snohomish County, and an additional pending with Lynnwood. There are also separate agreements related to emergency and incident response.

## Demand Forecast

Based on the planning data and demand forecasting performed by the District in the preparation of the 2017 Comprehensive Plan, the maximum daily demand forecast for the planning horizon date of 2035 was 74 mgd, including contracted supply and considering connection point restrictions. While this number is well below the 106 gpd peak volume outlined in the District's supply agreement with Everett, there are limitations on availability of supply through connection point restrictions. Considering these source capacity connection point limitations, the District is still forecasting a surplus of approximately 8.8 mgd in 2035. Therefore, the supply of water through the planning period exceeds the future demand projections through the planning period horizon. The focus of the District, as outlined in the demand analysis conclusions, is that "the emphasis of the CIP should shift from capacity projects to infrastructure repair and replacement until at least 2035."

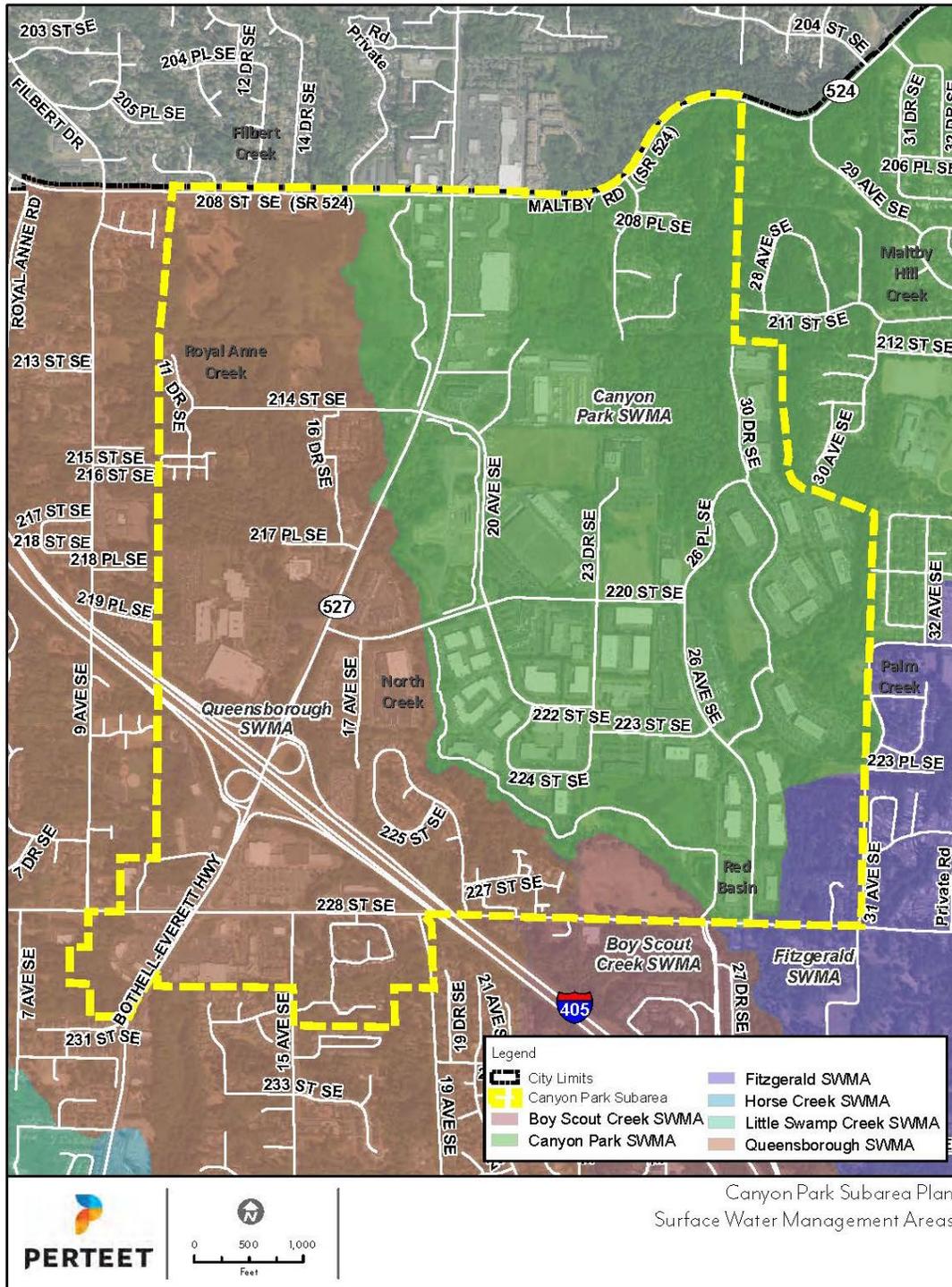
Within the 520 pressure zone, the primary pressure zone supplying water to the Canyon Park Subarea, the District also provided projected demand vs. source capacity analysis in their Comprehensive Plan (see Table 54 Supply Analysis for the 520 Zone). For the planning year horizon of 2035, the maximum daily demand projected was 5.38 mgd. The total available supply for the same year was estimated at 24.57 mgd, leaving a surplus supply of approximately 19 mgd.

From a review of the District's system analysis related to pumping supply, transmission, storage, distribution, and fire flows pertaining to Zone 520 the following conditions and/or needs were noted:

- System-wide transmission capacity evaluations found that the current infrastructure is adequate over the planning period to meet forecasted demand (2030).
- Storage Capacity within Zone 520 (see Table 5.10, AWWD WCP) is adequate to meet needs through 2035 with 1.94mgd surplus.
- Additional PRV Stations are needed in 635 and 520 pressure zones due to high customer elevations vs. reservoir elevations.
- Creation of a 340 zone within the 520 zone may be necessary to avoid high pressures (exceeding 120psi) in areas within the Canyon Park Area (Figure 5.1, AWWD WCP).
- Additional analysis, planning and capital improvements may be needed if the City of Bothell wishes to secure wholesale water for the portion of Bothell in King County from Zone 520.
- Fire flow standards are flow rates available to fight fires while maintaining a minimum operating pressure (typically 30 psi) within the system. The flow rate standards are set by the municipal agency. Currently, the City of Bothell has a 1,500 gpm standard. This standard is generally 500 gpm higher than surrounding jurisdictions (1,000 gpm in all other District Zones) and 1,000gpm higher (3 times) than the Snohomish County standard of 500 gpm that existed when the District's service area was initially developed.

District's water capital project lists only two distribution projects in the Canyon Park sub-area, primarily located along 228<sup>th</sup> Street, the southern edge of the subarea.

Figure 36. Surface Water Management Areas Map



Source: City of Bothell; Alderwood Water and Wastewater District; King County

## Stormwater

The Canyon Park Subarea is located within the Lake Washington/Cedar/Sammamish Watershed, also known as Watershed Resource Inventory Area (WRIA) 8. WRIA 8 is

considered to be the most densely populated, developed and degraded watershed within the Puget Sound Basin. The City of Bothell represents less than two percent of the total area within WRIA 8. The entire Canyon Park Subarea is also located within the North Creek drainage basin. North Creek begins in highly urbanized south Everett and flows south through unincorporated Snohomish County and Mill Creek before reaching the Canyon Park Subarea. North Creek runs from north to south through the Canyon Park Subarea. Drainage sub-basins present within the Canyon Park Subarea include North Creek, Filbert Creek, Royal Anne Creek, Crystal/Queensborough Creek, Perry Creek, Middle Creek, Junco Creek, and Maltby Hill Creek. See the attached stormwater basin exhibit for a delineation of the sub-basins, creeks and locations of flow control facilities throughout the Subarea. A variety of both till and outwash soils are present throughout the subarea.

## Management

The existing stormwater management system within the Canyon Park Subarea consists of catch basins, storm drain pipe, culverts and ditches. The stormwater management system also consists of both public and privately-owned flow control and water quality facilities, which regulate the release of stormwater runoff from mostly commercial and some residential developments. Flow control facilities throughout the subarea consist of detention ponds, detention vaults and detention pipe. Both controlled and uncontrolled runoff within the subarea is conveyed to various wetlands and creeks that flow through the subarea and eventually discharge into North Creek. Large wetland complexes exist in the northwest corner (Centennial Park), northeast corner and the south end of the subarea. Crystal Creek, Royal Anne Creek and Filbert Creek all flow into the large wetland complex at Centennial Park and merge with North Creek. Maltby Hill Creek flows through a large wetland complex near the northeast corner of the subarea and merges with North Creek near the center of the subarea. Queensborough Creek, Perry Creek, Middle Creek and Junco Creek all merge with North Creek near the south end of the subarea. (ref. City of Bothell interactive GIS map, 2018 Stormwater Management Plan and 2015 Storm and Surface Water Master Plan Update)

The City of Bothell has developed an area approach to stormwater management throughout the City. Their approach includes dividing the City into Surface Water Management Areas (SWMA's). Each SWMA was delineated based similar characteristics, needs, strategies and actions. (ref. 2015 Storm and Surface Water Master Plan Update). This allows for better customization and prioritization of many stormwater management efforts based on the needs and conditions within each SWMA. The Canyon Park Subarea lies primarily within the Queensborough and Canyon Park SWMA's. There is a very small area at the south end of the Subarea which also extends into the Boy Scout Creek SWMA. (See attached stormwater basin exhibit).

## Improvements

Three of the stormwater improvement projects listed in the 2015 Storm and Surface Water Master Plan Update are located within the Canyon Park Subarea. These projects are briefly explained below and their locations are shown on the attached stormwater basin Figure 36

- **Royal Anne/Filbert Restoration** (Queensborough SWMA, south of 208<sup>th</sup> and west of SR 527)

Although no specific scope of work has been identified for this project, the general goal is to upgrade culverts and improve restoration in the vicinity of the culverts to minimize flooding and erosion and enhance habitat. Overall project cost is assumed to be \$1.5 million dollars.

- **Perry Creek improvements** (Queensborough SWMA, north end of 19<sup>th</sup> Ave SE)

Flooding problems near the 19<sup>th</sup> Ave SE and 228<sup>th</sup> Street SE intersection has warranted an improvement project in this area. The Perry Creek culvert crossing under 19<sup>th</sup> Ave SE is proposed to be upsized to a fish passable culvert. Other improvements associated with this project include adding new curb and gutter and storm drain pipe along a 480-foot section of 19<sup>th</sup> Ave SE. Total project cost is estimated at \$550,000. The City has indicated that they no longer intend to install a fish passage culvert across 19<sup>th</sup> Avenue SE.

- **208<sup>th</sup> Street SE Water Quality Facilities**

Project goal is to treat runoff from 208<sup>th</sup> Street SE which currently flows into North Creek untreated. Treatment best management practice (BMPs) have not been specified yet but they could include bioswales, filtration or other methods. Total project cost is estimated at \$500,000.

## Water Quality

North Creek is the dividing line between the Canyon Park SWMA and the Queensborough SWMA. North Creek has been placed on Washington State's 303d list for fecal coliform, pH, temperature, dissolved oxygen and bio-assessment (ref. Ecology Website 303d listing). A TMDL (Total Maximum Daily Load) has been established for North Creek for fecal coliform. The North Creek Fecal Coliform TMDL was established to address impairments to contact recreation and domestic water supply caused by excessive levels of fecal coliform bacteria and to help protect fish, which are affected by the low oxygen levels. North Creek's pollution comes from thousands of small sources, including a variety of pollutants from failing septic tanks, animal wastes, at-home car washing, lawn and garden care, and other daily activities.

## Opportunities and Implications

With regards to sewer and water infrastructure, a good deal of the infrastructure is in place to support growth in the near term within the planning area. As development occurs, some new extensions and some upgrades of existing infrastructure should be anticipated as naturally needing to occur. Growth should be closely coordinated with both Alderwood Water and Wastewater District so that demand and growth can be managed within the planning area and any system deficiencies can be communicated between agencies.

With regards to stormwater infrastructure, the City has a significant amount of storm drain pipe, culverts, catch basins, detention facilities and water quality treatment facilities to maintain and insure functionality. As existing infrastructure begins to age the City will likely need to consider an increase in repairs, replacements and even maintenance frequency. As development and re-development occurs, especially within the Canyon Park business zone, the City should look closely at opportunities to repair and replace aging stormwater infrastructure and also to reduce the amount of runoff that these systems experience.

Upon review of the current condition of existing infrastructure and planned capital improvements, the following opportunities and implications can be discovered:

## Water and Sanitary Sewer Opportunities

- Since the purchase of the North Creek Trunk Mains by King County in 2001, the upgrading of these critical lines is currently ongoing and being actively managed by King County. The recent upgrades and commissioning of the 42" North Creek Interceptor have provided additional capacity in the basin and additional reliability. This upgrade should be considered a key infrastructure improvement that would help support additional development within the Canyon Park Sub-Area. Additional improvements to the North Creek Trunk main and North Creek Trunk Main Extension are currently included in King County's capital improvement program (CIP) as medium-priority projects.
- The outlook for water supply for both the District's service area and to the Canyon Park Sub-Area, specifically Zone 520, is strong and has capacity to support growth in the area.
- Storage capacity in Zone 520 has additional capacity than is needed to meet projected growth.
- System-wide water transmission capacity and improvements appear to be sufficient to support the planned growth.

The results of the District's flow monitoring program for wastewater may help redefine system needs and reduce the number of capital projects needed within the North Creek Basin. This assessment will take time and should not be relied upon in the near term, however.

## Water and Sanitary Sewer Implications

- Given the large number of separate conveyance and collection system upgrades identified in the AWWD Comprehensive Plan needed within the basin (45 in total were noted), it may be necessary to review the planned improvements and determine if any major sewer capital improvements projects will need to be done in the short-term to support growth within the Canyon Park Sub-Area. These capital improvement needs will need to be closely coordinated with AWWD.
- With continued growth within the Canyon Park Subarea, the need to add pressure zones and the creation of a lower pressure zone within Zone 520 should be anticipated. Additional investment in these improvements should be planned for concurrent with development.
- Due to fire flow requirements within the City of Bothell, additional capacity improvements should be anticipated to meet the 1,500gpm standard in areas. Development proposals may

be required to provide, otherwise unnecessary, water distribution upgrades in order to maintain this relatively high fire flow standard. Revision of the fire flow standard may be a prudent option when looking at how to best encourage development and accommodate growth from a water distribution standpoint. Requiring developers to install costly water main improvements to maintain the high fire flow standard may have the unanticipated, and often unintentional, effect of inhibiting development and investment potential.

## Stormwater Opportunities and Implications

- **Opportunity:** There may be opportunities within older neighborhoods of the subarea that currently have no flow control or water quality treatment systems to implement retrofit systems that could detain and/or treat runoff before it is released into the subarea creeks. These systems could be located within planter areas or un-improved roadside shoulders and ditches and could include shallow bioretention cells, infiltration trenches, and even proprietary treatment BMPS such as Filterras or Modular Wetlands. There are Ecology grants available for retrofit projects so the City will want to track these grant opportunities.
  - **Implication:** Site assessment of these potential areas will require considerable effort, either by City staff or hired consultants. Public outreach will also need to be considered since these types of retrofit opportunities will likely be located adjacent to private residences and accesses.
- **Opportunity:** As part of their National Pollutant Discharge Elimination System (NPDES) permit the City is required to assess their entire storm drain collection system and determine the condition and whether or not repairs and/replacements are necessary. Trenchless technologies such as Cured in Place Pipe (CIPP), slip line and slip line spot repair are options that the City can consider to more cost effectively extend the life of deteriorating storm pipe.
  - **Implication:** Determination and implementation will require considerable effort by City staff or hired consultant.
- **Opportunity:** Where new development or re-development is to occur within the Subarea the City may have an opportunity to replace, repair or even upsize aging stormwater infrastructure as part of the development activities. In areas where roadway surface is being replaced it would be a good idea for the City to assess the condition of the stormwater infrastructure in that area and see if it makes sense to replace or upsize storm pipe while the roadway is exposed.
  - **Implication:** Additional City resources will be required to track and assess these opportunities, both in the Public Works division as well as in the Planning and Development Services division.
- **Opportunity:** On December 3<sup>rd</sup>, 2007 the City of Bothell experienced a major storm event which resulted in flooding at numerous locations throughout the city. Some of the flooding was caused by maintenance issues. More thorough and frequent maintenance of the Subarea's stormwater infrastructure (catch basins, pipes, flow control and water quality facilities) will go a long way in preventing flooding from occurring during large storm events.
  - **Implication:** Increased maintenance frequency and more thorough cleaning will result in increased maintenance costs and the need more maintenance resources.

- **Opportunity:** There is re-development planned for the Canyon Park business area. Since the re-development will likely not require flow control facilities because most of the improvements involve replaced impervious surfaces and not new impervious surfaces. The City has an opportunity to enforce more stringent requirements in this area and require that flow control and water quality facilities be installed. Additional flow control measures in this area will lessen the demand on the existing downstream stormwater infrastructure and North Creek.
  - **Implication:** Changing drainage code for a certain area of the City get quite political and possibly even deter re-development from occurring.
- **Opportunity:** A system-wide hydrologic and hydraulic analysis of the existing storm drain system would help pinpoint areas in the system that are currently under capacity or that would become capacity constrained due to new development. This analysis would really help the City prioritize which stormwater infrastructure improvements should occur first.
  - **Implication:** These types of modeling analyses involve considerable time and effort and will require the need to hire a consultant to perform them.
- **Opportunity:** Since most of the Canyon Park Subarea has been built out there doesn't appear to be a whole lot of opportunity to implement regional detention facilities. There is some open space that may be amenable to regional facilities. These areas are depicted on the attached stormwater basin exhibit. However, it should be noted that these areas have not been investigated in any detail. Limiting factors such as grade, groundwater table, sensitive area restrictions, etc. could be present.

## Community Design

### Current Policies and Plans

Bothell's plans for Canyon Park historically encouraged suburban business park development, set in greenery. The existing business park originated and was approved for development by Snohomish County before the area was annexed to the City of Bothell. The vision has evolved into a mixed use, walkable design with a greater intensity of uses. The following plans guide Canyon Park development and are summarized below:

- Canyon Park Subarea Plan
- Centennial Park Master Plan
- Canyon Park Vision Report
- *Imagine Bothell...* Comprehensive Plan
- Vision 2040 Regional Growth Center Framework

# Canyon Park Subarea Plan

The Canyon Park Subarea Plan applies the Comprehensive Plan's policies to Canyon Park's specific context. It includes urban design policies and proposed actions which seek to limit visually unpleasant signage, create welcoming areas on the northern gateways to Bothell, ensure that future development preserves the quality and character of the natural and built environment, encourages working with other agencies on arterial landscaping, and encourages the development of vibrant walk- and bikeable activity centers within the subarea.

## Urban Design Policies

1. Limit the height, size and intensity of signage along SR-527, 208th Street SE and 228th Street SE to that minimally necessary to identify businesses.
2. Develop a gateway design concept for the intersection of SR 527 and Filbert and Maltby Roads, to include extensive landscaping and a "Welcome to Bothell" sign, and possibly incorporating an electronic message center to advertise community events.
3. Ensure that development is designed with a sensitivity to the steep slopes and wetlands within the Subarea.
4. Ensure that improvements to 228th and 208th Streets SE retain and preserve the Subarea's character.
5. Coordinate with Snohomish County and WSDOT regarding frontage improvements along SR-527, SR-524 and 228th Streets SE to ensure that a high standard of landscaping is attained.
6. Promote development within the Canyon Park and Thrasher's Corner community retail / services centers which is bicycle, pedestrian and transit oriented, and creates a vibrant, appealing atmosphere through building and site design. Refer to the Urban Design Element.
7. Provide attractive, direct pathways for pedestrians and bicyclists which interconnect neighborhoods and provide convenient connections to transit, shopping, jobs, and services. Refer to the Transportation Policies and Actions below.

## Urban Design Actions

1. Contact Snohomish County and WSDOT planning staff to coordinate the frontage improvements planned for 228th Street SE, 208th Street SE (SR-524) and SR-527.
2. Develop design guidelines for the Canyon Park and Thrasher's Corner community retail / services centers.

# Centennial Park Master Plan

The Centennial Park Master Plan was adopted in 2002. It puts forward a design for the park with trails, both landscaped and undeveloped open space, picnic tables and shelters, the historic North Creek School House structure and interpretive displays, and active passive recreation features such as climbing stumps and a short stair climb. These developments would greatly expand the usable park area with walking and viewing opportunities. However, the remaining plan elements are not included in the 2019-2024 Capital Facilities Plan as there is no funding currently available.



Figure 37. Centennial Park Master Plan (Source: Thrasher's Corner Regional Park Master Plan, 2002)

## Canyon Park Vision

The Canyon Park Vision identifies key elements of the subarea's identity, utilizes these to build a vision framework for future development of the center, and includes priority urban design concepts to inform the design of future buildings and transportation infrastructure and open spaces.

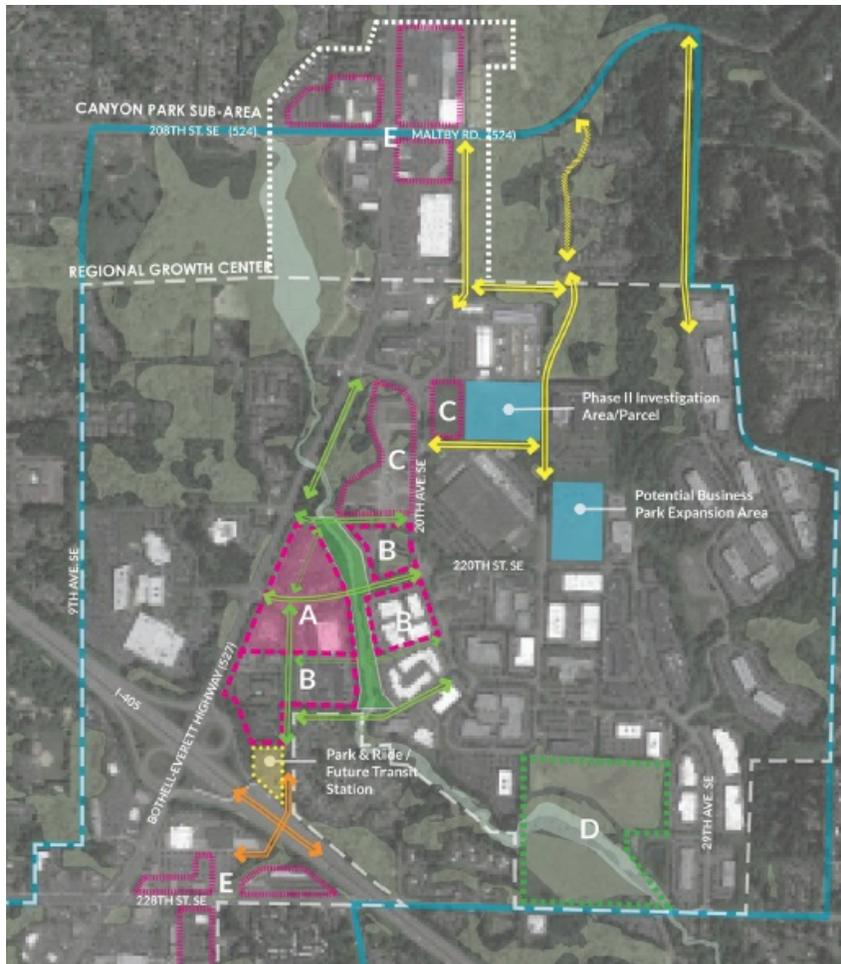
## Elements of Canyon Park Subarea Identity

- **Central Location.** The area around 220<sup>th</sup> St SE east of SR 527 has great potential to serve as a mixed-use node for Canyon Park. It is centrally located, has underdeveloped parcels and is adjacent to the North Creek trail and transit facilities.
- **Gateways into the Subarea.** Three important gateways to Canyon Park were identified, including:
  - SR 527 and 228<sup>th</sup> St SE on the southwest corner of the subarea is a gateway featuring a retail shopping node.
  - 29<sup>th</sup> Dr SE and 228<sup>th</sup> St SE on the southeast corner of Canyon Park serves as a gateway to the business park section of the subarea.
  - SR 527 and SR 524/Maltby Rd/208<sup>th</sup> St SE serves as a northern gateway and retail hub known as “Thrashers’ Corner”

## Vision Framework

The Vision Report identifies a spatial framework for the subarea consisting of five elements:

- A **Primary Activity Node** centered at 220<sup>th</sup> St SE and 17<sup>th</sup> Ave SE with a mix of residential and commercial uses, seamless access to transit, and a signature public space.
- **Activity Node Extensions** northeast and south of the Primary Node with mixed-use development.
- **Mixed-Use Residential Areas** to the northeast of the Primary Node and Extensions including structured parking to serve retail areas to the north.
- **Passive Recreation Opportunity** featuring trails and open space on the North Creek wetland in the southeast corner of the subarea.
- **Secondary Node Opportunities** at SR 527 and 228<sup>th</sup> St SE and Thrasher’s Corner with opportunities for mixed-use redevelopment; these areas may require Regional Growth Center boundary readjustment.



LEGEND	
A.	Primary Activity Node
B.	Activity Node Extensions
C.	Mixed-Use Residential Areas
D.	Passive Recreation Opportunity
E.	Secondary Node Opportunities

Figure 38. Vision Framework map (Canyon Park Vision)

### Vision Concept – Urban Design Elements

The following urban design concepts should be considered in future planning efforts and apply especially in the envisioned Primary Activity Node centered on 220<sup>th</sup> St SE and 17<sup>th</sup> Ave SE.

#### *Public Space and Natural amenities*

- Wide sidewalks and public plazas
- Multi-modal streets including bike lanes and street parking
- Natural areas as pedestrian amenity
- North Creek features as a showcase natural amenity
- New park and signature public spaces that includes areas for active recreation

#### *Transportation*

- New connection to the North Creek Trail and enhancement of existing trail infrastructure
- Improve access and connection to the park-and-ride facility and transit services

- Focus on improved transit services and non-motorized infrastructure for Canyon Park employees
- Design of updated street cross sections/City standards to balance needs of trucks, commuters and residents
- Explore public-private partnerships to fund improvements to private roads and to facilitate transfer to public ownership and maintenance

#### *Building Uses and Orientation*

- Buildings that engage the street and sidewalks
- First floor retail where appropriate
- Sidewalk cafes where appropriate
- Large floor-plate for research and tech office

### *Imagine Bothell... Comprehensive Plan*

The Comprehensive Plan includes policies relating to urban design throughout the city. The plan emphasizes three distinct levels at which urban design can be addressed:

- **Urban spatial structure**, which applies to the overall coherence of the form of an urban environment;
- **Urban components**, which applies to design of open spaces like parks, plazas, and streets, and the relationships between buildings; and
- **Urban details**, which applies to elements like street furniture, paving materials, trees, and ground floor details.

Plan policies seek to shape an urban environment with a coherent structure of activity nodes and multimodal transportation links, composed of street elements with a strong relationship to adjacent buildings and adequate and attractive on-street open space, with ample nearby parks and open natural areas, and minimal impacts on surrounding low-density residential areas.

#### Urban Design

- UD-P1  
Improve selected arterials within the Planning Area as landscaped boulevards to visually integrate the community and provide a pleasant driving, transit-riding, bicycling and walking experience along arterials. This system of boulevards should consist of features including the following:
  - Landscaped or aesthetically designed medians and a street tree planting scheme;
  - Well-designed transit stops and architecturally designed shelters;
  - Bikeways;
  - Well-designed walkways and special pavement treatment at appropriate areas;
  - Noise attenuation walls where appropriate;
  - Special landscaping treatments at gateways to the City, including “Welcome to Bothell” signs, possibly incorporating electronic message displays to announce City activities.

- Special sidewalk, street furniture, street trees, light fixtures, and other design features should be created for boulevards within and linking activity centers.
- In the Canyon Park Subarea, these policies apply to SR 527, SR 524/Maltby Rd/208<sup>th</sup> St SE, and 228<sup>th</sup> St SE.
- UD-P2  
Promote site design features in Bothell's community and regional activity centers and other residential, commercial and industrial areas which encourage transit, pedestrian and bicycle mobility.
- UD-P3  
Pedestrian linkages between major activity areas should be provided across built features that act as barriers to safe and easy access.
- UD-P4  
Explore ways to partner with the private sector to achieve high quality urban design that preserves and enhances property values as well as community amenities.

### *Community*

- UD-P4  
Activity centers within Bothell should have a community focal place for public interaction. A focal place may be a park, plaza, shopping street or other feature which invites interaction. The focal place should accommodate transit service and be linked to residential areas via pedestrian and bicycle facilities.
- UD-P5  
Provide for pedestrian-oriented mixed use neighborhood villages where appropriate within the Planning Area to promote a sense of community to residential areas and reduce the number and length of limited item convenience shopping trips by automobile.
- UD-P6  
Develop a variety of active and passive parks and open spaces accessible to all residents of the community. These facilities may be developed by the City or by private developers in conjunction with a residential, commercial or industrial development. See also Parks and Recreation Element.
- UD-P7  
Retain existing natural features such as steep slopes, wetlands, streams, and mature wooded areas as open space. See also Natural Environment and Land Use Element.
- UD-P8  
Provide convenient pedestrian pathways connecting residences with parks and recreation facilities, transit, shopping and services, other residential areas or subdivisions, and places of employment. Landscaping, lighting, and pedestrian furniture such as benches and trash cans should be incorporated into the design of such pathways.
- UD-P9  
Provide convenient bicycle pathways or routes connecting residential areas with parks and recreation facilities, transit, shopping and services, and places of employment, and connecting City streets with the regional road network to facilitate commuting.

- UD-P10  
Due to the difficult topography within Bothell’s neighborhoods and the reality that Bothell residents wish to discourage cut-through traffic on residential neighborhood streets, it is the policy of the City of Bothell that the residential street pattern shall not emphasize a grid or connected network of streets that would promote neighborhood cut-through traffic, but should accommodate non-motorized connections and consider emergency and life safety access.
- UD-P11  
It is the policy of the City of Bothell to support a connected network of streets within Bothell’s community activity centers and other commercial areas so long as these connections do not encourage or promote residential neighborhood cut-through traffic.
- UD-P12  
Where the Right-of-Way allows, provide street trees on both sides of all streets. Develop street tree plans for activity centers to visually unify and define the boundaries of such centers. Refine the street tree plan for the boulevard system. Select tree species which are appropriate for their designated locations, taking into consideration factors including but not limited to clearance under aerial wires and proximity of underground utilities and sidewalks.
- UD-P13  
Promote transit usage in road improvements through provision of well-designed bus-oriented streets, stops and attractive and inviting shelters.
- UD-P14  
Promote the design and installation of subarea or neighborhood signage, where desired by residents and/or business owners, to foster a sense of identity and pride in residential and/or commercial areas.
- UD-P15  
Ensure that development on hillsides blends visually and functionally into the natural environment to the maximum extent possible.

### *Design Guideline-like Policies*

#### *Streetscape*

- UD-P16  
New development should accommodate human activity by providing balconies, terraces and yards for residents’ use. Entrances, porches, balconies, decks and seating should be located to promote pedestrian use of the street edge by providing weather protection, security and safety.
- UD-P17  
Provide clearly marked pedestrian entries from the street. Parking garage and parking lot entries should be physically separated from the pedestrian entry and should be designed to complement rather than subordinate the pedestrian entry.
- UD-P18  
Buildings should not orient large areas of blank walls to the street. Blank walls should be screened with landscaping such as vine-covered trellises and planting beds, architectural features such as decorative tile or masonry, or art such as murals or bas-relief sculptures.
- UD-P19  
Retaining walls and exposed foundations should be either of materials which reduce their scale, such as brick or stone, or treated sculpturally to appear less monolithic. High retaining walls should be terraced down and incorporate hanging or climbing vegetation. In hillside development, retaining walls and high foundations on the underside of buildings shall be screened with vegetation.
- UD-P20  
Service facilities such as dumpsters, electrical meters and mechanical equipment should not

face the street. Dumpsters should be screened with a durable and attractive structure. Gutters and downspouts should be visually integrated into the design of the building.

- UD-P21  
All parking lots and storage, loading or maintenance areas within visual proximity of a public sidewalk should be screened from the sidewalk to create a pleasant pedestrian environment.
- UD-P22  
Parking garages should be architecturally compatible with the remainder of the building. Parking garages located within a pedestrian oriented area of an activity center having frontage on a street should have the street level floor devoted to retail business and personal services or office uses. Parking garages outside pedestrian oriented areas of activity centers having frontage on a street should be screened with landscaping, berming and/or grillwork, subject to maintaining adequate sight lines for the safety of pedestrians and motorists.
- UD-P23  
Within and around activity centers, provide pedestrian scale lighting. Lighted bollards should be considered to illuminate paths and walkways. Provide indirect light to the sidewalk by lighting elements in the street environment such as trees, walkways, canopies and entryways.
- UD-P24  
Exterior lighting should be an integral part of the architectural and landscape design of any project. Fixture style and design should be compatible with the building design, while providing appropriate and safe levels of lighting.
- UD-P25  
Infill development on existing streets should enhance and preserve the distinctive and positive qualities of the streetscape, through such measures as matching or complementary landscaping designs and materials, construction materials, colors, textures or elements, and lighting fixtures.
- UD-P26  
Integrate trees and planting beds within parking areas. Indigenous varieties of plant species are recommended, particularly those that minimize water and maintenance requirements.

#### *Site Planning*

- UD-P27  
Buildings should be sited to acknowledge and reinforce the existing characteristics of the street.

In established neighborhoods new buildings should be set back from the street approximately the same distance as neighboring buildings. However, where protection of existing trees or other natural features or preservation of views is desired, varying street setbacks may be appropriate.

- UD-P28  
Where appropriate, buildings should provide a front face to the street, and building facades should relate to the street. The main approach to any residential building should not be off a parking lot. Provide clear pedestrian entries to buildings from the street and not just from adjacent parking lots. Compose architectural elements to add interest to the building facade. Provide a transition from the public realm of the street to the private realm of the residence. Such a transition could be a well landscaped front yard, a low fence or wall, a courtyard, or other device that provides privacy but visibility from the street.
- UD-P29  
Within the context of higher density, mixed residential and commercial zones, residential and mixed-use buildings should be sited to orient to the street and respect adjacent residential properties. Careful siting should focus views towards private courtyards or gardens, and limit parking lots. Structured parking is encouraged to reduce the impact of cars and parking lots. Mixed-use development should provide clear pedestrian circulation routes connecting residences and parking to adjoining uses and services.
- UD-P30  
Buildings which project beyond the homes on adjacent lots should be carefully designed to minimize their impacts on privacy and solar access.
- UD-P31  
Parking, except on the street edge, should not be located between buildings and the street, particularly where residential structures are concerned. Surface parking which cannot be located to the rear of the development should be located to the side if screened from adjacent residences. Provide a screening wall of solid and attractive materials enhanced by landscaping to buffer the visual and audible impacts of automobiles. The height of the screen should be sufficient to prevent direct views from the parking lot into the first floor of residential units on adjacent lots and block headlights. Provide trees, trellises or other coverings which reduce the views of parking lots from neighboring homes.

Locate and aim parking lot and other site lighting so that it does not cause glare and intrusive light patterns into neighboring residential properties.

- **UD-P32**  
Organize and site multi-family residential buildings to create usable open space by utilizing one or more of the following: well landscaped courtyards; individual outdoor spaces for all ground floor units; rooftop decks, balconies, and well defined patios; play areas for children, located away from parking lots and the street edge; group or individual garden plots for residents' use; other similar outdoor open spaces. Open space should be large enough to accommodate human activity and seating. Balconies should generally be at least six feet deep. Orient outdoor spaces to receive sunlight. Provide paths, site furniture, lighting and other elements which will make outdoor spaces more enjoyable and better used.
- **UD-P33**  
Continue applying and refining regulations and programs to promote the protection of significant trees and groves in order to:
  - retain the positive visual character of the landscape;
  - preserve and enhance the city's physical and aesthetic character;
  - minimize surface water runoff, prevent erosion and reduce the risk of landslides.
- **UD-P34**  
Encourage transit use by making transit more convenient and by ensuring that transit and bus shelters are integrated compatibly into the neighborhood.

#### *Building Design*

- **UD-P35**  
The design of a building, its location on the site, and its layout should respond to specific site conditions. Site characteristics to consider in the design of a building include the following:
  - **Topography**  
Reflect natural topography rather than obscure it. For example, buildings should be designed to step up hillsides to accommodate significant changes in elevation. Where neighboring buildings have responded to similar topographic conditions on their sites in a consistent and positive way, consider similar treatment for the new building. Designing the building in relation to topography may help to reduce the visibility of parking garages.

- **Solar Orientation**

The design of a structure and its massing on the site should enhance solar exposure for new development and minimize impacts on adjacent structures and public areas to the maximum extent possible.

- **Corner Lot**

Building design can accent the corner at an intersection of streets with a change of building wall plane and roofline.

- **Site Size and Configuration**

On small, narrow sites or sites with frontage on narrow streets, massing and design should help minimize the perception of building bulk, minimize impacts on adjacent development and enhance conditions for on-site open space.

- **Natural Features**

Reflect natural features such as views, stands of trees, and open space by providing views and pedestrian access to these amenities.

- **Pedestrian Oriented Shopping Streets**

Reinforce the streetscape within commercial areas with shops at ground level and pedestrian amenities. Within community activity centers, include wide sidewalks, street trees within tree grates, street furniture, special lighting standards, and other pedestrian amenities. Pedestrian oriented streets can be private streets within shopping centers.

- **Existing Structures on the Site**

Where a new site shares a site with an existing structure or is a major addition to an existing structure, designing the new structure to be compatible with the existing structure will help it fit in.

- **UD-P36**  
Unless there is an overriding concern or a poorly defined context, new buildings should reflect the architectural character of surrounding buildings in some of the following ways:
  - similar unifying concept;
  - similar proportions, scale, and roof line;
  - similar architectural style, and exterior finish materials;
  - similar patterns and proportions of windows;
  - similar entry configuration and relationship to the street;
  - similar architectural details or features.
- **UD-P37**  
Use modulation and articulation in a clear rhythm to reduce the perceived size of all large buildings.

- UD-P38  
Buildings should be designed and built with a sensitivity to the architectural scale of adjacent buildings.
- UD-P39  
Consideration should be given to the design of a building's roofline that articulates the top element of the building and reinforces the overall architectural character. No roof mounted mechanical equipment should be visible from the sidewalk or roadway of the adjacent street.
- UD-P40  
All buildings should incorporate well-proportioned architectural features, elements and details to achieve good human scale.
- UD-P41  
Building exteriors should be constructed of durable and easily maintainable materials that are attractive at close distances. Materials that have an attractive texture, pattern or quality of detailing are encouraged. Siding should reflect in texture and color typical Northwest building patterns like wood siding and shingles, brick, stone and terra-cotta tile. Metal siding should have visible corner moldings and trim. Metal roofing colors should be subdued to avoid glare. Reflective glass is discouraged in a residential or pedestrian oriented streetscape. Concrete walls should be enhanced by texturing, coloring with a concrete coating or admixture, or by incorporating embossed or sculpted surfaces, mosaics or artwork. Concrete block walls should be enhanced with textured blocks, colored mortar, decorative bond pattern and/or incorporating other masonry materials. Stucco and other trowel finishes should be trimmed in wood or masonry and should be sheltered from extreme weather by roof overhangs or other methods.
- UD-P42  
Signage on commercial, retail, and industrial buildings should be the minimum necessary to indicate the presence and function of the business. Signs that incorporate moving or flashing elements are discouraged, and portable signs should be limited and controlled. The size, scale, and amount of signage should be compatible to the mass and scale of the building and its associated architectural features.

## Other Related Plan Goals, Policies, and Actions

### *Land Use*

#### Goals

- LU-G6  
To accommodate the amount of population and employment growth forecasted by the state Office of Financial Management, King County and Snohomish County for the City of Bothell over the term of the Plan.
- LU-G11  
To promote Growth Management Act goals of preventing sprawl and preserving rural resource lands by considering Transfer of Development Rights (TDR) as a land use development tool and potential source of Tax Increment Financing (TIF) for the City.

#### Policies

- LU-P5  
Promote integration of housing and commercial development in locations where combining such uses would be mutually beneficial.
- LU-P19  
Incorporate consideration of physical health and well-being into local decision making by locating, designing and operating public facilities and services in a manner that uses sustainable building and development practices and that encourages walking and bicycling access to public facilities.

## Actions

- LU-A6  
Explore adoption of a Transfer of Development Rights (TDR) program as part of an urban design study for the Canyon Park Regional Growth Center. Such a program should not be limited to just the RGC, however, but should consider other areas of the City as part of a potential Local Infrastructure Project Area (LIPA). Should an urban design study for the RGC not be funded as anticipated for 2016 – 2017, consideration of adoption of a TDR program should occur separately.

### *Historic Preservation*

The Comprehensive Plan includes policies to preserve historically significant buildings and places. Canyon Park includes one historic register building in Centennial Park and several historic inventory properties around the periphery of the subarea.

# Description of Current Conditions

## Overall Built Environment

Canyon Park is characterized by 1990s-era business park development, a landscape emphasizing trees and greenery, an outdoor environment and street and building layout designed for automobiles more so than for people, and retail/restaurant activity mostly segregated from other uses. The dispersion of different land uses throughout the large area makes Canyon Park feel suburban and lacking any clear nuclei of human activity. Tree-lined boulevards, extensive wetlands, and evergreen stands give the area a park-like atmosphere with significant greenery.





## Gathering Places and High Activity Areas

As urban design is centered around people, this analysis begins with identifying places where people are already convening or visiting. Areas with high levels of activity include:

- **Major employers.** With over 10,000 jobs in Canyon Park and many concentrated at a few major employers (noted with purple asterisks on Figure 40), daily visits bring life to the business parks.
- **Retail and restaurants.** Canyon Park has two strip mall-oriented shopping centers—Thrasher’s Corner and Canyon Park/Canyon Park Place—that draw people to the area and two additional gathering places—Starbucks/McDonalds and food trucks—for people already in the area (noted with red stars on Figure 40). The strip malls house a mix of national chains and small, local businesses. These local businesses, such as Apna Bazaar in Thrashers Corner, likely have a regional clientele and add to the character of the area.
- **Park-and-ride.** The Canyon Park park-and-ride on 17<sup>th</sup> Ave SE at I-405 draws nearly 300 vehicles per day for people using Community Transit and other buses.

However, Canyon Park is generally not seen by businesses and employees within the business park as an amenity-rich area with lively gathering places, and no activated public places are found in the area. The assets listed above are a starting point for improvement.

## Open Space and Recreation

Canyon Park is rich with passive and recreational natural areas. In particular, the following elements build the identity of Canyon Park as a “green,” park-like place:

- **Tree-lined streets.** A mix of naturally occurring and human-planted trees gives the area a green character. Travel along SR 527 includes a sequence of major stands of trees to mark entry into Canyon Park from I-405, planted trees that subdue the strip mall and business parks’ architectural impact on the streetscape, remaining natural areas, including a stand of evergreens that act as a backdrop to certain views, and finally a planted median upon entry at Thrashers Corner. Streets running through the business parks are typically lined with trees and manicured grass, extending the park-like character through the area. Likewise, parking lots tend to contain many trees.
- **North Creek and North Creek Trail.** Running north-south through Canyon Park, North Creek and the North Creek Trail offer a natural greenway through the center of Canyon Park. The creek provides a green spine and the trail a recreational and functional path set in nature.
- **Wetlands.** Much of the area, especially in the northwest, is wetlands, resulting in much land being preserved as open space for environmental functions.
- **Parks.** Centennial Park is a large park with passive recreational opportunities near its entrance on SR 524 to view the wetlands. Cedar Grove Park has sports courts and a playground but is cut off from much of Canyon Park by wetlands, I-405 and SR 527.
- **Private open spaces.** A handful of private open spaces, likely provided as outdoor amenities as part of developments, dot the area, offering walking trails, seating,

picnicking (near North Creek at the Canyon Park Business Center), and/or simply a landscaped viewable area.



*Figure 41. North Creek is a natural and visual asset to Canyon Park. Opportunities exist to better connect pedestrians to and across the creek. Photo location near the pedestrian bridge south of 220<sup>th</sup> St SE.*



*Figure 42. The North Creek Trail offers a walking/bicycling path separated from vehicles in a natural environment.*



Figure 43. Wetlands and evergreen tree clusters characterize much of Canyon Park, especially this northwest area (Google).



*Figure 44. The Canyon Park Business Center includes a picnic area and lawn adjacent to North Creek. By connecting to the North Creek Trail and a creek crossing to the western portion of the business center, this is an important node.*



*Figure 45. Open space in front of Romac provides green space, safe pedestrian paths, and a soft celebrated entry. However, it is not designed for gathering, recreation, play, eating lunch, or other typical park activities. As Canyon Park densifies, spaces like this might be improved to better support community purposes (Google).*



*Figure 46. Natural open space associated with Silicon Mechanics on 20<sup>th</sup> Ave SE (Google)*



*Figure 47. Open space in front of Providence Apartments buffers homes from the street and adds aesthetic value but does not function for human gathering (Google). Siting the open space away from the highway could have resulted in a more usable space.*



*Figure 48. A play area within the Providence Apartment complex provides a gathering space for residents of the complex (Google).*

## Paths, Mobility, and Connectivity

Canyon Park has the beginnings of a pedestrian and bicycle-friendly network. Assets include:

- The North Creek Trail, as mentioned above,
- Many smaller trails that provide options for people walking or biking in the area, and
- Sidewalks buffered from vehicular traffic with landscaped strips that provide safe and comfortable walking paths through many of the business parks, and
- Access to buses and a private internal shuttle along SR 527, 220<sup>th</sup> St SE, and 26<sup>th</sup> Ave SE.

Though walking trails and sidewalks exist in places, missing connections, a lack of amenities such as shopping, restaurants, and gathering places, and distances between destinations make it challenging for pedestrians and cyclists. The overall street network has primarily been designed for automobiles, and surface parking lots take up a large portion of the land.



*Figure 49. This pedestrian bridge connects the Canyon Park Business Center east-west across North Creek and is adjacent to the open space pictured in Figure 44.*



*Figure 50. Tree-lined boulevards, like this 23<sup>rd</sup> Dr SE at Leviton, course through the business parks. Many include sidewalks buffered from automobile traffic with landscaping (like the right side of this photo), while some areas are missing sidewalks (like the left side) (Google).*

## Existing Architecture and Aesthetics

**Business parks.** These flexible buildings allow for changing uses over time, including manufacturing, office, and tech. The one to four story buildings are set far back from the street, having little relationship with it. Though this provides for extensive landscaped areas, it disperses activity away from the street and over greater distances, thus encouraging travel by automobile rather than foot or bike. The landscaped areas do visually buffer the extensive surface parking lots and subdued architecture.

**Retail/restaurants.** Similarly, the retail environments, though accommodating pedestrians, are intended for people arriving by car. They are typical suburban strip malls with extensive surface parking. Street landscaping gives them a green character.



*Figure 51. Commercial buildings in Canyon Park hold offices, small-scale manufacturing, high tech work, and/or labs. Uses have changed over the years, indicating that the flexibility of the buildings has been useful.*



*Figure 52. The Canyon Park Business Center, straddling North Creek, houses many smaller businesses.*

# Implications and Opportunities

Past planning has identified numerous urban design goals. They align with this analysis's findings, and most importantly:

- The auto orientation and prevalence of singular uses are not conducive to a vibrant, people-oriented neighborhood. As discussed in the land use section, a greater density and mix of uses would add vitality.
- Canyon Park is an important employment hub for the city. Any redevelopment should add to, and seek to avoid displacing, the range of businesses served well by the existing flexible buildings.
- The existing parks are not central to any existing activity centers, and the private open spaces do not offer active recreation or encourage gathering (beyond perhaps a lunchtime work picnic). Canyon Park needs a focal point, including a great public space surrounded by active, day and evening uses.
- North Creek could be a unifying feature for Canyon Park. As a place that is already rich in natural areas, connecting across the creek and making it more accessible would enhance this identity while improving connectivity. The trail crossing at the Canyon Park Business Center south of 220<sup>th</sup> St SE is important and could be celebrated more.
- With steep slopes and major roads/highway dividing the subarea, focusing on the central area near the park-and-ride may be most impactful for enhancing Canyon Park as a hub of activity. Over time, connections to and building activity and energy in additional focal points will become more important.
- The traditional business park and strip mall design worked well for an auto-oriented suburban area. As Canyon Park becomes more urban and better served by transit and other transportation modes, newer buildings may need updated design standards to create a more walkable and comfortable environment for people. Active, human-scale ground floors close to the street would provide desired amenities for local workers and help the street feel lively.
- Infill development on surface parking lots could help Canyon Park transition from regional employment center to holistic neighborhood.
- Streetscape design and connectivity has been focused on buffering sidewalks along major streets from vehicles with landscape strips. The landscaping effort should continue to build on the green character of Canyon Park, but more small-scale connections are needed.

# Glossary

Activity Units	A measurement of density comprising the sum of population and jobs within a defined area. Used by PSRC for Regional Growth Center calculations.
AWWD	Alderwood Water and Wastewater District
BMC	Bothell Municipal Code
BMP	Best management practice for water pollution
BRT	Bus Rapid Transit
CARAs	Critical Aquifer Recharge Areas
CC&R	Covenants, Conditions & Restrictions
CIPP	Cured in Place Pipe
CIP	Capital Improvement Program
COBMap	City of Bothell Interactive Map
ETL	Express Toll Lane
FEMA	Federal Emergency Management Agency
FFAs	Frequently flooded areas
FWHCAs	Fish and Wildlife Habitat Conservation Areas
GMA	Growth Management Act
KCDNR	King County Department of Natural Resources
LIPA	Local Infrastructure Project Area
LOS	Level of Service
NPDES	National Pollutant Discharge Elimination System
PHS	Priority Habitats and Species
PSRC	Puget Sound Regional Council
PRV	Pressure Reducing Valve
R-AC	Residential-Activity Center
RGC	Regional Growth Center
SEPA	State Environmental Policy Act
SMP	Shoreline Master Program SMP
SOV	Single-Occupancy Vehicles
SWIFT	Community Transit's Bus Rapid Transit Brand
SWMA	Surface Water Management Areas
TDR	Transfer of Development Rights
TMDL	Total Maximum Daily Load
TNCs	Transportation Network Companies
USEPA	United States Environmental Protection Agency

WAC Washington Administrative Code  
WDFW Washington Department of Fish and Wildlife  
WRIA Watershed Resource Inventory Area  
WSDOT Washington State Department of Transportation