Exhibit 5

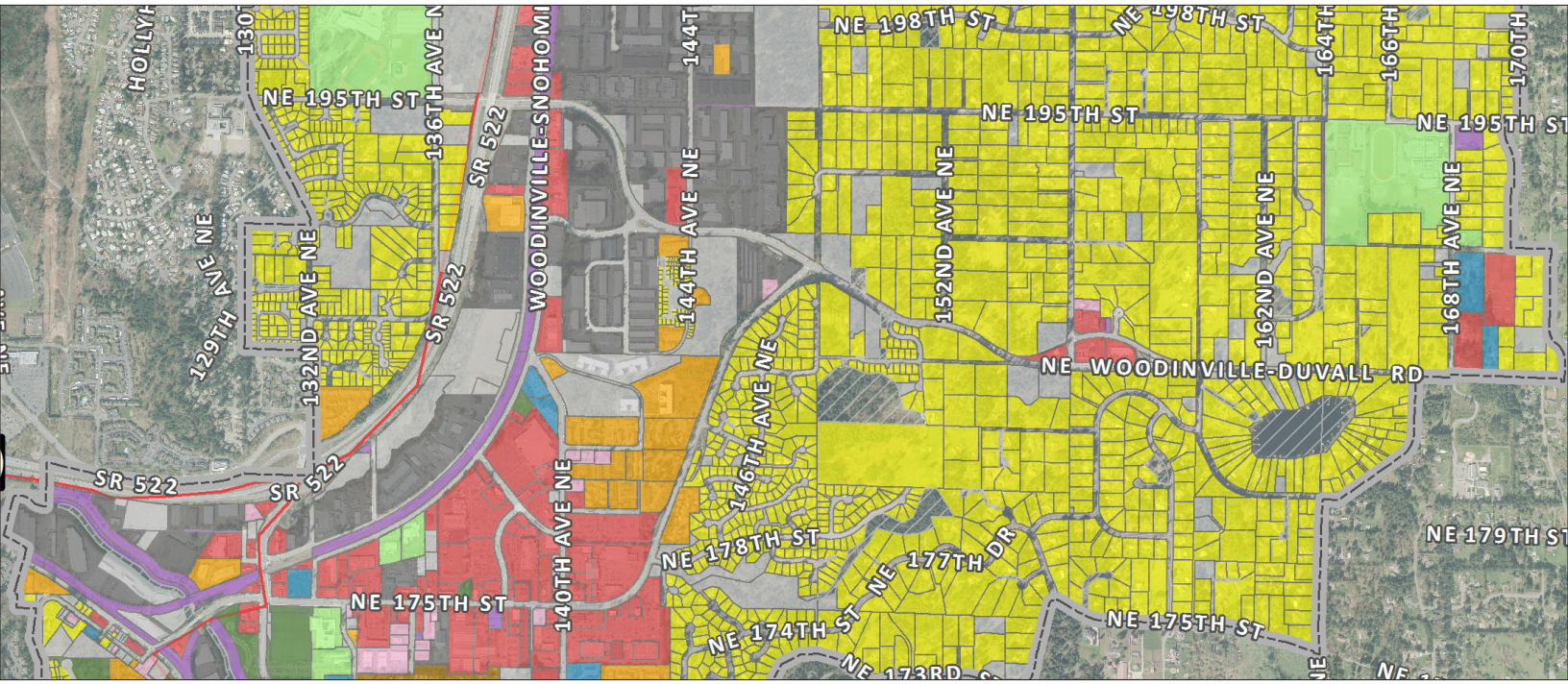
REVISED DRAFT

City of Woodinville

2015 Comprehensive Plan Update & Municipal Code Update

Existing Conditions Report

November 2014



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City of Woodinville

CITY OF WOODINVILLE
COMPREHENSIVE PLAN UPDATE
REVISED DRAFT EXISTING CONDITIONS REPORT

November 2014

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Exhibits

1.0 INTRODUCTION

1.1 Purpose

The purpose of a comprehensive plan is to shape Woodinville's physical development over a 20-year period, guide growth consistent with the community's values, and ensure current and future residents and businesses are supported by necessary municipal services. The City of Woodinville is required to update its Comprehensive Plan and development regulations according to the Growth Management Act (GMA) by June 30, 2015.

GMA requires the City to address the following elements in its plan: land use, housing, capital facilities, utilities, transportation, economic development, and parks and recreation. Optional elements include subarea plans or other element topics. The comprehensive plan addresses a 20-year planning period, and must demonstrate an ability to accommodate future growth. The City plans in coordination with King County and neighboring cities through Countywide Planning Policies for King County and through VISION 2040 a regional plan adopted through the Puget Sound Regional Council.

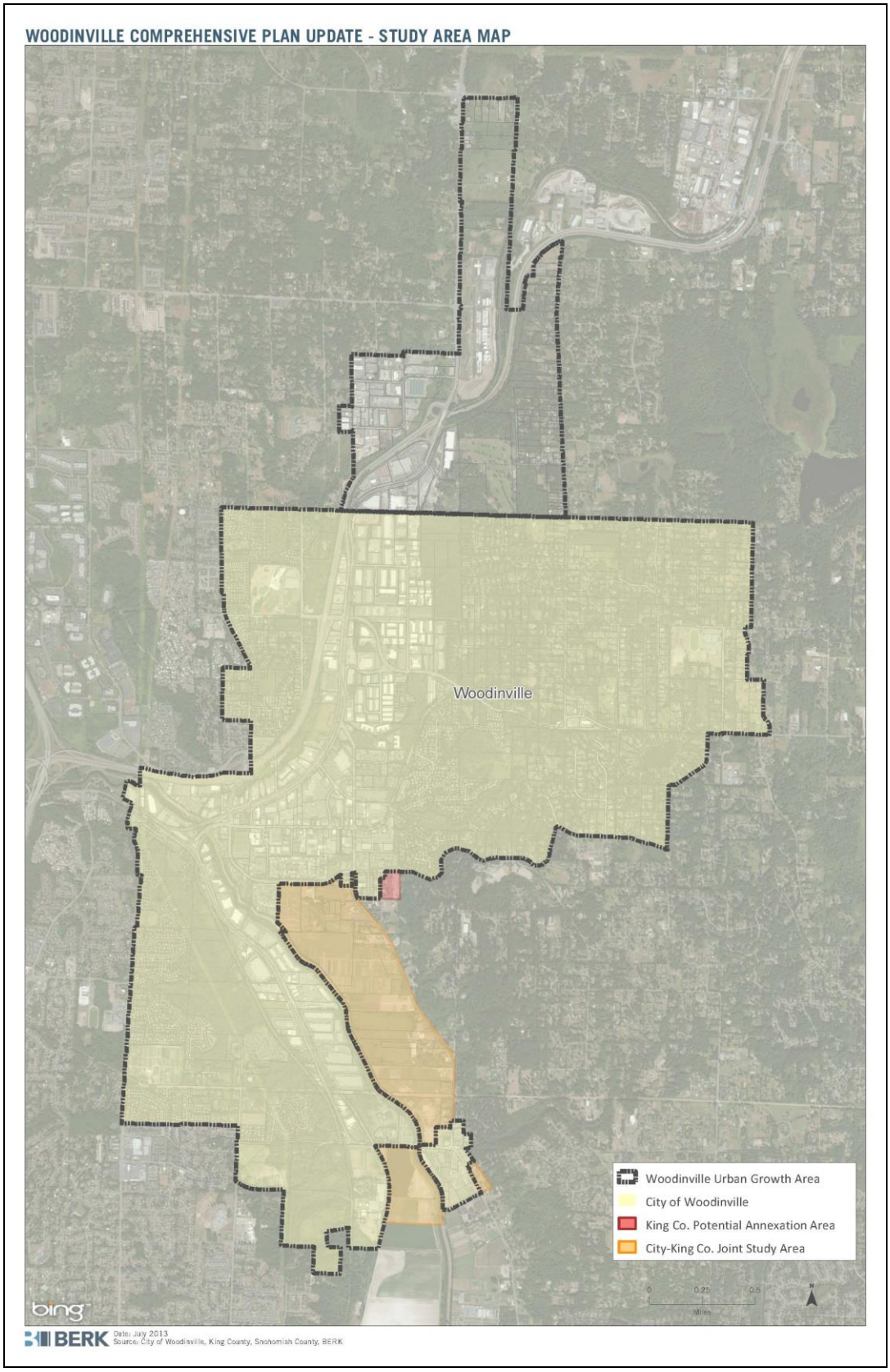
For each element, GMA requires an inventory of conditions. This Revised Draft Existing Conditions Report presents current built and natural environment conditions for land use, community design, natural environment, economic development, capital facilities, and utilities. The document is intended to provide a base of information to support the preparation of the Woodinville Comprehensive Plan and associated State Environmental Policy Act (SEPA) review documents. This information is expected to be revised as the Comprehensive Plan Update progresses through a public review process in 2014 and 2015. Additional information about the project can be found at the City's project website: http://www.ci.woodinville.wa.us/Work/ComprehensivePlan2015.asp.

1.2 Study Area

The City's focus for the Plan and Code Update will be the Woodinville city limits. However, the City wishes to ensure it considers how areas surrounding the City affect Woodinville, and also where the City may ultimately grow in the future. As it has in the past, the City will consider areas north of the City in the Maltby area as a future growth area. Additionally, the City wishes to jointly study the Sammamish River valley that is important to the City's winery and tourist industry, and will be working jointly on this with King County over a period of time. The study area for the Comprehensive Plan Update is depicted on Exhibit 1.2-1 and more specifically includes:

- The current incorporated City boundaries;
- The City's adopted King County Potential Annexation Area (PAA) – This area consists of a small residential subdivision (approximately 6.6 acres) located adjacent to the city's southeastern boundary.
- The City's locally-adopted Urban Growth Area (UGA) – This area consists of the City's locally adopted UGA adjacent to its northern boundary in Snohomish County, as well as some adjacent residential land. The City established this UGA in its current Comprehensive Plan, though it overlaps the existing Snohomish County Maltby UGA and has not been officially assigned to Woodinville by Snohomish County. The City has chosen to include the UGA in the study area for the Comprehensive Plan Update and has expanded it from its previous boundaries to include adjacent residential areas.
- The City-King County Joint Study Area – This area, adjacent to the City's southeastern border along the Sammamish River, is not an official UGA or PAA designated by the County, but the City and King County have discussed the benefit of promoting the wine and agriculture industries in Woodinville. The City has included it in the study area for the Comprehensive Plan Update recognizing its importance to the broader community, though annexation is not anticipated. For purposes of logical planning review boundaries the joint-study area depicted is slightly different in the south and southwest than the joint-study boundaries under consideration by King County.

Exhibit 1.2-1. Study Area Map



Source: City of Woodinville, BERK Consulting 2013

2.0 EXISTING CONDITIONS INVENTORY

2.1 Land Use

Overview

This chapter of the Existing Conditions Report provides information on the current land use planning framework in the study area, including adopted land use plans, existing land uses, and future land use designations and zoning applied by the City of Woodinville, King County, and Snohomish County. This inventory relies primarily on information from the City of Woodinville, King County Assessor, King County Department of Permitting and Environmental Review, and Snohomish County Department of Planning and Development Services.

Regulatory Context and Planning Framework

Washington State Growth Management Act (GMA)

GMA contains 13 broad planning goals (Revised Code of Washington [RCW] 36.70A.020) to guide local jurisdictions in determining their vision for the future and in developing plans, regulations, programs and budgets to implement that vision. The 13 planning goals are summarized below:

- Guide growth in urban areas
- Reduce sprawl
- Encourage an efficient multimodal transportation system
- Encourage a variety of housing types including affordable housing
- Promote economic development
- Recognize property rights
- Ensure timely and fair permit procedures
- Protect agricultural, forest, and mineral lands
- Retain and enhance open space, protect habitat, and develop parks and recreation facilities
- Protect the environment
- Ensure adequate public facilities and services
- Encourage historic preservation
- Foster citizen participation

A fourteenth goal of GMA consists of the goals and policies of the Shoreline Management Act as set forth in RCW 90.58.020. The most relevant goals for the City's land use plans include: focusing growth in urban areas where services existing, reducing sprawl, promoting housing and economic development activities while protecting the environment.

The Land Use Element required by GMA will provide for a distribution of land use designed to meet local City visions and needs for residential, employment, recreation, public facilities and other land uses, as well as accommodate the City's share of growth allocated to it by King County through the Countywide Planning Policies.

City of Woodinville Comprehensive Plan Land Use Element

The Land Use Element of the Woodinville Comprehensive Plan discusses future land uses within the city and establishes goals for guiding future growth in a manner that creates an overall land use pattern consistent with the City's vision and the goals of the GMA. Current goals include the following:

- Preservation of the city's Northwest woodland character;
- Establishment of land use patterns that reduce dependence on single-occupant automobile travel;
- Provision of a range of residential patterns and densities;
- Encouragement of a variety of commercial and employment services;

- Development of a pedestrian-oriented downtown with a mix of commercial, residential, and civic uses; and
- Creation of a diverse industrial area to promote economic growth.

The Land Use Element also establishes future land use designations, which broadly define Woodinville's desired land use pattern and, in concert with implementing zoning districts, regulate allowable land uses throughout the city. These designations and their distribution throughout the city are discussed in greater detail in the Existing Land Use Conditions section.

While the Land Use Element establishes the broad land use goals of the City, the Element also identifies methods for implementation of those goals, specifically the development of a series of Sub-Area Master Plans focused on specific areas of the city and through updates to the City's zoning code and development regulations to be consistent with the Comprehensive Plan. Several of the sub-area master plans are discussed below under Land Use Master Plans.

Land Use Master Plans

In addition to the Comprehensive Plan, the City of Woodinville has adopted as series of Master Plans to address subareas of the city or specific issues and act as extensions of the Comprehensive Plan.

Tourist District Master Plan

The City of Woodinville adopted the Tourist District Master Plan in 1997 to guide development in the southernmost portion of the city, where a concentration of wineries, breweries, and small commercial uses had accumulated, and which was also the location of several historic properties. The area also includes recreational opportunities, such as the Sammamish River Trail, and the City saw the potential to create a long-lasting tourist district to attract visitors to Woodinville.

The Master Plan contains a review of existing (1997) conditions and an assessment of strengths and weaknesses of the district as a tourist destination. The plan also contains goals and policies that identify appropriate land uses, foster economic development activities, maintain and expand transportation links to the rest of the city, and ensure cohesive architectural design in the tourist district.

Downtown Little Bear Creek Corridor Master Plan

The City of Woodinville adopted the Downtown Little Bear Creek Corridor Master Plan in 2008 to guide development in the City's downtown and Little Bear Creek Corridor. Originally, each subarea had its own plan, but City staff recognized their interconnected nature and merged the two documents into a single plan. The master plan functions as an extension of the City's Comprehensive Plan, providing detailed study of the downtown and Little Bear Creek Corridor areas and establishing goals and policies specific to those subareas.

The plan establishes a vision for Woodinville's major commercial center as a vibrant, pedestrian-oriented area with a mix of housing, commercial, and civic uses that serves a focal point for the community and provides strong links to the Tourist District in the southern portion of the city. The plan also establishes goals for the promotion of economic activities in the Little Bear Creek Corridor that are compatible with preservation and enhancement of environmentally sensitive resources.

Grace Neighborhood Master Plan

The Grace Neighborhood is not currently part of the City of Woodinville, but lies immediately north of the city in unincorporated Snohomish County. The neighborhood sits astride SR 522 and comprises the southern end of the Maltby UGA, as designated by Snohomish County. The Grace Neighborhood Plan, adopted by the City in 2005, recognizes this area as a primary gateway to Woodinville and establishes goals and policies for continuing the area's development as an attractive mixed office/commercial/industrial center and lists capital improvements to address drainage and transportation issues in the area.

Shoreline Master Program

The City of Woodinville Shoreline Master Program (SMP), adopted in 2008 and amended in 2009, regulates development activities along the Sammamish River and Little Bear Creek in compliance with the Shoreline Management Act of 1971. The jurisdiction of the SMP extends generally 200 feet landward of the Ordinary High Water Mark of shorelines of the state, as well as the limits of the regulatory floodway and any contiguous wetland areas. Development activities proposed within the shoreline jurisdiction must comply with the policies and development regulations established in the SMP, in addition to the policies of the Comprehensive Plan and the provisions of the City's zoning code.

Existing Land Use Conditions

This section describes existing land use conditions in each of the study areas, including existing land uses, Comprehensive Plan Future Land Use designations, and zoning.

Neighborhoods

The City of Woodinville is divided into eleven neighborhoods, some of which were in existence before the incorporation of the City. A brief description of each of these neighborhoods, and their predominant land uses are provided below. Exhibit 2.1-1 shows the locations of each of the city's neighborhoods.

EAST AND WEST WELLINGTON

The East and West Wellington neighborhoods occupy the northeast corner of the City. They completely residential in character and consist almost exclusively of single-family residences developed at relatively low densities. Due to the low densities and large lots, these neighborhoods contain a large amount of mature trees, representing the "Northwest woodland character" valued by residents.

REINWOOD/LEOTA

Similar to the Wellington neighborhoods, which lie immediately to the north, Reinwood/Leota is a predominantly low-density residential neighborhood with large lots and extensive mature vegetation, though the western edge of the neighborhood is occupied by somewhat smaller lots and is zoned for residential development at 4-6 units per acre. The neighborhood is also home to Lake Leota, a small residential lake at the eastern end of the city.

WOODINVILLE HEIGHTS

Woodinville Heights, located immediately northwest of Reinwood/Leota, is one of the city's medium-density residential neighborhoods. Zoned mostly for residential development at 6 units per acre, development up to 12 units per acre is allowed in a small area adjacent to the Town Center. Due to the higher residential density, Woodinville Heights contains less intact mature vegetation than the Wellington or Reinwood/Leota neighborhoods to its north and east.

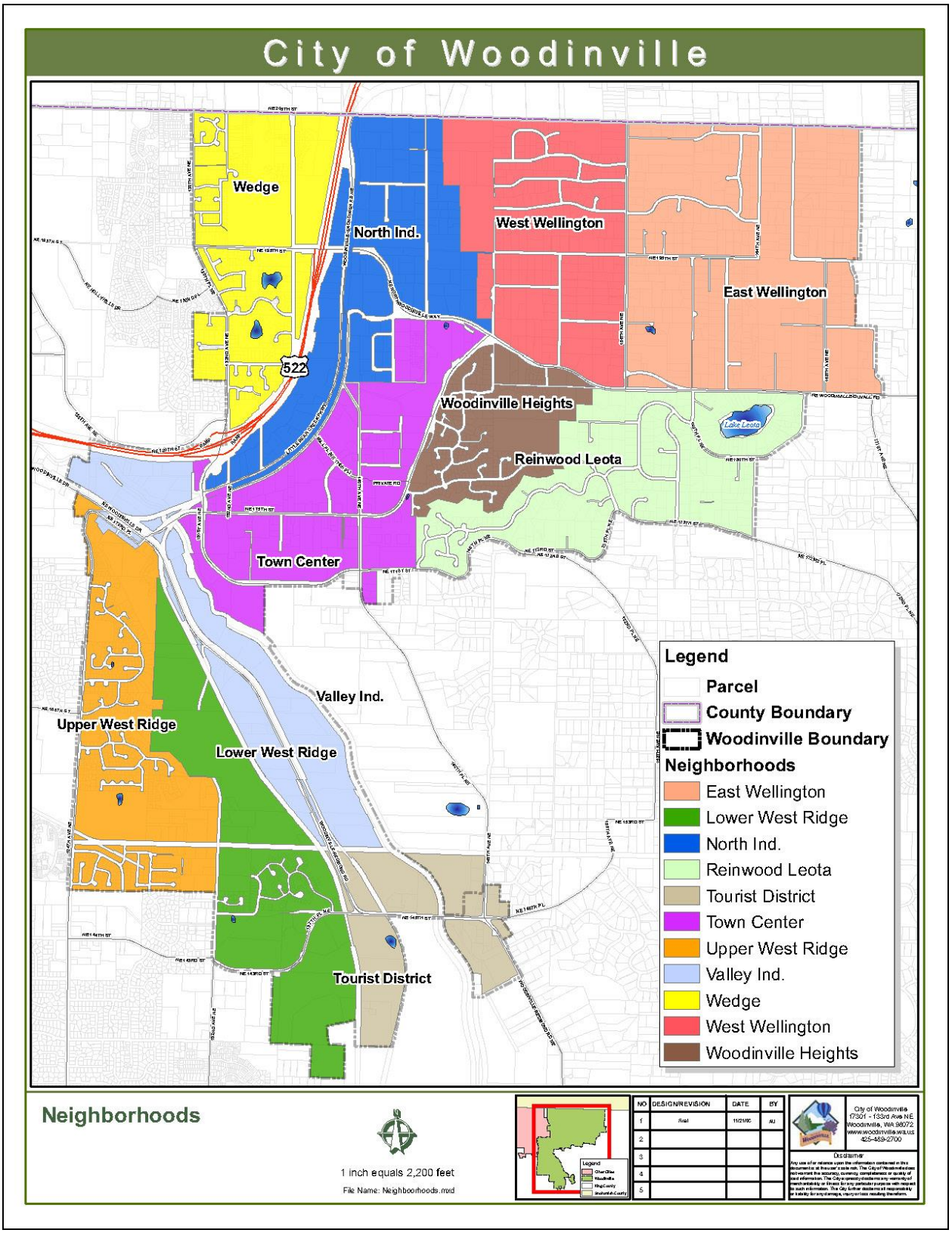
NORTH INDUSTRIAL

Located along SR 522, the North Industrial neighborhood one of two major industrial areas in Woodinville, though it also includes areas zoned for General Business. Industrial properties in the neighborhood include facilities for area wineries and breweries, as well as more traditional industrial uses, such as storage yards, warehouses, and distribution facilities.

WEDGE

The Wedge, which is separated from the rest of Woodinville by SR 522, is a medium-density residential neighborhood, zoned for developed at approximately 6 units per acre. Housing in the neighborhood is generally arranged in clusters separated by areas of preserved trees. The neighborhood is also home to Woodinville High School, Rotary Community Park, and Stonehill Meadows Neighborhood Park.

Exhibit 2.1-1. City of Woodinville Neighborhood Map



Source: City of Woodinville, 2006.

Town Center

The Town Center is home to most of Woodinville's commercial, office, and civic land uses, as well as some areas of medium to high-density residential development. The Town Center contains the most diverse mix of land uses of the city's neighborhoods; in addition to commercial development, the neighborhood includes City Hall, the Woodinville Sports Fields, Wilmot Gateway Park, and access to the Sammamish River Trail.

Upper and Lower West Ridge

Located in the southwest corner of the city, the Upper and Lower West Ridge neighborhoods are separated from the rest of the city by the Sammamish River and are characterized by low to medium-density residential development. Upper West Ridge lies at the far west of the city and is developed at a slightly higher density than Lower West Ridge. Development in Lower West Ridge is characterized by clustered single-family homes surrounded by large areas of undisturbed vegetation. The largest forested area is in the northeastern portion of the neighborhood, which is dominated by a steeply sloped hillside.

Tourist District

The Tourist District lies at the far southern end of the city and is the location of a brewery and several major wineries, including Chateau St. Michelle. The area also contains several historic properties and recreational resources, and its location in proximity to the Sammamish River Trail and other environmental attractions make it an ideal tourist destination for visitors to Woodinville.

Valley Industrial

The Valley Industrial neighborhood is located along both sides of SR 202 as it parallels the Sammamish River. The neighborhood also encompasses the Northwest Gateway area, located northwest of the Town Center on the north bank of the Sammamish River. Similar to the North Industrial neighborhood, this area is characterized by a mix of industrial uses, including industrial parks, warehousing, storage yards, and light manufacturing and fabrication.

Existing Land Uses

City of Woodinville

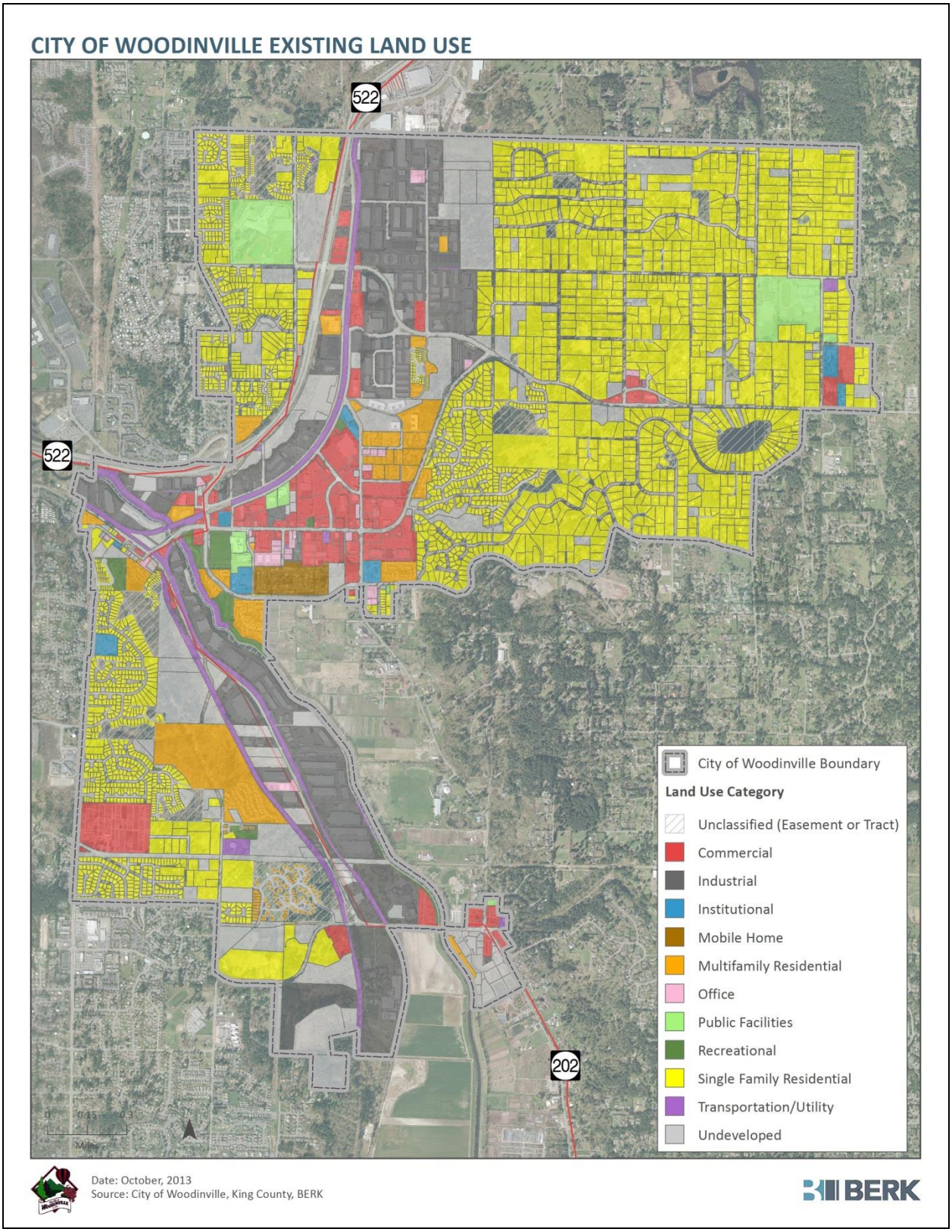
Land uses within Woodinville are predominantly residential; according to the King County Assessor (2013), approximately half of the city's land area is occupied by either single-family or multifamily residential uses. Industrial uses and undeveloped land make up the two next largest use categories. Commercial uses occupy a relatively small amount of land (6.56%). Recreational uses, institutional uses, and mobile homes are the three smallest land use categories, each accounting for less than one percent of the city's land area. Exhibit 2.1-2 shows the acreages of the city's existing land use categories, and Exhibit 2.1-3 shows the distribution of existing land uses in the City of Woodinville.

Exhibit 2.1-2. City of Woodinville Existing Land Use

Land Use Category	Acres	Pct. Of Total
No Use Assigned	153.96	4.85%
Commercial	208.13	6.56%
Industrial	484.99	15.28%
Institutional	24.61	0.78%
Mobile Home	20.46	0.64%
Multifamily Residential	162.32	5.11%
Office	20.80	0.66%
Public Facilities	83.38	2.63%
Recreational	30.68	0.97%
Single Family Residential	1,435.16	45.21%
Transportation/Utility	95.67	3.01%
Undeveloped	454.08	14.31%
Total	**3,174.23**	**100.00%**

Source: King County Assessor, BERK 2013

Exhibit 2.1-3. Existing Land Use Map – City of Woodinville



KING COUNTY POTENTIAL ANNEXATION AREA

The King County Potential Annexation Area is very small in comparison to the city as a whole, covering only 6.6 acres. Land uses in the PAA consist entirely of single-family residences.

CITY-KING COUNTY JOINT STUDY AREA

According to the King County Assessor, nearly 52% of the land in the City-King County Joint Study Area is undeveloped. However, review of aerial photographs of the area indicates that many of the parcels have been recently cultivated in one manner or another. The legal descriptions of several of these properties include statements that the land is classified as either "Open Space" or "Farm & Agricultural" under RCW 84.34, but King County Assessor has classified them either as vacant or single-family residential. The precise nature of agricultural production on these properties is unclear.

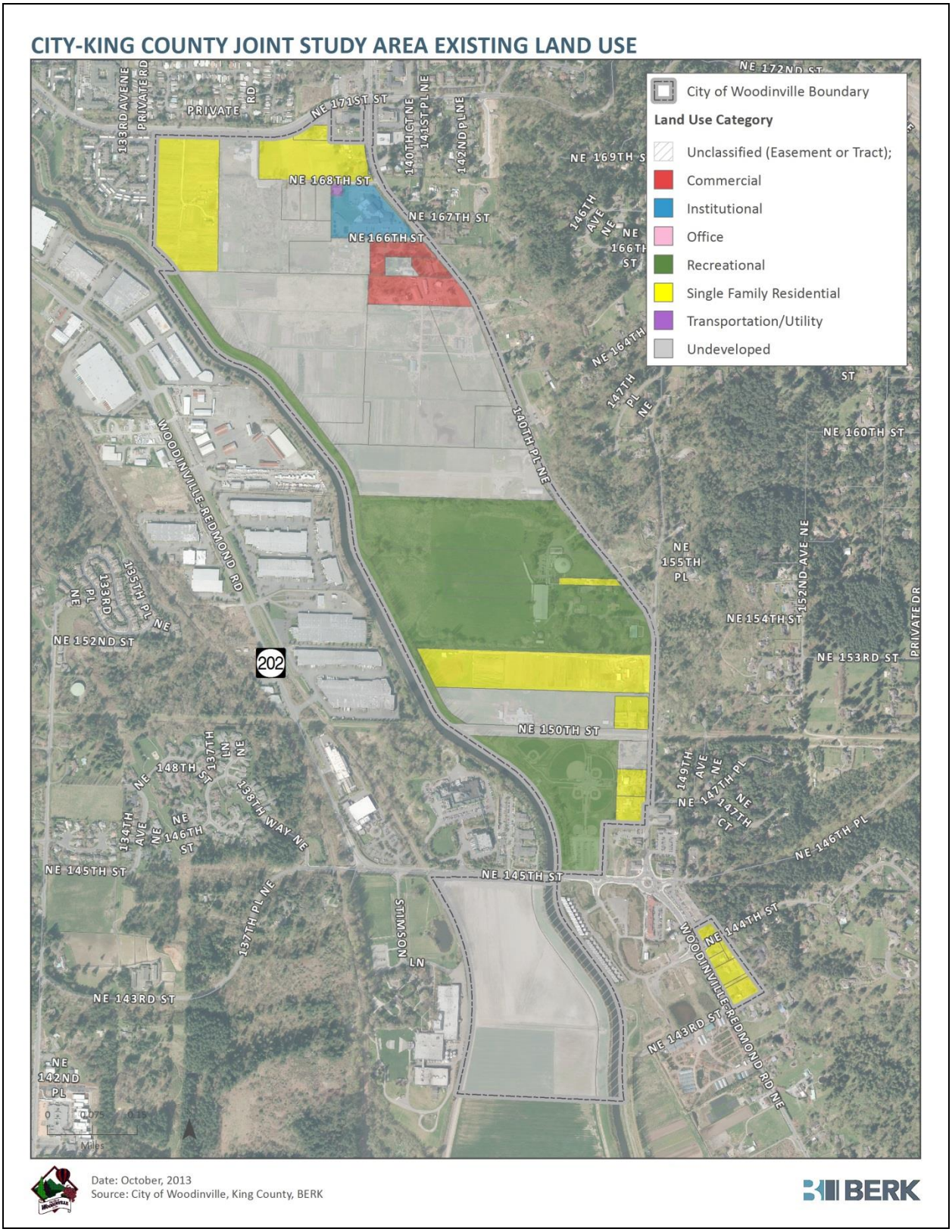
The second largest land use category is Recreation (27.4%), which represents the presence of the Gold Creek Tennis Club, recreational facilities covering more than 70 acres and offering tennis, golf, and indoor fitness facilities. Single-Family Residential is the third-largest land use category, accounting for 14.62% of the joint study area. Exhibit 2.1-4 shows the reported acreages of the land use categories present in the Joint Study Area, and Exhibit 2.1-5 shows the distribution of existing land uses in the joint study area.

Exhibit 2.1-4. Joint Study Area Existing Land Use

Land Use Category	Acres	Pct. Of Total
No Use Assigned	6.83	2.02%
Commercial	8.26	2.44%
Institutional	5.86	1.73%
Recreational	92.82	27.40%
Single Family Residential	49.52	14.62%
Transportation/Utility	0.24	0.07%
Undeveloped	175.16	51.72%
Total	**338.69**	**100.00%**

Source: King County Assessor, BERK 2013

Exhibit 2.1-5. Existing Land Use Map – City-King County Joint Study Area



WOODINVILLE URBAN GROWTH AREA (UGA)

The Woodinville proposed UGA contains a diverse array of uses, including commercial, industrial, recreational, residential, and open space. Single-family residential is the largest land use category, but commercial and industrial uses account for almost as much of the land area in the UGA. Also noteworthy is the presence of the Brightwater Wastewater Treatment Plant in the northern portion of the UGA. Commercial, industrial, and utility uses are generally grouped in the western and northern portions of the UGA, near SR 522, while residential and recreational uses are most prevalent in the eastern portion of the UGA.

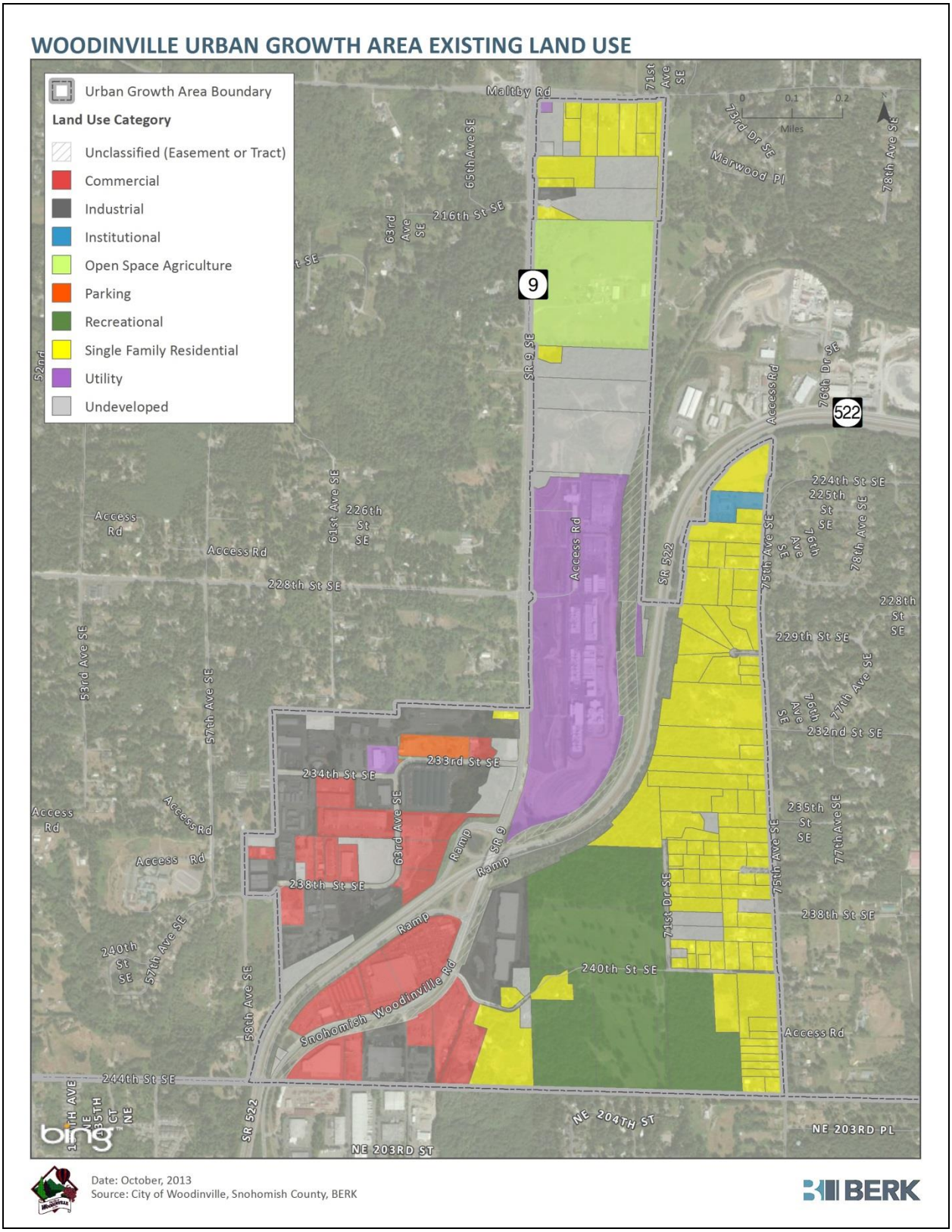
Exhibit 2.1-6 contains acreages for each of the land use categories in the UGA, and Exhibit 2.1-7 shows the current distribution of land uses in the UGA.

Exhibit 2.1-6. Woodinville Proposed Urban Growth Area (UGA) Existing Land Use

Land Use Category	Acres	Pct. Of Total
Commercial	72.58	10.89%
Industrial	87.68	13.16%
Institutional	3.74	0.56%
Open Space Agriculture	40.26	6.04%
Parking	4.00	0.60%
Recreational	98.29	14.75%
Single-Family Residential	170.76	25.63%
Unclassified	23.80	3.57%
Undeveloped	84.19	12.63%
Utility	81.04	12.16%
Total	**666.33**	**100.00%**

Source: Snohomish County Assessor, BERK 2013.

Exhibit 2.1-7. Existing Land Use Map – Woodinville Urban Growth Area (UGA)



Future Land Use and Zoning

CITY OF WOODINVILLE

As described under Regulatory Overview and Planning Framework, the City's Comprehensive Plan establishes Future Land Use designations to guide development. These designations are implemented by zoning districts, which specify allowed land uses and establish development standards. Similar to the trend among existing land uses, the majority of the city's land area is designated for some form of residential use. The next largest designation is Industrial, making up approximately 17% of the city. Commercial designations represent a relatively small proportion of the city's land area, accounting for approximately 10% of the city. Exhibit 2.1-8 shows the acreages of Future Land Use designations, as assigned by the City, and Exhibit 2.1-9 shows acreage of the associated zoning districts. The City's Future Land Use designations and Zoning are mapped in Exhibit 2.1-10 and Exhibit 2.1-11, respectively.

Exhibit 2.1-8. Comprehensive Plan Land Use

Future Land Use	Description	Acres	Pct. Of Total
CB	Central Business	184.48	5.81%
GC	Auto/General Commercial	98.01	3.09%
HDR	High Density Residential	27.10	0.85%
HDR/O	High Density Residential/Office	24.15	0.76%
I	Industrial	549.13	17.29%
LDR	Low Density Residential	1,451.19	45.68%
MeDR	Medium Density Residential	40.46	1.27%
MoDR	Moderate Density Residential	499.50	15.72%
NB	Neighborhood Business	7.76	0.24%
O	Office	14.27	0.45%
OS	Openspace	36.68	1.15%
P	Public Parks	102.66	3.23%
P/I	Public/Institutional	108.64	3.42%
TB	Tourist Business	32.59	1.03%
Total		**3,176.63**	**100.00%**

Note: Acreages reflect designated land within current city boundaries.

Source: City of Woodinville, 2013.

Exhibit 2.1-9. Current Zoning

Zoning	Zone Description	Acres	Pct. Of Total
CBD	Central Business District	183.57	5.85%
GB	General Business	90.63	2.89%
I	Industrial	537.85	17.14%
NB	Neighborhood Business	7.42	0.24%
O	Office	14.24	0.45%
P	Public Parks/Open Space	103.82	3.31%
P/I	Public/Institutional	109.78	3.50%
R-1	Residential 1 Unit per Acre	1,083.36	34.51%
R-4	Residential 4 Units per Acre	376.80	12.00%
R-6	Residential 6 Units per Acre	474.76	15.13%
R-8	Residential 8 Units per Acre	32.94	1.05%
R-12	Residential 12 Units per Acre	7.77	0.25%
R-18	Residential 18 Units per Acre	32.60	1.04%
R-24	Residential 24 Units per Acre	22.45	0.72%
R-48	Residential 48 Units per Acre	4.81	0.15%
R-48/O	Residential 48 Units per Acre/Office	23.44	0.75%
TB	Tourist Business	32.61	1.04%
Total		**3,138.86**	**100.00%**

Note: The City applies zoning only to land that is part of a recorded parcel for land in the city limits, while Comprehensive Plan Land Use designations include right-of-way areas, and the Potential Annexation Area, resulting in fewer total zoned acres.

Source: City of Woodinville, 2013.

King County Potential Annexation Area

The City's King County Potential Annexation Area contains approximately 6.6 acres of land, which the City has pre-designated as Moderate Density Residential. As this area is currently outside city limits, Woodinville zoning has not been applied.

King County has applied a Comprehensive Plan Land Use designation of Urban Residential, Medium (4-12 du/acre) to the entirety of the Potential Annexation Area. King County has applied two zoning districts within this area. Properties in the Potential Annexation Area fronting on 142nd Pl NE are zoned R-6. Properties fronting on 143rd Pl NE are zoned R-8.

Exhibit 2.1-10. Future Land Use Map – City of Woodinville

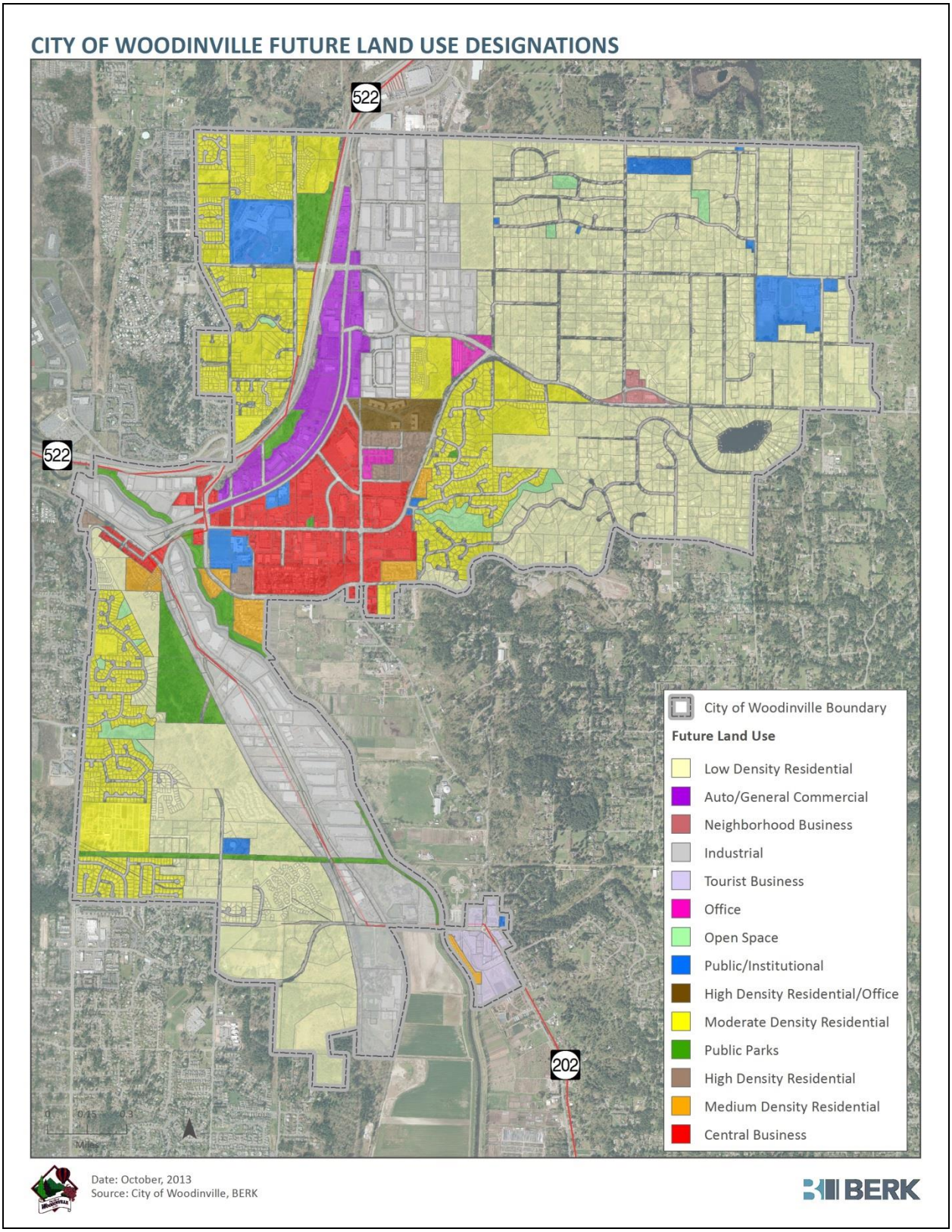
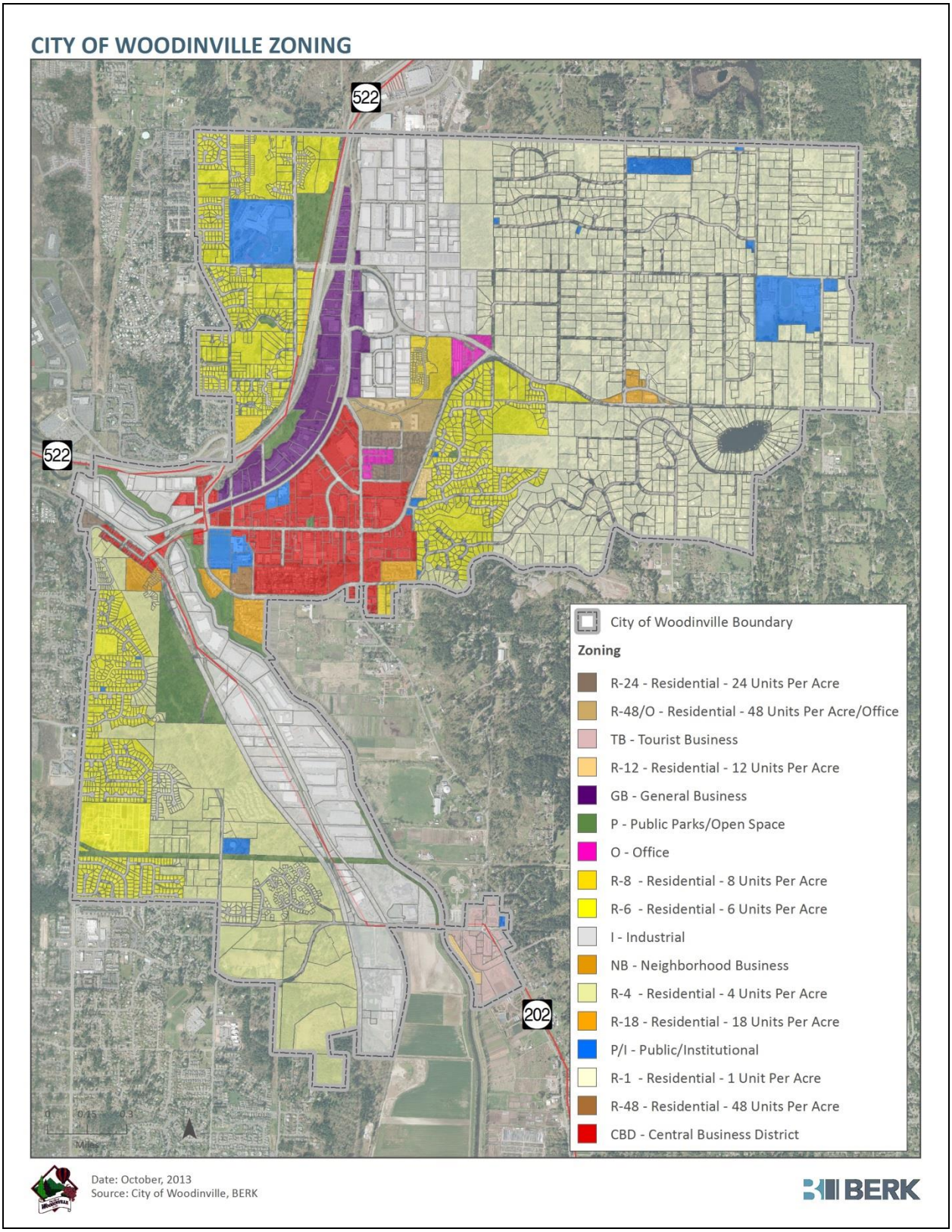


Exhibit 2.1-11. Zoning Map – City of Woodinville



CITY-KING COUNTY JOINT STUDY AREA

As part of unincorporated King County, future land use designations and zoning on properties in the City-King County Joint Study Area are assigned by King County. The King County Comprehensive Plan designates the majority of the joint study area as Agriculture. The Rural Area (1 du/2.5-10 ac) designation, which allows for residential development at low rural densities, accounts for approximately 16% of the joint study area. Approximately one acre is designated Urban Residential, Medium (4-12 du/acre). Future land use designation acreages in the joint study area are shown in Exhibit 2.1-12.

The applied King County zoning demonstrates a similar intent, though Agricultural zoning (minimum 10-acre lots) actually accounts for a larger amount of land than the corresponding Agriculture comprehensive plan designation. Zoning acreages in the joint study area are shown in Exhibit 2.1-13. While almost all of the joint study area is designated and zoned for agricultural or rural residential uses, the King County Assessor does not actually classify any of the properties in the joint study area as being in agricultural use. As described under Existing Land Use, the majority of land is classified as undeveloped, though aerial photography indicates that much of the land in the joint study area has been in agricultural cultivation in the recent past.

Exhibit 2.1-12. Current King County Comprehensive Plan Land Use

Future Land Use	Description	Acres	Pct. Of Total
ag	Agriculture	284.19	83.26%
ra	Rural Area (1du/2.5-10 acres)	56.08	16.43%
um	Urban Residential, Medium (4-12 du/acre)	1.07	0.31%
Total		**341.35**	**100.00%**

Source: King County, 2013.

Exhibit 2.1-13. Current King County Zoning

King County Zoning	Description	Acres	Pct. Of Total
A-10	Agricultural (10 Acres)	290.49	85.76%
A-10-P	Agricultural (10 Acres) - Property Specific Development Standards	3.94	1.16%
RA-2.5	Rural Area (2.5 Acres)	1.81	0.54%
RA-2.5-P	Rural Area (2.5 Acres) - Property Specific Development Standards	2.00	0.59%
RA-2.5-SO	Rural Area (2.5 Acres) - Special District Overlay	17.65	5.21%
RA-5	Rural Area (5 Acres)	22.83	6.74%
Total		**338.73**	**100.00%**

Source: King County, 2013.

Exhibit 2.1-14. King County Future Land Use Designations – City-King County Joint Study Area

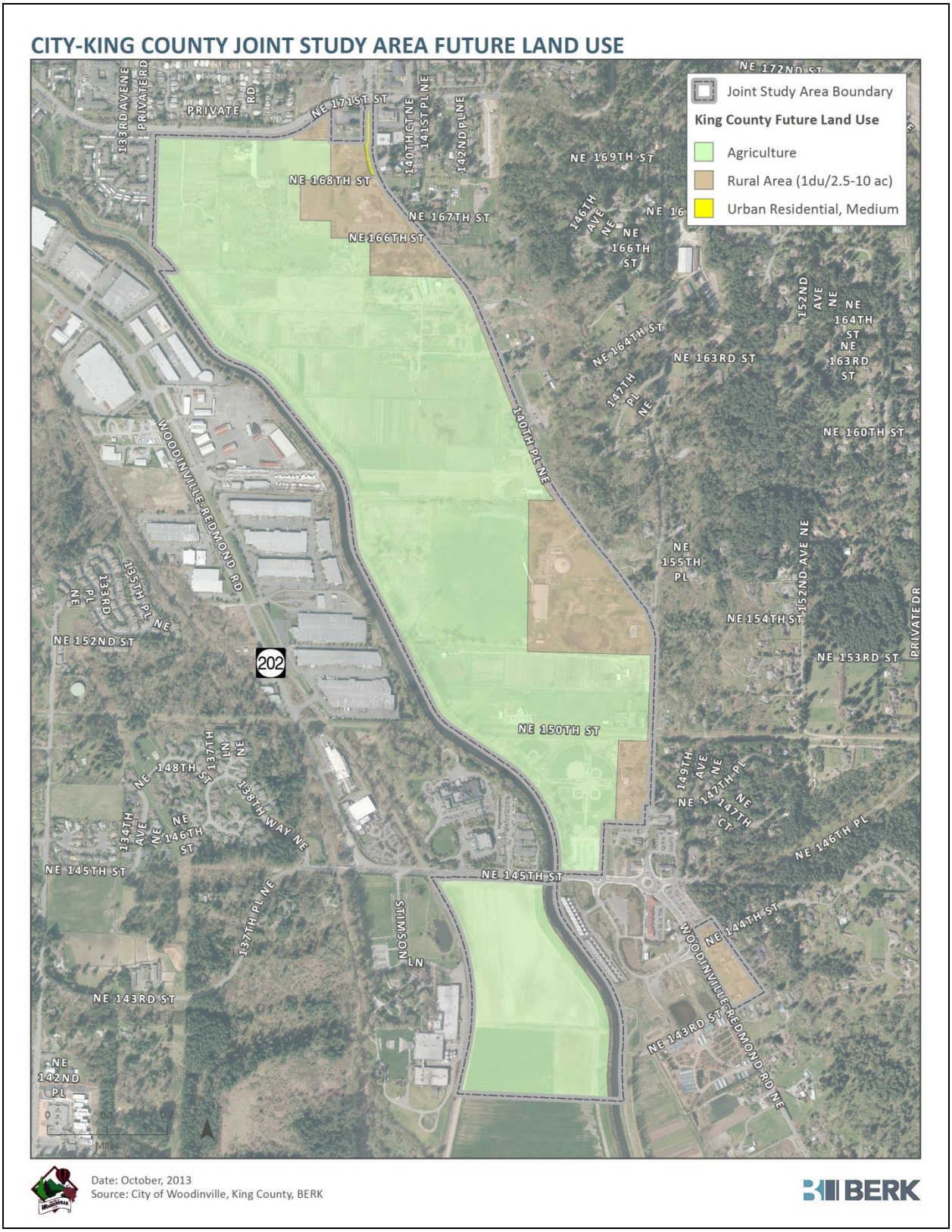
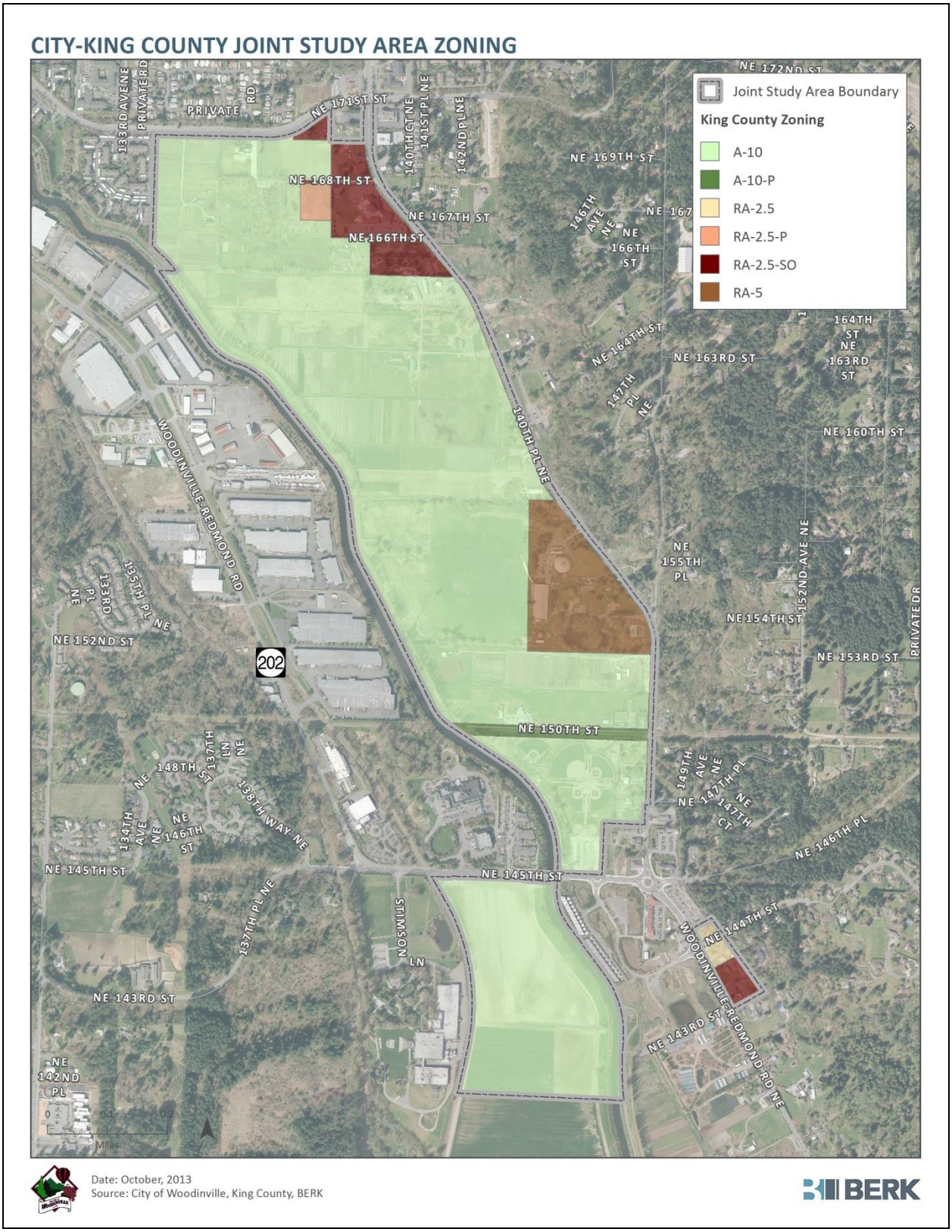


Exhibit 2.1-15. King County Zoning – City-King County Joint Study Area



WOODINVILLE URBAN GROWTH AREA (UGA)

Future Land Use designations and Zoning are currently applied by Snohomish County in the Woodinville proposed UGA, though the City of Woodinville has applied a preliminary designation of Industrial to a portion of the UGA. Snohomish County has designated approximately half the UGA as Urban Industrial and half as Rural Residential (5-acre lots). In keeping with the existing land use pattern, the areas designated Urban Industrial are clustered near SR 522, while the Rural Residential areas are located in the outer portions of the Woodinville defined UGA. Exhibit 2.1-16 shows the acreages of future land use designations in the Woodinville defined UGA, which are mapped on Exhibit 2.1-18.

Exhibit 2.1-16. Snohomish County Future Land Use Designations

Future Land Use	Description	Acres	Pct. Of Total
RR/5BASIC	Rural Residential-5 (1du/5 Acres)	376.52	51.42%
UI	Urban Industrial	355.66	48.58%
Total		**732.18**	**100.00%**

Source: Snohomish County, 2013.

Implementing zoning for the Urban Industrial designation in the UGA includes Freeway Service, Heavy Industrial, Light Industrial, and Rural Business. The Rural Residential designation is implemented by the Rural-5 acre zone, which accounts for approximately half of the land area of the UGA. Exhibit 2.1-17 shows the acreages of each of the zoning districts applied in the UGA, which are mapped on Exhibit 2.1-19.

Exhibit 2.1-17. Snohomish County Zoning

Snohomish County Zoning	Description	Acres	Pct. Of Total
FS	Freeway Service	7.36	1.00%
HI	Heavy Industrial	69.07	9.43%
LI	Light Industrial	265.78	36.30%
R-5	Rural-5 Acre	386.12	52.74%
RB	Rural Business	3.85	0.53%
Total		**732.18**	**100.00%**

Source: Snohomish County, 2013.

Exhibit 2.1-18. Snohomish County Future Land Use Designations – Woodinville Urban Growth Area (UGA)

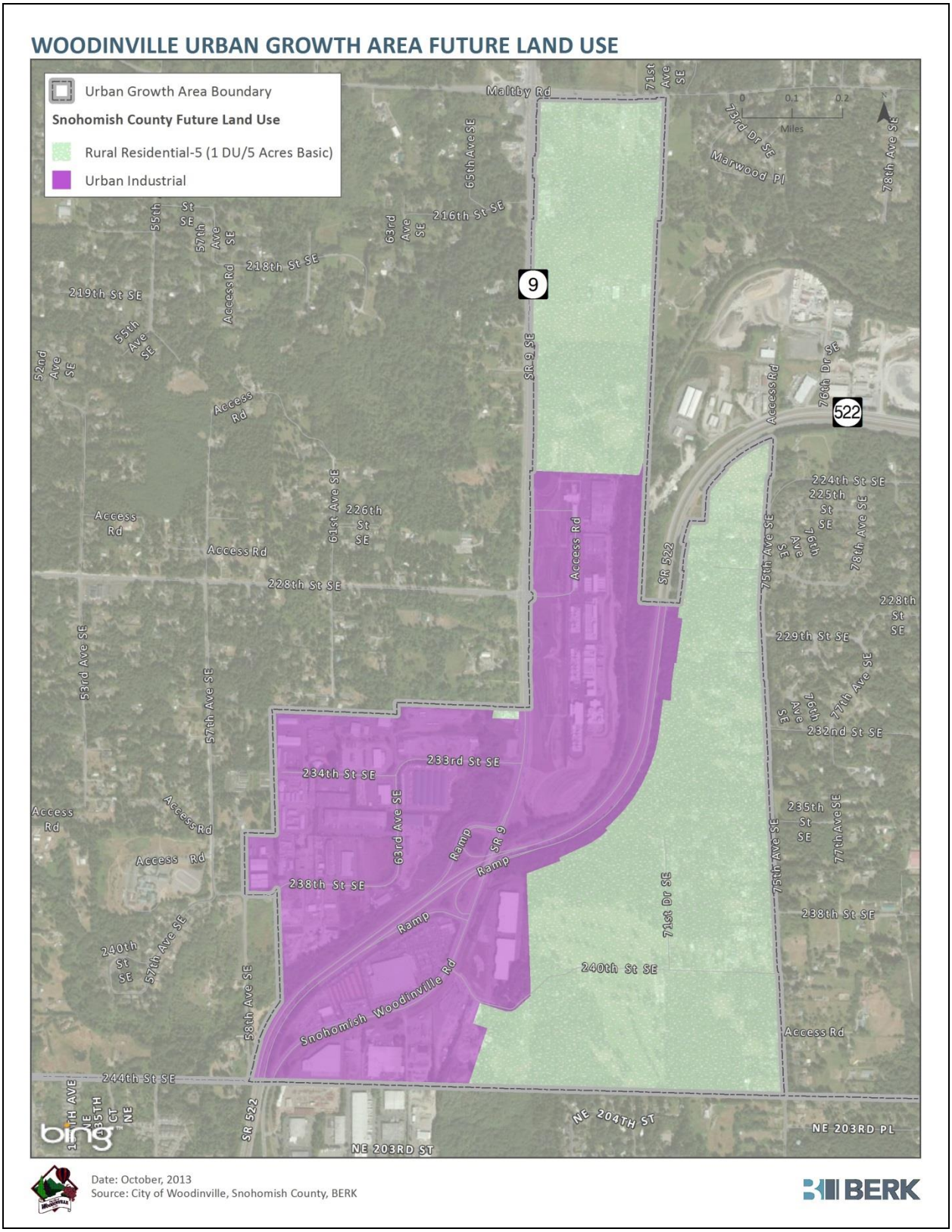
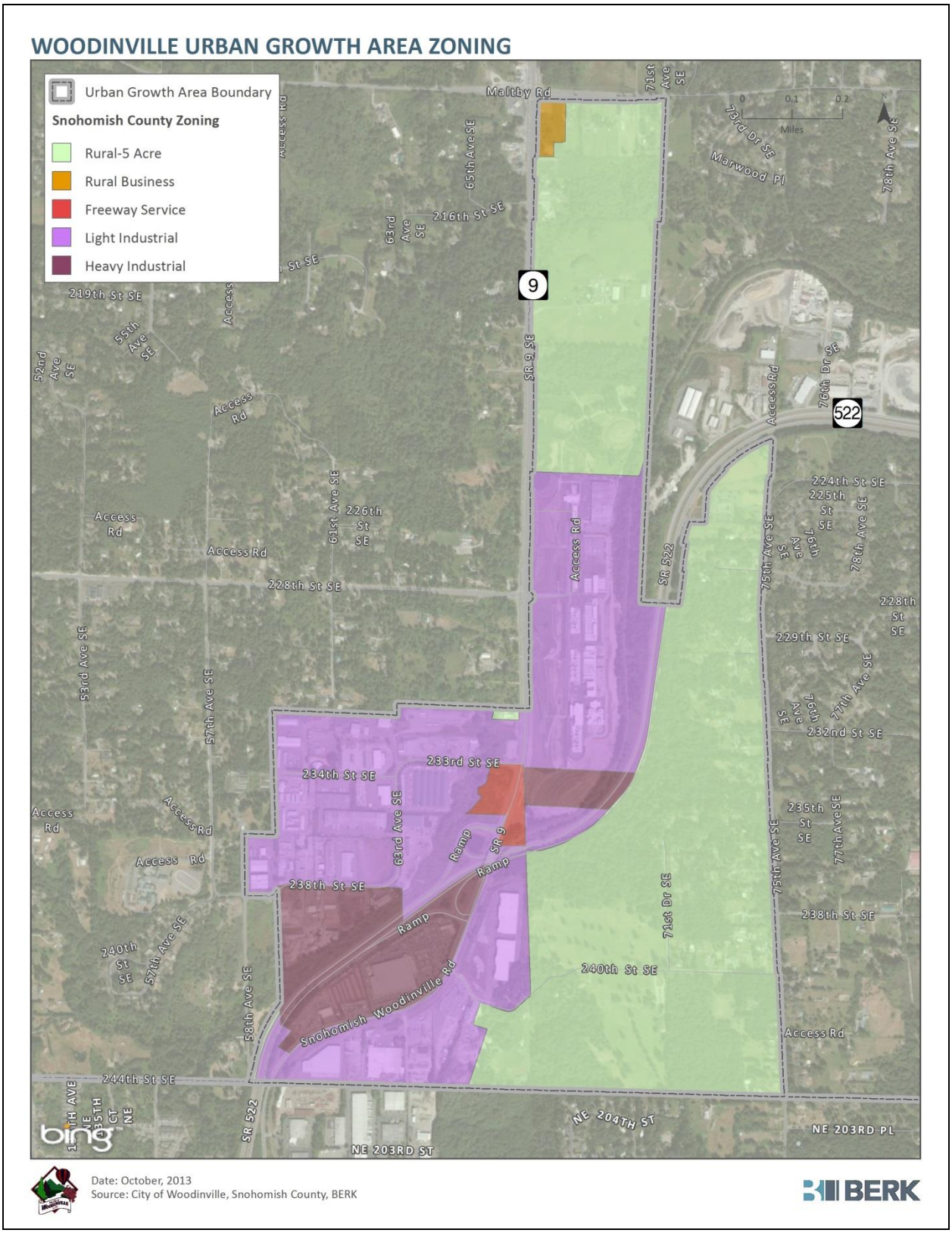


Exhibit 2.1-19. Snohomish County Zoning – City of Woodinville Urban Growth Area (UGA)



2.2 Community Design

Overview

This section describes built and natural environment within the City's Comprehensive Plan study area. This includes the image and character of Downtown and Woodinville's neighborhoods, the quality of its buildings, streets, and public spaces, community historical attributes, and the current regulatory context associated with community design issues. Since this existing conditions report is a basis for the update to the City's Comprehensive Plan, a greater emphasis is placed on changes that have occurred over the past ten years.

Planning and Regulatory Context

Regulations and Plans shaping the design of the built environment include:

- Zoning map, permitted uses, and development standards in Title 21 of the Woodinville Municipal Code. This sets up the zoning district specific framework for the mix of uses and the height and intensity of development throughout the City. Key provisions affecting the design of development include:
    - Density calculations (dwelling unit/acre minimum and base maximum)
    - Minimum lot area and width
    - Minimum setbacks
    - Maximum height (including special upper level stepbacks and height bonus provisions)
    - Maximum building coverage and minimum impervious surface
- Design standards in Title 21 of the Woodinville Municipal Code. Notable provisions include:
    - Commercial design standards, which apply to most commercial and mixed-use zones. The standards encourage design that reinforces the community's Northwest Woodland character (see Exhibit 2.2-1 on the following page for examples). The standards also seek to emphasize "human scaled" development, development that is largely oriented towards the street and pedestrian friendly, good internal circulation, the integration of usable open space, and thoughtful integration of service elements.
    - Included in the Commercial Design standards are special street-orientation provisions for Downtown and Little Bear Creek Corridor that were crafted to implement the Downtown and Little Bear Creek Corridor Master Plan.
    - Special design/development standards for specific zones and overlay districts, including High Density Residential (R-48) and Office, Pedestrian-Oriented Mixed-Use Development Special District, Office/Research Park Special Overlay District, the Tourist Overlay District, and Transit-Oriented Housing Development Overlay. These overlay district provisions include supplemental use standards, density and dimensional standards, design standards, and in some cases, opportunities for regulatory flexibility. The Tourist District Overlay includes special building design and character standards, landscaping provisions, street frontage standards, sign provisions and service element standards. Buildings in the Tourist District Overlay are also subject to the Tourist District Master Plan (1997), which includes goals, policies and guidance on the desired character and form of development.

- Other development standards in Title 21 of the Woodinville Municipal Code. This includes a tree protection ordinance, landscaping standards, parking and circulation standards, sign standards, critical area standards, and a number of use specific development standards (most intended to ensure compatibility with surrounding uses). The tree protection ordinance has played a relatively large role in protecting the city's Northwest Woodland character by requiring a tree plan associated with development plans that result in tree removal. The plans require a certain level of tree density, measured by the size and species of the tree.
- Landmark protection and preservation ordinance. The City has only one designated landmark (Old Woodinville School Annex), but has adopted this preservation ordinance to help preserve, protect, and enhance historical resources.
- Transportation Infrastructure Standards and Specifications, 1999, includes design requirements for the various street classification types (including sidewalks and planting strips, where applicable), non-motorized facilities, driveways, street lights, parking lot design, and storm drainage elements.
- Industrial Design Guidelines, 2000. This is adopted by ordinance, but not codified as part of Title 21. It applies to all development within the Industrial zone and includes guidelines associated with site planning, pedestrian amenities, vehicular access and parking, building design, and landscape and site design.
- Downtown and Little Bear Creek Corridor Master Plan, 2008, includes a vision, goals, policies, recommendations, and implementation strategies for land use, transportation, and parks and open space.
- Transportation Master Plan, 2009, includes goals, policies, and an implementation plan for transportation improvements that support the city's land use plan. The plan addresses street improvements, non-motorized transportation facilities, transit facilities, and various transportation programs, regulations, and agency coordination.
- Parks, Recreation, and Open Space Plan, 2005, includes a development and implementation plan that affects the amount and design of parks and open spaces in Woodinville. This plan is currently under revision.
- Non-Motorized Transportation Plan, 2005, includes goals and objectives, proposed facility improvements (including trails, sidewalks, bicycle lanes, etc.), and guidelines for the design of non-motorized facilities.

Exhibit 2.2-1"Northwest Woodland" Character

Woodinville's Commercial Design Guidelines emphasize a "Northwest Woodland" character exemplified by City Hall (left) and Woodinville Town Center buildings fronting on NE 175th Street.

Existing Conditions

Downtown

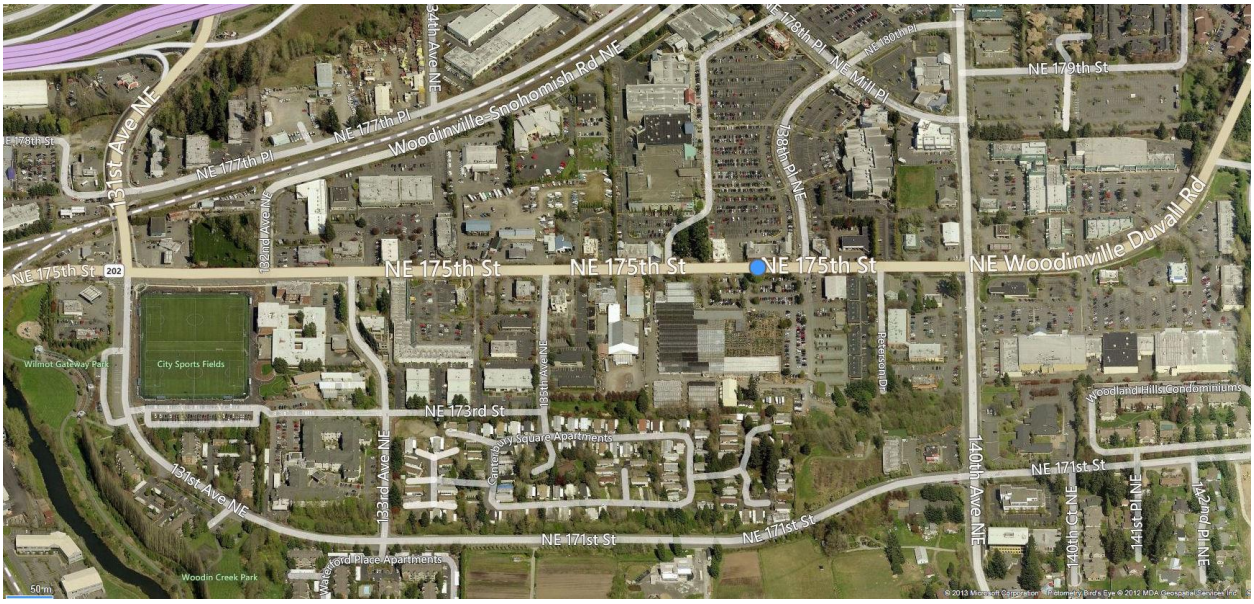


Exhibit 2.2-2 Aerial view of Downtown Woodinville, looking north.

Downtown is comprised of predominately single story retail buildings served by surface parking lots. NE 175 Street functions as downtown's "main street" in terms of its location and prominence. Surrounding hills, the Sammamish River, farmland, the former BNSF railroad line, and State Route 522 provide distinctive boundaries to Downtown Woodinville. While most of the downtown's commercial core is a collection of non-descript strip retail centers constructed prior to 1990, the more recent developments (notably Woodinville Town Center development) have been designed consistent with the City's design guidelines and emphasizing the Northwest Woodland character, including:

- Providing a strong orientation of buildings and site features to the street, particularly NE 175th Street.
- Material finishes reflecting the early 1900s domestic agrarian vernacular of materials (including wood, masonry, stone, and metal siding);
- Simple three-dimensional building forms that express wood framing and have traditional Northwest woodland exterior finishes;
- Using neutral shades of natural colors found in the Northwest woodlands or colors typical of agrarian structures; and
- Good internal pedestrian access and generous landscaping.

Exhibit 2.2-3 A closer aerial look at an older portion of downtown that is still largely automobile oriented.

The eastern portion of downtown is comprised of large grocery anchored commercial centers north and south of NE 177th Street, a park and ride lot/transit station, and a relatively large area of two-three story walk up apartments.

Other notable developments and features that shape the current character of downtown:

- Old Woodinville School Annex (formerly Woodinville's City Hall).
- Molbak's nursery is likely downtown's most well-known establishment and its evolving landscaping along its NE 175th Street frontage lends character and identity to the City.
- Canterbury Square Mobile Home Park, which covers a large area of downtown just south of Molbak's, but is largely hidden from public view; it under redevelopment as a mixed-use village.
- Woodinville Town Center, the largest individual development downtown, and also the first conforming with the City's guidelines emphasizing the Northwest Woodland character and a strong orientation to NE 175th Street.
- City Hall, with its use of large exposed beams, mix of masonry and wood siding, and extensive landscaping.
- Brittany Park Retirement Community, a large complex of three story neo-craftsman style buildings just south of City Hall.
- Woodinville Fields – the relatively new complex of sports fields with its decorative corner fence and gateway feature now functions as a distinctive entry way into Downtown from the west.
- Beaumont Apartments, a complex of four to six-story buildings set among a wooded hillside northeast of the downtown core.

Exhibit 2.2-4 Notable Downtown buildings and developments.

Including the Old Woodinville School (upper left), Woodinville Town Center (upper and lower right), Beaumont Apartments (middle bottom), and Woodinville Fields (lower right).

Little Bear Creek Corridor

Little Bear Creek Corridor is the strip of land between the old BNSF rail line and Little Bear Creek Road (NE 177th Place) and Little Bear Creek and State Route 522. It is now occupied by a mixture of service uses, storage yards, business parks, small offices, and light industrial uses.

Exhibit 2.2-5 Aerial photo of the Little Bear Creek Corridor.

Residential Neighborhoods

Woodinville's residential neighborhoods lie north and northeast of downtown and to the southwest. The largest land area is zoned R-1 and comprised of large lots averaging about 1.18 units per acre (existing development plus recent plats). Due to the large lot sizes, there's a substantial amount of open space between the houses heavily wooded. Most of the streets in this area do not contain sidewalks. The R-4 and R-6 zoned areas to the north, east, and south of downtown are comprised of smaller lots with densities of about 6 units/acre. A smaller R-8 zoned are contains Greenbrier, a development with a variety of housing types. Most of the single family subdivisions are less than 20 years old and feature sidewalks, relatively large homes, and modest yards.

Exhibit 2.2-6 Aerial photo of the R-1 zone east of the Industrial area and north of NE Woodinville Way.

Exhibit 2.2-7 Woodinville High School and relatively newer subdivisions with large homes surrounding it.

Exhibit 2.2-8 Street level views of residential neighborhoods.

The right image is an older subdivision in the R-6 zone east of downtown; the right image is a newer subdivision north of Woodinville High School.

Exhibit 2.2-9 Greenbrier Heights.

Greenbrier Heights, located in the R-8 zone northeast of downtown, won a Governors' Award as a model affordable livable community. The development includes a mixture of houses and apartments, rental units and ownership opportunities, affordable units and market-rate dwellings.

Tourist District

Woodinville's Tourist District is perhaps the most image-defining feature/place within the city. The district sits within the Sammamish River Valley along the Sammamish River and surrounded by farmland, sports fields, and wooded hillsides. The district is most well-known for its wineries, but is continuously broadening its role as a tourist destination for food, drink, leisure, and entertainment. Major features include the sprawling and manicured Chateau Ste. Michelle winery and Red Hook Brewery complexes on the west side of the Sammamish River. Other landmark sites and buildings include the old red brick Hollywood Schoolhouse (now housing a tasting room and events), the Columbia Winery (Victorian mansion set in English gardens, the Willows Lodge (internationally acclaimed hotel), and the modern Novelty Hill Januik Winery. The district also includes strip retail buildings and townhouses that have been substantially remodeled over the past decade to fit in with the wine country/tourist district/Northwest woodland theme(s).

The district is also the site of the approved, but largely unbuilt "Woodinville Village." This is a master planned development, including several wineries, a hotel, restaurants, retail shops, and housing set in a European inspired village with plazas and buildings up to 5-stories tall. Plans for most of the buildings were approved, but other than three new roundabouts along State Route 202 intersections and a remodel to riverfront townhomes, improvements and new buildings have been delayed due to the economy.

Exhibit 2.2-10 Tourist District landmarks

Including Red Hook Brewery (upper left), Columbia Winery (upper right), Willows Lodge (middle left), Chateau St. Michelle Winery (middle right), the Hollywood Schoolhouse (bottom left), and the Novelty Hill Januik Winery (bottom right). They also provide a great diversity of architectural styles – all with dramatic rooflines, extensive landscaping, and fine-grained detailing of buildings and the pedestrian environment.

Exhibit 2.2-11 Aerial photo of the eastern half of the Tourist District.

The three roundabouts were recently completed in conjunction with the Woodinville Village Master Plan, a wine tourism-based mixed-use village planned for the vacant sites lower center of this aerial. Most of the existing buildings in the area have been extensively remodeled over the past decade with the increase in the number of wineries in the area and wine tourism.

Industrial Areas

Woodinville features two large industrial areas – the largest northeast of Downtown on the east side of SR-522 (most of which is known as the Woodinville Warehouse District) within the Little Bear Creek Valley and the other along the west side of the Sammamish River Valley along SR-202. These areas are subject to the city's Industrial Design Guidelines, adopted in 2000, which emphasize landscaped frontages, the integration of good pedestrian access, bioswales, and sensitive side/rear yard design, and building design provisions that add character, reduce the scale of large buildings, and mitigate impacts of any blank walls.

Exhibit 2.2-12 Aerial view of the northern industrial area

Most of this area is now referred to as the Woodinville Warehouse District, now home to more than 30 boutique wineries, in addition to the typical mix of warehouse/light industrial uses.

Exhibit 2.2-13 Woodinville other large industrial area runs along SR-202 west of the Sammamish River.

Exhibit 2.2-14. The Chrysalis School.
The Chrysalis School is an example of one of newer industrial buildings built consistent with the Woodinville Industrial Design Guidelines.

Other Study Areas

The aerial photos below and on the following pages illustrate the King County Potential Annexation Area, City-King County Joint Study Area, and Woodinville UGA.

The site of the two cul-de-sacs (141st and 142nd Place) is the King County Planned Annexation Area.

Exhibit 2.2-15 Potential Annexation Area

Exhibit 2.2-16 Woodinville's northern UGA area, north/west of SR-522 and west of SR-9.

Exhibit 2.2-17 Much of the farmland between the Sammamish River and 140th Place NE is within the City-County Joint Study Area.

2.3 Housing

Overview

This summary provides an overview of Comprehensive Plan Housing Element requirements and current conditions and trends regarding population characteristics, housing types, housing affordability, jobs-housing balance, and other housing trends. This inventory is based on data from the US Census, State of Washington Office of Financial Management (OFM), and A Regional Coalition for Housing (ARCH). A more thorough housing needs and characteristics analysis is underway by ARCH in fall 2013, and is anticipated to supplement this section when available.

Regulatory Context

Growth Management Act (GMA)

GMA includes a housing goal that encourages a range of housing types to meet different incomes, promotes a variety of densities and types, and encourages the preservation of existing housing:

> *RCW 36.70A.020 (4) Housing. Encourage the availability of affordable housing to all economic segments of the population of this state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock.*

The required Housing Element topics are listed in GMA at RCW 36.70A.070 (2): "A housing element ensuring the vitality and character of established residential neighborhoods that:

> *includes an inventory and analysis of existing and projected housing needs that identifies the number of housing units necessary to manage projected growth;*
>
> *includes a statement of goals, policies, objectives, and mandatory provisions for the preservation, improvement, and development of housing, including single-family residences;*
>
> *identifies sufficient land for housing, including, but not limited to, government-assisted housing, housing for low-income families, manufactured housing, multifamily housing, and group homes and foster care facilities; and*
>
> *makes adequate provisions for existing and projected needs of all economic segments of the community."*

The housing element contents are directed towards the objective of "ensuring the vitality and character of established residential neighborhoods," but also towards current and projected housing needs, preservation and development of housing, housing variety, and provision for all economic segments of the community.

VISION 2040

GMA housing goals and requirements are also considered in regional, county and local plans. VISION 2040 multicounty housing policies encourage sufficient housing production to meet existing and future needs. They place major emphasis on the location of housing and promote equal and fair access to housing. VISION 2040 calls for preserving and expanding affordable housing options, incorporating quality and environmentally friendly design in homebuilding and offering healthy and safe housing choices for all the region's residents. Selected policies are listed below:

> *MPP-H-4 Develop and provide a range of housing choices for workers at all income levels throughout the region in a manner that promotes accessibility to jobs and provides opportunities to live in proximity to work.*

MPP-H-5 Expand the supply and range of housing, including affordable units, in centers throughout the region.

MPP-H-6 Recognize and give regional funding priority to transportation facilities, infrastructure, and services that explicitly advance the development of housing in designated regional growth centers. Give additional priority to projects and services that advance affordable housing.

MPP-H-9 Encourage interjurisdictional cooperative efforts and public-private partnerships to advance the provision of affordable and special needs housing.

Countywide Planning Policies for King County

The primary goal of the Countywide Planning Policies (CPPs) is that: "The housing needs of all economic and demographic groups are met within all jurisdictions." The CPPs are focused around regional and local goals, providing a housing needs and characteristics analysis, encouraging regional cooperation, and monitoring effectiveness. A key housing policy is to work collectively to meet low and moderate income housing needs countywide. At a collective and individual level each local government is to address the housing needs for households earning very low incomes, as this is where "the greatest need exists."

H-1 Address the countywide need for housing affordable to households with moderate, low and very-low incomes, including those with special needs. The countywide need for housing by percentage of Area Median Income (AMI) is:

50-80% of AMI (moderate) 16% of total housing supply

30-50% of AMI (low) 12% of total housing supply

30% and below AMI (very-low) 12% of total housing supply

H-2 Address the need for housing affordable to households at less than 30% AMI (very low income), recognizing that this is where the greatest need exists, and addressing this need will require funding, policies and collaborative actions by all jurisdictions working individually and collectively.

Existing Conditions

City of Woodinville

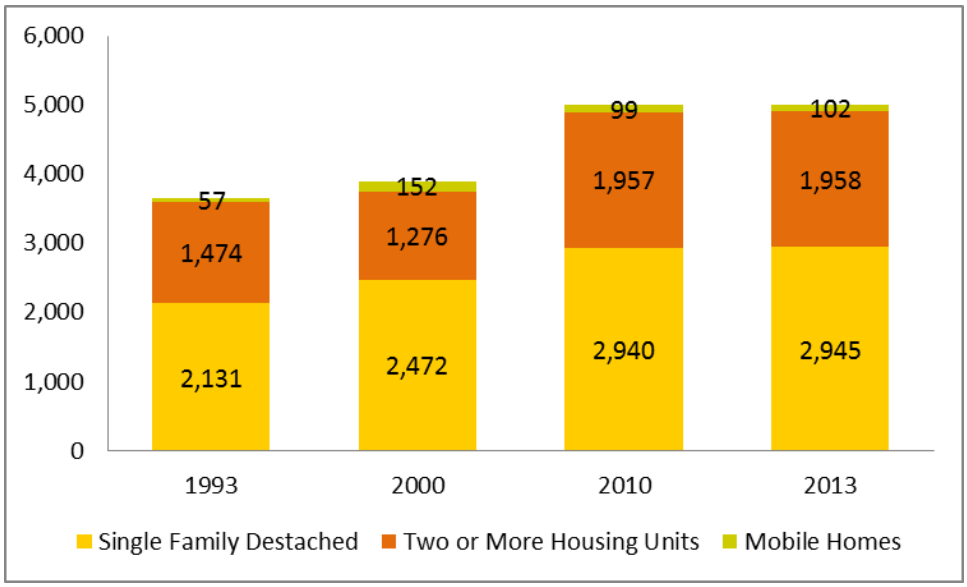
POPULATION

The City of Woodinville has grown nearly 19% between 2010 and 2000 from a population of 9,194 to 10,938. As of 2013, the City's population is estimated to be 10,990.

HOUSING STOCK

Most of the City's land is zoned and used for single family residential uses, and the City's housing stock is predominantly single family. However, the share of multifamily dwellings is increasing. See Exhibit 2.3-1. Most of the City's housing stock was developed between 1980 and 1999 (60%). About 22% was developed in 1979 or earlier, and about 18% has been developed since the year 2000. (ARCH 2013)

Exhibit 2.3-1. Housing Stock: 1993-2013

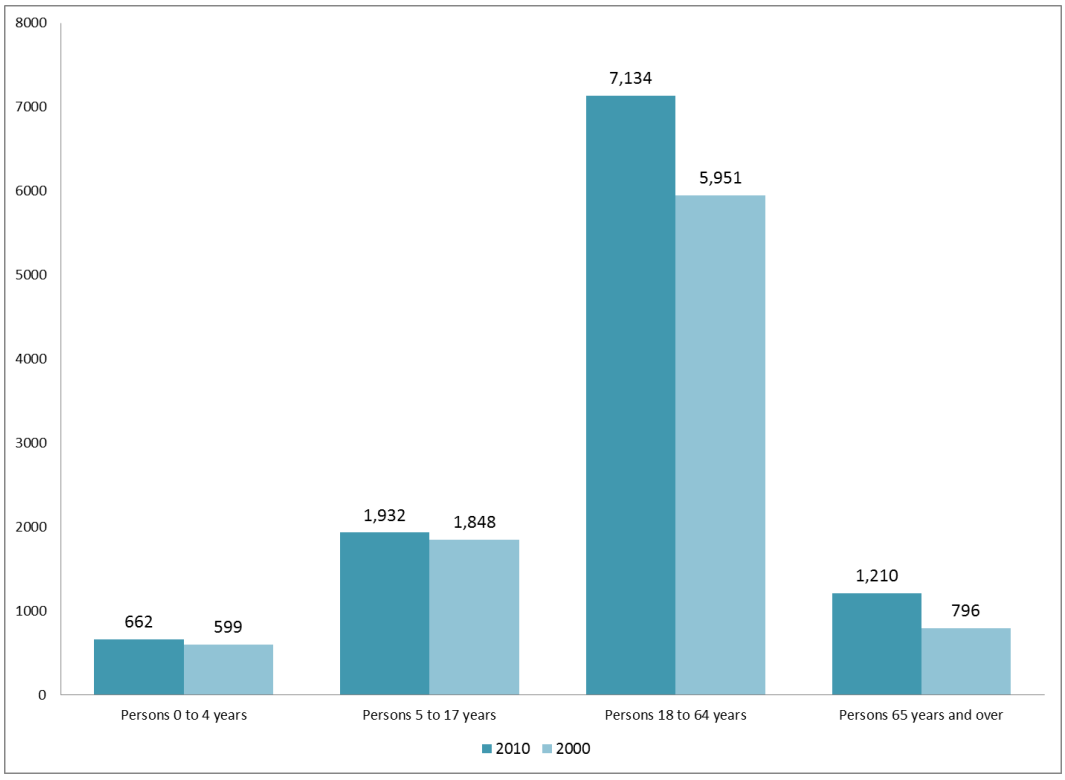


Source: State of Washington Office of Financial Management; BERK 2013

AGE DISTRIBUTION OF POPULATION

Woodinville's population is primarily made up of adults from 18-64 years old, but the City's share of senior citizens has been increasing from about 8.7% to 11.1% between 2000 and 2010. See Exhibit 2.3-2.

Exhibit 2.3-2. Woodinville Age Distribution: 2000 and 2010



Source: US Census; BERK

A more detailed breakdown of population by age and gender is included in the Economic Development inventory. Most of the City's population is fairly evenly distributed by age group for those age groups under 60 years old.

In terms of household types, about 30% of Woodinville's households are singles living alone and another 28% are married with no children at home. Smaller households may require different forms of housing stock (smaller lot detached, cottage, townhome, attached multifamily units). Larger households with children may prefer housing types with yards (e.g. single family on traditional lots) or smaller homes in proximity to public parks and open space. See Exhibit 2.3-3.

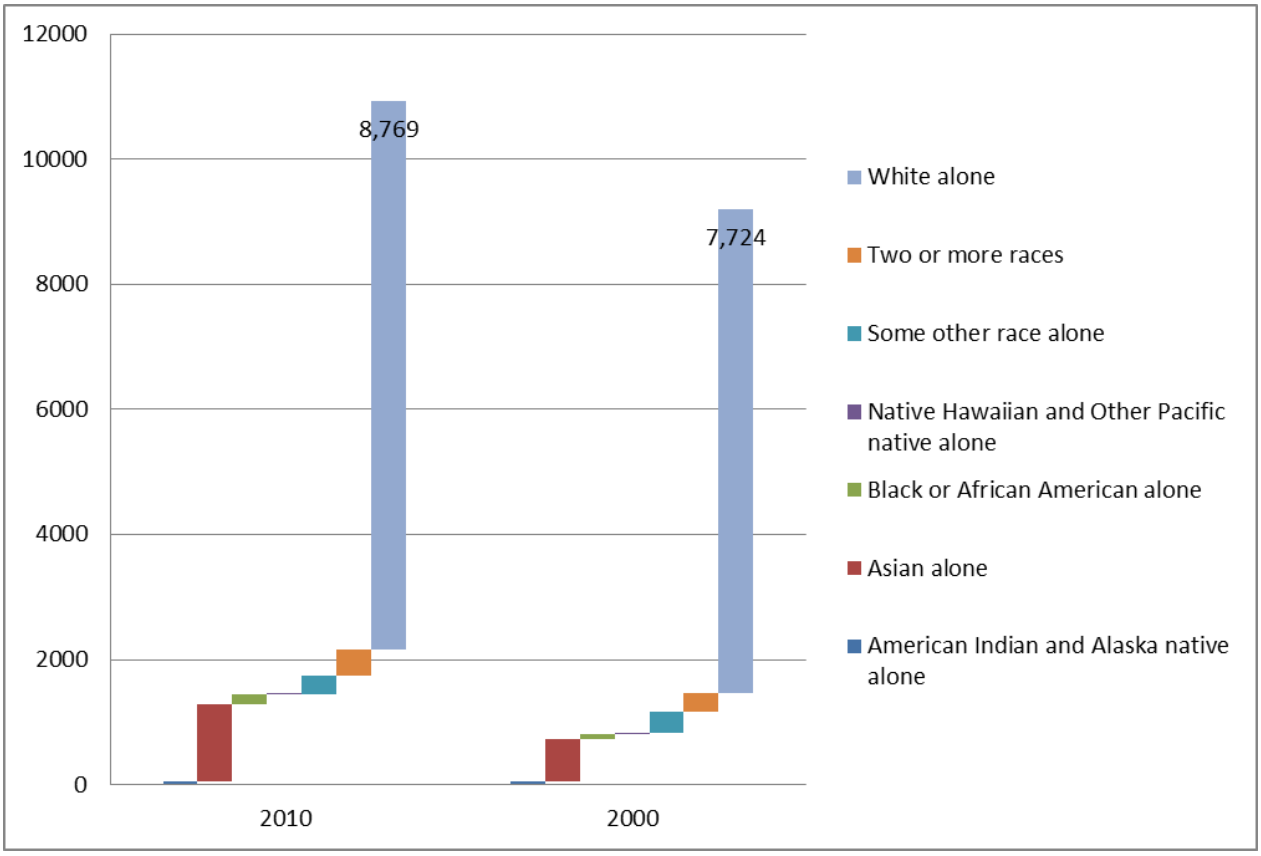
Exhibit 2.3-3. Household Types: 2010

							Percent of Total				
	Total	Living Alone	Married, Children	Married, No Children at Home	Single Parent, Children	Other Households	Living Alone	Married, Children	Married, No Children at Home	Single Parent, Children	Other Households
Beaux Arts Village	113	23	37	43	7	3	*20%*	*33%*	*38%*	*6%*	*3%*
Bellevue	50,355	14,141	11,758	14,872	2,673	6,911	*28%*	*23%*	*30%*	*5%*	*14%*
Bothell	13,497	3,668	3,137	3,863	935	1,894	*27%*	*23%*	*29%*	*7%*	*14%*
Clyde Hill	1,028	125	392	422	40	49	*12%*	*38%*	*41%*	*4%*	*5%*
Hunts Point	151	25	42	71	3	10	*17%*	*28%*	*47%*	*2%*	*7%*
Issaquah	12,841	3,867	3,309	3,351	798	1,516	*30%*	*26%*	*26%*	*6%*	*12%*
Kenmore	7,984	1,870	1,965	2,447	551	1,151	*23%*	*25%*	*31%*	*7%*	*14%*
Kirkland (incl annexations)	36,074	10,989	7,370	9,939	2,227	5,549	*30%*	*20%*	*28%*	*6%*	*15%*
Kirkland (before annex.)	22,445	8,090	3,961	5,534	1,306	3,554	*36%*	*18%*	*25%*	*6%*	*16%*
Inglewood-Finn Hill CDP	8,751	1,756	2,213	2,922	563	1,297	*20%*	*25%*	*33%*	*6%*	*15%*
Kingsgate CDP	4,878	1,143	1,196	1,483	358	698	*23%*	*25%*	*30%*	*7%*	*14%*
Medina	1,061	172	366	410	49	64	*16%*	*34%*	*39%*	*5%*	*6%*
Mercer Island	9,109	2,198	2,475	3,196	504	736	*24%*	*27%*	*35%*	*6%*	*8%*
Newcastle	4,021	876	1,181	1,297	193	474	*22%*	*29%*	*32%*	*5%*	*12%*
Redmond	22,550	6,668	5,741	5,842	1,313	2,986	*30%*	*25%*	*26%*	*6%*	*13%*
Sammamish	15,154	1,721	7,060	4,588	804	981	*11%*	*47%*	*30%*	*5%*	*6%*
Woodinville	4,478	1,354	1,083	1,241	283	517	*30%*	*24%*	*28%*	*6%*	*12%*
Yarrow Point	374	65	128	143	18	20	*17%*	*34%*	*38%*	*5%*	*5%*
EKC Cities (incl annexations)	***178,790***	***47,762***	***46,044***	***51,725***	***10,398***	***22,861***	***27%***	***26%***	***29%***	***6%***	***13%***
Seattle	283,510	117,054	37,035	55,487	14,203	59,731	*41%*	*13%*	*20%*	*5%*	*21%*
King County	789,232	244,699	158,646	198,845	54,861	132,181	*31%*	*20%*	*25%*	*7%*	*17%*
Washington	2,620,076	711,619	534,541	754,308	227,903	391,705	*27%*	*20%*	*29%*	*9%*	*15%*

ETHNIC AND RACIAL DIVERSITY

Woodinville is primarily home to those identifying themselves as White. However, the share of White persons decreased from 84% in 2000 to 80% in 2010. The percent of Asians has increased from 7% to 11% of the City's population. See Exhibit 2.3-4.

Exhibit 2.3-4. Race: 2010 and 2000



Source: US Census; BERK

HOUSEHOLD INCOME AND AFFORDABLE HOUSING NEEDS

As described in the section on Economic Development conditions, Woodinville has a large percentage of higher income households. The median household income for the City is $91,049 compared to $68,775 for King County. The largest share of households earns $100,000 to $149,999. 60% of households earn $75,000 or more.

About 6% of Woodinville's population earns incomes below the poverty level. See Exhibit 2.3-5.

Exhibit 2.3-5. Households below Poverty Level, 2011 (ACS)

	All Households			Family Households			Other Households		
	Total	Below Poverty Level		Total	Below Poverty Level		Total	Below Poverty Level	
Beaux Arts Village	134	1	*1%*	105	-	*0%*	29	1	*3%*
Bellevue	50,255	3,175	*6%*	32,153	1,402	*4%*	18,102	1,773	*10%*
Bothell	13,569	860	*6%*	8,700	378	*4%*	4,869	482	*10%*
Clyde Hill	952	25	*3%*	850	15	*2%*	102	10	*10%*
Hunts Point	155	15	*10%*	138	13	*9%*	17	2	*12%*
Issaquah	12,461	367	*3%*	7,824	77	*1%*	4,637	290	*6%*
Kenmore	7,914	719	*9%*	5,270	382	*7%*	2,644	337	*13%*
Kirkland (incl annexations)	37,684	2,150	*6%*	22,806	927	*4%*	14,878	1,223	*8%*
Kirkland (before annex.)	22,624	1,262	*6%*	12,317	457	*4%*	10,307	805	*8%*
Inglewood-Finn Hill CDP	9,559	498	*5%*	6,819	164	*2%*	2,740	334	*12%*
Kingsgate CDP	5,501	390	*7%*	3,670	306	*8%*	1,831	84	*5%*
Medina	1,037	35	*3%*	853	18	*2%*	184	17	*9%*
Mercer Island	9,253	370	*4%*	6,444	71	*1%*	2,809	299	*11%*
Newcastle	3,932	224	*6%*	2,851	140	*5%*	1,081	84	*8%*
Redmond	23,048	1,459	*6%*	13,471	547	*4%*	9,577	912	*10%*
Sammamish	14,583	424	*3%*	12,522	315	*3%*	2,061	109	*5%*
Woodinville	4,350	245	*6%*	2,740	86	*3%*	1,610	159	*10%*
Yarrow Point	364	12	*3%*	291	6	*2%*	73	6	*8%*
EKC Cities	***179,691***	***10,081***	***6%***	***117,018***	***4,377***	***4%***	***62,673***	***5,704***	***9%***
Seattle	282,480	35,524	*13%*	123,811	8,424	*7%*	158,669	27,100	*17%*
King County	790,070	77,299	*10%*	463,619	30,436	*7%*	326,451	46,863	*14%*
Washington	2,602,568	298,034	*11%*	1,683,102	141,588	*8%*	919,466	156,446	*17%*

Source: 2011 ACS 5-Year Estimates; ARCH

When income is broken down by very low, low, moderate, median, and above median income levels, it is found that 31% of Woodinville households earn very low, low, or moderate incomes. See Exhibit 2.3-6.

As of 2011, based on the King County median income, the following income levels match very low, low, and moderate income levels:

- Very Low Income, 30% of Median: Family of four, $25,700 ($12.36 per hour) or One person $18,000 ($8.65 per hour).
- Low Income, 50% of Median: Family of four, $42,800 ($20.58 per hour) or One person $30,000 ($14.42 per hour).
- Moderate Income: Family of four, $64,400 ($30.96 per hour) or One person $45,100 ($21.68 per hour).

At the very low income level, persons could be earning minimum wage or may be retired and earning social security or families could be supported by service jobs such as food preparation. At low incomes, persons or households could be in trades (e.g. mechanic), entry level office jobs (e.g. file clerk), or entry level education (e.g. beginning teacher). Moderate income families or individuals could work in retail management, office management, municipal services (e.g. firefighter), trades (e.g. electrician), or other similar types of jobs. (ARCH 2011)

Exhibit 2.3-6. 2011 Income Estimates (ACS 5-Year Estimates)

Income category:		Less than $21,200	$21,200 to $35,299	$35,300 to $56,499	$56,500 to $70,599	$70,600 to $84,699	$84,700 and greater	
Pct of County's median HH income:	Total Households	Very Low Income <30%	Low Income 30-50%	Moderate Income 50-80%	80-100% of Median	100-120% of Median	Over 120% of Median	Median income
Beaux Arts Village	134	3%	2%	8%	6%	5%	76%	$131,250
Bellevue	50,255	10%	8%	14%	9%	8%	51%	$84,503
Bothell	13,569	9%	11%	18%	11%	8%	43%	$70,935
Clyde Hill	952	4%	6%	4%	4%	5%	77%	$197,917
Hunts Point	155	10%	1%	6%	3%	3%	77%	$205,625
Issaquah	12,461	9%	6%	15%	9%	9%	51%	$87,038
Kenmore	7,914	11%	9%	15%	9%	8%	48%	$81,097
Kirkland (incl annexations)	37,684	8%	8%	14%	9%	9%	52%	n/a
Kirkland (before annex.)	22,624	8%	8%	14%	9%	9%	52%	$88,756
Inglewood-Finn Hill CDP	9,559	7%	9%	13%	8%	9%	54%	$91,839
Kingsgate CDP	5,501	10%	8%	15%	9%	8%	50%	$82,210
Medina	1,037	6%	6%	4%	5%	4%	75%	$176,354
Mercer Island	9,253	6%	7%	11%	6%	6%	64%	$123,328
Newcastle	3,932	6%	6%	11%	8%	8%	61%	$106,339
Redmond	23,048	9%	8%	11%	8%	9%	55%	$92,851
Sammamish	14,583	3%	3%	7%	5%	5%	75%	$135,432
Woodinville	4,350	7%	9%	15%	8%	8%	54%	$91,049
Yarrow Point	364	5%	3%	7%	6%	7%	72%	$153,056
EKC cities	***179,691***	***8%***	***8%***	***13%***	***8%***	***8%***	***54%***	***n/a***
Seattle	282,480	17%	12%	17%	9%	7%	37%	$61,856
King County	790,070	13%	11%	16%	10%	8%	42%	$70,567
Washington	2,602,568	17%	16%	13%	15%	11%	28%	$58,890

2000 U.S. Census, 2011 ACS 5-Year Estimates; ARCH

In addition to identifying a range of household income levels at moderate, low and very low income levels, it is also possible to identify those that are housing cost burdened. Per US Housing and Urban Development Department definitions and CPP Appendix 4, those households that are cost-burdened pay more than 30% of their household income to housing costs. Severely cost burdened households pay more than 50% of their incomes towards housing costs.

Exhibit 2.3-7 shows that 52% of renter households and 31% of homeowner households are cost burdened. The percentage of households that are cost burdened has risen each decade. The percentage of severely cost burdened households is about 28% for renters and 8% of homeowners, and has slightly risen over the last decade. See Exhibit 2.3-8.

Recently, planners have been considering the combined cost of housing and transportation to get a fuller picture of the demands placed on households for daily living. A Housing +Transportation Affordability Index (www.htaindex.cnt.org) shows that most of Woodinville has housing costs that are at 30% or greater of a household's income. When factoring in both housing and transportation costs, 45% or greater of a household's income would be required to meet the combined need.

Exhibit 2.3-7. Cost Burdened Households

	Renter households			Owner households			Renters & Owners Combined		
	1990	2000	2011 ACS	1990	2000	2011 ACS	1990	2000	2011 ACS
Beaux Arts	0%	0%	43%	14%	23%	30%	13%	23%	31%
Bellevue	41%	39%	36%	18%	25%	31%	28%	31%	34%
Bothell	36%	36%	47%	21%	27%	31%	27%	30%	37%
Clyde Hill	47%	44%	18%	18%	23%	30%	20%	24%	29%
Hunts Point	0%	48%	7%	32%	21%	49%	28%	25%	45%
Issaquah	40%	39%	41%	19%	25%	36%	31%	32%	38%
Kenmore	29%	36%	42%	23%	25%	37%	25%	29%	38%
Kirkland (incl annexations)	n/a	n/a	36%	n/a	n/a	38%	n/a	n/a	37%
Kirkland (before annex.)	35%	33%	33%	20%	26%	36%	27%	30%	35%
Inglewood-Finn Hill	32%	31%	42%	19%	28%	40%	22%	29%	40%
Kingsgate CDP	43%	29%	41%	23%	27%	38%	29%	27%	39%
Medina	34%	26%	36%	21%	27%	29%	22%	27%	30%
Mercer Island	36%	35%	40%	18%	27%	26%	22%	29%	29%
Newcastle	n/a	32%	35%	n/a	26%	34%	n/a	27%	34%
Redmond	34%	35%	31%	18%	24%	30%	25%	29%	31%
Sammamish	n/a	36%	36%	n/a	27%	31%	n/a	28%	32%
Woodinville	37%	46%	52%	27%	28%	31%	29%	33%	39%
Yarrow Point	24%	50%	50%	22%	30%	39%	22%	31%	40%
EKC cities (incl annexations)	***37%***	***36%***	***37%***	***20%***	***26%***	***33%***	***27%***	***30%***	***34%***
Seattle	41%	40%	45%	17%	27%	34%	30%	34%	40%
King County	38%	38%	45%	18%	27%	35%	27%	32%	39%
Washington	37%	39%	47%	16%	26%	33%	25%	31%	38%

Source: 1990, 2000 U.S. Census; 2011 ACS 5-Year Estimates; ARCH

Exhibit 2.3-8. Severely Cost-Burdened* Households

	Renter Households		Owner Households		Renter and Owners Combined	
	2000	2011 ACS	2000	2011 ACS	2000	2011 ACS
Beaux Arts Village	0%	43%	10%	8%	10%	11%
Bellevue	17%	17%	9%	13%	12%	15%
Bothell	14%	23%	7%	9%	9%	14%
Clyde Hill	26%	7%	8%	15%	9%	14%
Hunts Point	9%	0%	8%	21%	8%	19%
Issaquah	13%	21%	9%	11%	11%	15%
Kenmore	15%	22%	8%	15%	10%	17%
Kirkland (incl annexations)	n/a	15%	n/a	14%	n/a	14%
Kirkland (before annex.)	15%	13%	9%	15%	12%	14%
Inglewood-Finn Hill CDP	12%	20%	9%	14%	10%	16%
Kingsgate CDP	9%	19%	7%	12%	7%	13%
Medina	11%	19%	13%	13%	13%	13%
Mercer Island	18%	24%	9%	10%	11%	13%
Newcastle	14%	18%	8%	11%	10%	13%
Redmond	13%	17%	7%	11%	10%	14%
Sammamish	15%	17%	8%	8%	9%	9%
Woodinville	27%	28%	7%	8%	13%	15%
Yarrow Point	0%	45%	13%	28%	12%	29%
EKC cities (incl annexations)	***16%***	***18%***	***8%***	***12%***	***11%***	***14%***
Seattle	17%	22%	9%	13%	14%	17%
King County	17%	22%	8%	13%	12%	17%
Washington	18%	23%	8%	12%	12%	16%

Note: *"Severely cost-burdened" means a household spending more than 50 percent of its income on housing costs.

2000 U.S. Census; 2011 ACS 5-Year Estimates

HOUSING STOCK AFFORDABILITY

Woodinville's home sale prices have increased between the year 2000 and 2010, though declined for attached ownership housing recently between 2010 and 2013. See Exhibit 2.3-9.

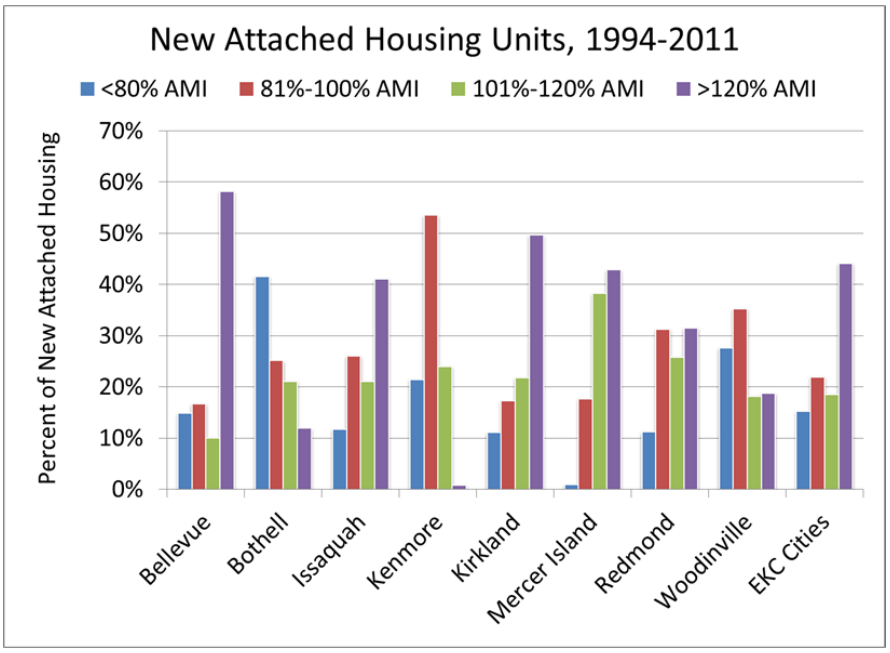
Exhibit 2.3-9. Home Sale Prices

	2000	2005	2010	Change, 2000 - 2010	2013			Change, 2010-2013		
	All	All	All	Total	Attached	Detached	All	Attached	Detached	Total
Bellevue-Point Cities	$317,608	$500,932	$621,682	96%	$487,364	$785,236	$653,573	28%	1%	5%
Bothell	$231,690	$286,727	$317,735	37%	$168,771	$501,610	$412,395	-23%	27%	30%
Issaquah	$313,082	$373,418	$451,106	44%	$252,101	$564,348	$472,559	-21%	5%	5%
Kenmore	$234,437	$365,760	$352,049	50%	$185,575	$415,114	$357,729	-5%	7%	2%
Kirkland	$267,508	$384,396	$534,209	100%	$296,844	$592,742	$499,526	-12%	-3%	-6%
Medina	-	$1,696,111	$827,848	-	$0	$2,133,778	$2,133,778	-	158%	158%
Mercer Island	$562,330	$862,957	$1,169,603	108%	$298,869	$1,137,728	$1,060,591	16%	-17%	-9%
Redmond	$298,736	$461,293	$491,175	64%	$296,485	$602,280	$521,204	4%	1%	6%
Sammamish	-	$519,429	$612,589	-	$370,739	$696,497	$643,956	27%	10%	5%
Woodinville	$356,281	$332,675	$495,417	39%	$130,100	$509,700	$448,143	-9%	-	-10%
EKC cities	$300,230	$434,752	$515,362	***72%***	$342,528	$657,988	$566,529	***9%***	***10%***	***10%***
Seattle	$266,182	$390,210	$435,989	64%	$391,958	$481,579	$450,968	3%	3%	3%
King County	$253,241	$373,322	$406,300	60%	$312,254	$492,155	$449,597	-17%	14%	11%

Source: Central Puget Sound Real Estate Research Committee; ARCH 2014

Much of Woodinville's new *attached* housing stock built since 1994 is affordable to moderate, middle, and upper income levels, and less so to low and very low incomes. See Exhibit 2.3-10 and Exhibit 2.3-11.

Exhibit 2.3-10. Affordability of New Privately Attached Housing



Source: ARCH 2014

Exhibit 2.3-11. Affordability of New Multi-family Housing, 1994–2011

	Total (1)	<50% of median	51% - 80% of median	81% - 100% of median	101% - 120% of median	>120% of median	Units surveyed
Bellevue	9,075	18	1,205	1,380	830	4,782	8,215
Pct of surveyed		0%	15%	17%	10%	58%	
Bothell	2,406	40	653	419	352	199	1,663
Pct of surveyed		2%	39%	25%	21%	12%	
Issaquah	3,453	0	251	556	451	877	2,135
Pct of surveyed		0%	12%	26%	21%	41%	
Kenmore	237	0	51	127	57	2	237
Pct of surveyed		0%	22%	54%	24%	1%	
Kirkland	3,215	43	238	436	550	1,254	2,521
Pct of surveyed		2%	9%	17%	22%	50%	
Mercer Island	1,314	0	10	188	406	454	1,058
Pct of surveyed		0%	1%	18%	38%	43%	
Newcastle	133	0	0	4	72	57	133
Pct of surveyed		0%	0%	3%	54%	43%	
Redmond	3,935	45	350	1,100	906	1,107	3,508
Pct of surveyed		1%	10%	31%	26%	32%	
Sammamish	705	0	0	0	0	0	0
Pct of surveyed		0%	0%	0%	0%	0%	
Woodinville	1,145	0	153	195	101	104	553
Pct of surveyed		0%	28%	35%	18%	19%	
Total	***25,618***	***146***	***2,911***	***4,405***	***3,725***	***8,836***	***20,023***
Pct of surveyed		***1%***	***15%***	***22%***	***19%***	***44%***	

Notes: (1) Includes surveyed housing and senior housing with services (e.g. nursing homes, assisted living, congregate care).

Other notes: Affordability based on survey of new attached housing by ARCH. Does not include special senior housing or housing receiving public financial support.

Survey affordability not available for all attached housing units.

Newcastle data begins in 1998. Clyde Hill, Kenmore, and Sammamish data begin in 2001.

Source: ARCH 2014

HOMELESSNESS

As of 2014, the one-night unsheltered homeless county showed 178 persons homeless in East King County; countywide the total was 3,117 persons. (Seattle-King County Coalition on Homelessness, in ARCH 2014) School districts serving Woodinville have seen some increase in the percentage of homeless families in the last few years. (ARCH 2014)

AFFORDABLE HOUSING NEED

At the Countywide level, the breakdown of potential housing need by income category is expressed in CPP H-1:

50-80% of AMI (moderate) 16% of total housing supply

30-50% of AMI (low) 12% of total housing supply

30% and below AMI (very-low) 12% of total housing supply

Woodinville's household income breakdown in Exhibit 2.3-6 shows nearly the same level of moderate income households (15%) as the County, but less low and very low income households (9% and 7% respectively). However

CPP Policy H-1 and CPP Appendix 4 indicates each jurisdiction should strive to achieve housing units affordable to household income level based on the countywide shares to help address the countywide need; all jurisdictions are to focus on the very low income level in particular where the greatest need exists (CPP H-2 and Appendix 4).

How each jurisdiction choses to meet needs will be based on their local conditions:

> *While neither the county nor the cities can guarantee that a given number of units at a given price level will exist, be preserved, or be produced during the planning period, establishing the countywide need clarifies the scope of the effort for each jurisdiction. The type of policies and strategies that are appropriate for a jurisdiction to consider will vary and will be based on its analysis of housing. Some jurisdictions where the overall supply of affordable housing is significantly less than their proportional share of the countywide need may need to undertake a range of strategies addressing needs at multiple income levels, including strategies to create new affordable housing. Other jurisdictions that currently have housing stock that is already generally affordable may focus their efforts on preserving existing affordable housing through efforts such as maintenance and repair, and ensuring long-term affordability. It may also be appropriate to focus efforts on the needs of specific demographic segments of the population.*

Given the desirability of the Woodinville community in the marketplace and its associated higher value housing, as well as the presence of cost-burdened households (particularly renters), any legislative actions that Woodinville may take to address affordability housing locally and in partnership with other jurisdictions through ARCH will help meet the countywide need.

HOUSING GROWTH TARGETS

The City has a growth target of 3,000 new dwelling units for the period 2006-2031. Based on a residential land capacity analysis, the City has sufficient capacity to meet its 2031 Growth Targets. Most of the capacity is in future multifamily units, a reflection of how the City has increased development capacity in its Central Business District. See Exhibit 2.3-12.

Exhibit 2.3-12. Residential Capacity and Growth Targets

Growth Target: 2006-2031	SF Total	MF Total	Combined Total, SF+MF	Net Housing Created: 2006-2012	Total Unit Capacity	Net Capacity
3,000	978	1,637	2,615	798	3,413	413

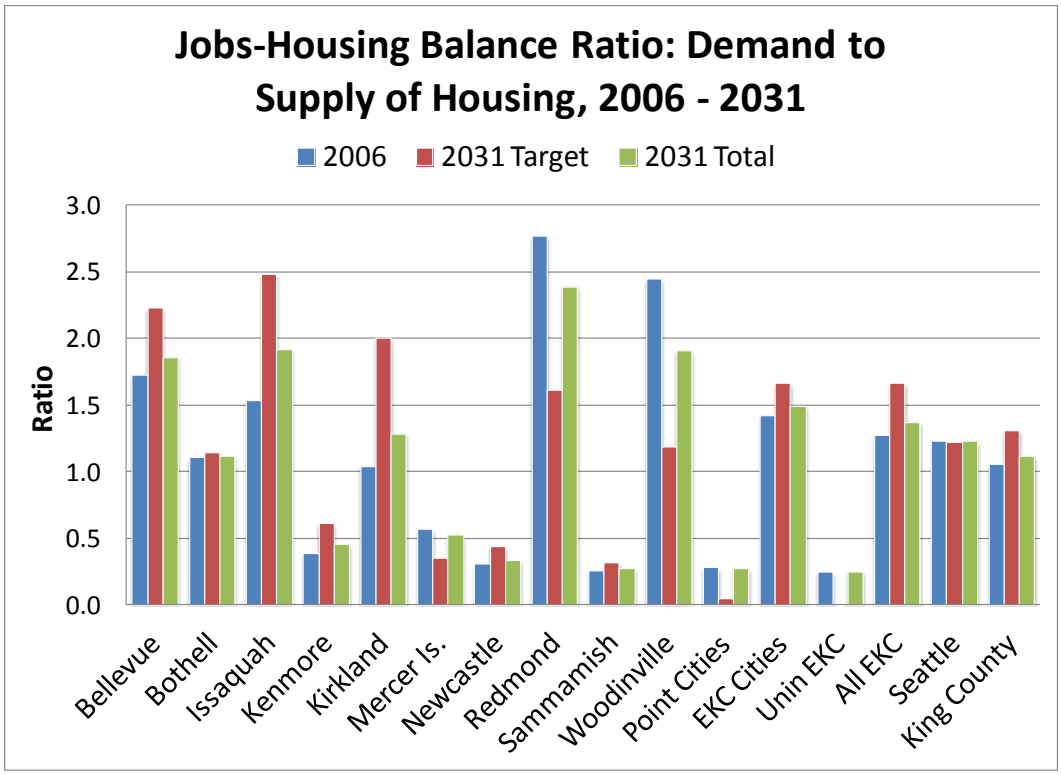
Source: BERK 2014

Due to the GMA requirements to address a 20-year planning horizon to the year 2035, the City is anticipating growth trends beyond 2031. In Appendix A, an analysis shows future planning projections to 2035 and the potential of land capacity to meet the projections. The City has slightly less capacity for residential housing units than is needed to meet the straight line 2035 planning estimate with a small capacity deficit of 67 housing units.

JOBS-HOUSING BALANCE

Woodinville has a 2006 jobs-housing balance that shows that there is a greater demand for housing by the local workforce than is available. However, if growth expected through 2031 occurs, the jobs-housing balance would improve. See Exhibit 2.3-13.

Exhibit 2.3-13. Jobs-Housing Balance 2006-2031



Note: "Jobs-housing balance" indicates the ratio of housing demand from local workforce to the local supply of housing. A ratio of 1.0 means there is an amount of housing equal to the demand for housing from the local workforce. A ratio greater than 1.0 means that local employment generates a demand for housing greater than the number of housing units. Housing demand is estimated by 1.4 jobs per household.

Source: ARCH 2014

HOUSING NEEDS IN CBD

Within Woodinville's Central Business District, it is anticipated that the City would have the most capacity for new housing, particularly attached housing. Of the 1,637 new multifamily units anticipated in the City's overall land capacity, about 1,573 of the units are projected to occur in the CBD zone. The City established a variety of CBD density incentives including in 2010 and 2012, summarized below:

- Base Density is 36 units per acre.
- Developments may achieve a floor area ratio of 2.0 (with no density maximum – number of units determined by market for size, plus coverage and height) if providing public benefits such as open space, transit facilities, affordable housing, LEED silver, or similar. Two or more public benefits must be provided. Affordable housing is one of the potential public benefits one can select from.
- Developments in the Pedestrian Oriented Overlay may increase residential density, up to a maximum of 150 percent (54 du/ac) of the standard limit of 36 du/ac or not greater than an FAR of 2.5 subject to a voluntary development agreement with the City that provide mitigations or public benefits that exceed those required under standard regulations.
- Transit Oriented Development projects subject to requirements are allowed a base FAR of 2.0 and a maximum FAR of 2.5.

These incentives should assist the City in meeting both its overall housing targets and provide opportunities to attract affordability housing. Canterbury Square was recently approved under the recent CBD rules. It would result

in 800 attached units (a net addition of 672 units above the existing 128 units), which increased the overall capacity within the City. Proponents of the development may also request an additional 100 dwelling units.

TRENDS

As the City prepares its Housing Element, some trends that could be considered include:

- The continuing large share of land (see Land Use section) that is presently used and would continue to be used for single family purposes. Only one accessory dwelling unit permit was reported between 1994 and 2011 (ARCH 2014). Thus a review of the City's accessory dwelling unit requirements may be appropriate.
- Increasing percentage of senior citizens in the population that may warrant alternative forms of housing.
- Large share of smaller households who may require different forms of housing stock (smaller lot detached, cottage, townhome, attached multifamily units).
- Increase in cost-burdened households, particularly renters.
- The potential demand for housing by those who work in Woodinville.
- The capacity of the CBD to increase the share of multifamily housing, which may serve smaller household sizes and potentially affordable housing needs. It may be appropriate to revisit the slate of incentives offered in the CBD to make the affordable housing benefit more attractive.

King County Potential Annexation Area

The area matches a 2010 Census Blocks, and in 2010 the area had a population of 58.

City-King County Joint Study Area

The section of the Joint Study Area north of NE 145th Street matches several 2010 Census Blocks while the two pieces of the study area south of NE 145th are within Blocks that extend well outside the study area. The northern section had a population of 15 people in 2010. The southern pieces have just five single-family units in total.

Woodinville Urban Growth Area (UGA)

Woodinville's UGA had a population of about 236 in 2010 based on Census Blocks that best matched the study area.

2.4 Economic Development

Overview

This section is intended to provide information on the current state of the City's economy and the City's potential to support growth. The inventory includes information on the City of Woodinville's population, employment, and commercial land capacity based on data from the U.S. Census Bureau, Washington Office of Financial Management, Puget Sound Regional Council, and local assessor data.

Regulatory Context

GMA indicates an Economic Development Element is required when funding is provided by the State of Washington; while funding is not in place, the City already has an Economic Development Element and anticipates revising it for the 2015 Comprehensive Plan Update. Based on GMA requirements, an Economic Development Element provides goals and policies to guide the City's economic growth and vitality. Economic Development elements should provide a summary of the local economy, strengths and weaknesses of the local economy, and identification of policies, program, and projects to support economic growth.

Existing Conditions

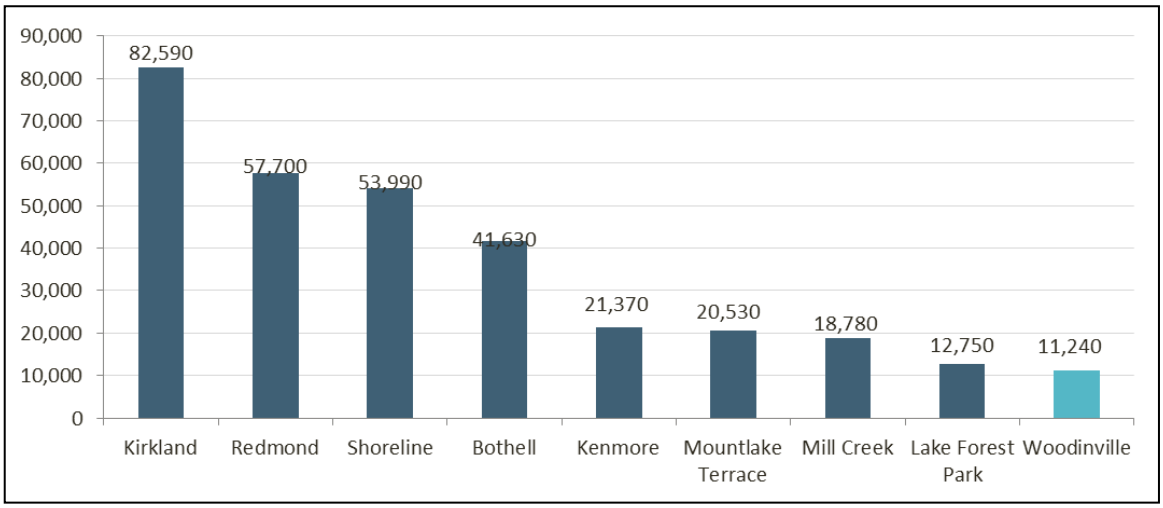
Demographics

CITY OF WOODINVILLE

Population

As of 2013, the City of Woodinville has a population of 10,990 according to estimates from OFM. The City of Woodinville's population grew by 1,431people from 2000 to 2014. During this period its population increased at an average annual rate of 1.0%. Woodinville is the smallest of neighboring cities in northern King and southern Snohomish Counties. See Exhibit 2.4-1.

Exhibit 2.4-1.Population for Neighboring Cities, 2013



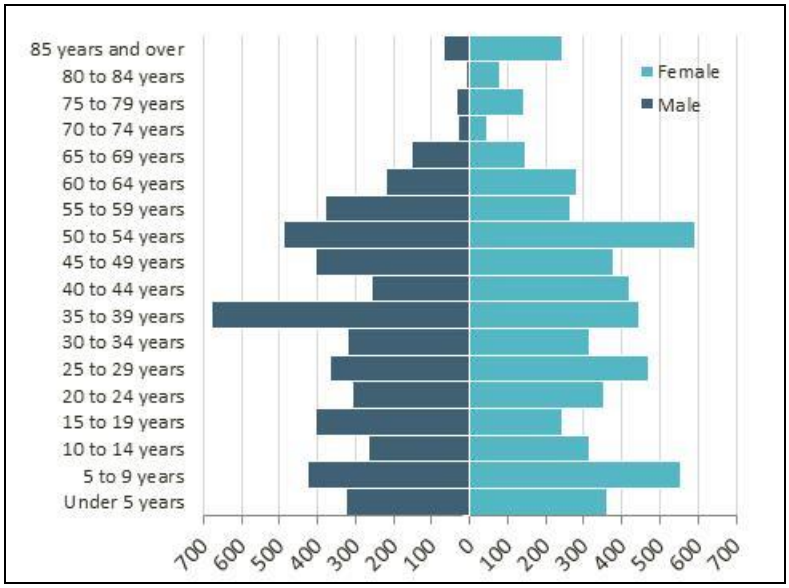
Source: OFM, 2014; BERK 2014.

Age

Overall, Woodinville has a somewhat younger population than King County. The median age of Woodinville resident's from 2007-2011 was just over 36 years old. Children, those under 18, compose 25% of the City's population, while those over 65 or older are 8.8% of the City's population. In comparison, the median age for King County in 2011 was 37 years old. Children were 21% of the population, and those over 64 accounted for 11.2% of the population.

Exhibit 2.4-2 shows Woodinville's population distribution by age group by gender. Most of the City's population is fairly evenly distributed by age group for those age groups under 60 years old.

Exhibit 2.4-2. Age Distribution by Sex, 2007-2011 5-Year Average



Source: US Census American Community Survey, 2007-2011 5-Year Average; BERK, 2013

Education

Woodinville has a relatively educated population. Almost 96% of those 25 or older have a high school diploma and close to half have a college degree. In comparison, in King County 92% have a high school diploma and 45% have a college degree.

Exhibit 2.4-3
Woodinville Educational Attainment of Population 25 Years Old and Over, 2007-2011 5-year Average

Edu. Attainment	Number	Percent
Population 25 and Over	7,240	100.0%
High School Diploma	6,943	95.9%
Batchelor's Degree	3,359	46.4%
Graduate Degree	956	13.2%

Source: US Census American Community Survey, 2007-2011 5-Year Average; BERK, 2013

KING COUNTY POTENTIAL ANNEXATION AREA

The area matches a 2010 Census Block, and in 2010 the area had a population of 58.

CITY-KING COUNTY JOINT STUDY AREA

The section of the Joint Study Area north of NE 145th Street matches several 2010 Census Blocks while the two pieces of the study area south of NE 145th are within Blocks that extend well outside the study area. The northern section had a population of 15 people in 2010. The southern pieces have just five single-family units in total.

WOODINVILLE URBAN GROWTH AREA (UGA)

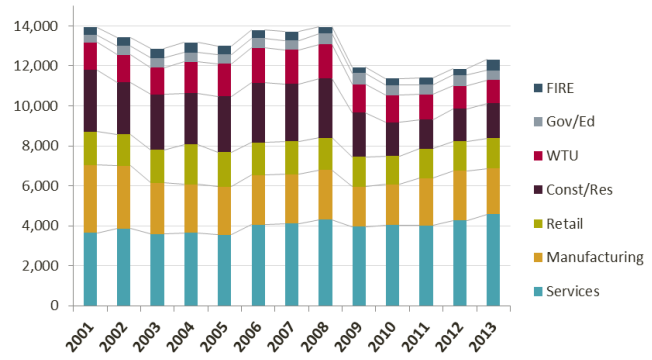
Woodinville's UGA had a population of about 236 in 2010 based on Census Blocks that best matched the study area.

Employment

CITY OF WOODINVILLE

Woodinville had a covered employment total of 12,322 in 2013, the most recent year available. Covered employment within the City has declined since 2008 with the onset of the recession. The City has 1,608 fewer jobs in 2013 than it did in 2001. See Exhibit 2.4-4.

Exhibit 2.4-4
Woodinville Covered Employment by Sector, 2001-2013



Sector	2013	Change 2001-2013
Services	4,567	932
Manufacturing	2,292	-1,105
Retail	1,512	-162
Const/Res	1,750	-1,330
WTU	1,168	-216
Gov/Ed	486	117
FIRE	547	157
Total	**12,322**	**-1,608**

Source: Puget Sound Regional Council, 2013; BERK, 2014

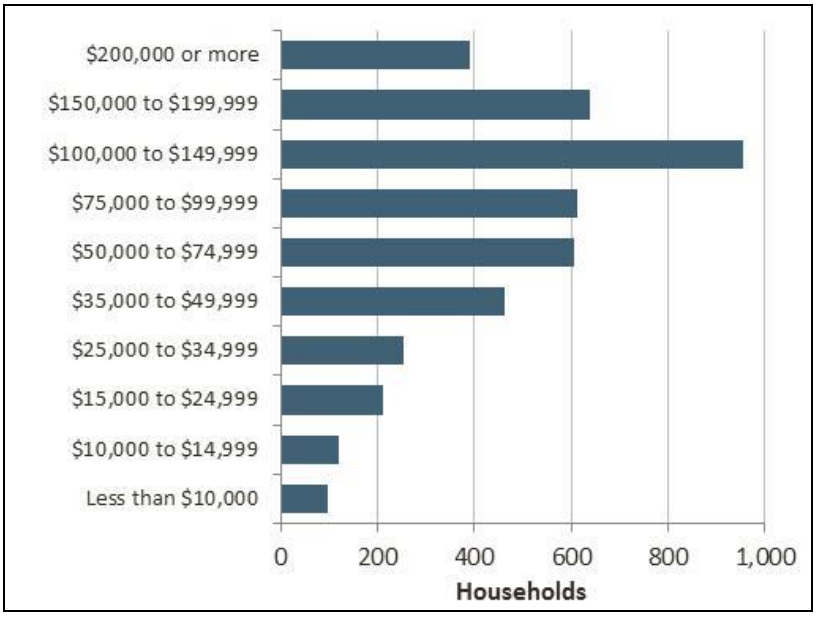
Note: Const/Resource = Construction and Resources; WTU = Warehousing, Transportation, and Utilities; Gov/Ed = Government and Education; FIRE = Finance, Insurance, and Real Estate

Services is the largest sector in the city and added 932 net jobs from 2001 to 2013. Much of this growth was from the health care services subsector, which added 549 jobs over the same period. Manufacturing, which is Woodinville's second largest sector, lost -1,105jobs since 2001. Construction/resources lost 1,330 jobs over the same period.

Income

Woodinville has a large percentage of higher income households. The median household income for the City is $91,049 compared to $68,775 for King County. The largest share of households earn $100,000 to $149,999, which can be seen in Exhibit 2.4-5. 60% of households earn $75,000 or more.

Exhibit 2.4-5. Household Income, 2007-2011 5-Year Average



Source: US Census American Community Survey, 2007-2011 5-Year Average; BERK, 2013

KING COUNTY POTENTIAL ANNEXATION AREA

The area is all residential housing and does not have any commercial uses. As a result, it is assumed there are zero jobs in the study area.

CITY-KING COUNTY JOINT STUDY AREA

The Joint Study Area has a small amount of employment. Using the Census' OnTheMap application, it is estimated that there were 119 jobs within the study area in 2011. Exhibit 2.4-6 shows the estimated employment by sector within the area.

Exhibit 2.4-6. Estimated Employment by Sector, 2002, 2007, 2011

NAICS Sector	2002	2007	2011
Agriculture, Forestry, Fishing and Hunting	0	2	0
Mining, Quarrying, and Oil and Gas Extraction	0	0	0
Utilities	0	0	0
Construction	1	7	27
Manufacturing	0	1	0
Wholesale Trade	2	0	0
Retail Trade	15	23	14
Transportation and Warehousing	0	0	0
Information	0	0	0
Finance and Insurance	1	1	0
Real Estate and Rental and Leasing	8	10	0
Professional, Scientific, and Technical Services	9	5	11
Management of Companies and Enterprises	0	0	0
Administration & Support, Waste Management and Remediation	8	15	12
Educational Services	0	3	7
Health Care and Social Assistance	5	0	0
Arts, Entertainment, and Recreation	29	27	34
Accommodation and Food Services	2	10	2
Other Services (excluding Public Administration)	5	13	11
Public Administration	0	0	1
Total	**85**	**117**	**119**

Source: US Census OnTheMap Application, 2013

- The largest share of jobs are in the retail trade; arts, entertainment, and recreation; and various types of services.
- The number of jobs has increased slightly since 2002.

WOODINVILLE URBAN GROWTH AREA (UGA)

Woodinville's UGA has a sizable amount of employment relative to its area. Employment increased from 2002 to 2007 to almost 1,260 and then dipped with the recession to an estimated total of 1,180 by 2011. Exhibit 2.4-7 shows the estimated employment by sector within the area.

Exhibit 2.4-7
Estimated Employment by Sector, 2002, 2007, 2011

NAICS Sector	2002	2007	2011
Agriculture, Forestry, Fishing and Hunting	2	1	0
Mining, Quarrying, and Oil and Gas Extraction	0	0	0
Utilities	0	0	0
Construction	231	287	49
Manufacturing	383	474	488
Wholesale Trade	65	78	30
Retail Trade	129	166	296
Transportation and Warehousing	4	0	1
Information	0	0	0
Finance and Insurance	10	0	1
Real Estate and Rental and Leasing	20	20	19
Professional, Scientific, and Technical Services	3	19	47
Management of Companies and Enterprises	0	0	1
Administration & Support, Waste Management and Remediation	146	194	217
Educational Services	0	0	0
Health Care and Social Assistance	3	8	17
Arts, Entertainment, and Recreation	3	4	11
Accommodation and Food Services	7	8	1
Other Services (excluding Public Administration)	3	0	1
Public Administration	0	0	1
Total	**1,009**	**1,259**	**1,180**

Source: US Census OnTheMap Application, 2013

- The manufacturing, retail trade, and administration and support sectors make up the largest share of employment.
- Employment within all three of these sectors increased from 2002 to 2011.
- Construction employment dropped significantly from 2007 to 2011.

Commercial and Industrial Development

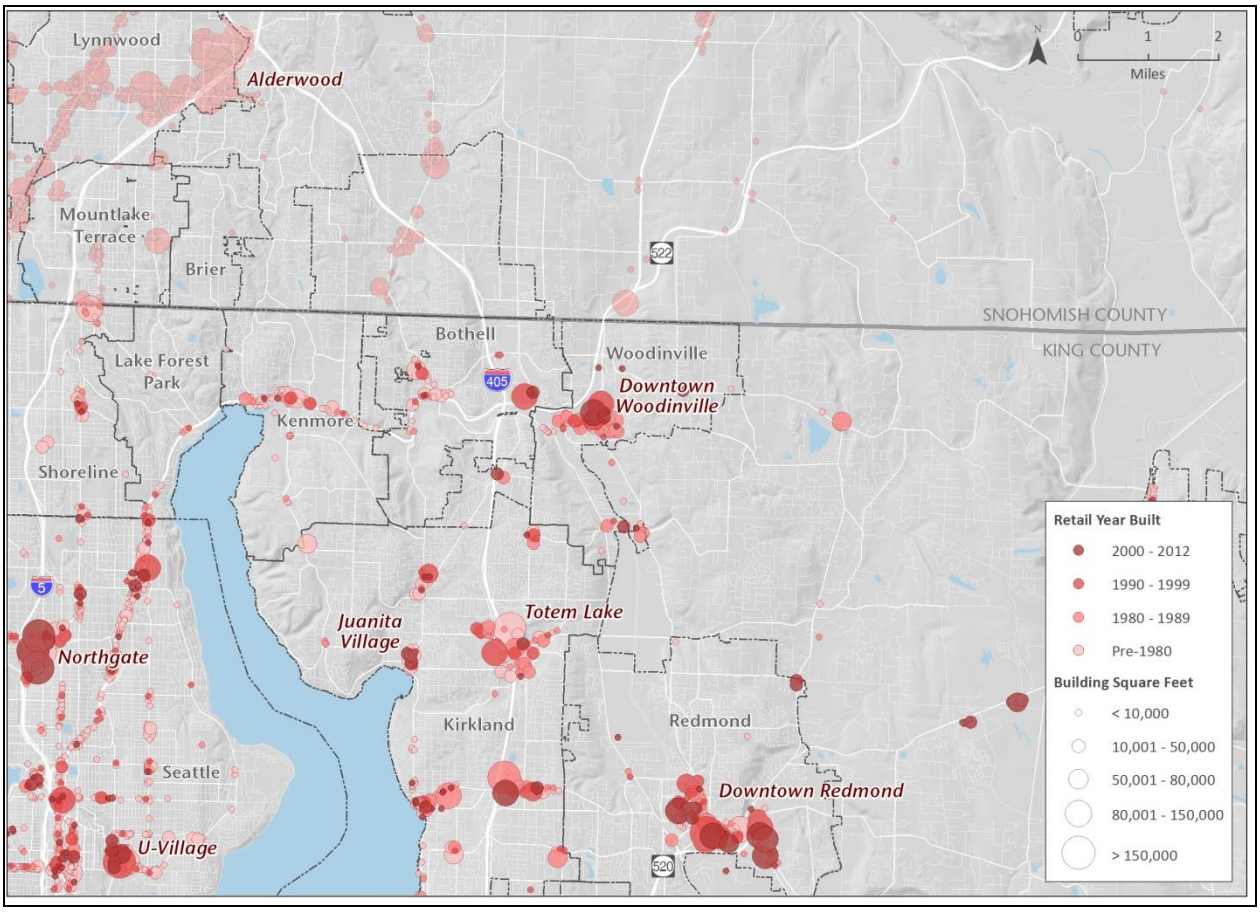
CITY OF WOODINVILLE

Retail Uses

Over the last 20 years, Woodinville has increasingly become a retail center for the local region as the City's and surrounding area's population has grown. Most of this development has occurred in Downtown Woodinville in relatively larger scale developments. Smaller scale retail development, especially businesses associated with the wine industry and visitors, has also occurred in the Tourist Business zone in south Woodinville.

Overall, the outlook for additional retail development is likely based on continued growth through housing, jobs, and visitors in the City and surrounding area. However, the form of the retail development may not be the same pattern of large-format retail buildings the City has experienced in the past. As Downtown Woodinville develops more multifamily housing, demand for more services and small-format retail typical in denser urban areas will grow. As the city and region grows, there will also be increasing pressure to redevelop and/or improve existing retail spaces. Growth in the food and beverage production cluster in Woodinville could be a significant driver of new retail space in Woodinville.

Exhibit 2.4-8
Retail Development by Building Square Feet and Year Built, 2012



Source: King County Assessor, 2012; BERK, 2013

- As the local region's population has grown, Woodinville has become a retail center for communities in north King and south Snohomish County, as can be seen in the retail development pattern in the map above.
- Convenient access to SR-522 and Interstate-405 is a key advantage providing access to a larger regional market to support retail growth in the city.
- Woodinville has over 1,135,000 square feet of retail space.

Retail sales per square foot is a measure of how productive retail space is and reflective of the types of businesses located there. Exhibit 2.4-9 and Exhibit 2.4-10 list the amount of retail sales per retail square foot and capita for Woodinville and nearby communities.

Exhibit 2.4-9
Inflation Adjusted Retail Sales per Retail Square Foot, 2007, 2009, and 2012

	Retail Sales per Square Foot		
City	**2007**	**2009**	**2012**
Bothell	$421.19	$400.84	$432.12
Redmond	$350.37	$291.22	$338.41
Kirkland	$316.65	$260.30	$240.71
Woodinville	$301.12	$222.10	$229.25
Shoreline	$221.68	$194.55	$201.20
Kenmore	$181.36	$171.68	$190.45

Source: King County Assessor, 2012; Washington Department of Revenue, 2012; BERK, 2013

Exhibit 2.4-10
Inflation Adjusted Retail Sales per Capita, 2007, 2009, 2013

	Retail Sales per Capita		
City	**2007**	**2009**	**2012**
Woodinville	$31,467	$23,192	$23,393
Redmond	$21,127	$17,389	$18,807
Bothell	$11,998	$11,512	$10,867
Kirkland	$15,934	$12,850	$8,332
Shoreline	$8,730	$7,542	$7,973
Kenmore	$3,829	$3,520	$3,692

Source: Washington Office of Financial Management, 2013; Washington Department of Revenue, 2012; BERK, 2013

- Compared to nearby communities, Woodinville is in the middle in terms of retail productivity on a per square foot basis.
- Retail productivity had a sizable decrease with the recession, but has rebounded slightly, as well as in neighboring communities.
- On a per capita basis, Woodinville has the most retail sales compared to neighboring communities. This indicates Woodinville may be attracting a larger amount of spending from outside the city.

The City commissioned a retail study in 2012 prepared by Buxton that supports the City's position as a retail hub, particularly within a 10-minute ring, but there is leakage as the distance increases:

- Within a 10-minute drive primary trade area, Woodinville is a "retail hub," generating a projected annual retail surplus of $115,547,030.
- Within a 15-minute drive secondary trade area, Buxton estimates there is a net leakage of $114,555,418.
- Retail categories with leakage in the primary trade area include: Clothing, General Merchandise, and Food Service/Drinking
- Retail categories with leakage in the secondary trade area include: General Merchandise, and Food Service/Drinking, Vehicle Parts/Dealers, Building/Garden Equipment/Supplies, Health/Personal Care, Miscellaneous Retail

The City also commissioned a hospitality study in 2012 prepared by Buxton. About eight hotel chains have multiple locations nationally with a market area profile similar to Woodinville's but are not currently present within a 4 mile radius of Woodinville.

Office Uses

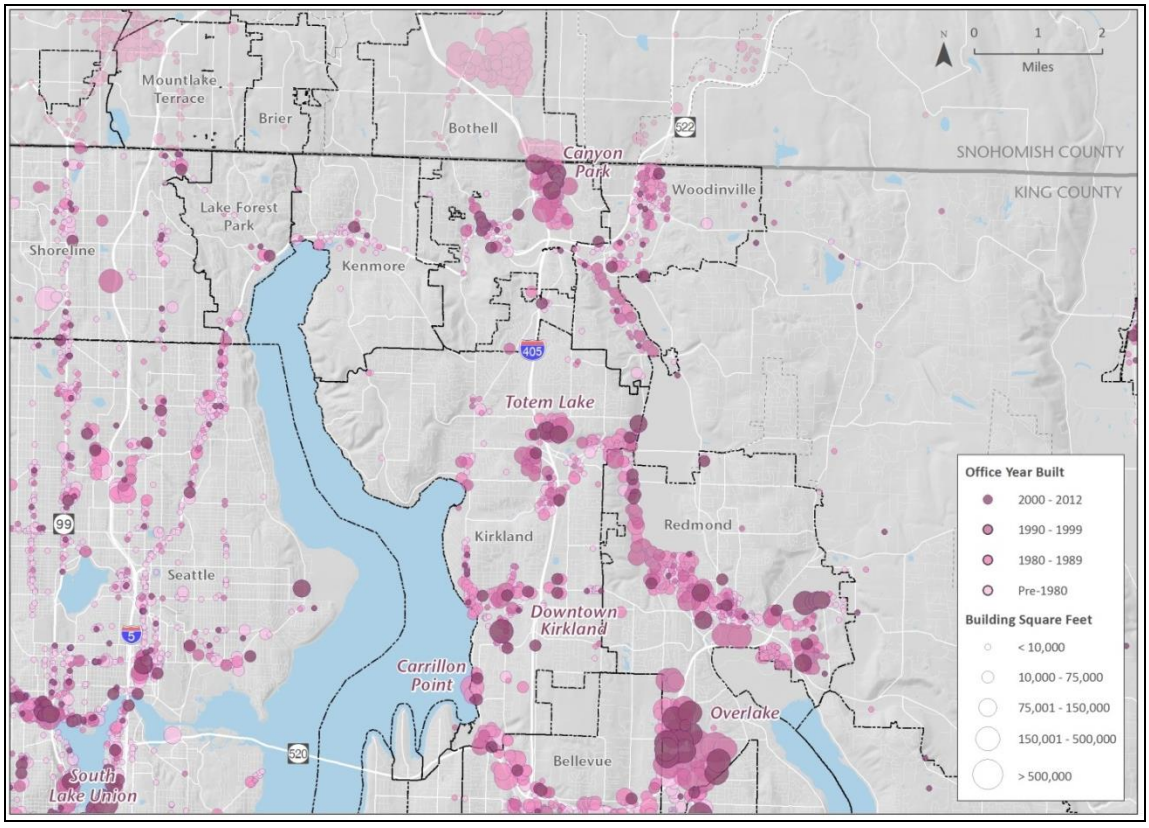
Woodinville is not an office center and does not have much traditional office development. Typically office users are primarily composed of two different categories of users: "core" office users and "personal service" office users. Core office users, such as information technology and professional services, are larger in scale and typically desire higher quality spaces in prime locations, such as urban centers and office parks. They are willing to pay higher rents to attain those spaces. Demand for core office space is driven by growth in employment in commercial services, specifically professional services and information services.

Personal service office uses, such as local insurance or dental offices, are smaller in scale and use spaces similar to retail spaces, in that they are more customer-oriented and desire good accessibility and visibility. As a result, these office users concentrate in retail and commercial centers or along major thoroughfares.

Woodinville is unique in that the majority of the office space (64%) in Woodinville is in industrial zones. Office spaces in industrial buildings are typically a supportive function of the primary industrial use. As a result, the demand drivers for this type of office space are more closely linked to industrial demand. Most other office uses within Woodinville would likely fall under the personal service office category.

Overall, the market for new core office development within Woodinville (and the north King County and south Snohomish County region) is limited in the near term. Office vacancy rates are fairly high in nearby communities. In addition, there are a number of nearby office centers in Bothell, Lynnwood, and Kirkland. As the area's population grows there should be increased demand for personal service office space.

Exhibit 2.4-11
Office Development by Building Square Feet and Year Built, 2012



Source: King County Assessor, 2012; BERK, 2013

- Larger office centers are located in urban centers or areas with good regional access such as I-405 or SR 520 such as Canyon Park, Totem Lake, or Overlake.

- Bothell has the largest concentration of office space near Woodinville.
- Woodinville has over 1,113,000 square feet of office space, with an average size of just 7,600 square feet per space. As shown in the map, much of the office space (709,000 square feet, 64%) in industrially zoned areas of the city.

Vacancy rates reflect demand for office space in the current market. Exhibit 2.4-12 shows the change in office vacancy rates from 2008 to 2013 for Woodinville and nearby communities.

Exhibit 2.4-12
Regional Office Vacancy Rate, 2008 and 2013

Submarket	2008	2013
Lynnwood/Edmonds/ Mountlake Terrace	NA	25.4%
I-405 Corridor	12.3%	18.1%
Bothell	23.3%	17.6%
Redmond	13.4%	16.1%
Kirkland	6.5%	7.5%
Eastside Total	13.3%	13.4%

Source: CB Richard Ellis, 2013

- Office vacancy rates are still relatively high in nearby office centers like Bothell, Redmond, and the I-405 corridor.
- Given high vacancies, with the exception of Kirkland, new office development is unlikely in the near future for submarkets listed in the table above.

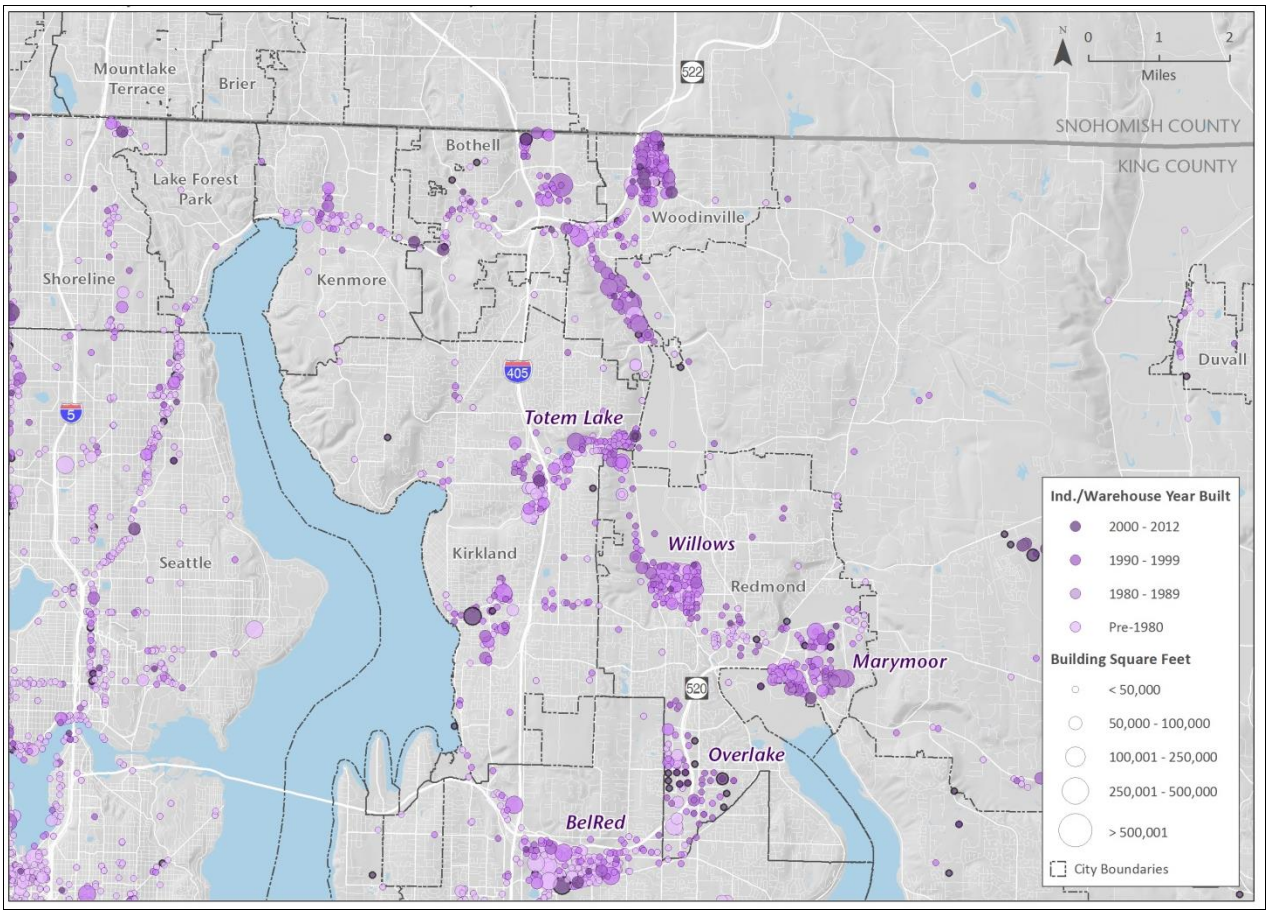
Industrial Uses

Woodinville is a sizable industrial center in the area, and has the largest amount of industrial and warehouse space of comparable Eastside communities. Industrial users are often looking for less expensive spaces, with large floor areas, and good transportation access. Vacancy rates for industrial and warehouse buildings are trending down and are not especially high in area at just over 10%. However, flex-tech space on the Eastside has much higher vacancy rates.

The overall outlook for industrial uses likely depends on who increasingly uses these spaces in Woodinville. Existing industrial or warehouse buildings may see conversion to other higher value industrial and/or commercial uses, such as wineries. This trend is already underway in Woodinville and likely to continue as the clustering of food and beverage businesses in the City increases.

Increased demand from these types of industrial users may displace more traditional industrial users in Woodinville. Given the levels of rent industrial or warehouse buildings typically get, new traditional industrial and warehouse development will likely seek vacant parcels, which are less costly to develop.

Exhibit 2.4-13
Industrial/Warehouse Development by Building Square Feet and Year Built, 2012



Source: King County Assessor, 2012; BERK, 2013

- Based on King County Assessor data, the large majority of space in Woodinville (72%) is for warehouse uses.
- Other nearby industrial and warehouse areas include Totem Lake, Willows in Redmond, Marymoor in Redmond, and the Bel-Red area of Bellevue.

Vacancy rates reflect demand for industrial space in the current market. Exhibit 2.4-13 shows the change in warehouse/manufacturing/business parks vacancy rates and Exhibit 2.4-14 shows the vacancy rate for flex-tech space for Woodinville and nearby communities.

Exhibit 2.4-14
Warehouse/Manufacturing/Business Park Vacancy Rates, 2009 and 2013

Submarket	Inventory (SF)	2009	2013
Woodinville	5,811,961	11.9%	10.2%
Bellevue	2,353,445	12.0%	8.0%
Redmond/Marymoor	2,323,217	17.4%	6.4%
Kirkland/Totem Lake	2,014,547	15.1%	11.6%
Redmond/Willows	1,962,001	11.5%	7.9%
Bothell	1,879,829	9.3%	4.7%
Redmond/Overlake	602,919	15.3%	5.2%
Regional Total*	34,255,865	12.4%	10.6%

Source: CBRE, 2013
* Eastside and Snohomish County

Exhibit 2.4-15
Flex-Tech Vacancy Rates, 2009 and 2013

Submarket	Inventory (SF)	2009	2013
Woodinville	-	-	-
Redmond/Willows	1,834,021	18.2%	23.3%
Bothell	1,825,744	36.0%	30.3%
Kirkland/Totem Lake	655,036	21.6%	17.7%
Redmond/Marymoor	575,728	8.5%	10.3%
Bellevue	314,865	2.4%	4.0%
Redmond/Overlake	222,773	9.3%	17.0%
Regional Total*	6,675,972	20.7%	21.1%

Source: CBRE, 2013
* Eastside and Snohomish County

- The vacancy rate in Woodinville for industrial and warehouse buildings is 10.2% in 2013.
- Vacancy rates in Woodinville, and the broader area, have decreased since 2009.
- Flex-tech buildings – a subsector of industrial users – represent a much smaller amount of space than other industrial uses with almost 6.8 million square feet compared to over 34.3 million square feet for industrial and warehouse buildings.
- The vacancy rate for flex-tech in the area is over 21%, about double what it is for industrial and warehouse users. This indicates that the demand for new flex-tech space is limited in the near-term.

KING COUNTY POTENTIAL ANNEXATION AREA

The area is all residential housing and does not have any commercial or industrial uses.

CITY-KING COUNTY JOINT STUDY AREA

Retail Uses

There is a small amount of retail development in the study area. There are two small-scale retail buildings of less than 2,000 square feet within the study area. Both were built before 1990.

Office Uses

There are no office uses within the study area.

Industrial Uses

There is a small amount of industrial/warehouse development in the study area. There are three small-scale industrial buildings with less than 10,000 square feet in the study area. All were built before 1990.

WOODINVILLE URBAN GROWTH AREA (UGA)

Retail Uses

There is only one retail use within the UGA, which is a large-scale Costco store.

Office Uses

There are no primary office buildings in the UGA. However, office uses may be a part of industrial and warehouse buildings.

Industrial Uses

Most of the existing buildings in the UGA are industrial or warehouse use.

Employment Capacity

CITY OF WOODINVILLE

Commercial and industrial zones with the City of Woodinville accounted for almost 890 parcel acres of the City's 3,139 acres of zoned land, about 28% of the City's total parcel area. The Industrial zone accounts for the most parcel area with 537.9 acres, followed by the Central Business District with 183.6 acres. Exhibit 2.4-16 shows the total parcel acres by zone type for commercial or industrial zones within the City.

Exhibit 2.4-16
Parcel Acres by Commercial or Industrial Zone, 2013

Zoning	Zone Description	Acres
I	Industrial	537.9
CBD	Central Business District	183.6
GB	General Business	90.6
TB	Tourist Business	32.6
R-48/O	Residential 48 Units per Acre/Office	23.4
O	Office	14.2
NB	Neighborhood Business	7.4
Total		**889.8**

Source: City of Woodinville, 2013; BERK, 2013

Of the City's commercial or industrial zoned land, 70.9 (8.0%) gross acres are vacant and 225.4 (25.3%) gross acres are considered redevelopable. Exhibit 2.4-17 shows that most of the vacant parcels are in the Industrial zone followed by the General Business zone. Other commercial and industrial zones have limited amount of vacant parcels. The Central Business District zone has by far the most redevelopable parcel area with over 120 acres. Industrial and General Business zones also have sizable amounts of redevelopable parcel area.

Exhibit 2.4-17
Commercial Buildable Land by Zone, 2014 Analysis

	Gross Acres		Net Acres	
Zone	Vacant	Redevelopable	Vacant	Redevelopable
CBD	6.9	120.2	2.8	68.8
GB	16.3	38.9	7.9	23.9
NB	0.2	1.0	0.1	0.8
O	0.5	0.0	0.5	0.0
R-48/O	0.0	0.0	0.0	0.0
TBD	2.0	1.6	0.4	0.6
I	39.0	51.7	25.2	37.7
Total	**64.9**	**213.4**	**36.8**	**131.8**

Source: City of Woodinville, 2013; BERK, 2014

Net buildable acres represent the amount of land available for actually development after critical areas, market factors, right-of-way needs, and other factors are considered. Applying these factors nets the City 36.8 acres of vacant buildable land and 131.8 acres of buildable land in its commercial and industrial zones.Net buildable acres are used to determine the amount of additional building square feet and employment capacity a parcel can support given the current zoning.

Exhibit 2.4-18 below shows the City's current employment land capacity and land capacity figures in relation to the City's 2031 employment target. Exhibit shows the total capacity for employment based on a standard buildable lands methodology and a floor area ratio methodology considered for mixed use centers.

Exhibit 2.4-18
Employment Capacity Breakdown

Employment Capacity	**Original Redevelopable Method**	**FAR Based Redevelopable Method and CBD Enhanced Implementation**
Land Capacity	4,476	5,266
Permits, 2006-2013	359	359
Development Agreement	413	413
Employment Capacity	**5,247**	**6,037**

Source: BERK, 2013; King County, 2007, City of Woodinville, 2013

Exhibit 2.4-19 shows that the City has a small surplus of jobs with the original redevelopable method and a larger surplus with the addition of the FAR based method to meet the City's 2031 employment target. These estimates assume a higher floor area ratio in the CBD based on adoption of the City's Downtown subarea plan in 2008 as amended in 2012.

Exhibit 2.4-19
Employment Capacity and 2031 Growth Target Comparison

Employment Capacity	Original Redevelopable Method	FAR Based Redevelopable Method and CBD Enhanced Implementation
2006-2031 Target	5,000	5,000
Job Change, 2006-2011	-2,124	-2,124
2011-2031 Increment	7,124	7,124
Buildable Land Capacity	4,476	5,266
Capacity from Job Loss	2,124	2,124
Permits 2006-2013	359	359
Pending Development	413	413
Net Surplus/Deficit	**247**	**1,037**

Source: BERK, 2013; City of Woodinville, 2013; Puget Sound Regional Council, 2013; King County, 2007 Buildable Lands Report

Exhibit 2.4-19 shows a job loss during the recession, which is not unexpected. This should be acknowledged in planning efforts. Because the jobs were once "housed" in current buildings or sites, it is assumed the lost jobs would not require new land capacity to accommodate them.

Due to the GMA requirements to address a 20-year planning horizon to the year 2035, the City is anticipating growth trends beyond 2031. In Appendix A, an analysis shows future planning projections to 2035 and the potential of land capacity to meet the projections. At 2035, there would be a deficit using original parcel acres but a small surplus if using the FAR based method.

King County Planned Annexation Area

The area is all residential housing and zoned for single-family housing. It is assumed to not have any employment capacity.

City-King County Joint Study Area

There is no data on commercial or industrial buildable land capacity for the study area. The entire study area is currently zoned Agriculture or Rural Area, which would not allow for redevelopment for higher intensity commercial or industrial uses. As a result, it is assumed to not have any significant employment capacity.

Woodinville Urban Growth Area (UGA)

The 2012 Buildable Lands Report for the Maltby UGA cites the total additional employment capacity within the UGA. There is a substantial amount of employment land capacity within the entire Maltby UGA. The 2012 Buildable Lands Report indicates there are 48.0 acres of vacant commercial land, 101.5 acres of partially used land, and 174.7 acres of redevelopable land. The land capacity acreage translates to a total employment capacity of 4,128 after reductions for infrastructure and market factors. The Maltby UGA does not exactly match the Woodinville UGA, however. The Woodinville UGA includes the southern half of the UGA. This includes the parts of the UGA west of SR 522 and the parts east of SR 522 that are south of 224th Street SE.

2.5 Natural Environment

This section addresses critical areas in the Woodinville study area, specifically wetlands, critical aquifer recharge areas (CARAs), fish and wildlife habitat conservation areas (FWHCAs), frequently flooded areas, and geologically hazardous areas.

Regulatory Context

Two of the established goals of GMA relate directly to the natural environment. One goal is to, "Encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks" (RCW 36.70A.020(9)). Another goal is to, "Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water" (RCW 36.70A.020(10)). GMA defines critical areas as critical aquifer recharge areas (CARAs), fish and wildlife habitat conservation areas (FWHCAs), frequently flooded area, geologically hazardous area, and wetlands, and requires that jurisdictions adopt ordinances to protect them.

To further refine and implement GMA goals, the City developed a Comprehensive Plan containing specific goals and policies with the overall goal being "… to preserve the City's natural systems in order to protect public health, safety, and welfare, and to maintain the integrity of the natural environment" (Woodinville 2009). As noted in the Comprehensive Plan, the City contains many natural resources, including Shorelines of the State, salmonid-bearing streams, wetlands, a lake, steep slopes, and forested areas.

The City regulates critical areas in accordance with the Woodinville Municipal Code, Chapter 21.24, Development Standards – Critical Areas.

Shorelines of the State and associated wetlands and critical areas in shoreline jurisdiction are managed under the City's Shoreline Master Program (SMP). The City adopted their current SMP in December 2009. Under the SMP a 100-foot zone continuous with both Little Bear Creek and the Sammamish River are managed as a Conservancy environment. The outer 100 feet of the 200-foot shoreline management area is managed as either Shoreline Residential or Urban Conservancy for Little Bear Creek and Urban Conservancy for the Sammamish River. Wetlands that extend beyond the 200-foot shoreline area, but contiguous with it, are subject to SMP jurisdiction (Woodinville 2009).

Existing Conditions

General conditions in the Woodinville study area for each of the five regulated critical areas (CARAs, FWHCAs, frequently flooded area, geologically hazardous area, and wetlands) are described below. The 2015 Comprehensive Plan Update study area includes the Woodinville city limits; the King County designated Potential Annexation Area, the Woodinville-proposed UGA in Snohomish County, and the City-King County Joint Study Area (see Exhibit 1.2-1).

Critical Aquifer Recharge Areas (CARAs)

The City of Woodinville 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)"* (WMC 21.06.135). 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 are mapped within Woodinville city limits, the King County designated Potential Annexation Area, the Woodinville-proposed UGA in Snohomish County, and the City-King County Joint Study Area. The Identified Critical Areas: CARA map (Exhibit 2.5-1), shows potential CARAs based on surficial geology in Woodinville city limits and extending into the UGA and City-King County Joint Study Area. For mapping that incorporates County map sources for unincorporated areas, please see Appendix B CARAs are described by area below.

Potential CARAs within current city limits, where soils are generally characterized as well draining, are extensive. The northeast quadrant of Woodinville contains an aquifer known as Cold Creek Aquifer or Qva aquifer. The Qva aquifer underlies the upper reach of Cold Creek, Lake Leota, and several wetland pockets. The landscape contains perched wetlands, including Lake Leota, which are above the aquifer and slowly drain to it. Delineation of the Cold Creek QVa Aquifer is based primarily on soil types with rapid infiltration rates and surficial geology. Surficial geology in the Qva aquifer is characterized by alternating advance glacial tills and recessional outwash deposits, Qva and Qvr, respectively. The differing permeability of the alternating soils can make the aquifer less vulnerable or susceptible to impacts from increased development. The Little Bear Creek basin also contains large continuous potential CARA features, characterized by Vashon advance glacial outwash deposits (Qva). Another potential CARA is mapped along another Qva deposit in the southwest quadrant of the city, on the ridge above the Sammamish River.

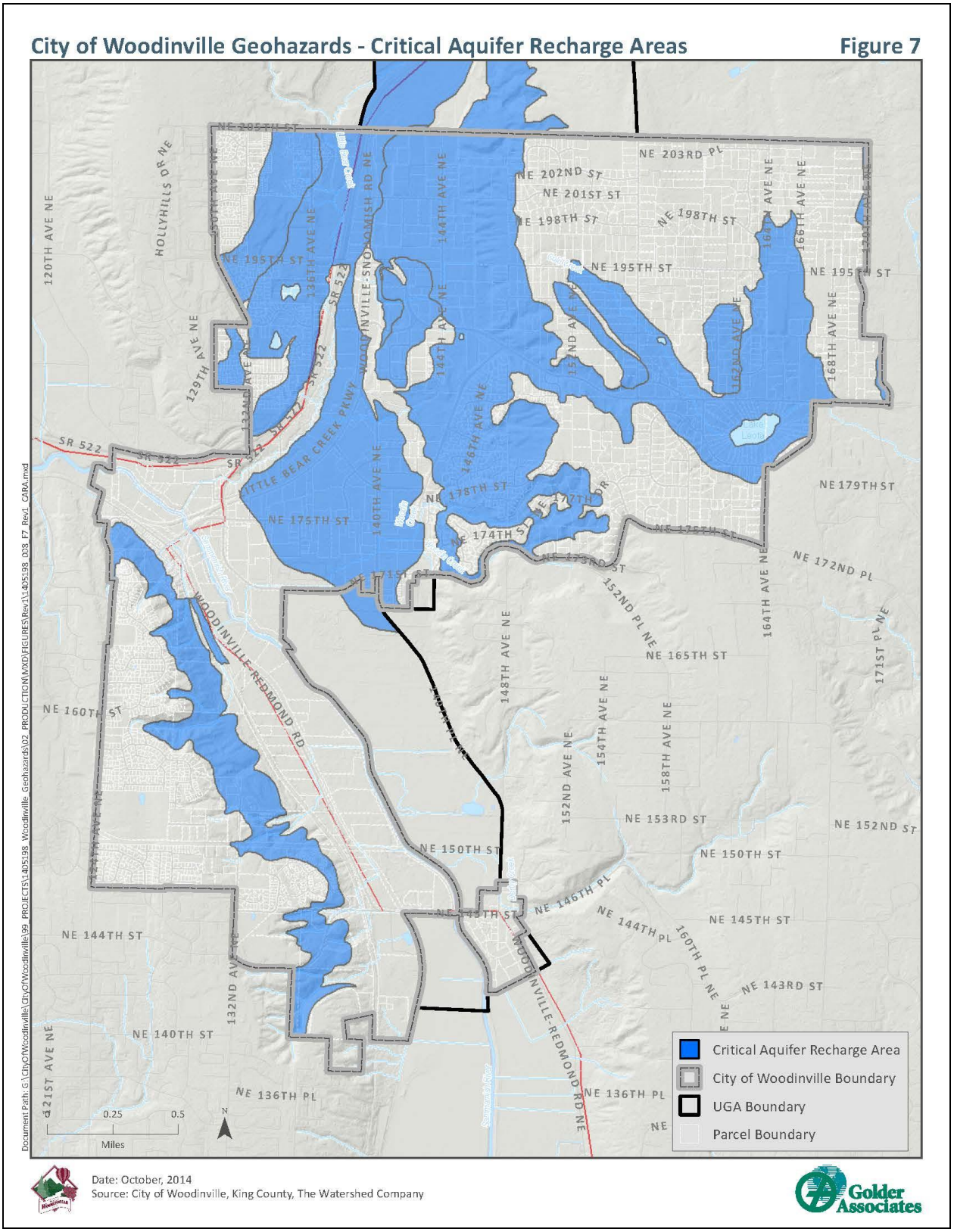
CARAs within the city limits generally underlie a mix of low- to high-density residential and commercial developments, and public institutional facilities. However, low-density residential is the primary land-use in those areas most susceptible to groundwater quality and quantity changes. CARAs within city limits also contain a few Native Growth Protection Easements, which are densely vegetated.

The Woodinville-proposed UGA in Snohomish County has Qvr and Qva deposits that form potential CARAs. These CARAs are along Little Bear Creek. The north end of the UGA contains a United States Environmental Protection Agency (USEPA) sole source aquifer (Snohomish County 2007). A sole source aquifer is one that is used as the sole or principal drinking water source for an area. This Qva aquifer, also known as the Cross Valley Aquifer, is used by the Cross Valley Water District to serve customers in the UGA. (Golder Associates 2007) Current land use in the UGA is a mix of industrial and residential development.

A CARA spans the City-King County Joint Study Area (King County iMAP). This area is east of the Sammamish River and roughly covers the land between Woodin and Derby Creeks. Surficial geology is mapped by the United States Geological Survey (USGS) as recessional outwash deposits (Qvr). Land use in this area is characterized by agricultural fields and ditched streams, which drain to the Sammamish River. This CARA is classified as medium, which means it has a medium susceptibility to groundwater contamination on a ranking of low, medium or high. This CARA extends east into the King County-designated Potential Annexation Area.

The functions and values of CARAs are to provide clean drinking water and to contribute clean cool water to streams and wetlands that support wildlife. The Woodinville Water District does have several wells in the aquifer, but does not use the aquifer for current municipal supply. The Woodinville Water District obtains all municipal water supplies from Seattle Public Utilities. The Cross Valley Water District, which serves the UGA, does depend on an aquifer for municipal water. (Golder Associates 2007) Regional aquifers release cold water to Bear Creek and the Sammamish River. Both are highly productive salmonid-bearing stream systems, which are dependent on clean cold water (King County 2007). Both the Sammamish River and Little Bear Creek are urbanized. As is typical of urban streams, they have various degrees of armoring and channelization, loss/reduction of riparian buffers, and loss of floodplain wetlands. The Sammamish River has also been altered by the Hiram Chittenden Locks, constructed in 1917, and flood control implemented by the U.S. Army Corps of Engineers (Woodinville 2009).

Exhibit 2.5-1. Identified Critical Areas in City Limits: CARAs



Current stormwater management and adherence to best management practices consistent with Washington State Department of Ecology (Ecology) requirements limits the potential for groundwater contamination in these susceptible areas. Lower density zoning within the CARAs also minimizes risk of groundwater contamination. The majority of potential CARAs within city limits are zoned R-1, Residential, one unit per acre. The majority of the City-King County Joint Study Area CARA is zoned A-10, Agricultural, one development unit per 10 acres. The UGA is currently zoned by Snohomish County as PRD SA-1 (suburban agriculture 1-acre), HI (heavy industrial), and LI (light industrial).

Fish and Wildlife Habitat Conservation Areas

Per WMC 21.24.410, Fish and Wildlife Habitat Conservation Areas (FWHCAs) are *"…habitat areas that meet any of the following criteria:*

(a) Documented presence of species listed by the Federal Government or the State of Washington as endangered or threatened; or

(b) Heron rookeries or active nesting trees; or

(c) Class 1 wetlands and buffers as defined in WMC 21.24.310; or

(d) Type 1 streams and buffers as defined in WMC 21.24.350; or

(e) Native growth protection easements/ native growth protection areas (NGPE/NGPA) and other areas designated by the City; or

(f) Sites containing a bald eagle territory as mapped by WDFW. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (Chapter 232-12-292 WAC)."

The City of Woodinville, the Woodinville-proposed UGA in Snohomish County, and the City-King County Joint Study Area all contain FWHCAs. Known FWHCAs in the city limits include, the Sammamish River, Little Bear Creek, Lake Leota, and various Native Growth Protection Areas / Native Growth Protection Easements (NGPA/NGPE). Little Bear Creek in the UGA and the Sammamish River in the City-King County Joint Study Area meet the definition of an FWHCA. Each type of FWHCA and potential occurrences in the Woodinville planning area are described below.

Rivers, Streams, and Lakes

The City of Woodinville's rivers, streams, and lakes provide habitat for fish species of regional, State, and Federal significance. In some cases, non-fish bearing watercourses and water bodies are critical to supporting productive downstream habitat conditions. Exhibit 2.5-2 identifies the priority fish species occurring within the City of Woodinville'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. A description of the existing conditions of the City's watercourses and water bodies follows.

Exhibit 2.5-2. Priority fish species occurrence in the City of Woodinville

Common Name	Scientific Name	State Status	Federal Status	Water Bodies with Documented Occurrence in City of Woodinville
Puget Sound Chinook Salmon	*Oncorhynchus tshawytscha*	Candidate	Threatened	Sammamish River Little Bear Creek Lower Woodin Creek
Coastal-Puget Sound Bull Trout	*Salvelinus confluentus*	Candidate	Threatened	Sammamish River

Common Name	Scientific Name	State Status	Federal Status	Water Bodies with Documented Occurrence in City of Woodinville
Puget Sound Steelhead	*O. mykiss*	Candidate	Threatened	Sammamish River Little Bear Creek
Puget Sound-Strait of Georgia Coho Salmon	*O. kisutch*		Species of Concern	Sammamish River Little Bear Creek Lower Woodin Creek
Sockeye/ Kokanee Salmon	*O. nerka*	Candidate		Sammamish River Little Bear Creek
Rainbow Trout	*O. mykiss*	Candidate		Sammamish River Little Bear Creek
Cutthroat Trout	*O. clarkii*			Sammamish River Little Bear Creek Lower Woodin Creek

Source: WRIA 8, WDFW, the Watershed Company 2013

Sammamish River

The Sammamish River flows between the north ends of Lake Sammamish and Lake Washington. The Sammamish River Trail and the King County sewer line run parallel to the east side of the River channel throughout the City. Historically, the River had a large floodplain with a complex, meandering channel. However, the lowering of Lake Washington through the construction of the Hiram-Chittenden Locks in 1916, the dredging and channelization of the river in the early 1960's, and the construction of drainage ditches in the river valley lowered and straightened the River, reducing channel length and complexity, and greatly reducing floodplain connectivity (Woodinville 2009). The Sammamish River is now confined in an entrenched channel, and many of the mouths of the small tributaries have become inaccessible to fish (Kerwin 2001). Woody debris was also removed from the channel along with essentially all of the natural vegetation from the riverbanks.

Today, the Sammamish River primarily acts as a migratory corridor for salmonids, linking salmon-producing tributaries (e.g., Issaquah Creek, Bear Creek, Little Bear Creek, and North Creek) to Lake Washington and the Puget Sound. Habitat conditions within the Sammamish River are limited by limited riparian vegetation, instream complexity, and high temperatures. Several volunteer events have taken place in recent years to improve riparian vegetation on the Sammamish River within the City through the Sammamish ReLeaf program.

Within the City, the lower reaches of the Sammamish River are on the state's 303(d) list of impaired waters for fecal coliform and dissolved oxygen (Ecology, electronic source). Further studies have shown the Sammamish River also exceeds salmonid temperature thresholds, thereby impacting aquatic life, including salmon and trout during migration and rearing (King County 2005).

Much of the Sammamish River riparian corridor within the City of Woodinville is narrow and confined by dense commercial and industrial development and the Sammamish River Trail. Along the west side of the Sammamish River, between 175th Street and 145th Street, existing impervious surfaces consist mainly of warehouses and associated parking lots. In most cases, these parking lots are located on both the landward and waterward side of buildings. On average, these parking areas are located approximately 60 feet (and as little as approximately 35 feet) from the ordinary high water mark of the Sammamish River. Because most buildings in this area have parking areas on their waterward side, the average existing building setback is approximately 85 feet. Vegetation in the areas within commercial and industrial development is primarily grass, shrubs, and small trees, including ornamental species such as Lombardi poplar (*Populus nigra*). Where the river runs through Woodin Creek Park, the riparian zone consists of native trees and shrubs and provides higher quality habitat for wildlife, including potential

nesting sites for songbirds. Other areas have been densely planted with native species and provide pockets of good riparian habitat for birds and small mammals (Exhibit 2.5-3). As documented in the SMP, *"Modifications to the Sammamish River system have resulted in reduced levels of ecosystem functioning including hydrology, water quality, riparian habitat, and in-stream habitat"* (Woodinville 2009).

While birds and small mammals may travel to and from more valuable habitat in the parks, planted areas, and outside of City limits, more limited use is likely within the more densely developed sections of the City. Great blue heron and red-tailed hawks may use the river banks and adjacent grassy areas, respectively, in the more developed areas. However, most wildlife species are likely to make use of the cover and forage in the wider riparian areas supporting native vegetative species.

Land uses and developments within the Sammamish River's shoreline jurisdiction are regulated under the City's SMP.

Exhibit 2.5-3. The Sammamish River in the City of Woodinville showing native riparian vegetation.

Source: Photo taken by The Watershed Company, September 2013.

Little Bear Creek

Little Bear Creek lies within the northern UGA and the current Woodinville city limits. Land use and development adjacent to the stream is regulated under the City's SMP and the critical areas regulations within the SMP; the reach within the UGA is currently regulated by Snohomish County.

Once dominated by forested wetlands, Little Bear Creek has undergone substantial development, particularly in the lower reaches, in and around the City of Woodinville. In the 15-year period between 1991 and 2006, forest cover within UGAs in the little Bear Creek watershed decreased by 350 acres, representing 40 percent of the total forest cover (Vanderhoof 2011); a portion of the Little Bear Creek watershed lies within the City of Woodinville and the northern UGA.

Within the City of Woodinville, Little Bear Creek parallels and flows through the North Industrial and Downtown Area before entering the Sammamish River. The majority of the riparian area surrounding the Creek is privately owned; however, the City-owned Rotary Community Park occupies just over 18 acres of land on both banks of Little Bear Creek, which encompasses expansive riparian wetlands (Exhibit 2.5-4).

Forest cover within the Little Bear Creek subbasin is primarily dominated by red alder (*Alnus rubra*) and big-leaf maple (*Acer macrophyllum*), as well as mixed deciduous and coniferous species. Riparian forest cover is lowest near the confluence with the Sammamish River, where the riparian vegetation provides little shade to the Creek, and is higher (>70 percent) elsewhere within the City (Fevold et al. 2001). The frequency of large woody debris (LWD) is moderately low within the City (Fevold et al. 2001). Terrestrial habitat in the Little Bear Creek riparian corridor includes upland forest, grassy openings, and wetlands. Little Bear Creek Linear Park and Rotary Community Park provide the best terrestrial habitat along the creek within city limits, with mature forest that includes conifers exceeding 40 inches in diameter at breast-height (dbh) in some locations. Reaches where adjacent development is most concentrated support noxious plant infestations. Species of interest observed in the riparian corridor during 2007 surveys were great blue heron, red-tailed hawk, and willow flycatcher, and others are very likely to use the riparian area (David Evans and Associates, Inc. 2004).

Within the city limits, channel width is relatively low in relation to channel depth, and this is likely related to flashy flows from upstream development, which have concentrated flow and resulted in channel incision. Near the confluence with the Sammamish River, approximately one-third of the stream banks are armored. Further upstream within the city limits, less than 10 percent of the stream banks are armored.

Previous surveys have identified sockeye, coho, kokanee, and Chinook salmon spawning in Little Bear Creek within the city limits (Fevold et al. 2001). Chinook salmon presence in Little Bear Creek is also documented in the recently adopted SMP (Woodinville 2009).

The lower reach of Little Bear Creek is on the State's 303(d) list of impaired water bodies for dissolved oxygen. A Total Maximum Daily Load (TMDL) has been established to address elevated levels of fecal coliform bacteria in Little Bear Creek (Dettelbach and Garland 2005). Revisions to the State's 303(d) list are due for release in 2015.

Exhibit 2.5-4. Little Bear Creek in Rotary Community Park.

Source: Photo taken by The Watershed Company, September 2013.

Woodin Creek

Woodin Creek originates from three high gradient tributaries in open space areas amidst residential development. One of the northern tributaries flows through a large heavily treed parcel, and the drainage basin includes a Native Growth Protection Area. As these tributaries enter commercially developed areas, they are directed into two culverts, each over 1,000 feet of stream length. The two piped channels converge and enter a natural stream channel at 140th Avenue NE. Woodin Creek flows west through a natural stream channel for a short distance before it becomes a ditched channel along the north side of NE 171st Street. The confluence of Woodin Creek and the Sammamish River occurs in Woodin Park (Exhibit 2.5-5).

Exhibit 2.5-5. Lower Woodin Creek in Woodin Park

Source: Photo taken by The Watershed Company, September 2013.

The culverted and ditched sections of stream in Woodin Creek greatly impair habitat functions and sediment transport processes within the subbasin. Past habitat enhancement in the lowest reach of Woodin Creek help provide some habitat diversity, but the majority of the channel consists of riffle and glide habitats (Adolfson and Associates 2004). Pool habitats and large woody debris are limited throughout the system (Adolfson and Associates 2004). Riparian vegetation along the Creek is highly variable. In the lowest reach, the width of riparian vegetation ranges from 5-100 feet, and in the upstream areas, the width of riparian vegetation varies from 50-100 feet (Adolfson and Associates 2004).

The culverts preclude anadromous fish passage to the upper reaches of the system. Mapping by WRIA 8 identifies use of the lower reach of Woodin Creek by coho salmon and cutthroat trout. Additionally, Adolfson and Associates (2004) identified one Chinook salmon carcass in Woodin Creek in 2003.

Based on water quality monitoring by the City and Adolfson and Associates, the lowest reach of Woodin Creek does not regularly meet state surface water quality standards for fecal coliform, nitrates, pH (in winter), dissolved oxygen (summer) and water temperature (summer) (Adolfson and Associates 2004).

The creek's riparian zone includes upland forest, riparian wetlands, and, open water ponds, as well as areas of commercial and residential development.

Wildlife species of local importance known to have used the corridor include pileated woodpecker and olive-sided flycatcher (Adolfson and Associates, Inc. 2004), and it is likely used by several others, particularly at the headwaters where the riparian zone is contiguous with a greater forested area. A survey completed in 2004 suggested that bats and owls were most likely to be found adjacent to the headwaters, near large conifers (Adolfson and Associates, Inc. 2004).

Cold Creek and Lake Leota

The upper tributaries of Cold Creek are located in the City of Woodinville. Within the city limits, three intermittent streams flow eastward into Lake Leota. The northwest tributary drains approximately 291 acres of land, most of which is undeveloped (Falter 2007). A stormwater retention facility is located along the tributary. The north and south channels drain higher density residential development, and these tributaries shows signs of degradation resulting from development in the basins (Falter 2007). In addition to these streams, Lake Leota, a 10.4 acre lake, receives the majority of its inflow from groundwater (Falter 2007).

Lake Leota is surrounded by developed residential parcels. While some of the parcels have natural shorelines with overhanging vegetation, many are armored and have mowed lawns extending to the armoring, and most have residential docks. Shoreline habitat around the lake consists of wetland vegetation with moderate tree cover mixed with residential structures and lawns. Narrow vegetated corridors lead from the lake to larger forest patches, but all corridors are broken by paved roads and residential development. Use of the lakeshore by herons and other birds is likely concentrated where vegetative cover exists and the shoreline is unarmored.

Lake Leota is a perched lake, meaning that the great majority of its surface water is lost through groundwater seepage (Falter 2007). This seepage provides a source for the cool groundwater that feeds Cold Creek, maintaining summer water temperatures 5-7 degrees Celsius colder than Cottage and Bear Creeks (Kerwin 2001). The cool, groundwater-fed waters from Cold Creek cool downstream salmon-bearing waters, including Cottage Lake Creek, Bear Creek, and the Sammamish River, helping to maintain habitat conditions suitable for spawning salmonids. The Lake's surface outlet to the Cold Creek intermittently flows only during periods of high water (Falter 2007). Because the Lake has limited surface water drainage and as a result of the stormwater contributions from development in the basin, the already shallow lake is becoming more shallow and eutrophic[1] (Falter 2007). Over time, the Lake is expected to evolve into an emergent wetland, and eventually a wet meadow (Falter 2007).

Anadromous salmonid use is not mapped as occurring in Cold Creek or Lake Leota within the City of Woodinville. However, further downstream in Cold Creek, Cottage Lake Creek, and Bear Creek, Chinook, coho, and kokanee salmon and cutthroat trout spawn and rear (WRIA 8 Technical Committee 2001).

Other Systems

Numerous small tributaries flow into the Sammamish River within the City of Woodinville. Little information is available on these small tributaries; however, many of these small streams have been channelized and now flow through culverts (Exhibit 2.5-6). The Lake Washington/Cedar/Sammamish Chinook Salmon Conservation Plan (Vanderhoof. 2011) identifies enhancement of the tributary confluence of Derby, Woodin, and Gold Creeks as

[1] Eutrophication involves "The enrichment of bodies of fresh water by inorganic plant nutrients (e.g. nitrate, phosphate). It may occur naturally but can also be the result of human activity (cultural eutrophication from fertilizer runoff and sewage discharge) and is particularly evident in slow-moving rivers and shallow lakes … Increased sediment deposition can eventually raise the level of the lake or river bed, allowing land plants to colonize the edges, and eventually converting the area to dry land." - Lawrence and Jackson, 1998 quoted by United States Geologic Survey, available at: http://toxics.usgs.gov/definitions/eutrophication.html.

restoration opportunities. Specifically, improving fish passage, riparian cover, and cool water refuge are priorities. Gold Creek falls within the City-King County Joint Study Area. King County has recently completed a stream enhancement project in lower Derby Creek within the City of Woodinville.

Other Little Bear Creek tributaries are located within the northern UGA, which is currently part of unincorporated Snohomish County.

Exhibit 2.5-6. Culvert from small tributary entering the Sammamish River.

Source: Photo taken by The Watershed Company, September 2013.

The City of Woodinville's stream classification system and associated buffer widths under the current code are reported in Exhibit 2.5-7 below. King and Snohomish Counties use different stream classification systems, so a direct comparison of buffer widths is not possible. Standard stream buffer widths in King and Snohomish Counties range from 25 to 165 feet, and 50 to 150 feet, respectively. Additionally, options for buffer modifications, typically through averaging or reduction with enhancement, vary by jurisdiction. Per WMC 21.24.380(1)(b), the Director may allow for further buffer reduction along streams designated as "urban" if it is documented that enhancement to the buffer would actually improve the net overall function. In no case can the buffer be reduced to less than 50 feet along fish bearing streams.

Exhibit 2.5-7. Stream class and buffer widths under current city code.

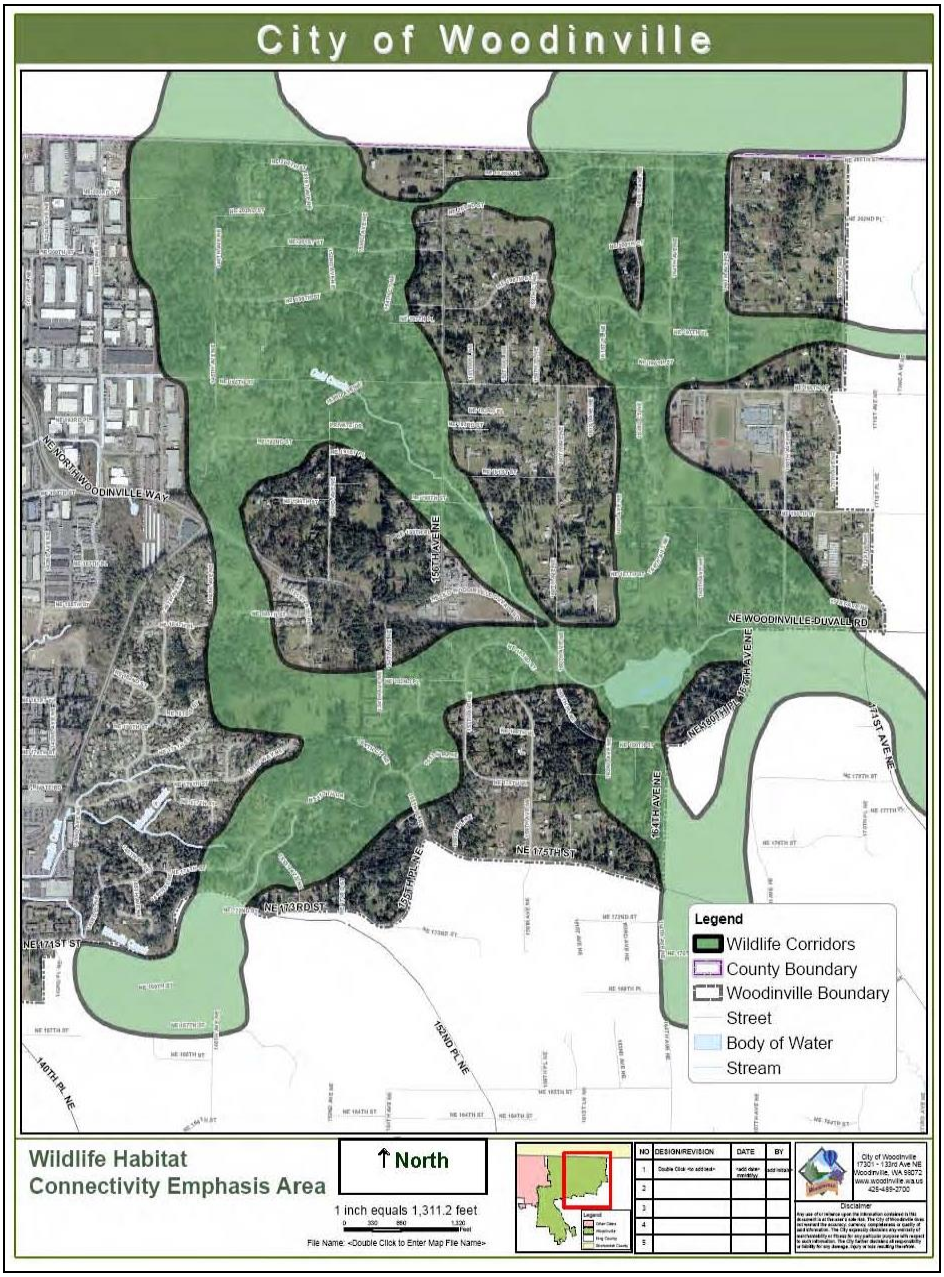
Stream Type	Standard Wetland Buffer (feet)	Reduced Buffer with Enhancement (feet)
Type 1	150	115
Type 2	115	100
Type 3	75	50
Type 4	50	35

Source: City of Woodinville Municipal Code

Terrestrial Habitat and Corridors

The City of Woodinville Comprehensive Plan includes mapped interconnected Wildlife Corridors (Ordinance 465 Attachment A) in roughly the east half of the city limits zoned R-1 (see Exhibit 2.5-8). One portion of the corridor encompasses parts of two forks of Woodin Creek and another part of the corridor follows Cold Creek and includes Lake Leota. Other areas comprise mostly forested properties and parcels with retained trees and single-family development. Habitat corridors and conditions within the R-1 zone are further described in the Sustainable Development Study, Appendix A-1 (Tate 2007). Consistent with approved Ordinance 465, wildlife habitat connectivity should be considered in comprehensive city planning.

Exhibit 2.5-8. Wildlife Corridors – Eastern Woodinville



Source: City of Woodinville

The value of riparian zones as terrestrial habitat is particularly high in fragmented urban habitats because they facilitate travel among habitat patches for wildlife. Many studies address the importance of riparian corridors to

wildlife, particularly in developed areas (Knopf et al. 1988, Gillies and St. Clair 2008). In general, the wider and less developed the riparian corridor is, the greater its ability to support wildlife. Even small gaps, perhaps coupled with the disturbance of vehicles and noise, can result in decreases in riparian bird species richness and density (Lens and Dhondt 1994, Machtans et al. 1996).

The majority of the City's designated Wildlife Corridor area is in the R-1 (residential, 1 unit per acres) zone. This zoning allows for the retention of forested patches on developed parcels. Most of the forest in this area is highly fragmented by residential development and roads. A notable exception is a cluster of six parcels at the northwest corner of the corridor area. These parcels total approximately 50.5 acres and represent the largest contiguous block of forest in the designated Wildlife Corridors. Forest in this block is primarily young to mid-age mixed deciduous-coniferous, with some mature trees and a roughly 10-acre patch of deciduous-dominated forest at the north end. A second nearly undeveloped patch of forest occurs on a Woodinville Water District property located within a developed residential area approximately 0.5 miles east of the larger forest patch. This patch is roughly 10 acres in area. Finally, the Woodinville Heights area, including a wooded area that encompasses the headwaters of Woodin Creek, includes two relatively large intact forest patches (Exhibit 2.5-9). Common species in the intact forested patches are western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), Douglas-fir (*Pseudotsuga menziesii*), bigleaf maple (*Acer macrophyllum*), red alder (*Alnus rubra*), and bitter cherry (*Prunus emarginata*). The understory is made up of typical northwest forest species, although Himalayan blackberry and English ivy have invaded, most heavily near the edges of roads and other development.

Exhibit 2.5-9. Mixed forest in the Woodinville Heights area (headwaters of Woodin Creek tributary).

Source: Photo taken by The Watershed Company, September 2013.

Elsewhere in the Wildlife Corridors, as well as in the remainder of the R-1 zoning, patches of mature trees remain among single-family residential development. Connectivity in these areas is low, with homes, lawns, driveways, and roads fragmenting the landscape. Although residential density is low compared to the other residential zones

in the City, the development is evenly-spaced, leaving only small patches of intact vegetation. Most houses have lawns and/or landscaped areas, and undergrowth has been cleared from beneath retained trees in many areas.

A second fairly intact forest patch is located west of Woodinville-Redmond Road NE and its adjacent commercial development. A series of parcels in this area are owned by private entities and the City; the private parcels include two "TRCT" parcels in open space, which are adjacent to one City owned open space parcel. Zoning outside of the City open space is R-4, Residential 4 units per acre. Together, the undeveloped forest in this area totals approximately 105 acres. The forest crossed roughly east-west by at least six streams, some of which branch within the forested area, according to the City of Woodinville Critical Areas Map. The forested area, which is an elongated north-south polygon, is broken by a right-of-way (ROW) through its widest section (the south half). Habitat within the ROW includes mowed grasses and scrub-shrub, including invasive species infestations.

Endangered, Threatened, or Sensitive Species and Species of Local Importance- Birds and Mammals

The City of Woodinville and surrounding study area includes habitat types that are known to be used or could potentially be used by species of interest (excluding fish), including those species with State or federal status and WDFW priority species. These habitats include forested upland, wetlands, riparian areas, scrub-shrub, and open habitat such as ROW.

Existing conditions and potential impacts of development within the R-1 zone were evaluated as part of the city's Sustainable Development Study (Tate 2007). That study identified large patches of habitat and potential corridor connections to maintain wildlife habitat use.

Species of local interest likely to use habitat within the City are listed in Exhibit 2.5-10. Suitability and availability of habitat in the City of Woodinville for species of interest known or likely to occur in the City are addressed in the following sections. As well, listed species with historical presence in the Puget Sound area or King County are addressed briefly. Documented occurrences of the species listed below were drawn primarily from WDFW and eBird.org databases.

Exhibit 2.5-10. Birds and Mammals- Species of Local Importance in the City of Woodinville.

Common Name	Scientific Name	State Status	Federal Status	PHS?
Birds				
Great blue heron	*Ardea herodias*	M		Y
Green heron	*Butorides virescens*	M		Y
Band-tailed pigeon	*Patagioenas fasciata*			Y
Pileated woodpecker	*Dryocopus pileatus*	S	Co	Y
Peregrine falcon	*Falco peregrinus*	S	Co	Y
Osprey	*Pandion haliaetus*	M		Y
Bald eagle	*Haliaeetus leucocephalus*	S	Co	Y
Purple martin	*Progne subis*	C		Y
Vaux's swift	*Chaetura vauxi*			Y
Mammals				
Townsend's big-eared bat	*Corynorhinus townsendii*	C	Co	Y
Columbian black-tailed deer	*Odocoileus hemionus columbianus*			Y

Source: WDFW. PHS on the Web.

Legend: PHS=Priority Habitat Species C=Candidate species Co=Species of Concern M=Monitor species S=Sensitive species

Green Heron

Green herons depend on wetlands, ponds and streams for their prey, which is primarily small fish, but also includes crustaceans, insects, herpetiles and rodents. They typically nest in trees near water. Although there is at least one informal breeding record in Woodinville, they are a secretive species and susceptible to disturbance, development, and habitat loss (Seattle Audubon Society 2005).

Great Blue Heron

Great blue herons are typically thought of as wading birds frequenting wetlands, rivers, ponds, and lakes. They are common in these habitats year-round in the Woodinville area. In winter, however, they also hunt on land, foraging on small mammals, primarily voles (Seattle Audubon Society 2005). The species usually nests in tall trees, but may also utilize artificial structures and even shrubs. The availability of suitable nesting sites in proximity to foraging areas may limit the occurrence of the species, and may be a limiting factor in Woodinville. A number of studies also show that human disturbance can affect colony success, although some birds may acclimatize to disturbance (Quinn and Milner 2004). There are no known nesting colonies in the City at present, although future opportunities may exist near wetlands.

Band-Tailed Pigeon

This species is commonly sighted year-round in western Washington. It utilizes natural areas, parks, and developed areas, usually when large conifers are available (Seattle Audubon Society 2005). There are several non-breeding records of the species in Woodinville, and they are likely to use the City's parks and open spaces and may be drawn to feeders in residential areas.

Pileated Woodpecker

Pileated woodpeckers are regularly observed in suburban environs, where they forage and drum on trees, snags, and telephones poles. Despite being commonly referred to as old-growth or mature forest nesters, they will nest in any forest type as long as suitably large trees for roosting and nesting are present (Seattle Audubon Society 2005). The species has been noted in the City of Woodinville and is likely to occur regularly in wooded areas.

Bald Eagle

Bald eagles are common nesters in western Washington. Nesting birds tend to choose sites close to open water in dominant tall trees of any species, usually providing line-of-sight to nearby water (Watson and Rodrick 2004). The species often acclimatizes well to human development, although some individuals respond negatively to new disturbance and development (Stalmaster 1987). In winter, birds congregated at feeding grounds along large rivers and roost sites in dense conifer stands in western Washington. Potential breeding habitat exists in Woodinville, and suitable foraging perch trees are present throughout the City, particularly near open water, including streams and lakes. Individuals have been documented in the City on numerous occasions.

Peregrine Falcon

Peregrine falcons are mainly cliff-nesters, preferring cliffs greater than 45 m in height (Hays and Milner 2004), although man-made structures and occasionally trees are also used, as are existing abandoned nests built by other species. Preferred nest sites are usually near open water (Seattle Audubon Society 2005). Most breeding pairs are near a coast, but the species' range is expanding to encompass cities (Seattle Audubon Society 2005). They occur throughout western Washington in winter, when they often utilize large trees and snags for foraging perches near feeding sites, which are often open wetlands and mudflats but also include developed areas. Bridges and commercial and treed lakeside properties in Woodinville provide potential nesting and foraging locations, but the species is not presently documented in the City.

Merlin

Merlins are rare breeders in western Washington (Seattle Audubon Society 2005) and breeding occurrences are undocumented and unlikely in Woodinville. However, wintering and migrating individuals commonly use parks,

lakes, and urban and suburban areas, and rely less on forest. The species preys on small birds, bats, rodents, reptiles and large insects and may inhabit developed areas where they can find prey outside of the breeding season.

Red-tailed Hawk

Red-tailed hawks are ubiquitous in western Washington and can be observed in almost any habitat. They usually use tall trees for nesting, but may also build nests on ledges, platforms or buildings (Seattle Audubon Society 2005). They forage mostly on small mammals, but also songbirds, reptiles and large insects, and they often utilize foraging perches near developed ROWs, fields, and other open areas. They are documented in Woodinville and likely to occur regularly.

Osprey

Ospreys typically breed near rivers and other large bodies of fresh or salt water and nest in large trees, snags, or man-made structures and platforms. They forage for fish in water that can support medium-sized fish. Osprey sightings are documented in Woodinville, although no known nests are present.

Purple Martin

Purple martins readily nest in man-made boxes and structures, in addition to natural cavities. A colony nested in pilings at the north end of Lake Sammamish until at least 2003, and birds are regularly sighted on and near the lake. Individuals can be observed foraging on flying insects over any open area, including lakes, wetlands, fields and developed areas. Potential for the establishment of breeding sites, either natural or human-created, exists in the City of Woodinville, particularly in large wetlands or along Lake Leota.

Vaux's Swift

Vaux's swift forages in open skies over forests, lakes and rivers, where insects are abundant. Nesting normally takes place in mature or old-growth forest where large snags, preferably at least 27 inches dbh (Lewis et al. 2002) with cavities of approximately 20 inches in length, are available. The species also nests in broken treetops and chimneys. Sightings of individuals are not uncommon in developed areas, and they have observed foraging and flying in Woodinville. Remaining tracts of forest could potentially support breeding birds in the future.

Townsend's Big-Eared Bat

Townsend's big-eared bat's range includes most of the lowland and high montane mixed and coniferous forests of Washington, but their occurrence is limited by the availability of required habitat features (Woodruff and Ferguson 2005). Suitable roosts for both daytime and nursery roosting are caves, mines, hollow trees, and man-made structures. Use of abandoned man-made structures features by the species within the City of Woodinville cannot be precluded.

Columbian Black-Tailed Deer

This species is common in wooded areas, open space, and edges throughout western Washington. There are informal recorded of the species in Woodinville forested areas, and the species is likely to occur in the city's bigger undisturbed areas and corridors, which include typical deer habitat, regularly.

Other Species of Concern

"Species of concern" is an informal term and is not defined in the Federal Endangered Species Act. It generally refers to species that are declining or targeted as needing conservation. A number of species are recognized as species of concern either nationally or in the Pacific Region in the United States Fish and Wildlife Service's (USFWs) 2008 document Birds of Conservation Concern. The species below are mentioned here because they occur to varying degrees in the city limits.

Rufous hummingbirds are common in western Washington, preferring coniferous forest openings and shrubby areas, but frequenting feeders in rural and suburban areas as well. Recent significant declines (Seattle Audubon Society 2005) have raised concerns over the species' future.

Olive-sided flycatchers use open habitat with high perches and other areas that mimic burned forest, their historic habitat. They are a somewhat common summer visitor to the area, and can be found in forest clearings, edges, parks, and developed residential areas.

Willow flycatcher is the least common of the species of concern in western Washington, although a few records with the City boundaries exist, and nearby areas experience regular visits in the breeding season. Preferred habitat is willow thickets and dense riparian zones and wetlands, although they may be found in other areas near forest. Woodinville riparian zones, wetlands, and vegetated open spaces can support the species.

Frequently Flooded Areas

Frequently flooded areas (FFA) are regulated to manage potential risks to public safety. Such areas also provide valuable instream habitat benefits, such as recruitment of large woody debris. The City of Woodinville defines flood hazards as: "Flood hazard areas: those areas in City of Woodinville subject to inundation by the base flood including, but not limited to, streams, lakes, wetlands and closed depressions" (WMC 21.06.245).

FFAs are mapped along the Sammamish River and Little Bear Creek (see Exhibit 2.5-11). These FFAs are located in the city limits, the UGA, and the City-King County Joint Study Area. Flood-prone problem areas also identified the Woodin Creek and Lake Leota basins (Woodinville 2010). Flooding within the City, with its small to mid-sized streams, is most often triggered by heavy rains, and exacerbated by runoff from impervious surfaces related to development. FEMA Mapping covering the Woodinville study area identifies Zone X and Zone AE floodplains along Little Bear Creek, the Sammamish River, and Woodin 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.

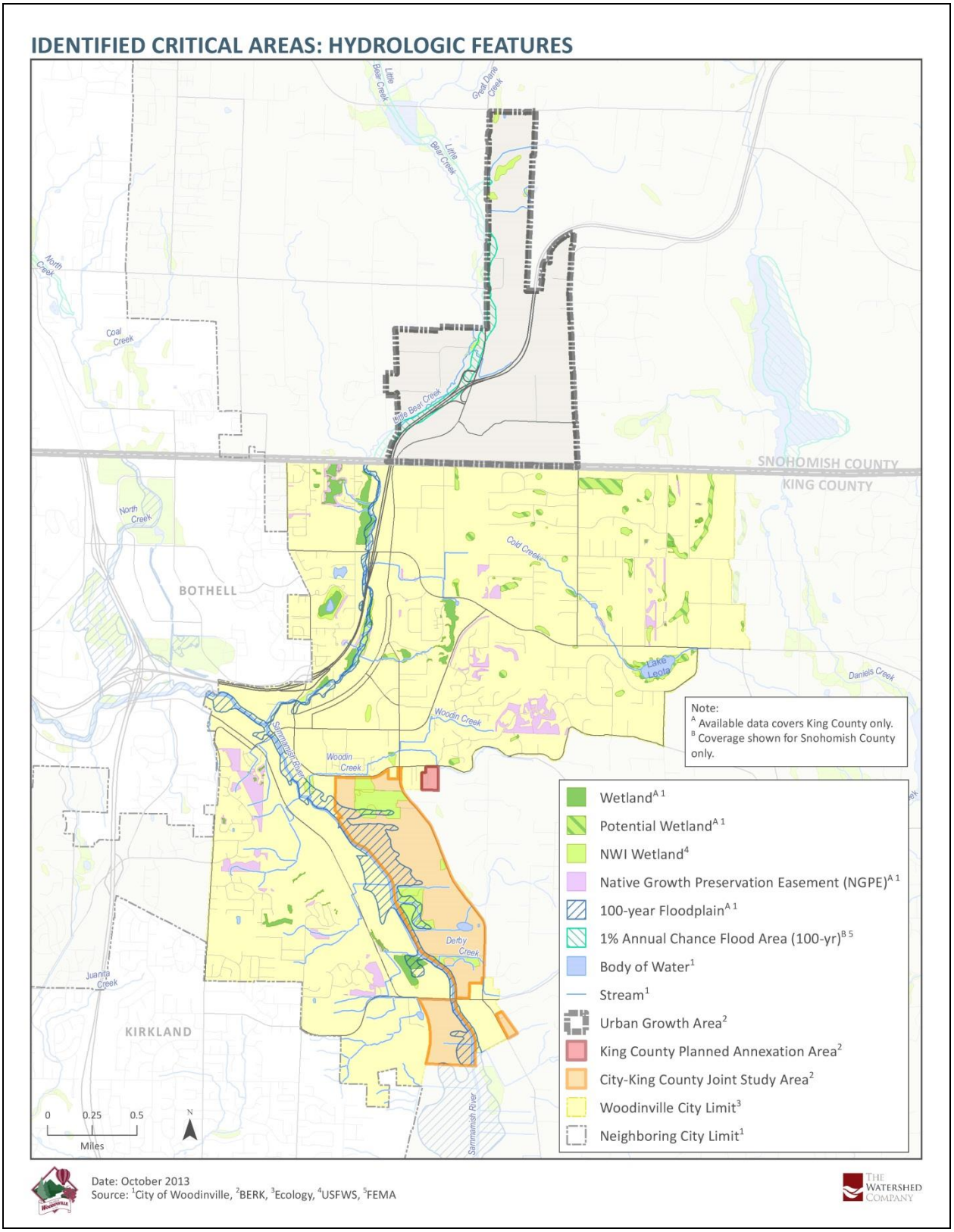
The City's Critical Area map (updated December 2009) includes the 100-year floodplain of the Sammamish River and Little Bear Creek. No FEMA floodplains are mapped in the Lake Leota basin.

Major basins within the City of Woodinville are Golf Course basin, Hillside Drainages, Woodin Creek basin, School Creek basin, and Lake Leota basin (see

Exhibit 2.5-12 from the city's Sustainable Development Study.). Urban development has altered flows in these basins, creating new flooding problems. Natural floodplains, such as the Sammamish River 100-year flood plain, have been modified over decades of farming and development. The Sammamish River Action Plan, developed by the United States Army Corps of Engineers (USACE) and King County, identifies areas for restoration. Among other goals, the plan seeks to restore riparian areas along the Sammamish River and associated floodplain. Buffer restoration and native planting are apparent along portions of the river within the city of Woodinville (see

Exhibit 2.5-13).

Exhibit 2.5-11. Identified Critical Areas: Hydrologic Features.



Source: Map prepared by The Watershed Company.

Exhibit 2.5-12. Drainage Basins – Eastern Woodinville

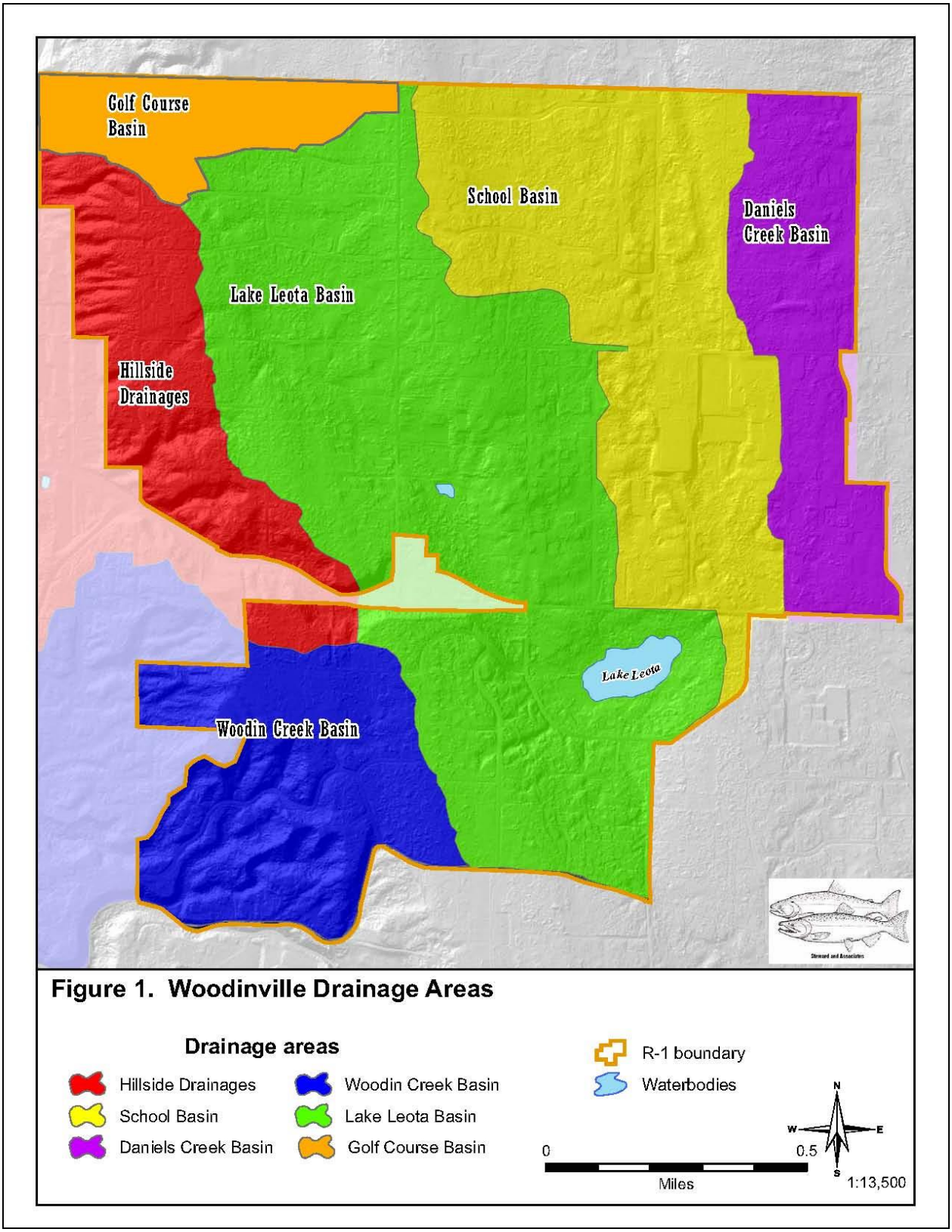


Exhibit 2.5-13. Riparian buffer of the Sammamish River in Woodinville.

Source: Photo taken by The Watershed Company, September 2013.

The City of Woodinville adopted a Comprehensive Stormwater Management (CSWM) Plan in December 2010. This document is designed manage stormwater in compliance with Ecology requirements and regional goals, including the Puget Sound Action Agenda. The CSWM plan contains a process for evaluating drainage capacities, ranking flood problem areas, and initiating capital improvement projects.

Geologically Hazardous Areas

According to RCW 36.70A.030, Geologically Hazardous Areas are "those areas that are susceptible to erosion, sliding, earthquake, or other geological events and are not suited to the siting of commercial, residential, or industrial development consistent with public health and safety concerns". The four main types of geologically hazardous areas recognized in the GMA and Woodinville Municipal Code (WMC 21.24.290) are 1) erosion hazard areas; 2) landslide hazard areas; 3) seismic hazard areas (including ground shaking, slope failure, settlement, surface rupture, or soil liquefaction), and 4) areas subject to other geologic evens such as coal mine hazards and volcanic hazards.

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 to protect the area, but to protect the public from the hazard represented by the area.

The geology and topography within the Woodinville study area combine to create several of the types of geologically hazardous areas. A landslide hazard area runs along west of the Woodinville-Redmond Road in an area designated for Low Density Residential uses and R-4 zoning. See **Error! Reference source not found.**.This area is also designated in part as an erosion hazard area. Landslide hazard areas are also present within and around the parklands surrounding Woodin Creek, including the Creek's headwaters as well as a Native Growth Protection Easement (NGPE) area. Additional landslide hazard areas are designated north of this area, forming a natural border between the current Low Density Residential (LDR) designation with R-1 zoning and the areas of higher intensity commercial and industrial development to the west. These areas are also often categorized as erosion hazard areas. Finally, steep slopes run along Cold Creek northwest of Lake Leota within the current R-1 zone, as well as west of State Route 522 and Little Bear Creek.

Areas adjacent to steep streams pose an erosion hazard. See Exhibit 2-15. As described above, these areas generally coincide with landslide hazard areas.

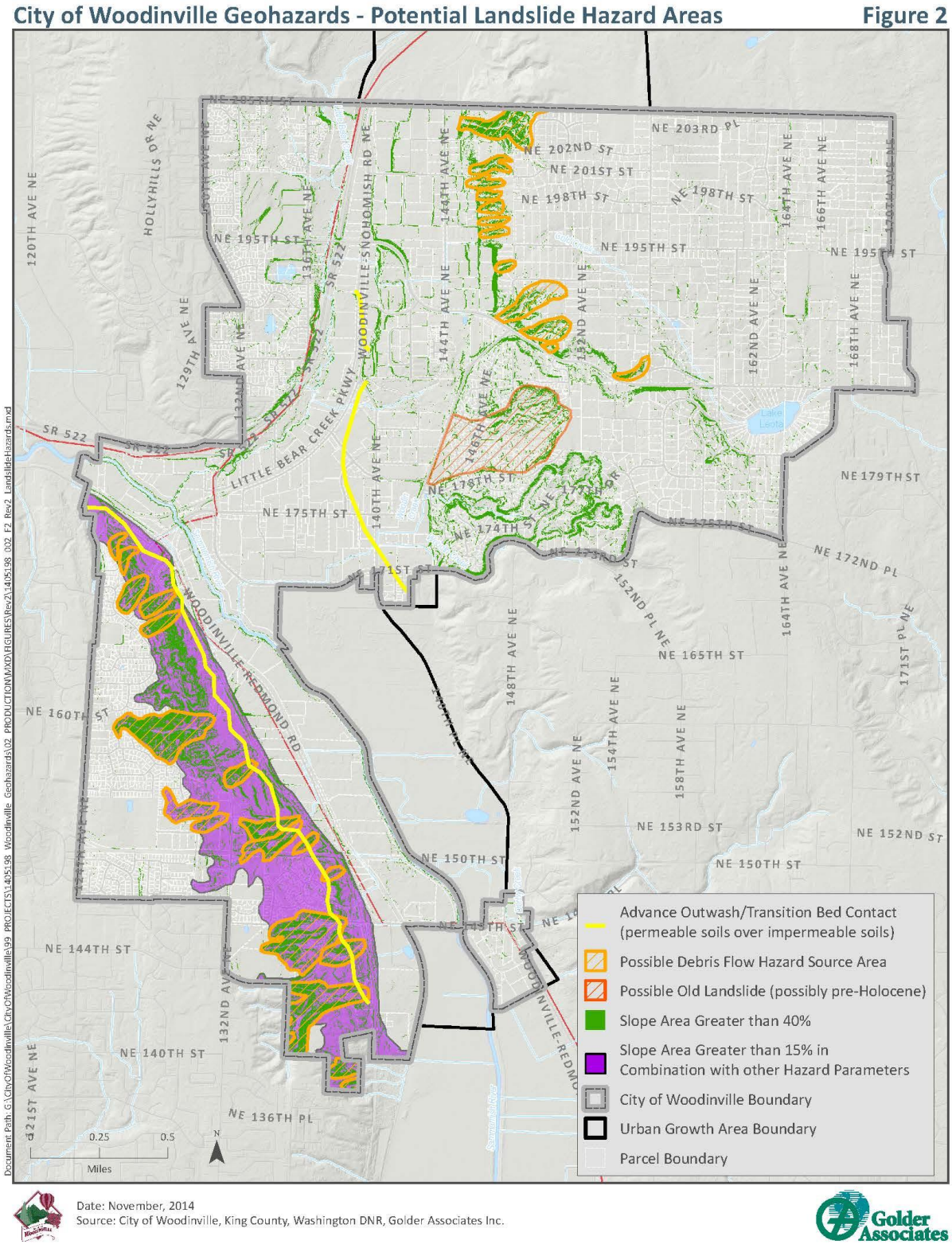
Problem soils present challenges for construction and are greater in soft, unconsolidated deposits of peat and other bog-like material with bearing strength capacity challenges. Such problem soils are shown on Exhibit 2-16. Problem soils correspond closely to Liquefaction areas. Within the City, the floodplains of both the Sammamish River and Little Bear Creek are designated as liquefaction hazard areas. See Exhibit 2-17.

Seismic hazard areas (Exhibit 2-18) include locations of known or suspected Quaternary faults in the City. Such hazard areas are located in eastern and central Woodinville, based on Washington Department of Natural Resources information.

Coal mine and volcanic hazards, however, are unlikely in the Woodinville study areas, given the lack of exposed rock for mining and location of Woodinville relative to the Cascade volcanoes.

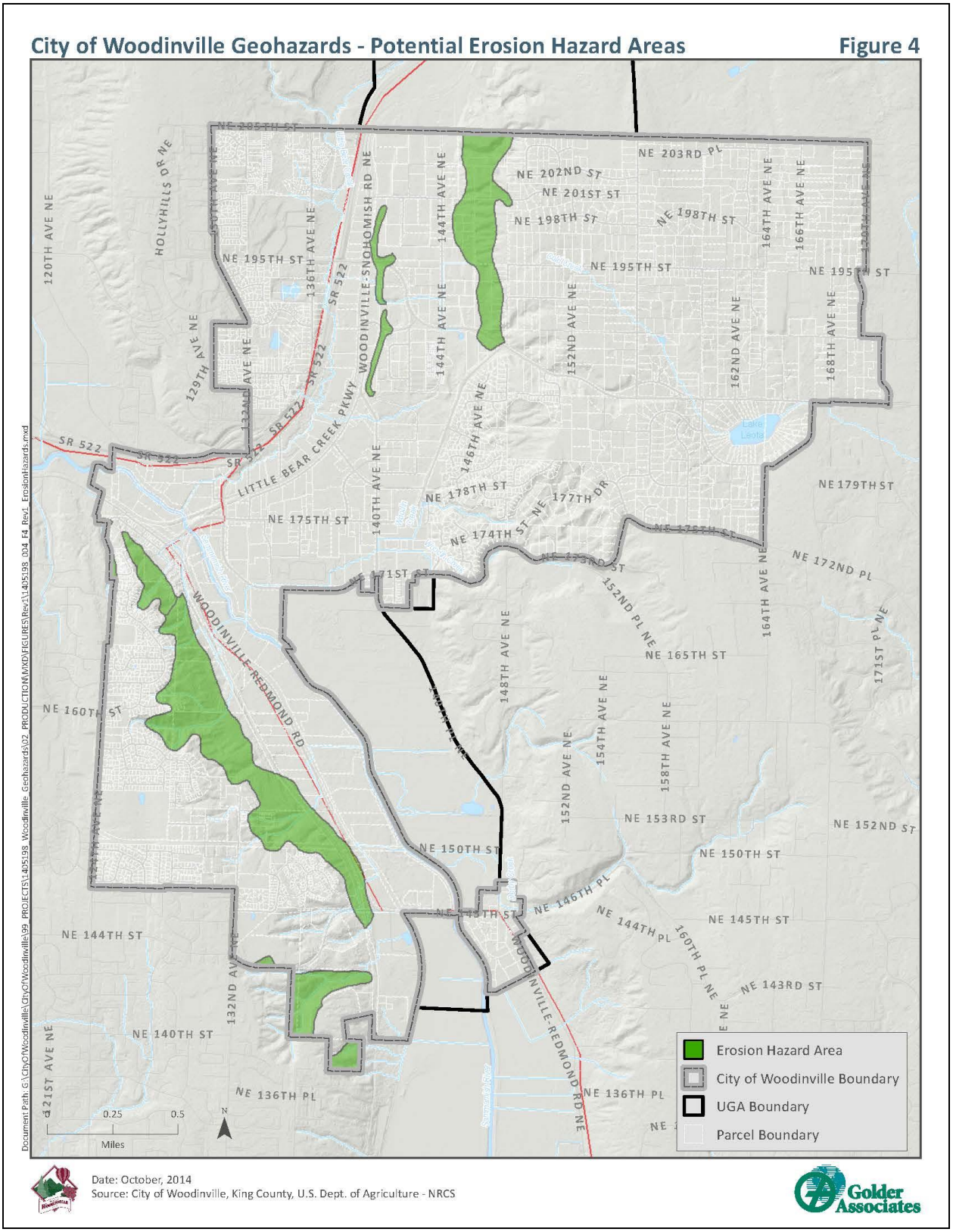
The City's critical area regulations define a minimum 50-foot buffer for all geologically hazardous areas, and suggest clustering of structures to avoid these areas. Development and redevelopment in these areas must meet certain standards in order to avoid increasing risk associated with landslides, erosion, or seismic activity.

Exhibit 2.5-14. Identified Critical Areas in City Limits: Geologic Features.



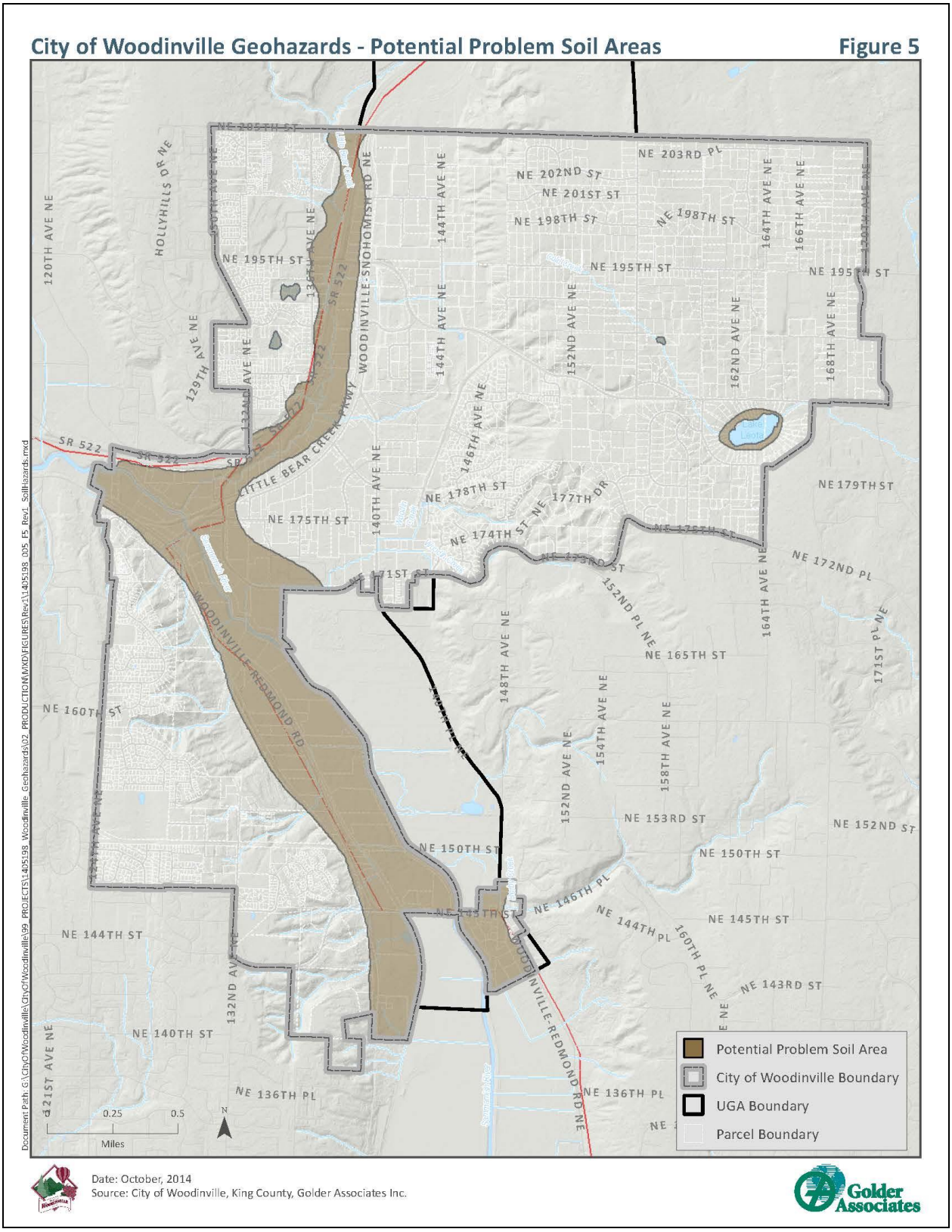
Source: Golder Associates, 2014

Exhibit 2-15. Identified Critical Areas in City Limits: Erosion Hazards.



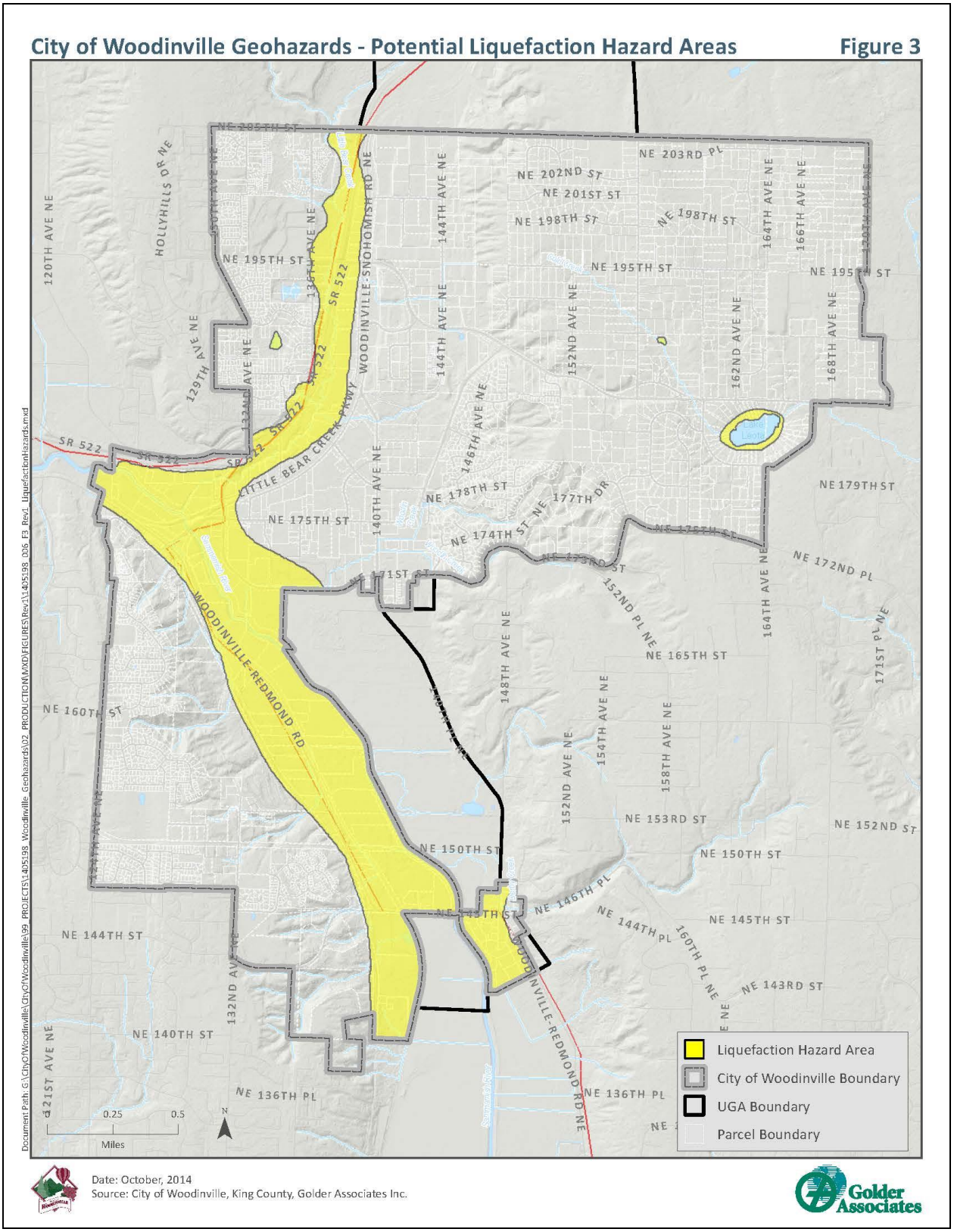
Source: Golder Associates, 2014

Exhibit 2-16. Identified Critical Areas in City Limits: Problem Soil Areas.



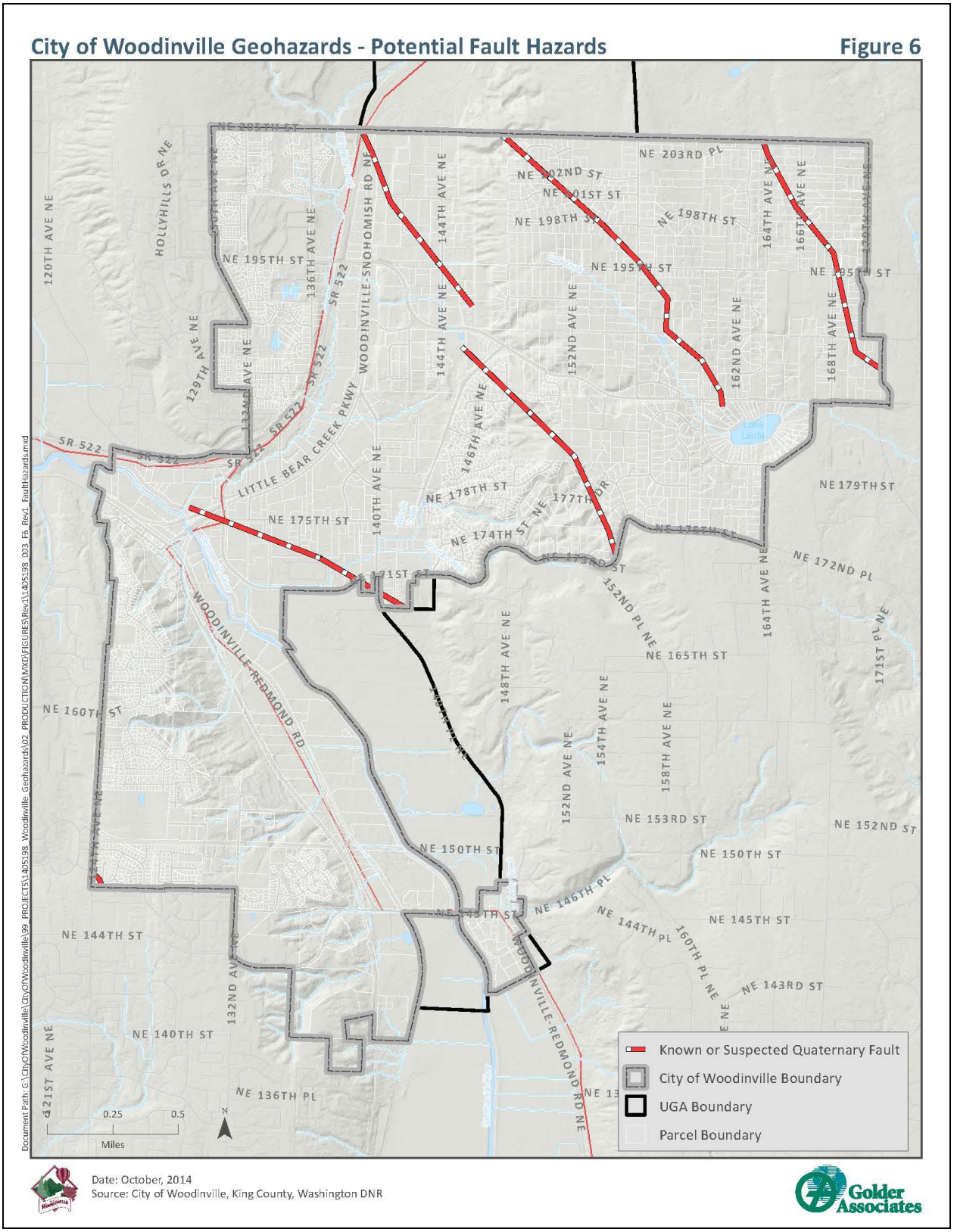
Source: Golder Associates, 2014

Exhibit 2-17. Identified Critical Areas in City Limits: Liquefaction Areas.



Source: Golder Associates, 2014

Exhibit 2-18. Identified Critical Areas in City Limits: Seismic Hazard Areas



Source: Golder Associates, 2014

Wetlands

Several wetlands are mapped within the City of Woodinville, the UGA, and the City-King County Joint Study Area (see Exhibit 2.5-11). Wetland reconnaissance efforts have documented and identified several potential wetlands within the northeastern portion of the City (Luiting 2007, Cooke 2006). It is likely undocumented wetlands are present within the City, its UGA and possibly within the King County Potential Annexation Area. In general, the Pacific Northwest region contains numerous unmapped wetland areas. Wetland boundaries and conditions may have changed since mapping was completed, and mapping may not reflect current site conditions. Site-specific studies are necessary to determine the presence or absence of wetlands for individual projects. However, gross-scale mapping does have planning utility.

Wetlands continuous with and within 200 feet of a Shoreline of the State are managed under the City's SMP. Some wetlands associated with the Sammamish River and Little Bear Creek within the project area are regulated as shorelines.

Wetlands within the City are most commonly characterized by depressional or riverine (associated with Little Bear Creek and tributaries to Cold Creek) hydrologic conditions. A narrow fringe of wetland vegetation occurs along the Sammamish River; however, the lowering and dredging of the river has substantially limited the occurrence of wetlands along the Sammamish River. The largest remaining wetland areas within the City include Lake Leota, large riverine wetland complexes along Little Bear Creek and its eastern tributary, including wetlands within Rotary Park, and a depressional wetland south of Rotary Park. Several smaller potential wetlands are mapped in the northeastern area of the City; however, the higher density of potential wetlands in this area of the City compared to others may reflect the more extensive wetland reconnaissance efforts that have taken place in this area rather than an actual higher frequency of wetland occurrence. Known wetlands are shown on Exhibit 2.5-11.

Functions & Values

Wetland functions are affected by physical, chemical, and biological processes that occur within a wetland and the surrounding landscape. Wetland scientists generally acknowledge that wetlands perform the following eight functions: 1) flood/storm water control, 2) base stream flow/groundwater support, 3) erosion/shoreline protection, 4) water quality improvement, 5) natural biological support, 6) general habitat functions, 7) specific habitat functions, and 8) cultural and socioeconomic values (Cooke Scientific Services 2000).

Wetland functions for flood and stormwater control, erosion protection, and water quality improvement are particularly valuable to protect infrastructure and limit the effects of development on water quality in the area's streams and rivers. Lake Leota is particularly significant because it supports base flows and cool stream temperatures for downstream salmonid habitats, and these functions are discussed further in the Fish and Wildlife Habitat Conservation Areas section above. The large riverine wetland complex along Little Bear Creek, including wetlands in Rotary Park and to the south, provides significant habitat values for salmonids, birds, and amphibians, although wildlife habitat functions are limited by the proximity to State Route 522.

Wetland Buffers

Upland vegetated buffer areas are an important factor in protecting 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 buffer conditions in the City of Woodinville are frequently narrower than what would be necessary to fully protect wetland water quality and habitat functions. Buffers in the city are most frequently interrupted by roads and adjacent residential development. Standard wetland buffer widths per City of Woodinville code are listed in Exhibit 2.5-19 below.

Exhibit 2.5-19. Wetland class and buffer widths under current city code.

Wetland Class	Standard Wetland Buffer (feet)
Class 1	150
Class 2	100
Class 3	50

Source: City of Woodinville Municipal Code

Each jurisdiction in the Woodinville study area used a different wetland classification system. Therefore, a direct comparison of buffer widths is not possible. However, the buffer ranges in Snohomish and King Counties are still a useful point of reference. Depending on wetland rating standard buffers in King County within the UGA and outside the UGA range from 50 to 225 feet, and 25 to 300 feet, respectively.

Invasive species, such as Himalayan blackberry, commonly occur within wetland buffers. Enhancement of the density and diversity of native vegetation in wetland buffers may provide an opportunity to improve wetland conditions within the City. Options for standard buffer modifications, typically through buffer averaging or buffer reduction with enhancement, differ by jurisdiction.

2.6 Parks and Recreation

Overview

The City's location along the Sammamish River and at the edge of the King County UGA provides a number of unique recreational opportunities for residents. These include exceptional access to the King County regional Sammamish River Trail and close proximity to forested parks provided by both King and Snohomish Counties. The City's existing park facilities are fairly adequate for the current population; however, future growth in the more densely-populated downtown core will require creative solutions to provide more open space, and improved access to existing open space, as demand for recreational opportunities increases.

Regulatory Context

This Parks and Recreation Element is being updated as part of the 2015 Comprehensive Plan Update in accordance with RCW 36.70A.070 of GMA to address the need for and the financing of parks and recreation facilities in the City of Woodinville and the surrounding Planning Area. The GMA requires all Comprehensive Plans to include a Parks and Recreation Element which estimates park and recreation demand for at least a ten-year period, provides an evaluation of facility and service needs, and provides an evaluation of intergovernmental coordination opportunities to provide regional approaches for meeting park and recreation demand. The Parks and Recreation Element is required when funding is provided by the State of Washington; while funding is not in place, the City has been updating its Parks, Recreation, and Open Space (PRO) Plan allowing for grant funding opportunity.

Most of the data contained in this element is reflected in the City's 2014 Draft PRO Plan,.

Existing Conditions and Inventory

Parks and Recreation Facilities

The City manages 104.17 acres of parks and open space land. Parks facilities are classified into three different categories, as per the PRO Plan.

NEIGHBORHOOD PARKS

The City owns and maintains five small neighborhood-focused park properties, ranging in size from 0.12 to 0.5 acres. Two of the properties are undeveloped; the remaining three contain small playgrounds catering to young children. The City is looking at ways to involve the residents in the adjacent neighborhoods of these parks in the maintenance and possible ownership of these focused-service parks.

COMMUNITY PARKS

Community parks are larger in size and focus on meeting the recreation needs of larger sections of the community with a service radius of at least one mile. They generally require support facilities such as parking, field lighting, and restrooms. Wilmot Gateway Park, located in the downtown core, provides access to the regional Sammamish River Trail and serves as a venue for civic events, such as concerts and festivals. Woodin Creek Park also provides access to the Sammamish River Trail, and contains a tennis court, horseshoe pit, picnic facilities, and half basketball court.

Rotary Community Park, located near Woodinville High School, provides a skate park facility, small playground, and a walking trail along Little Bear Creek.

SPECIAL USE FACILITIES

Special use facilities serve specific recreational activities and functions. These include the Carol Edwards Center and Woodinville Sports Fields. A portion of the 34,000 square foot Carol Edwards Center is currently leased by the Northshore YMCA to provide children and adult recreation classes, preschool, senior classes, event space, a community food bank, and subleasing to the Woodinville Chamber of Commerce.

The Woodinville Sports Fields are situated adjacent to the Carol Edwards Center on the west. The Fields contain three acres of artificial turf and can be configured for four youth-sized baseball/softball diamonds or two regulation-sized soccer fields. The Fields are also used for youth lacrosse and football.

Parking is available at the Woodinville Civic Center campus, although more is needed to accommodate increased growth in the number of Carol Edwards Center and Sports Field visitors.

OPEN SPACE

The City owns 96.7 acres of undeveloped open space. Currently, there are no plans in place for developing these properties, and they are minimally maintained.

NON-CITY OPERATED PARKS AND FACILITIES

There are a number of parks and recreation resources within the immediate vicinity of Woodinville that serve Woodinville residents. These facilities include King and Snohomish County parks and facilities, and facilities operated by non-profit and private organizations. Two major non-City operated recreational resources are summarized below.

Sammamish River Trail

The Sammamish River Trail is a regional trail that runs approximately 11 miles along the banks of the Sammamish River from Bothell to Marymoor Park in Redmond. The trail is paved and provides recreational opportunities for walkers, runners, bicyclists, and other non-motorized users. From NE 175th Street eastward, the trail contains a separate soft-surface path to accommodate equestrian uses. The trail passes through Woodinville on the north bank of the river, with a major access point located at Wilmot Gateway Park. The trail continues southward through the City-King County Joint Study Area toward its terminus Redmond.

Wellington Hills County Park

Snohomish County is currently planning development of a community park north of Woodinville in the City's UGA. The park site is located east of SR 522 along 240th Street SE. The site is currently undeveloped, but is planned to contain a variety of amenities, including ball fields, off-leash dog areas, picnic areas, trails, and playgrounds, though a final development plan has not yet been approved. The City opposes the level of development planned for the park site.

Existing Level of Service Standards

The City's most recently adopted Level of Service (LOS) standards are from the 2005 PRO Plan. Exhibit 2.6-1 shows the existing acreage, 2011 planned LOS standards from the PRO Plan, and the deficiency in parklands according to those standards.

While these LOS standards suggest that the City is deficient in several standards, the analysis does not consider the many parks and recreation resources provided by non-City entities that directly benefit Woodinville citizens. These amenities include the regional Sammamish River Trail, owned and maintained by King County, the King County Northshore Athletic Fields, Gold Creek Park, and the many non-profit and private facilities that serve Woodinville residents' recreation needs.

The Washington State Recreation and Conservation Office (RCO) recognizes that many of the standards that have traditionally been used to measure LOS are inadequate and are unable to be tailored to fit specific community needs and interests. As such, the RCO has recommended three different types of criteria to measure LOS. These include *Quantity* criteria, which include the number of parks and recreation facilities per capita; *Quality* criteria, measured by public satisfaction or by staff assessment of facility function; and *Distribution and Access* criteria, which measures the population within specific park service areas and accessibility via different modes of transportation. The City will use a variety of different metrics to ensure that different parks and recreation needs are met in a variety of helpful and creative methods.

Future LOS standards will also tend to be measured through public participation and feedback criteria. For example, in a 2012 survey for an update of the PRO Plan, residents overwhelmingly expressed a desire for more opportunities for community-wide special events. There are no appropriate measures for these types of outcomes, and as such, the City will seek opportunities and partnerships to enhance these services for its residents.

Exhibit 2.6-1. Existing City-Owned Parks Inventory and Levels of Service

Park Types	Existing Acres (AC) or Miles (MI)	2013 Existing LOS* (units/1000 population)	Planned LOS	Need / (Surplus)
Neighborhood Parks	1.34 AC	0.12 acres	N/A	N/A
Community Parks	25.81 AC	2.35 acres	5 acres/1,000 population	29.14 acres
Special Use Parks/Facilities	10.3 AC	0.94 acres	N/A	N/A
Trails (Off Road)	1.35 MI	0.12 miles	0.45 miles	3.59 miles
Resource/Open Space Parks	66.72 AC	6.07 acres	5 acres/1,000 population	(11.77 acres)
Total Parks/Open Space	104.17 Acres	**9.47 acres**	9.0 acres	(5.26 acres)

Source: Current City data; 2005 Parks, Recreation, Open Space Plan

2.7 Capital Facilities

Overview

Woodinville's public facility needs are served not only by City facilities, personnel, and resources, but also by regional agencies such as the Washington State Department of Transportation, Sound Transit, and King County; and by special purpose districts, such as the Northshore School District, Woodinville Fire and Rescue District, King

County Library System, Woodinville Water District, Northshore Utility District, and Puget Sound Energy (see also the Utilities Section below). In addition to maintaining adequate levels of service for City-provided facilities, the City of Woodinville coordinates with these other providers on Woodinville's growth and land use planning.

Regulatory Context

The GMA requires all Comprehensive Plans to include a capital facilities element which analyzes the need for future capital improvements to support the development goals stated in the Land Use Element, as well as the funding mechanisms available for implementation.

Existing Conditions

Capital facilities included in this chapter include municipal buildings, police and fire protection facilities, water systems, sanitary sewers systems, storm water facilities, and schools. Other capital facilities needed to support the other comprehensive plan elements, such as transportation, parks and recreation, and utilities, are addressed in that respective Existing Conditions Report section.

Municipal Buildings and Facilities

Civic Center Campus

The Woodinville City Hall, located in the downtown core, serves as the anchor to the 13.5-acre civic center campus that includes the Carol Edwards Center, Woodinville Sports Fields, and Old Woodinville Schoolhouse. The campus includes 285 parking stalls and shares parking and access with the Brittany Park Retirement facility.

City Hall

Woodinville City Hall was completed in 2001. The 24,000 square-foot, two story building provides office spaces for approximately 30 City staff members, and includes an access-limited police station for the City's contracted police services. It was designed to provide maximum build-out space for 77 employees. The police station also serves as the King County Sheriff Precinct 2 substation, which services a large portion of unincorporated northeastern King County. The City Council chambers are used nearly exclusively for City Council and Commission meetings, with a total capacity of 134. The City has the ability to video broadcast all of its public meetings through a small video production studio located in the Council Chambers.

Carol Edwards Center

Formerly known as the Sorenson School, this facility was purchased from the Northshore School District in 2005. Until 2011, the City used the 35,000 square-foot facility for City-operated and staffed recreational programming. Today, the City leases a portion of the building to the Northshore YMCA, which offers a variety of recreational programs, special event rental space, and subleasing to the Woodinville Chamber of Commerce.

Old Woodinville Schoolhouse

The Schoolhouse was originally built around 1911 and underwent expansions in both 1933 and 1948. The building served as City Hall from 1993 to 2001, and also provided offices for the Woodinville Chamber of Commerce. The two-story brick building is registered as a King County Historic Landmark. Since construction and occupation of the present City Hall in 2001, the Schoolhouse has remained unoccupied. While the City minimally maintains the building, there are no municipal uses planned for the building in the foreseeable future. In summer 2014, the City issued an request for proposal for a long-term lease and redevelopment of The Old Woodinville Schoolhouse.

Levels of Service

The current Comprehensive Plan identifies a Level of Service of 1,150 square feet of public service and/or administrative office space per 1,000 population. With a 25,000 square foot City hall and a 2013 population of 10,990, the current ratio is about 2,275 square feet per 1,000 persons.

With a relatively small staff (and approximately 800 square feet of building space per employee and capacity to double the number of employees within the current space), City municipal buildings are more than adequate for current and future staffing needs. While an increase in population could require changes to be made to the interior configuration of City Hall, such as in Police services, there is no need in the foreseeable future to increase the overall size or footprint of the City's municipal buildings.

Opportunities

The excess capacity at the civic center campus for municipal functions has the potential to meet deficiencies for other types of community uses, such parks and recreation services, cultural and arts activities, and historic preservation. Future possibilities for the site could include rehabilitation of the Schoolhouse for community or retail use, construction of a plaza for gathering and event space, and additional parking to accommodate increased recreational use of nearby facilities, such as the Woodinville Sports Fields, Wilmot Gateway Park, and the Sammamish River Trail.

PUBLIC WORKS SHOP & EQUIPMENT

The City's Public Works Operations staff and equipment are housed in the northern industrial area of the City. The City purchased an existing building in 2010; a portion of the building is leased to a private business and generates rental income for the City. The remainder of the building contains 12,256 square feet of office space and 4,080 square feet of shop/garage space. Six full-time employees and approximately two seasonal full-time equivalent employees work out of this facility.

Remodeling of the building was completed in 2013; improvements included installation of storm water treatment facilities, water line modifications, yard lighting, installation of a decant facility, demolition of an existing training tower that was used when the building was a fire station, tree removal, interior cabinetry work, and plumbing and mechanical improvements. A generator was set up on the site as well.

The City owns several types of equipment operated by City staff, including a backhoe, snowplowing and sanding vehicle attachments, landscape maintenance equipment, and a street sweeper.

Current Level of Service

The City provides a variety of public works services to the community, including street sweeping, minor road and right-of-way repair, parks and landscape maintenance, storm water maintenance, and municipal facility maintenance. Generally, the size of public works facilities will be dictated by the level of service to be provided for different operations and the staff needed to complete those operations. The Comprehensive Plan currently adopts a ratio of 2,000 square feet of maintenance shop space per 1,000 population. The current ratio is 1,486 square feet per 1,000 population based on the space that is in "use" – with the area under lease, the ratio would increase. Since the City has purchased and renovated a building with its future needs in mind, the City may wish to adjust the level of service ratio in the Comprehensive Plan Update. The current building provides adequate space for future build-out and increases in City services. Considering the size of the City and the concentration of future build-out in the downtown area, it is not anticipated that there will be a greater demand for public works maintenance shop square footage. To address the Public Works' service demands more directly a new level of service that relates staffing to miles of road to maintain, acres of parks to maintain, and extent of stormwater system.

Planned Improvements

Planned improvements include expansion of yard parking structure and sandshed.

Opportunities

The City will explore and employ a variety of methods to meet current and future public works maintenance needs including using City staff and City-owned equipment, using regional government services, or contracting for services. Currently, the City uses a variety of private contract services for janitorial services, supplemental snow

plow services, and miscellaneous specialty services. The City uses Snohomish County Public Works for streetlight and traffic signal maintenance. The need for future capital facilities to house these services will depend upon the type of service provider used.

Police Protection

The City contracts with the King County Sheriff's Office (KCSO) for police services. In 2013-2014, the City budgeted for 12 patrol officers, one sergeant, and a police chief. The Police Department provides a variety of core services including service call response, proactive patrol, special operations, traffic enforcement, and investigation. Additionally, the Department provides community services at a City-staffed counter, including reporting, fingerprinting, passport processing, concealed pistol permits, and discarded medicine disposal. The Police Department responds to calls 24 hours per day, seven days per week through the KCSO dispatch center in Renton.

The Police Department is housed in 2,664 square feet of space within City Hall. Access to the space is restricted from both within and outside of the building. Additionally, the space serves as a substation for the King County Sheriff Precinct 2, which includes as many as 15 Sheriff's office staff in a given 24-hour period. The area contains several private offices, workstations, a Blood Alcohol Content testing machine, Livescan fingerprinting machine, and two temporary detention rooms.

The police fleet consists of 12 patrol vehicles, all of which are owned and maintained by the King County Sheriff's Office.

CURRENT LEVEL OF SERVICE

The City has not adopted a specific level of service for police protection in the Comprehensive Plan. The City received 2,925 calls for service in 2012, a 10% increase in the number of calls from 2011. The average response time for calls by priority are shown in Exhibit 2.7-1 below. The City's average annual call volume from 2006 – 2013 was .27 dispatched calls per capita, with an average of 262 calls per officer during that same time period. The City's calls per officer standard is approximately 253.

Exhibit 2.7-1. Woodinville Police Department Call Response Times

Priority	2011 Average Response Time (in minutes)	2012 Average Response Time (in minutes)
Priority X (Highest Priority)	2.82	3.32
Priority 1	6.16	6.86
Priority 2	11.20	11.25
Priority 3	25.32	24.16

Source: Woodinville Police Department 2012 Annual Report

The City currently has 1.09 officers per 1,000 residents. Its current crime rate per thousand in population is considered high compared to similar cities in the region. In 2012, there were 412 Part I Crimes (37 crimes per 1,000) and 336 Part II Crimes (32 crimes per 1,000). While the City has seen a decrease in overall criminal activity from the past decade, the City acknowledges that there are still opportunities for improvement.

OPPORTUNITIES

The City will continue to look for ways to decrease the City's crime rate, including taking proactive measures and enlisting innovative practices for crime investigations, such as the use of targeted video surveillance cameras. As the population of Woodinville increases, particularly in the densely-developed areas of the downtown core, the City will likely need to address increased calls for service with additional staff.

Fire Protection

The Woodinville Fire and Rescue District serves the incorporated City limits of Woodinville. A portion of Woodinville's UGA is located in Snohomish County Fire District #7.

WOODINVILLE FIRE AND RESCUE (KING COUNTY)

The Woodinville Fire and Rescue District (formerly King County Fire District #36 and Woodinville Fire and Life Safety District) serves the City of Woodinville and unincorporated areas of northeastern King County including the Joint King County-City Study Area. The District serves a population of approximately 40,000 in a 36 square mile area.

In 2013, the District entered into an Interlocal Agreement with the City of Bothell for administrative services and operational oversight for a two-year period. The two departments work operationally as one department, maintaining separate budgets, labor contracts, policies and procedures.

The District's inventory of equipment and vehicles includes fire engines and a ladder truck, as well as several aid vehicles, utility vehicles, heavy rescue vehicles, salvage vehicles, and administrative support vehicles. The fire district operates out of three staffed fire stations, with an average of 18 firefighters per station; the District's primary headquarters station is located within City limits.

Current Level of Service

The City has not adopted a specific level of service for fire protection in the Comprehensive Plan. The City may wish to reflect the Woodinville Fire and Rescue District standard in the 2015 Comprehensive Plan Update.

In 2005, the State legislature enacted regulations that require fire protection districts to set standards for addressing the reporting and accountability of substantially career fire departments and to specify performance measures applicable to response time objectives. These reporting requirements include turnout time, response time for the arrival at a fire suppression incident, response time at an emergency medical incident, and response time for arrival of advanced life support. Every fire protection district is to establish a performance objective of not less than ninety percent for the achievement of each response time objective established under the legislation.

In accordance with State law, the Woodinville Fire and Rescue District published the following measures in its 2012 Annual Report:

Exhibit 2.7-2. Woodinville Fire & Rescue District Response Times

Measure	Standard	2011	2012
Turnout Time *The initial time when units first received notification of emergency to the point they respond.*	• Fire Suppression: 2 minutes, 30 seconds or better 90% of the time • Emergency Medical: 2 minutes or better 90% of the time • Hazardous Materials: 2 minutes, 30 seconds or better 90% of the time • Technical Rescue/Special Operations: 2 minutes, 30 seconds or better 90% of the time • Wildland: 2 minutes, 30 seconds or better 90% of the time	2 minutes, 32 seconds 90% of all code red responses	2 minutes, 26 seconds 90% of all code red responses

Measure	Standard	2011	2012
Arrival of First Alarm Assignment *(3 engines, 1 ladder, 1 aid unit, 1 command unit)*	9 minutes, 30 seconds 90% of the time	16 minutes, 41 seconds 90% of the time	18 minutes, 40 seconds 90% of the time
Arrival of First Engine at a Fire Incident	7 minutes 90% of the time	10 minutes, 32 seconds 90% of the time	11 minutes, 45 seconds 90% of the time
Arrival of EMT at an Emergency Medical Incident	5 minutes, 45 seconds 90% of the time	9 minutes, 48 seconds 90% of the time	9 minutes, 40 seconds 90% of the time

Source: Woodinville Fire & Rescue District Performance Measures and Performance Objectives, 2012 Annual Report

The District had a total of 2,968 9-1-1 calls in 2012; 75.10% of those calls were for emergency medical services (EMS).

Planned Improvements

The District currently has no planned improvements for its facilities.

Opportunities

Various special fire and life safety districts within the northern King County area are exploring opportunities and ramifications for regional consolidation in the future. While the City is not directly involved in providing these types of services to residents, the City will remain apprised of developments for the immediate service area and will coordinate as necessary with these various special service entities.

SNOHOMISH COUNTY FIRE DISTRICT #7 (SNOHOMISH COUNTY)

Fire District #7 serves the portion of the Woodinville UGA north of the City limits in Snohomish County. Fire District #7 presently has no capital facilities within Woodinville or within the UGA. The District's level of service standards are shown in Exhibit 2.7-3 below:

Exhibit 2.7-3. Snohomish County District 7 Response Times

Measure	Standard	2012 Average
Turnout Time *The initial time when units first received notification of emergency to the point they respond.*	90 seconds	97 seconds
Full Assignment Response Time *The time measured from the first movement of a responding apparatus until the last assigned unit arrives at the scene.*	Average 10 minutes, or 12 minutes 90% of the time	12 minutes, 3 seconds
Arrival of First Engine at a Fire Incident	7 minutes, 30 seconds	5 minutes, 21 seconds
Arrival of EMT at an Emergency Medical Incident	BLS Response, 90 second turnout, 6 minutes travel time ALS Response: 90 second turnout, 8 minutes travel time	Turnout Time: 1 minute, 23 seconds BLS Response: 4 minutes, 44 seconds travel time ALS Response: 4 minutes, 2 seconds travel time

Source: Snohomish County Fire District 7 2012 Annual Alarm Statistical Report

Schools

Woodinville is serviced by two school districts: the Northshore School District and the Lake Washington School District.

NORTHSHORE SCHOOL DISTRICT

The Northshore School District serves students residing in the City of Woodinville as well as unincorporated King and Snohomish Counties and the Cities Bothell, Kenmore, and Kirkland. The Northshore School District serves the Woodinville UGA and most of the City-King County Joint Study Area. The District encompasses a 60 square mile area, with two-thirds of the district residing within King County and the remaining one-third residing in Snohomish County. As of 2013, the District has a population of 118,000 and an enrollment of 19,052. The District has twenty elementary schools, six junior high schools, three high schools, one alternative secondary school, and one early childhood center. Three schools, Wellington Elementary, Leota Junior High, and Woodinville High, are located within the Woodinville City limits. The District is split by the King CountyUGA; future population and enrollment growth is expected to occur primarily within the UGA. The District maintains 10 – 15% of its total design classroom capacity in portable buildings.

Students who reside within the City limits of Woodinville attend Hollywood Hill Elementary, Wellington Elementary, Woodin Elementary, Woodmoor Elementary, Leota Junior High, Timbercrest Junior High, Northshore Junior High, Woodinville High, and Inglemoor High School. The following table shows the current capacities of the schools that serve Woodinville residents.

Exhibit 2.7-4. Current School Capacity

School	Student Design Capacity	Student Scheduled Capacity	% of Design Capacity Utilized
Elementary Schools			
Hollywood Hill	598	418	70%
Wellington	670	597	89%
Woodin	692	668	96%
Woodmoor	1,101	969	88%
Junior High Schools			
Leota	1,204	916	76%
Northshore	1,195	970	81%
Timbercrest	1,072	893	83%
High Schools			
Inglemoor	2,140	1,858	87%
Woodinville	1,813	1,699	94%

Source: Northshore School District 2013 Capital Facilities Plan, Adopted 4/19/2013

The District projects that a substantial amount of its growth over the next several years will occur in the northwestern portion of the district within the King County UGA, while enrollment within the southeastern portion of the District outside of the King County UGA will decline. The District is planning a grade reconfiguration starting in 2017 that would shift 6th graders to junior high school and shift 9th graders to high school; the results of that change would result in a balanced capacity at each school, with only one elementary school servicing Woodinville residents, Hollywood Hill Elementary, with enrollment at 66% or less of design capacity.

The District's level of service in their 6-year CIP is shown in Exhibit 2.7-5 below. The City of Woodinville adopts these standards.

Exhibit 2.7-5. Standard of Service – Class Size (Average)

Classroom Type	Elementary – Average Students Per Classroom	Junior High – Average Students Per Classroom	High School – Average Students Per Classroom
Kindergarten	23	NA	NA
Regular, Alternative, EAP	24	27	27
Regular (portables)	24	27	27
Special Education – Mid Level	12	12	12
Special Education – Functional Skills and Academics	8	8	8
Integrated – Regular & Special Education (15 regular & 6 special education students)	21	NA	NA
Special Education Preschool	8 (Sorenson & Cottage Lake)	NA	NA
Transitional Kindergarten	10 (Hollywood Hill & Lockwood)	NA	NA
Vocational	NA	27	27
Dual Language – assuming 2 classes per grade level	24	NA	NA

Source: Northshore School District 2013 Capital Facilities Plan, Adopted 4/19/2013

Planned improvements that would serve Woodinville include Phase III modernization of Woodinville High School from 2014 – 2018, and unspecified building projects that may affect schools in Woodinville.

For more information, refer to the Northshore School District 2013 Capital Facilities Plan.

LAKE WASHINGTON SCHOOL DISTRICT

The Lake Washington School District (LWSD) serves students residing in the Cities of Kirkland, Redmond, and Sammamish, and unincorporated King County. A small, low-density area of Woodinville is served by the Lake Washington School District south of roughly NE 145th Street. A small portion of the City-King County Joint Study Area is found in the Lake Washington School District south of about NE 145th Street.

The City currently does not have an adopted level of service for the LWSD as there were no noted growth needs in the area of Woodinville served by LWSD. A recent modernization and added capacity project was completed at Muir Elementary School, which serves Woodinville. The District lists a planned capacity expansion at Juanita High School in its 2013-2018 CIP.

Water Service

WOODINVILLE WATER DISTRICT

The Woodinville Water District serves the City of Woodinville, as well as portions of unincorporated King County, including the City-King County Joint Study Area. The District's service area covers approximately 18,930 acres (29.5 square miles) and provides 13,780 connections with domestic water and fire protection service, serving a population of approximately 51,800. Although approximately 92% of the District's customers are residents in single family homes, these customers comprise only 74% of the total demand. Other uses, including multi-family residential and commercial/industrial connections, comprise the remaining 26% of the District's total consumption. Average daily water demand from 2004-2006 was 262 gallons per day per Equivalent Residential Unit (ERU), with an annual average of 1,100 mg. The area within the City of Woodinville constitutes approximately 19% (3,620 acres) of the District's total service area.

The District currently purchases its entire water supply from Seattle Public Utilities (SPU) Tolt River Supply and has seven emergency intertie connections with adjacent water districts. The District has eight metered connections to the SPU Tolt River Supply into the District's transmission system consisting of approximately 250 miles of water main ranging in size from 4 to 19 inches in diameter, 45 pressure reducing valve (PRV) stations, four booster pump stations, and stores water in eight above ground storage reservoirs that have a combined capacity of approximately 14.9 million gallons.

The topography of the district necessitates a complex water system including 12 separate pressure zones established by 12 hydraulic grade lines (HGL) serving elevations ranging from 30 feet to 620 feet above sea level. The District's overall service area is divided into three primary service areas. The West service area includes the portion of the City of Woodinville that lies west of the Sammamish River and downtown Woodinville, up to approximately the intersection of Woodinville-Duvall Road and NE 178th Street. The majority of Woodinville's less dense single family neighborhoods lie within the District's Central service area.

Exhibit 2.7-6 below shows a water source analysis for the District's West and Central service areas; the analysis projects a deficit of 200 gpm of source availability for the West service area in 2027. An additional storage capacity deficit of over 900,000 gallons also exists in the West area. An undeveloped tap from the SPU supply is available for future growth in that area. The District lists replacement and upsizing of storage capacity in the West area (specifically the Kingsgate Reservoir) in its Six-Year CIP. Other projects in the District's CIP list include installation of an additional booster pump station in the northern portion of the Central 650 Zone, construction of an emergency booster pump station to serve Woodinville High School and supplement fire flows in the 420 Central Northwest Zone, as well as miscellaneous projects to replace distribution and transmission mains, and improve pressure and storage facilities throughout the district.

More information can be found in the Woodinville Water District's 2008 Comprehensive Water Plan.

Exhibit 2.7-6. Source Analysis, Woodinville Water District

Year	Service Area	Equivalent Residential Units	Maximum Daily Demand (gpm)	Fire Suppression Storage (gpm)	Source Required (gpm)	Existing	Surplus/(Deficit) (gpm)
2013	West	8,058	2,794	146	2,940	3,300	360
	Central	8,797	4,151	146	4,297	11,875	7,578
Total		*16,855*	*6,945*		*7,237*	*15,175*	*7,938*
2027	West	9,674	3,355	146	3,500	3,300	(200)
	Central	10,398	4,907	146	5,053	11,875	6,822
Total		*20,072*	*8,262*		*8,553*	*15,175*	*6,622*

Source: Woodinville Water District Comprehensive Water Plan, Adopted 2008; Table does not include the District's East primary service area, which does not serve any areas within the City limits of Woodinville.

The City has adopted a level of service standard for water service as follows: 274 residential gallons per family per day and 98 residential gallons per person per day. This standard is not reflected in the latest District plans.

ALDERWOOD WATER & WASTEWATER DISTRICT

A small portion of the City's UGA in Snohomish County is served by the Alderwood Water & Wastewater District. The District purchases its water supply from the City of Everett. Nearly all of the water connections served within the UGA are commercial or industrial users. Districtwide supply sources and storage facilities are adequate to

meet projected needs for the entire district beyond 2028. The District currently has no major improvements planned for its service area within Woodinville's UGA.

CROSS VALLEY WATER DISTRICT

A small portion of the City's UGA in Snohomish County is also served by the Cross Valley Water District. The District's water source comes from both District-owned wells and the City of Everett's water source. The District serves several commercial users and approximately 90 single family residential users. The District's facilities are designed and sized for light industrial uses; improvements have been made within the last 15 years to bring fire flows to an adequate level. The District has no immediate plans for improvements in the area.

Sanitary Sewer

WOODINVILLE WATER DISTRICT

In addition to water service, the Woodinville Water District also provides sanitary sewer service within the Corporate Boundaries of the City of Woodinville. It is relatively small as a sewer district with approximately 2,500 sewer customers. Nearly all of those customers are located within the more densely-population areas of the City of Woodinville near the Sammamish River; most of the residential properties at higher elevations in Woodinville are served by onsite sewage systems. Of those 2,500 sewer customers, there are approximately 2,100 residential accounts and 400 accounts designated as commercial, industrial or municipal. Sanitary sewage flows are collected and conveyed through District-owned sewer facilities and discharged into trunks and interceptors owned by King County. In 2011, King County completed and began operation of the Brightwater Wastewater Treatment Plant, which was built to provide capacity to the growing areas of northeastern King County, including Woodinville.

The Woodinville Water District's most current General Sewer Plan uses the City's 2002 Comprehensive Plan population projections to determine its future service needs. The Sewer Plan assumes an average buildout density of 3 dwelling units per acre, with a projected population of 14,425 by 2022. The District projected that 350 additional acres would need sewer service in 2012, with a standard of 1,700 gallons per day (GPD) required per acre. Planned capital improvements for the years 2005-2011 were included in the Plan; no capacity projects were included. The City Woodinville has adopted a Sewer level of service standard of 80 gallons per capita per day (where sanitary sewer is available). This standard is not reflected in the latest District plans.

More information can be found in the Woodinville Water District's 2007 General Sewer Plan and in the King County Regional Wastewater Services Plan.

NORTHSHORE UTILITY DISTRICT

A small portion of the City's residential population on the western slope of the Sammamish Valley is served by the Northshore Utility District through a contract with the Woodinville Water District. NUD also conveys its sewage to King County's wastewater system. The District has no current plans for improvements in the area served in Woodinville. For more information, refer to the District's most current Sewer Plan.

ALDERWOOD WATER & WASTEWATER DISTRICT AND CROSS VALLEY WATER DISTRICT

A small portion (121 acres) of the City's UGA in Snohomish County is served by the Alderwood Water & Wastewater District, all of which are commercial/industrial users. The Cross Valley Water District, which includes the northeastern portion of the City's Snohomish County UGA, works with the Alderwood Water & Wastewater District to provide sewer services to the mostly commercial customers in this area. All of the flows in the area are ultimately directed to a King County interceptor. For more information, refer to either District's most current Sewer Plan. Neither District currently has any major improvements planned for their respective service areas within Woodinville's UGA.

Storm Water

The City of Woodinville lies within the Lake Washington watershed, with the majority of its storm water runoff discharging to the Sammamish River. A small portion of the southwest area of the City discharges to Juanita Creek, and the northeast area of the City discharges to Bear Creek. Overall, the City contains fourteen drainage basins.

The City has developed a Stormwater Management (SWM) Program whose major activities include developing capital improvements, maintaining the existing stormwater system, Phase II Permit compliance, compliance with other local, regional and state regulatory compliance, water quality monitoring, and education. The SWM Program is funded primarily through stormwater utility fees. To date, utility fees, along with periodic grants and a small amount of investment income, have been used to cover the annual costs of the various SWM Program activities and capital programs.

The City's stormwater facilities include the following:

- 3,260 catch basins/manholes
- 20 ponds/tanks
- 37.6 miles of open ditches/swales
- 60 miles of streets
- 1,958 outfalls/major culverts
- 12 public vaults
- 53.1 miles of pipes

A citywide hydraulic analysis conducted as part of the City's 2010 Stormwater Master Plan shows that approximately 75% of the analyzed pipes have sufficient capacity for a 24-hour, 25-year rainfall event (3.1 inches) and 63% of the City's pipes have enough capacity for a 24-hour, 100-year rainfall event (3.7 inches). There are areas of insufficient capacity are located throughout the City. Some of the more significant problem areas are within the Woodin Creek basin and in areas upstream of Lake Leota. Recent major capital improvement projects have included installation of a filtered outfall that conveys runoff from downtown Woodinville to the Sammamish River and installation of a water filtration system upstream of Lake Leota.

Ongoing management of the City's stormwater system is largely governed by State and federal agencies, such as the Department of Ecology and the NPDES permit. The City follows these standards where applicable. The City has adopted and uses the 2009 King County Surface Water Design Manual as a level-of-service tool.

MORE DETAILED INFORMATION ABOUT THE CITY'S STORMWATER INFRASTRUCTURE CAN BE FOUND IN THE 2010 STORMWATER MASTER PLAN. OVER THE NEXT SEVERAL YEARS, THE CITY WILL STUDY THE POTENTIAL BENEFITS OF ESTABLISHING A DISTRICT DETENTION SYSTEM TO MANAGE DRAINAGE FROM THE DEVELOPING DOWNTOWN CORE INTO THE SAMMAMISH RIVER.WOODINVILLE UGA IN SNOHOMISH COUNTY

Snohomish County maintains stormwater facilities within the City's UGA in Snohomish County. Facilities range from open channels and small pipes in residential areas to larger catch basins in the industrial areas. In 2002, the County conducted a Drainage Needs Report for the Little Bear Creek drainage area. The study identified 16 problems within the City's UGA related to urban flooding as the result of undersized or inadequate drainage systems and heavy vegetation restricting channel flows. Snohomish County currently has no projects listed in its 2014 Six-Year Capital Improvement Plan.

CITY-KING COUNTY JOINT STUDY AREA

The area within the City's joint study with King County is rural/agricultural and there are few, if any, stormwater utilities serving the largely pervious properties. Runoff from the area flows into the Sammamish River, likely untreated. An element of the joint study will be to examine the effects of septic systems in the area on groundwater seepage into the Sammamish River.

2.8 Transportation

Overview

This existing conditions report is intended to provide information on the current state of the City's transportation network to support development of the updated Transportation Element as part of the 2015 Comprehensive Plan Update. The inventory of the City of Woodinville's transportation network is based on the City's 2009 Transportation Master Plan. Additional detail regarding these topics, as well as infrastructure maps, modeling assumptions, and accident data, can be found in that document.

Regulatory Context

GMA requires all Comprehensive Plans to include a Transportation Element that provides goals and policies to guide the development of the City's transportation system. Transportation elements are required to provide an inventory of facilities, including transit services and State-owned facilities. Transportation elements must also provide Level of Service (LOS) standards for all arterials and transit routes consistent with regional standards, describe transportation demand management strategies, and provide an inventory of non-motorized transportation infrastructure.

Existing Conditions

Road Network

CITY OF WOODINVILLE

Street Network

Woodinville contains over 48 miles of public streets, not including the two State highways that cross its jurisdiction. Based on a 2008 assessment of the physical pavement condition of City streets, the majority of roadways are in fair condition or better. Approximately 26 percent of the street network was classified as being in poor or very poor condition. The City's 2009 Transportation Master Plan identifies recommended capacity, system, and safety projects to maintain the integrity of the City's street network through 2030. The City's Capital Improvement Plan identifies street projects anticipated to occur within the next six years.

All streets in the City of Woodinville are assigned a functional classification based on their function, adjacent land uses, and traffic characteristics. The City's streets are divided into four functional class categories:

- **Principal Arterial:** Principal Arterials serve major centers of activity and are the principal connection points between the City's road network and outside roads.
- **Minor Arterial:** Minor Arterials allow for travel within the community, serving trips of moderate length and providing travelers with direct access to adjacent properties. Minor arterials serve as connector routes between Principal and Collector arterials.
- **Collector Arterial:** Collector Arterials provide land access and intra-community circulation, as well as connecting neighborhoods to small community centers. Collector Arterials also provide connections between local streets and larger arterials.
- **Local Street/Road:** Local streets provide direct property access, serving individual neighborhoods, and connect individual properties to the arterial street system. Through traffic is generally discouraged on these roads, often through design controls.

Traffic Signals

Woodinville contains a total of 28 signalized street intersections. Six of these are under the Washington State Department of Transportation (WSDOT) operation, and one is located on the City's border with Bothell along 131st

Ave NE and is under Bothell's control. The remaining 21 signals are owned by Woodinville, though the City contracts with Snohomish County for maintenance, operations, and timing.

State Highways

Woodinville contains segments of both State Routes 522 and 202, which have large impacts on traffic patterns in the city, due to large volumes of pass-through traffic. Both highways are managed by WSDOT. SR 522 is a limited access highway, and WSDOT manages the entirety of the roadway, including approaches, access, operation, and maintenance. SR 202 is a managed-access highway, which means that the City and WSDOT share responsibility for maintenance of the highway right-of-way. The City is responsible for drainage, sidewalks, street lights, snow plowing, street sweeping, and those portions of the right-of-way behind the curb or shoulder. In addition, new access points may be permitted by the City of Woodinville.

Highways of Statewide Significance (HSS) include interstate highways and other principal arterials managed by WSDOT that are needed to connect major communities in the state. Within the City of Woodinville, SR 522 is designated as an HSS, while SR 202 is not.

King County Potential Annexation Area

The City's PAA within King County covers a very small area, containing only two local access roads (141st Pl NE and 142nd Pl NE). Both streets intersect NE 171st Street, which is a Collector Arterial. No traffic signals are present in the PAA.

City-King County Joint Study Area

The Joint Study Area is developed at very low densities with large parcels, and the area contains relatively few roadways. It is bounded on the west by the Sammamish River and on the east by 140th Pl NE, which is classified as a Minor Arterial by King County. No signalized intersections are present within the Joint Study Area.

Woodinville Urban Growth Area (UGA)

Street Network

As defined in the City Comprehensive Plan and in a pre-annexation zoning ordinance, the Woodinville UGA is located north of the city in Snohomish County. Snohomish County Department of Public Works is currently responsible for transportation planning and road maintenance in this area. The UGA contains the following major roadways:

- **SR 522:** A State highway maintained by WSDOT, SR 522 is classified by Snohomish County as a Principal Arterial.
- **SR 9:** A State highway maintained by WSDOT, SR 9 is classified as a Principal Arterial by Snohomish County north of its intersection with SR 522. South of this intersection, it is classified as an urban Minor Arterial. This section of SR 9 (between SR 522 and SR 530 in Arlington) is designated as an HSS by WSDOT.
- **228th Street SE.** This street provides a continuous east-west arterial connection between Bothell and the SR 9 corridor. It is classified by Snohomish County as a Rural Major Collector.
- **240th Street SE:** This street provides east-west circulation in the UGA and is classified as an Urban Collector Arterial by Snohomish County.
- **75th Avenue SE:** This street provides north-south circulation along the eastern edge of the UGA and is classified as a rural Minor Collector Arterial by Snohomish County.

All remaining roadways in the UGA are classified as local streets. (Snohomish County, 2006a)

Traffic Signals

The UGA contains three signalized intersections:

- 240th Street SE/Woodinville-Snohomish Road (SR 9);
- SR 9/ 228th Street SE; and
- SR 9/Maltby Road (SR 524).

These signalized intersections currently operate at LOS C or better during a typically weekday p.m. peak hour (Gibson Traffic Consultants, 2013).

Level of Service Standards and Concurrency Programs

CITY OF WOODINVILLE

Quality of transportation operations is measured in terms of level of service (LOS). A LOS rating of LOS A indicates good service or freely flowing traffic, while a rating of LOS F indicates very poor service or severely congested traffic conditions. Of the 47 major intersections monitored by the City, none operate at LOS F during PM peak hour travel, and only one operates at LOS E, based on modeling conducted for the City-s Comprehensive Plan Update in 2013. All other monitored intersections operate at LOS D or better during PM peak hour travel. Intersections operating at LOS E include the following:

- 167th Ave NE/NE Woodinville-Duvall Road. This existing deficiency occurs on the northbound stop controlled approach. The Woodinville-Duvall Roadway Widening project currently under construction by the City addresses this existing deficiency and is expected to be completed by the end of 2014.

The City's transportation concurrency program is described in Chapter 21.28 of the Woodinville Municipal Code. WMC 21.28.090 states that any project that would cause a roadway or intersection to operate at LOS F shall not be approved unless it meets the following conditions (WMC 21.28.090(1)(a-f):

- The non-project LOS is D or better, and the applicant funds improvements needed to attain LOS D or better;
- The non-project LOS is E or better, and the applicant funds improvements needed to attain LOS E or better;
- The applicant phases the project using transportation demand management techniques to reduce the number of peak hour trips, thus attaining LOS E;
- The Development Services Director has established a date for final approval of subdivisions to become effective corresponding with the anticipated date of award of a construction contract for City, County, or State improvements needed to provide LOS D or better, or when the calculated non-project LOS is E or F, to provide LOS E or better; provided such effective approval date may be established only when the anticipated date of award of construction contract is within 12 months of final approval; or
- The roadway or intersection has already been improved to its ultimate roadway section, and the applicant agrees to use transportation demand management incentives or phase the development proposal with the approval of the Public Works Director; or
- The necessary financial commitments assure the completion of necessary improvements must be in place within six years from the time the impacts are anticipated to occur.

KING COUNTY POTENTIAL ANNEXATION AREA

The PAA contains only local access streets, which carry relatively little traffic. The nearest monitored intersection is the intersection of 140th Ave NE and NE 175th Street, which currently operates at LOS C.

King County's concurrency management program is described in the County's Comprehensive Plan Transportation Element and codified in Title 14 of the King County Code. Because of the large area covered by the county and the large number of roadways and intersections, the County's concurrency management program is not designed to test individual development proposals. Rather, the County is divided into "travel sheds," which are drawn to encompass areas where travel patterns share common characteristics, and each travel shed is tested for

concurrency based on the LOS of the arterial segments it contains. Development proposals are considered to meet concurrency requirements if the travel shed in which they occur meets the LOS requirements in effect at the time the development is proposed.

King County last updated its travel shed concurrency map in 2012. The PAA is located in the Sammamish Valley Travel Shed, which is currently classified as failing its concurrency test. According to Chapter 14.70.240 of the King County Code, applications for new development in failing travel sheds shall be rejected, except for minor development and certain public facilities, as described in KCC 14.70.285. As such, continued limited development will occur within the PAA without any mitigation or plans to address deficient transportation components.

CITY-KING COUNTY JOINT STUDY AREA

The Joint Study Area contains mostly local access roads, but its eastern boundary is defined by 140th Pl NE, which connects two monitored intersections. The intersection of 140th Ave NE and NE 175th Street, located near the northeast corner of the Joint Study Area, currently operates at LOS C. The intersection of SR 202/NE 145th Street/148th Ave NE, located near the southeastern corner of the Joint Study Area, currently operates at LOS D.

The City-King County Joint Study Area, like the PAA, falls under King County's concurrency program. The joint study area is located in the same Sammamish Valley Travel Shed as the PAA, which is currently classified as failing concurrency testing.

WOODINVILLE URBAN GROWTH AREA (UGA)

Despite its relatively small area, the UGA contains five arterial intersections, including the eastbound and westbound ramps for SR 522. Snohomish County has adopted a LOS standard of LOS C for rural arterials LOS E for urban arterials. WSDOT has adopted LOS E for State highway intersections. Based on modeling conducted in January 2013, all arterial segments in the UGA are currently operating at LOS C or better. (Gibson Traffic Consultants, 2013) The Woodinville-Snohomish Road arterial segment however, has been designated by Snohomish County as being at "ultimate capacity" from the southern Snohomish County line to the SR 522 Eastbound ramps. In the Council's motion making this determination, it directed the Department of Public Works to improve Snohomish-Woodinville Road's operating efficiency (e.g., shoulders and/or center turn lane). A subsequent study confirmed that the lack of roadway width between the railroad tracks and SR 522 at the County Line precluded the possibility of constructing additional general-purpose lanes. However, recent acquisitions by both the City of Woodinville and Snohomish County along this railroad alignment may change this previous conclusion. The final improvements on Sno-Wood Road were completed in 2005, which could limit future land use growth within this zone.

Transportation concurrency in Snohomish County is regulated by Chapter 30.66B of the Snohomish County Code. Each development application received by the County is evaluated for the potential to affect the capacity of nearby arterial roadways. The County has established the following roadway LOS standards for its concurrency program:

- For rural areas outside a UGA:
    - Transit-Compatible Areas: LOS D (Peak Hour)
    - Non Transit-Compatible Areas: LOS C (Peak Hour)
- For urban areas inside a UGA:
    - Transit-Compatible Areas: 5 miles per hour below LOS E (Peak Hour)
    - Non Transit-Compatible Areas: LOS E (Peak Hour)

Roadways that do not meet these standards and for which the County has not programmed funded improvements to correct the issue within the next six years are classified as "Arterial Units in Arrears." If no funding for

improvements on such roadways is available from city, county, state, or developer sources, no further development proposals affecting such roadways can be approved.

Commute Trip Reduction and Transportation Demand Management

CITY OF WOODINVILLE

The City of Woodinville adopted its first Commute Trip Reduction (CTR) program in 1993. CTR programs aim to reduce drive-alone work commutes in accordance with Washington's Commute Trip Reduction Law (RCW 70.94.521-555), which was enacted and incorporated into the State's Clean Air Act in 1991. Major employers with 100 employees or more who commute to a worksite between 6:00 AM and 9:00 AM for a period of 12 consecutive months are required to implement programs to reduce vehicle commutes and vehicle miles traveled. Under the law, all City of Woodinville worksites are considered CTR worksites, regardless of employee count.

King County's Rideshare program is an integral part of CTR efforts in Woodinville, providing local employees with a means to form carpool groups. Ridesharing is particularly popular in portions of the city where transit service is limited, such as worksites along SR 202.

KING COUNTY POTENTIAL ANNEXATION AREA

The Potential Annexation Area is comprised entirely of residential development; no employment uses are present. As part of King County, residents of the Potential Annexation Area are eligible to use King County's Rideshare service, either as part of a formal program at their place of employment or on their own initiative.

CITY-KING COUNTY JOINT STUDY AREA

King County has adopted a CTR ordinance in compliance with the State Commute Trip Reduction Law, codified as Chapter 14.60 of the King County Code. As part of King County, residents of the Joint Study Area are eligible to use King County's Rideshare service, either as part of a formal program at their place of employment or on their own initiative. (King County, 2012)

WOODINVILLE URBAN GROWTH AREA (UGA)

Snohomish County has adopted a CTR ordinance in compliance with the State Commute Trip Reduction Law, codified as Chapter 32.40 of the Snohomish County Code. Community Transit, the regional transit agency for Snohomish County, offers support and outreach to employers who are required to comply with the law, including a commuter rewards program, trip reduction strategy consultation with employers, and promotional materials. (Community Transit, 2013)

Transit Service and Facilities

CITY OF WOODINVILLE

Metro Transit and Sound Transit currently serve the City of Woodinville. Most of Metro's routes serve commuters traveling to either downtown Bellevue or downtown Seattle, and go to/from the Woodinville Park and Ride. In the Downtown area, NE 171st Street, NE 175th Street, 140th Avenue NE are served by transit; NE Woodinville-Duvall Road are also served by Transit. Sound Transit has one express route in Woodinville, which is an express route that serves Bothell, Lake City and Seattle. There is no bus service along SR 202 or in the Tourist District. To get to a destination in Snohomish County, a transfer to Community Transit is necessary.

Woodinville also contains one park-and-ride lot, located in downtown on 140th Ave NE, which has a capacity of 459 parking stalls, though it is typically underused, based on ridership information from King County Metro.

KING COUNTY POTENTIAL ANNEXATION AREA

No transit service or facilities are currently available within the Potential Annexation Area. However, King County Metro Route 236 provides service along nearby portions of NE 171st Street and 140th Ave NE. The nearest bus stop

to the Potential Annexation Area is approximately 0.25 mile to the west. The Woodinville park-and-ride lot is approximately 0.5 mile to the north.

CITY-KING COUNTY JOINT STUDY AREA

No transit service or facilities are currently available within the Joint Study Area. King County Metro Route 236 provides service along NE 171st Street in Woodinville, near the northern end of the Joint Study Area, and bus stops are located on 140th Ave NE, just north of the Joint Study Area in Woodinville.

WOODINVILLE URBAN GROWTH AREA (UGA)

No transit service is currently available in the UGA. Community Transit Route 424, a Seattle-Snohomish express commuter route, passes through on SR 522, but it does stop in the UGA. The nearest transit facilities are on NE 195th Street in Woodinville. (Community Transit, 2013)

Non-Motorized Transportation Facilities

CITY OF WOODINVILLE

Sidewalks, Pedestrian Pathways, and Bicycle Lanes

The City conducted a comprehensive inventory of sidewalks and pedestrian pathways in 2009 as part of the Transportation Master Plan. The inventory identified four categories of pedestrian paths:

- **Sidewalks:** Located along roadways, constructed of concrete and integrated with curb and gutter. The width of a sidewalk varies by location and road type.
- **Asphalt Shoulders:** Paved road shoulders commonly used by pedestrians or bicyclists.
- **Gravel Trails:** Unpaved trails covered with gravel or gravel pave, a Low Impact Development (LID) materials used as an alternative to pervious asphalt.
- **Pathways:** Designated paths for walking or biking either separated from roads or divided with a concrete curb to protect pedestrians and bicyclists.

Sidewalks are the most common form of pedestrian path and are concentrated in downtown, as well as the areas north and east of SR 522 and the portions of the city immediately east of 124th Ave NE. Gravel trails are present in a small area along the southeastern border of the city, and 156th Ave NE contains an asphalt shoulder commonly used by pedestrians and bicyclists.

Bicycle lanes are relatively limited in Woodinville, generally confined to downtown and the major roads in the western areas of the city, as well as portions of NE Woodinville-Duvall Road and 156th Ave NE.

Regional Trails

King County's Sammamish River Trail, which runs along the Sammamish River from Bothell to Redmond, passes through Woodinville on the north bank of the river. The trail is paved for its entire length and accommodates both bicyclists and pedestrians. The trail is extensively used by non-motorized commuters, as well as by local recreational users. The trail has relatively few connections to the rest of the Woodinville non-motorized transportation network, but sidewalks do provide access from the trail to downtown.

KING COUNTY POTENTIAL ANNEXATION AREA

Non-motorized facilities in the Potential Annexation Area consist of partial sidewalks along 142nd Pl NE and partial sidewalks along NE 171st Street. No bicycle lanes or other pedestrian pathways are present.

CITY-KING COUNTY JOINT STUDY AREA

Non-motorized facilities in the Joint Study Area consist of sidewalks along the portion of NE 175th Street that forms the study area's northern boundary, as well as partial sidewalks along NE 145th Street at the southern end of the

study area. The Sammamish River Trail, described in detail above, runs along the Joint Study Area's western edge where it meets the Sammamish River.

WOODINVILLE URBAN GROWTH AREA (UGA)

Non-motorized facilities in the UGA are limited. Partial sidewalks are available on portions of 240th Street SE and Woodinville-Snohomish Road, as well as at the SR 9/SR 524 and SR9/228th Street SE intersections. Snohomish County has proposed bicycle lanes for SR 9 through the UGA, but they have not yet been constructed. (Snohomish County, 2006b)

Current Transportation Improvement Programs

The City's current Six-Year (2011-2016) Transportation Improvement Plan (TIP) contains 35 prioritized projects. 25 of these are listed as funded within the timeframe of the TIP. Programmed improvements include the City's annual citywide road overlay program, several intersection improvements, road widenings, traffic signal improvements, sidewalk and walkway installations, and replacement of a bridge over the Sammamish River. Most of the improvement projects are clustered near Woodinville's downtown, though several road widening, traffic calming, and intersection improvements are planned for the Wellington neighborhoods in eastern Woodinville, and signal and road improvements are planned for the West Ridge neighborhoods in the southwestern portion of the city. The total cost of projects listed in the City's TIP is $155,076,000.

King County and Snohomish County also maintain transportation facilities within the City's Potential Annexation Area, UGA, and City-King County Joint Study Area and adopt TIPs and capital facility plans in association with their Comprehensive Plans.

2.9 Utilities

Overview

This section provides information on the current state of utility services available in Woodinville and the surrounding vicinity and will support development of the updated Utilities Element as part of the 2015 Comprehensive Plan Update.

Regulatory Context

GMA requires all Comprehensive Plans to include a Utilities Element that provides goals and policies to guide provision of electrical, natural gas, and telecommunications services in the City. Utilities elements are required to provide an inventory of utility facilities, as well as a discussion of capacity proposed locations.

Existing Conditions

Electricity, natural gas, solid waste, telecommunications services are generally available in the City, the Potential Annexation Area, the UGA, and the City-King County Joint Study Area. Sewer service is available in western and southern portions of the City and is not available in eastern Woodinville, or the Sammamish River valley, where septic systems would be found.

Electricity

Puget Sound Energy (PSE) owns and maintains the existing power grid within the city limits and Sammamish River valley; Snohomish County PUD #1 provides service to the Maltby area. Overhead power lines may be relocated underground for aesthetic reasons as development progresses. Underground conduits generally supply secondary power to existing structures in study area.

Power supplies to customers in the Northshore Subarea in which Woodinville is located are delivered from distant generating stations to 16 existing distribution substations.

In 2010, PSE purchased an easement along the Eastside Rail Corridor to protect its existing easements within the corridor and to preserve it for future utility infrastructure development. At this time, PSE has no stated long term plans for development of high capacity electrical transmission lines along the section of the corridor in Woodinville.

Natural Gas

PSE provides natural gas service to Woodinville and the surrounding areas. The location, capacity and timing of system improvements depend greatly on opportunities for expansion and on how quickly the study area and surrounding areas grow.

Natural gas is supplied to the City of Woodinville via the Williams Pipeline, which runs to the east of Woodinville in unincorporated King County. District regulators that are also located outside of City limits and deliver gas at a pressure of 43 pounds per square inch gauge (psig) to Woodinville customers. Beginning in 2015, PSE plans to install approximately four miles of new 16-inch high pressure pipeline and constructing a new gate station along the Seattle public Utilities Tolt utility corridor, east of Woodinville in unincorporated King County to increase capacity to northeast King County residents. Beyond 2025, PSE plans to build a 16-inch natural gas line along the Tolt corridor within the incorporated limits of Woodinville and along 132nd Ave NE.

The Olympic Pipeline, a 400-mile interstate pipeline system that includes 12, 14, 16, and 20-inch pipelines, runs along the western ridge of Woodinville, east and parallel to 124th Ave NE. The pipeline transports 315,000 barrels per day (bpd) of gasoline, diesel, and jet fuel from Blaine, Washington to Portland, Oregon.

Solid Waste

Solid waste for residential customers is provided by Waste Management Northwest Inc., which operates under a franchise by the State Utilities and Transportation Commission. Commercial solid waste providers are responsible for contracting for their own services. Solid waste transfer stations are provided by King County; the nearest station serving Woodinville is located in the Houghton neighborhood of Kirkland. A major recycling transfer station operated by Waste Management is located on NE 190th Street. The Cascade Recycling Center receives recyclable materials for a large part of Western Washington and portions of Eastern Washington.

Telecommunications

Telephone exchange boundary maps from the Utilities and Transportation Commission indicate the telephone provider in Woodinville is Frontier Communication Northwest, Inc. Telephone and internet services are also provided by Frontier, Comcast and CenturyLink. Some businesses may also opt to go wireless and use companies such as Clearwire to satisfy telecommunication needs.

Currently, it is estimated that Comcast's utilities are fully built-out in the City, as well as Frontier's telephone services. Fiber for internet, provided by Frontier, is limited to only certain residential areas within the City. Several telecommunications companies have installed fiber infrastructure in Woodinville to provide internet and telephone services to business customers.

3.0 REFERENCES

(RCW) Revised Code of Washington. Accessed online September 23, 2013. Chapter 36.70a, Growth Management – Planning by Selected Counties and Cities. (Available online at http://apps.leg.wa.gov/rcw/?cite=36.70a)

Adolfson and Associates, Inc. 2004. Woodin Creek Basin Habitat Assessment: Final Report. Prepared for the City of Woodinville. 66pp + Appendices.

Bender, D., T. Contheran, and L. Fahrig. 1998. Habitat loss and population decline: A meta-analysis of the patch size effect. Ecology, 79(2):517-533.

Bock, C.E., K.T. Vierling, S.L. Haire, J.D. Boone, and W.W. William. 2002. Patterns of rodent abundance on open-space grasslands in relation to suburban edges. Conserv. Biol. 16:1653-1658.

Booth, D.B. 1990. Stream-channel incision following drainage-basin urbanization. *Journal of American Water Resources Association*, 26(3):407-417.

Booth, D.B. 1991. Urbanization and the natural drainage system impacts, solutions, and prognoses. *The Northwest Environmental Journal*, 7(1):93-118.

Booth, D.B. and C.R. Jackson. 1997. Urbanization of aquatic systems – degradation thresholds, stormwater detention, and the limits of mitigation. Journal of American Water Resources Association 33(5):1077-1090.

Booth, D.B., D. Hartley, and R. Jackson. 2002. Forest cover, impervious surface area, and the mitigation of stormwater impacts. *Journal of the American Water Resources Association,* 38(3):835-845.

Burges, S.J., M.S. Wigmosta, and J.M. Meena. 1998. Hydrological effects of land-use change in a zero-order catchment. Journal of Hydrologic Engineering, ASCE, 3(2):86-97.

City of Woodinville. 2005. 2005 Parks, Recreation, and Open Space Plan. Woodinville, WA.

City of Woodinville. 2009. Comprehensive Plan. Woodinville, WA.

City of Woodinville. 2010. 2009 Transportation Master Plan Final. Prepared by Transportation Engineering Northwest for the City of Woodinville. Seattle, WA.

City of Woodinville. 2010. Stormwater Management Plan. Prepared by Otak on behalf of City of Woodinville. Kirkland, WA.

City of Woodinville. 2012. Woodinville Police Department 2012 Annual Report. Woodinville, WA.

City of Woodinville. March 2008. Downtown and Little Bear Creek Corridor Master Plan. Woodinville, WA.

Cooke Scientific Services Inc. 2000. Wetland and buffer functions semi-quantitative assessment methodology (SAM). Final working draft, user's manual. Seattle, WA.

Cooke Scientific Services, Inc. 2000. Wetland and buffer functions semi-quantitative assessment methodology (SAM). Final working draft, user's manual. Seattle, WA.

Cooke, S. (Cooke Scientific). 2006. Memorandum: Woodinville Wetland Survey. (Excerpt from: Appendix C. Wetland Evaluation for City of Woodinville Sustainable Development Program.)

Cuo, L., D.P. Lettenmaier, M. Alberti, and J.E. Richey. 2009. Effects of a century of land cover and climate change on the hydrology of the Puget Sound basin. Hydrol. Process. 23(6):907-33.

David Evans and Associates, Inc. 2007. Little Bear Creek Corridor Habitat Assessment. Prepared for the City of Woodinville. 68pp.

Dettelbach, A. and D. Garland. 2005. Little Bear Creek Fecal Coliform Bacteria Total Maximum Daily Load (Water Cleanup Plan) Submittal Report. Ecology Publication 05-10-034.

Falter, C.M. 2007. Lake Leota Analysis for City of Woodinville Sustainable Development Program. Prepared for Steward and Associates and the City of Woodinville.

Feist, B.E., E.R. Buhle, P. Arnold, J.W. Davis and N.L. Scholz. 2011. Landscape Ecotoxicology of Coho Salmon Spawner Mortality in Urban Streams. PLoS ONE, 6(8):e23424. doi:10.1371/journal.pone.0023424.

Fevold, K., C.W. May, H. Berge, and E. Ostergaard. 2001. Habitat Inventory and Assessment of Three Sammamish River Tributaries: North, Swamp, and Little Bear Creeks. King County Department of Natural Resources, Water and Land Resources Division, Sammamish Washington Assessment and Modeling Program. May 2001. Seattle, WA.

Fleeger, J.W., K.R. Carman, and R.M. Nisbet. 2003. Indirect Effects of Contaminants in Aquatic Ecosystems. The Science of the Total Environment.

Gibson Traffic Consultants. 2013. Wellington Hills County Park, Final Traffic Impact Analysis. Everett, WA. Prepared January 2013.

Gilbert-Norton, L., R. Wilson, J.R. Stevens, and K.H. Beard. 2010. A meta-analytic view of corridor effectiveness. *Conservation Biology*, 24:660-668.

Gillies, C.S. and C.C. St. Clair. 2008. Riparian corridors enhance movement of a forest specialist in a fragmented tropical forest. *Proceedings of the National Academy of Sciences*, 105(50):19774-19779.

Golder Associates. 2007. Appendix A-1: Hydrogeologic Analysis for City of Woodinville Sustainable Development Program. (Excerpt from Draft Sustainable Development Study: R-1 Zone: Environmental Report.)

Hallock, L. 2013. Draft Washington State Oregon Spotted Frog Recovery Plan. Washington Department of Fish and Wildlife. Olympia, WA. 98pp.

Hansen, A.J., R.L. Knight, J.M. Marzluff, S Powell, K. Brown, P.H. Gude, and K. Jones. 2005. Effects of exurban development on biodiversity: patterns, mechanisms, and research needs. Ecol. Applic. 15:1893-1905.

Hays, D.W. and R.L. Milner. 2004. Peregrine Falcon. Pages 11-1 – 11-4 in E. Larsen, J.M. Azerrad, and N. Nordstrom, editors. Management Recommendations for Washington's Priority Species. Vol. IV: Birds. Washington Department of Fish and Wildlife, Olympia, WA.

Jones & Stokes and City of Woodinville Community Development Department. 2007. Sustainable Development Study – R-1 Zone: Executive Summary. February. (J&S.) Bellevue, WA. Prepared for City of Woodinville.

Jones & Stokes and City of Woodinville Community Development Department. 2007b. Appendix C-1: Woodinville Additional Wetland Reconnaissance Survey. February. (J&S.) Bellevue, WA. Prepared for City of Woodinville.

Jones, J.A. 2000. Hydrologic processes and peak discharge response to forest removal, regrowth, and roads in 10 small experimental basins, western Cascades, Oregon. Water Resources Research, 36(9):2621-2642.

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.

King County, Department of Natural Resources and Parks. 2007. Cold Creek Aquifer Study of Surface Water/Groundwater Interactions, Phase 2.

King County, Department of Natural Resources and Parks. 2009. Surface Water Design Manual.

King County. 2005. Sammamish River Diel pH and Dissolved Oxygen Study. Prepared by Curtis DeGasperi, Water and Land Resources Division. Seattle, Washington.

King County. 2005. Sammamish River Water and Sediment Quality Assessment Final Report. Water and Land Resources Division, Seattle, WA.

King County. 2012. 2012 King County Countywide Planning Policies. Seattle, WA.

King County. No date. iMAP: Interactive Mapping Tool. Available online: http://www.kingcounty.gov/operations/gis/Maps/iMAP.aspx.

King County. No date. iMAP: Interactive Mapping Tool. Available online: http://www.kingcounty.gov/operations/gis/Maps/iMAP.aspx.

Klubar, M.R., D.H. Olson, and K.J. Puettmann. 2008. Amphibian distributions in upslope areas and their habitat associations on managed forest landscapes in the Oregon coast range. For Ecol. And Manage. 256:529-535.

Knopf, F.L., R.R. Johnson, T. Rich, F.B. Samson, and R.C. Szaro. 1988. Conservation of riparian ecosystems in the United States. Wilson Bull. 100:272-284.

Knopf, F.L., R.R. Johnson, T. Rich, F.B. Samson, and R.C. Szaro. 1998. Conservation of riparian ecosystems in the United States. Wilson Bull. 100:272-284.

Konrad, C.P. and D.B. Booth. 2005. Hydrologic changes in urban streams and their ecological significance. In L.R. Brown, R.H. Gray, R.M. Hughes, and M.R. Meador (editors). Effects of urbanization on stream ecosystems. Symposium 47. American Fisheries Society, Bethesda, Maryland (in press).

Lens, L. and A.A. Dhondt. 1994. Effects of habitat fragmentation on the timing of Crested Tit Parus cristatus natal dispersal. Ibis 135:147-152.

Lewis, J.C., M. Whalen, and R.L. Milner. 2002. Vaux's swift. Pages 25-1 – 125-5in E. Larsen, J.M. Azerrad, and N. Nordstrom, editors. Management Recommendations for Washington's Priority Species. Vol. IV: Birds. Washington Department of Fish and Wildlife, Olympia, WA.

Lucchetti, G. and R. Fuerstenberg. 1993. Management of coho salmon habitat in urbanizing landscapes of King County, Washington, USA, p. 308-317. *In* L. Berg and P. Delaney (eds.), Proceedings of the 1992 Coho Workshop, Nanaimo, British Columbia. North Pacific International Chapter, American Fisheries Society, and Association of Professional Biologists of British Columbia. Vancouver, British Columbia.

Luiting, T. (Jones & Stokes). 2007. Technical Memorandum: Woodinville Additional Wetland Reconnaissance Survey. (Excerpt from: Appendix C. Wetland Evaluation for City of Woodinville Sustainable Development Program.)

Machtans, C.S., M.A. Villard, and S.J. Hannon. 1996. Use of riparian buffer strips as movement corridors by forest birds. Conserv. Biol. 10:1366-1379.

May, C.W., R.R. Horner, J.R. Karr, B.W. Mar, and E.B. Welch. 1997. Effects of urbanization on small streams in the Puget Sound lowland ecoregion. Watershed Protection Techniques, 2(4).

McIntyre, J.K., D.H. Baldwin, D. Beauchamp, and N.L. Scholz. 2012. Low-level copper exposures increase visibility and vulnerability of juvenile coho salmon to cutthroat trout predators. Ecological applications: a publication of the Ecological Society of America, 22(5):1460-71.

McKinney, M.L. 2002. Urbanization, Biodiversity, and Conservation. BioScience, 52(10).

Moore, R.D. and S.M. Wondzell. 2005. Physical hydrology and the effects of forest harvesting in the Pacific Northwest: a review. Journal of the American Water Resources Association, 41:763-784.

Nelson, E., and Booth, D.B. 2002. Sediment budget of a mixed-use, urbanizing watershed. *Journal of Hydrology*, 264(1):51-68.

Northshore School District. 2013. Capital Facilities Plan, Adopted 4/19/2013.

Olson, D., P. Anderson, C. Frissell, H. Welsh, and D. Bradford. 2007. Biodiversity management approaches for stream-riparian areas: Perspectives for Pacific Northwest headwater forests, microclimates, and amphibians. For Ecol Manage 246(1):81-107.

Pess, G.R., D.R. Montgomery, E.A. Steel, R.E. Bilby, B.E. Feist, and H.M. Greenberg. 2002. Landscape characteristics, land use, and coho salmon (*Oncorhynchus kisutch*) abundance, Snohomish River, Wash., U.S.A. Can. J. Fish. Aquat. Sci. 59:613-623.

Puget Sound Partnership. 2012. Integrating LID into Local Codes: A Guidebook for Local Governments. Prepared by AHBL for the Puget Sound Partnership. Tacoma, WA.

Puget Sound Regional Council (PSRC). 2006. 2006 Covered Employment Estimates. Data Source: Quarterly Census of Employment and Wages, Washington State Employment Security Department. Seattle, WA.

Puget Sound Regional Council (PSRC). 2008. VISION 2040. Seattle, WA.

Puget Sound Regional Council (PSRC). 2013. 2013 Land Use Targets, Revision Date: 9/17/2013. Seattle, WA.

Quinn, T. and R. Milner. 2004. Great Blue Heron. Pages 3-1 – 3-6 in E. Larsen, J.M. Azerrad, and N. Nordstrom, editors. Management Recommendations for Washington's Priority Species. Vol. IV: Birds. Washington Department of Fish and Wildlife, Olympia, WA.

Schmidt, K.M., J.J. Roering, J.D. Stock, W.E. Dietrich, D.R. Montgomery, and T. Schaub, 2001. The variability of root cohesion as an influence on shallow landslide susceptibility in the Oregon Coast Range. *Can. Geotech. J.,* 38:995-1024.

Seattle Audubon Society. 2005. Birdweb website (www.birdweb.org).

Sheridan, C. and D. Olson. 2003. Amphibian assemblages in zero-order basins in the Oregon coast range. Can J. for Res/Rev can Rech for 33(8):1452-77.

Snohomish County 2007. Aquifer Recharge/Wellhead Protection. Available online: ftp://ftp.snoco.org/Planning_and_Development_Services/Water/AquiferRecharge100107.pdf

Snohomish County Fire District 7. 2012. 2012 Annual Alarm Statistical Report. Snohomish, WA.

Snohomish County. 2007. Aquifer Recharge/Wellhead Protection. Available online: ftp://ftp.snoco.org/Planning_and_Development_Services/Water/AquiferRecharge100107.pdf.

Snohomish County. 2010. Snohomish County Drainage Manual. Volume I: Minimum Technical Requirements.

Southerland, M. 1993. Habitat Evaluation: Guidance for the review of environmental impact assessment documents. Prepared for the U.S. Environmental Protection Agency.

Stalmaster, M.V. 1897. The Bald Eagle. Universe Books, New York, NY.

Tate, H. (Jones and Stokes). 2007. Technical Memorandum: Potential Wildlife Corridors in the City of Woodinville R-1 Area. (Excerpt from Draft Sustainable Development Study - R-1 Zone: Environmental Report.)

United States Environmental Protection Agency (USEPA). 2003. EPA Region 10 guidance for Pacific Northwest state and tribal temperature water quality standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.

US Army Corps of Engineers & King County (Corps). December 2002. Sammamish River Corridor Action Plan.

USGS (US Geologic Survey). No date. The National Geologic Map Database. Available online: http://ngmdb.usgs.gov/ngmdb/ngmdb_home.html.

Vanderhoof. J. 2011. Lake Washington/Cedar/Sammamish Watershed Land Cover Change Analysis. WRIA 8 Technical Memorandum 2011-01.

Wang, L., J. Lyons, and P. Kanehl. 2003. Impacts of urban land cover on trout streams in Wisconsin and Minnesota. Trans. Amer. Fish. Soc. 132:825-839.

Washington Department of Ecology (Ecology). Electronic Source. 2012 Approved Water Quality Assessment. Available at: http://www.ecy.wa.gov/programs/wq/303d/currentassessmt.html

Washington Department of Natural Resources (WDNR). 2011. Washington Herp Atlas. Accessed online at http://www1.dnr.wa.gov/nhp/refdesk/herp/html/4bubo.html.

Washington State Department of Ecology (Ecology). 2012. Stormwater Management Manual for Western Washington. Ecology Publication No. 12-10-030.

Washington State Department of Ecology (Ecology). Electronic Reference. Water Quality Assessment and 303(d) List. http://www.ecy.wa.gov/programs/Wq/303d/index.html [Accessed December 10, 2013].

Washington State Office of Financial Management (OFM). 2011. Intercensal Estimates of April 1 Population and Housing, 2000-2010. OFM Forecasting Division. File prepared on 2011-09-08. File revised on 2011-10-11. Olympia, WA.

Washington State Office of Financial Management (OFM). 2014. April 1, 2014 Population of Cities, Towns and Counties. Forecasting Division. Olympia, WA.

Watson, J.W. and E.A. Rodrick. 2004. Bald Eagle. Pages 9-1 – 9-15 in E. Larsen, J.M. Azerrad, and N. Nordstrom, editors. Management Recommendations for Washington's Priority Species. Vol. IV: Birds. Washington Department of Fish and Wildlife, Olympia, WA.

WDFW (Washington Department of Fish and Wildlife). No date. PHS on the Web. (Available online at: http://wdfw.wa.gov/mapping/phs/)

Welsch Jr., H.H. and G.R. Hodgson. 2008. Stream amphibians as metrics of critical biological thresholds in the Pacific Northwest, U.S.A.: a response to Kroll et al. *Freshwater Biology* 54(11):2374-2382.

Willford, M., A. Whittaker, and R. Klemencic. 2008. Recommendations for the Seismic Design of High-rise Buildings. Prepared for the Council on Tall Buildings and Urban Habitat, Chicago, IL.

Woodinville Fire & Rescue District. 2012. Performance Measures and Performance Objectives, 2012 Annual Report (Ex 3-81). Woodinville, WA.

Woodinville Water District. 2008. Comprehensive Water Plan. Woodinville, WA.

Woodinville, City of. 2007. Draft Sustainable Development Study – R-1 Zone: Environmental Report.

Woodinville, City of. 2009. City of Woodinville Shoreline Master Program.

Woodinville, City of. 2009. City of Woodinville Shoreline Master Program. Woodinville, WA.

Woodinville, City of. 2010. Comprehensive Stormwater Management Plan.

Woodinville, City of. December 2002, Amended November 2009. City of Woodinville Comprehensive Plan.

Woodinville, City of. December 2010. Comprehensive Stormwater Management Plan.

Woodinville, City of. Updated June 18, 2013. Woodinville Municipal Code, Chapter 21.24, Development Standards – Critical Areas. (Available online at http://www.codepublishing.com/wa/woodinville)

Woodinville, City of. Updated June 18, 2013. Woodinville Municipal Code, Chapter 21.24, Development Standards – Critical Areas. Available online: http://www.codepublishing.com/wa/woodinville.

Woodruff, K. and H. Ferguson. 2005. Townsend's Big-Eared Bat. In J.M. Azerrad, editor. Management Recommendations for Washington's Priority Species. Vol. V: Mammals [online]. Washington Department of Fish and Wildlife, Olympia, WA.

WRIA 8 Steering Committee. 2005. Lake Washington/Cedar/Sammamish Chinook Salmon Conservation Plan.

WRIA 8 Technical Committee. 2001. Known Freshwater Distribution of Salmon and Trout.

WRIA 8 Technical Committee. 2005. Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan.

Zedler, J.B., and S. Kercher. 2004. Causes and Consequences of Invasive Plants in Wetlands: Opportunities, Opportunists, and Outcomes. Critical Reviews in Plant Sciences, 23(5):431-452.

APPENDIX A

DRAFT Woodinville Comprehensive Plan Update, 2031 Growth Targets, 2035 Planning Estimates, and Land Capacity

BERK

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MEMORANDUM

DATE: September 30, 2014

TO: Dave Kuhl, Development Services Director, City of Woodinville

FROM: Erik Rundell, Kapena Pflum, and Lisa Grueter, BERK

RE: Woodinville Comprehensive Plan Update, 2031 Growth Targets, 2035 Planning Estimates, and Land Capacity

OVERVIEW

The City of Woodinville has been allocated housing and employment growth targets in the King County Countywide Planning Policies. The City's Comprehensive Plan needs to reflect the growth targets and provide land use capacity sufficient to meet the targets. Currently, the growth targets extend to the year 2031. See Exhibit 1.

Exhibit 1 Current Growth Targets 2006-2031

	Housing Target	Employment Target
	Net New Units	Net New Jobs
Growth Target 2006-2013	3,000	5,000

Source: King County Countywide Planning Policies 2012

While the growth targets extend to the year 2031, the new 20-year planning horizon for local governments with a Comprehensive Plan Update deadline of June 30, 2015, such as Woodinville, is actually 2035. However, King County has no plans to formally update growth targets to the year 2035. Given the Growth Management Act (GMA) requirement to plan for 20 years (RCW 36.70A.115), King County and in inter-jurisdictional team of planning directors recommends that local governments start with the 2031 growth target and use either a straight-line projection or consider "bending the trend" towards Vision 2040 in order to derive a 20 year growth number.[1][2]

The following sections of the memorandum describe the process for determining the City's updated residential and employment capacity and how these figures relate to the City's 2031 growth targets. Next the memo describes the process to develop 2035 planning estimates for housing and employment. The

[1] VISION 2040 is the regional land use plan that has been adopted by its 80+ member agencies in King, Kitsap, Pierce, and Snohomish counties and cities. It also serves as the adopted multi-county planning policies required under GMA for Snohomish, King, and Pierce counties.

[2] Technical Memo on Growth Targets Extension, revised October 31, 2013, Michael Kattermann, AICP, Senior Planner, Bellevue. Email to Doreen Booth, Policy Analyst, Sound Cities Association.

memo then compares the updated land capacity figures with the 2035 planning estimates to assess the City's future land use needs. Last, a section on conclusions and next steps is provided.

RESIDENTIAL CAPACITY AND 2031 GROWTH TARGETS

This memo updates the residential land capacity figures prepared by BERK calculated on behalf of the City in summer and fall 2012. The 2012 analysis used a parcel based method that applied proposed zoning rules to each parcel; the method incorporated and expanded the number of properties in the CBD zone considered redevelopable based on City staff knowledge of potential developments through preapplications or informal discussions with property owners. In addition, the 2012 analysis factored in building permit activity and residential development in the development pipeline as part of the City's residential capacity. The results of the 2012 analysis found that using the proposed zoning rule changes, the City would have slightly excess capacity to meet its 2031 housing growth target. Exhibit 2 summarizes the results of the 2012 analysis.

Exhibit 2
2012 Residential Capacity with Adopted Zoning Rules (Now Superseded)

Housing Capacity	
2006-2031 Target	3,000
Permits	573
Pending Development	225
Growth Target Remaining	2,202
Buildable Land Capacity	2,675
Net Surplus/Deficit	**473**

Source: BERK, 2012

A 2014 analysis the same methodology as was used in 2012, but incorporates additions and changes. First, this analysis incorporates the most recent pending development figures, notably the addition of the 800-unit Canterbury Square development (a net addition of 672 units above the existing 128 units), which increased the overall capacity within the City. The 2012 analysis assumed a net addition of 532 units on the Canterbury Square site. The second noteworthy change is the correction of an error in the 2012 analysis that counted properties in the Tourist Business zone with a development agreement as part of the buildable lands supply as well as in "pending development" – essentially a double count, which reduces overall residential capacity within the CBD. However, buildable land properties were reviewed in the process of developing transportation model land use inputs. As a result, some R-1 land purchased for public use was removed. Some R-6 land in the western portion of the City was added as likely to be redeveloped with additional lots and less R-6 land in central Woodinville was thought to redevelop. The buildable land capacity estimated in 2014 is similar to the original 2012 results ,but 60 units less. However, the City can still meet its 2031 targets.

Exhibit 3 shows the updated 2013 land capacity figures. The overall conclusion is that the City has sufficient capacity to meet its 2031 Housing Target with a surplus of 413 dwellings approximately.

Exhibit 3
2013 Residential Capacity

2006-2031 Target	3,000
2031-2035 Growth Est.	-
2006-2035 Planning Est.	-
Permits	573
Pending Development	225
Growth Target Remaining	2,202
Buildable Land Capacity	2,615
Net Surplus/Deficit	**413**

Note: For the purposes of this exhibit the Canterbury site is included in "buildable land capacity" but is now considered a pending development. We have included it in the capacity figure for ease of comparison with Exhibit 2.

Source: BERK, 2014; City of Woodinville, 2006

EMPLOYMENT CAPACITY AND 2031 GROWTH TARGETS

In 2012, the focus was on residential capacity. For the Woodinville Comprehensive Plan Update a review of employment capacity is also required.

Land Supply by Zone

Of the City's commercial or industrial zoned land that totals about 889.8 acre, 64.9 7.0%) gross acres are vacant and 213.4 (23.9%) gross acres are considered redevelopable. Exhibit 4 shows that most of the vacant parcels are in the Industrial zone followed by the General Business zone. Other commercial and industrial zones have limited amount of vacant parcels. The Central Business District zone has by far the most redevelopable parcel area with over 120 acres. Industrial and General Business zones also have sizable amounts of redevelopable parcel area.

Exhibit 4
Commercial Buildable Land by Zone, 2014 Analysis

	Gross Acres		Net Acres	
Zone	Vacant	Redevelopable	Vacant	Redevelopable
CBD	6.9	120.2	2.8	68.8
GB	16.3	38.9	7.9	23.9
NB	0.2	1.0	0.1	0.8
O	0.5	0.0	0.5	0.0
R-48/O	0.0	0.0	0.0	0.0
TBD	2.0	1.6	0.4	0.6
I	39.0	51.7	25.2	37.7
Total	**64.9**	**213.4**	**36.8**	**131.8**

Source: City of Woodinville, 2013; BERK, 2014

Net buildable acres represent the amount of land available for actually development after critical areas, market factors, right-of-way needs, and other factors are considered. Applying these factors nets the City

36.8 acres of vacant buildable land and 131.8 acres of buildable land in its commercial and industrial zones.Net buildable acres are used to determine the amount of additional building square feet and employment capacity a parcel can support given the current zoning.

Land Capacity Analysis

The commercial land capacity analysis uses two different methods for assessing employment capacity. Both methods used the same 2006 parcel base as the residential analysis and account for development since 2006 through commercial building permit activity. The first method uses the original buildable lands methodology and vacant and redevelopable designations from the 2007 King County Buildable Lands Report. In addition, it also used the same parcels assumed redevelopable in the CBD as in the residential analysis.

The second method uses a method suggested by King County for assessing redevelopable parcels. This alternative method used the ratio of the existing floor area to land area ratio (FAR) of commercial parcels to the maximum potential FAR[3]. This analysis applied this method to parcels in Woodinville's CBD zone to identify additional redevelopable parcels not already included based on the first method.

Consistent with 2007 Buildable Lands Report methodology, we excluded existing building square footage when calculating net building capacity on redevelopable property under either method.

For other assumptions, the analysis used the same residential/commercial split assumption for zones that allow multiple uses as used in the residential analysis. For assumptions such as right-of-way deductions and floor area per employee, the commercial land capacity analysis uses the same assumptions used in the 2007 Buildable Lands Report. Our analysis reviewed assumed floor area ratio (FAR) used in 2007 based on an analysis of achieved FAR from commercial and industrial permit activity since 2007. For the 2013 analysis, the assumed FAR for the Office (O) zone was increased to 0.56 from 0.30 based on commercial permit activity. In 2007, an 0.48 FAR assumption was assumed based on permit history in the CBD. To recognize the City's 2008 adoption of the "Downtown Little Bear Creek Corridor Master Plan" and code this 2014 analysis applies a FAR of 0.75. The CBD zone allows building heights up to 57 feet with structured parking, onsite open space, and other incentives. An additional floor of usable space is allowed for each floor of structured parking. The 0.75 FAR is considered to be within a typical range of a "small town downtown" FAR.[4]

All other zones used the same assumed FAR as the 2007 Buildable Lands Report given the lack of permit activity and inconsistencies with existing built space.

Lastly, this analysis removed parcels with building permit activity since 2006 from the buildable category, and estimated the employment associated with these permits separately. These employment estimates, which include Woodinville Village development in the Tourist Business zone, are added to the total capacity as pipeline development. The tables below shows the City's current employment land capacity and land capacity figures in relation to the City's 2031 employment target, as well as permits and pending development. Exhibit 6 shows that the City has a small surplus of 247 jobs with the original redevelopable method and deficit greater surplus of 1,037 jobs with the addition of the FAR based method in relation to the City's 2031 employment target.

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[3] Pers com, Chandler Felt, King County, email to Dave Kuhl, City of Woodinville, and Lisa Grueter, BERK, et al, email June 27, 2013, "Buildable Lands: instructions for measuring updated capacity."

[4] GrowSmart Maine. February 2014. Implementing the Vision: Practical Steps to Transform Commercial Strips into Mixed Use Centers. New Partners for Smart Growth Conference, Denver, Colorado.

Exhibit 5
Employment Capacity Breakdown

Employment Capacity	Original Redevelopable Method	FAR Based Redevelopable Method and CBD Enhanced Implementation
Land Capacity	4,476	5,266
Permits, 2006-2013	359	359
Development Agreement	413	413
Employment Capacity	**5,247**	**6,037**

Source: BERK, 2013; King County, 2007, City of Woodinville, 2013

Exhibit 6
Employment Capacity and 2031 Growth Target Comparison

Employment Capacity	Original Redevelopable Method	FAR Based Redevelopable Method and CBD Enhanced Implementation
2006-2031 Target	5,000	5,000
Job Change, 2006-2011	-2,124	-2,124
2011-2031 Increment	7,124	7,124
Buildable Land Capacity	4,476	5,266
Capacity from Job Loss	2,124	2,124
Permits 2006-2013	359	359
Pending Development	413	413
Net Surplus/Deficit	**247**	**1,037**

Source: BERK, 2013; City of Woodinville, 2013; Puget Sound Regional Council, 2013; King County, 2007 Buildable Lands Report

Exhibit 6 shows a job loss during the recession (excluding construction jobs), which is not unexpected. This should be acknowledged in planning efforts. Because the jobs were once "housed" in current buildings or sites, we assume the lost jobs would not require new land capacity to accommodate them.

PLANNING PROJECTIONS TO 2035

Woodinville will plan for 20 years of growth in its Comprehensive Plan Update with a planning horizon of 2015-2035. As described in the introduction, an inter-jurisdictional team of planning directors suggests that local governments start with the 2031 growth targets and use a straight-line projection to derive a 2035 planning estimate. Alternatively jurisdictions could align with the regional vision to focus growth in centers, effectively "bending the trend" towards Vision 2040. Jurisdictions are not required to use a particular approach, but should document their methodology and assumptions to extend the growth targets beyond 2031. The straight line method is in use by most jurisdictions in King County.

A range of approaches is discussed below including:

- Straight line absolute annual average, 2006-2031: described below
- Woodinville bend curve to Vision 2040: described below
- King County annual average % growth rate, 2010-2035: This approach considers the annual average growth rate in King County as a whole between 2010 and 2035 using growth target information through 2031 and a straight line method from 2031 to 2035.
- Woodinville absolute annual average, 2003-2013: This approach annualizes City growth between 2003 and 2013 and applies that annual increase to the years 2031 to 2035.

The two approaches described in the inter-jurisdictional memo are described below. The results for all four methods are presented following the discussion.

Straight Line Method

To determine the 2035 planning estimates, the analysis used PSRC's Land Use Targets Representation (LUT). This dataset provides forecasts of housing units, households, and population and employment by major sector for all jurisdictions in the four-county region for 2035. BERK grouped current employment totals and LUT employment targets into two categories: industrial (including manufacturing, warehouse, transportation, and utility sectors) and commercial (including all other industry sectors). Construction jobs are not included in the current job totals or future estimates.

The 2035 planning estimates represent an increase over 2031 growth targets established in the current Countywide Planning Policies. The 2035 estimates are based on an extension of the 2031 targets using the same annual growth rate projected for the 2006-2031 planning period. The table below shows the City's 2031 growth targets for housing and employment from the Countywide Planning Policies and the new 2035 estimates.

Exhibit 7
Woodinville Growth Target Comparison: Straight Line Method

	2031 Target	Growth Increment	2035 Estimate
Housing Units	3,000	480	3,480
Employment	5,000	800	5,800

Source: BERK, 2013; City of Woodinville, 2006; Puget Sound Regional Council, 2013

Woodinville Bend Curve to VISION 2040

PSRC does not generate growth estimates for individual cities to the year 2040, but rather considers groups of cities that meet certain characteristics (e.g. large cities have a combined population + employment >22,500, and Woodinville is in this category). However, the inter-jurisdictional team of planning directors describes a potential process to account for the VISION 2040 growth share. Because later Comprehensive Plan review cycles after 2015 would likely need to account for the regional VISION 2040 plan and the curve of growth between 2035 and 2040 could steepen, we are providing an analysis of the "bend curve" approach for informational purposes. A description of the general rationale and method described by the inter-jurisdictional team follows:

> *VISION 2040 seeks a higher proportion of growth occurring in Metropolitan, Core, and Large cities than planned for with the 2031 targets and a lower proportion of growth in rural areas. With a nine year span between the 2031 targets and VISION 2040, cities have a time period available to adjust planning to become more consistent with the regional plan. As*

cities extend their planning horizon to 2035 they may want to align further toward VISION 2040 so as to avoid a larger adjustment that would be needed otherwise as cities approach the year 2040.

For example, 2031 targets assign 28.3% of population growth to Core cities while VISION 2040 assigns about 32.2%. To adjust growth planning toward VISION, Core cities may choose to recognize a planning horizon based on a mid-point between the target and the VISION, or about 30.0%.

Regional Geography	***Shares of population growth from 2000 to 2031 based on adopted Targets***	***Shares of population growth from 2000 to 2040 based on Regional Growth Strategy***	***New shares of population growth from 2000 to 2035 based on bending the trend***
Metropolitan cities	*39.8%*	*40.6%*	*40.2%*
Core cities	*28.3%*	*32.2%*	*30.0%*
Large cities	*13.9 %*	*14.9%*	*14.4%*
Small cities	*8.4%*	*4.8%*	*6.8%*
Uninc. Urban Areas	*6.2%*	*4.8%*	*5.6%*
Rural	*3.3%*	*2.8%*	*3.1%*

Cities could then assume a city share of the regional geography growth consistent with their share of the 2031 targets. For example, if a city's 2031 target is 10% of the total of targets for Core cities, 10% could be applied to the adjusted 2035 growth for Core cities as discussed above to determine the approximate adjusted target for the individual city.

Applying this method for Woodinville, results in an additional 706 dwellings to accommodate for the years 2031-2035.[5] See Exhibit 8

A similar approach of applying shares of growth to jobs results in a reduction of jobs to plan for through the year 2035 of 468 jobs. See Exhibit.

Exhibit 8
Woodinville Growth Target Comparison: Bend Curve Method

	2031 Target	Growth Increment	2035 Estimate
Housing Units	3,000	706	3,706
Employment	5,000	468	5,468

Source: BERK, 2013; City of Woodinville, 2006; Puget Sound Regional Council, 2013

[5] Detailed assumptions and steps included: 1) assuming the year State Office of Financial Management 2040 medium population forecast for the 4-county region that is a little lower than the VISION 2040 plan due to the Great Recession, 2) continuing the King County share of the region's growth (42%), 3) continuing the Large City share of growth (14.9%), 4) carrying forward Woodinville's current share of 2006-2031 growth targets (10.7% of Large Cities in King County), 4) determining net population increases between 2031 and 2040 and converting that to households using declining household sizes (derived from LUT data described under the straight line method) and a vacancy rate of 2.2% (based on Year 2000 Census rather than 2010 Census that reflected the Great Recession), and 5) determining four-ninths (4/9) of the housing units for the period 2031-2040, to address the period 2031-2035.

COMPARISON 2035 PLANNING PROJECTIONS TO CAPACITY

Exhibit 9 compares the City's 2031 housing targets, the 2035 planning estimates, current land capacity figures, and 2031 and 2035 land capacity deficits or surplus. Exhibit compares employment targets and capacity for the years 2031 and 2035, with and without the FAR based capacity method.

Exhibit 9
Woodinville 2035 Residential Targets and Residential Buildable Land Capacity

Housing

		2035			
	2031	*Straight*	*Curve*	*KCAGR*	*WAA*
2006-2031 Target	3,000	3,000	3,000	3,000	3,000
2031-2035 Growth Est.	-	480	706	288	502
2006-2035 Planning Est.	-	3,480	3,706	3,288	3,502
Permits	573	573	573	573	573
Pending Development	225	225	225	225	225
Growth Target Remaining	2,202	2,682	2,908	2,490	2,704
Buildable Land Capacity	2,615	2,615	2,615	2,615	2,615
Net Surplus/Deficit	**413**	**-67**	**-293**	**125**	**-89**

Source: BERK 2014

Exhibit 10
Woodinville 2035 Employment Targets and Employment Buildable Land Capacity

A. Employment Capacity Original Method

		Employment (Original Redev. Method) 2035			
	2031	*Straight*	*Curve*	*KCAGR*	*WAA*
2006-2031 Target	5,000	5,000	5,000	5,000	5,000
2031-2035 Growth Est.	-	800	468	1,103	-480
2006-2035 Planning Est.	-	5,800	5,468	6,103	4,520
Permits	359	359	359	359	359
Pending Development	413	413	413	413	413
Growth Target Remaining	4,229	5,028	4,697	5,331	3,748
Buildable Land Capacity	4,476	4,476	4,476	4,476	4,476
Net Surplus/Deficit	**247**	**-553**	**-221**	**-855**	**728**

B. Employment Capacity: FAR Method

		Employment (FAR Based Redev. Method and Enhanced CBD) 2035			
	2031	*Straight*	*Curve*	*KCAGR*	*WAA*
2006-2031 Target	5,000	5,000	5,000	5,000	5,000
2031-2035 Growth Est.	-	800	468	1,103	-480
2006-2035 Planning Est.	-	5,800	5,468	6,103	4,520
Permits	359	359	359	359	359
Pending Development	413	413	413	413	413
Growth Target Remaining	4,229	5,028	4,697	5,331	3,748
Buildable Land Capacity	5,266	5,266	5,266	5,266	5,266
Net Surplus/Deficit	**1,037**	**237**	**569**	**-65**	**1,518**

Legend: Straight = Straight Line Method, Curve = Bend Curve Method, KAGR = King County Average Annual Growth Rate, WAA = Woodinville absolute annual average

Source: BERK, 2013; City of Woodinville, 2012; Office of Financial Management, 2013; Puget Sound Regional Council, 2013

The results show:

- The City can meet its 2031 housing target. There is an estimated capacity surplus of 413 dwellings.
- Considering the "bend curve" approach to align with the VISION 2040 regional growth strategy, the City would have a capacity deficit of 293 dwellings, the greatest deficit of the approaches evaluated. The use of the King County annual average growth rate results in sufficient capacity of +125 dwellings; however the growth rate is less than Woodinville has experienced. The Woodinville "absolute annual average" method results in a capacity deficit of 89 units, not much different than the straight line method.

- Based on current assumptions, the City can meet the 2031 employment growth targets with its current land capacity under either the original redevelopable method or the FAR-based method with a surplus of either 247 or 1,037 jobs.
- At 2035, with the Original Buildable Lands Approach method there would be deficits under most scenarios (shown in Exhibit 10). However, with the FAR based methods, there would be a job surplus under most scenarios. Broken down by estimated commercial and industrial employment needs, the need is tilted toward more commercial jobs. With the "straightline" scenario, the Original capacity method shows a 533 job deficit; under the FAR method, the City would have a 237 job surplus. The "bend curve" method would result in a 221 job deficit using the original method, but a 569 job surplus applying the FAR method. With a greater growth rate than Woodinville itself, the King County annual average growth rate method produces the largest deficit of 855 jobs using the Original approach, growing to a 1,518 job surplus applying the FAR method.

  With Woodinville's annual average approach carried forward (reflecting the job losses in the last decade), there would be a surplus of 728-1,518 jobs. It should be noted that the 10-year historical period considered for the annual average approach is not likely representative of long-term 20-year trends. Also, if this method were carried forward it would effectively reduce the City's 2031 employment growth target. It would be more advisable to consider zero adjustment to the 2031-2035 period rather than a reduction.

CONCLUSIONS AND NEXT STEPS

The City has sufficient housing and employment capacity under the 2031 growth targets.

The City must plan for 20 years of growth to the year 2035. The City has several methods to consider. The method that is most likely to be used by other local governments for its simplicity and progress towards local plans is the "straigt line" method. That method produces a small deficit of housing (-67 dwelling units) and deficit small surplus of job capacity (-237) at the year 2035 with the FAR capacity method. Other methods relating to Woodinville specific trends or countywide trends "bracket" the straight line approach with some results higher or lower. As the City moves forward with an environmental review process under the State Environmental Policy Act, these ranges of results will be documented in the analysis.

The Comprehensive Plan Update also provides a process to help identify the City's land use plan and zoning options to meet its vision and the estimated growth. For example, land use plan alternatives do explore a new mix of uses in industrial areas. The Comprehensive Plan Update will also review potential locations to expand designations allowing mixed uses with housing (e.g. adding ~5 acres of land at a higher density such as 36 units per acre or higher floor area ratio could address housing and job needs if considering the "straight line" results).

Regarding the zoning code, some items identified in the 2012 policy analysis could be helpful to address housing or jobs, such as: should some incentives in the CBD zone be adjusted? Are there ways to improve the permit process for Accessory Dwelling Units? In the CBD, are incentives and parking standards practical towards achieving the zoning potential?

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APPENDIX B. STUDY AREA CRITICAL AREA MAPS

In fall 2013, a series of critical area maps were prepared by The Watershed Company based on available information from City, County, State and other sources and addressed the City and its northern Urban Growth Area, King County Potential Annexation Area, and City-King County Joint Study Area.

In fall 2014, the City of Woodinville commissioned the preparation of geologic hazard maps and critical aquifer recharge area maps by Golder Associates, primarily focused on the city limits. The maps appear in Existing Conditions Report Chapter 2.5.

This appendix provides the fall 2013 critical area maps for the purposes of providing planning level critical areas maps applicable to the study area outside of city limits. For the areas within the city limits, the geologic hazards and critical aquifer recharge area maps prepared by Golder Associates supersede the corollary maps in this appendix.

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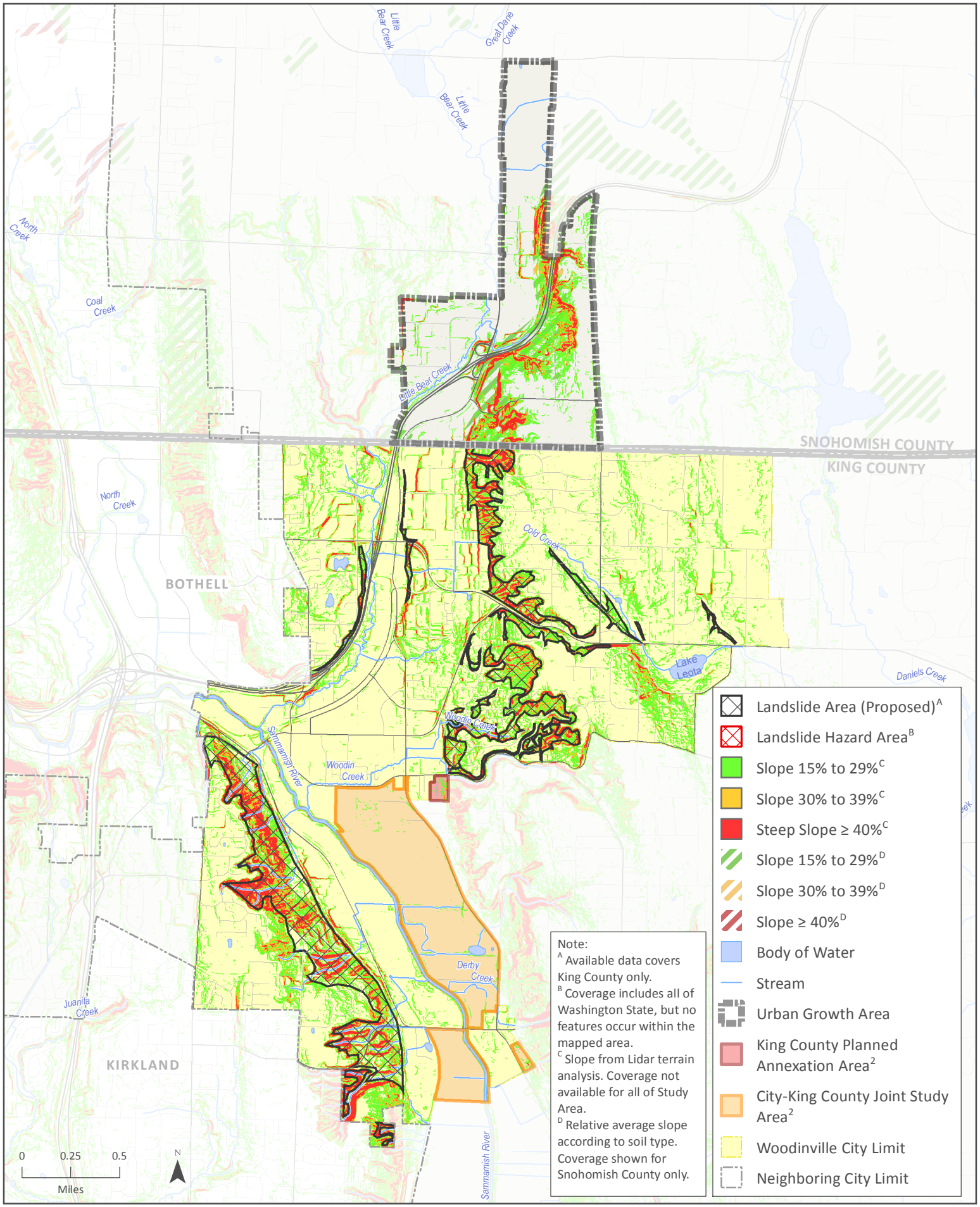
IDENTIFIED CRITICAL AREAS: GEOLOGIC FEATURES



Date: October 2013
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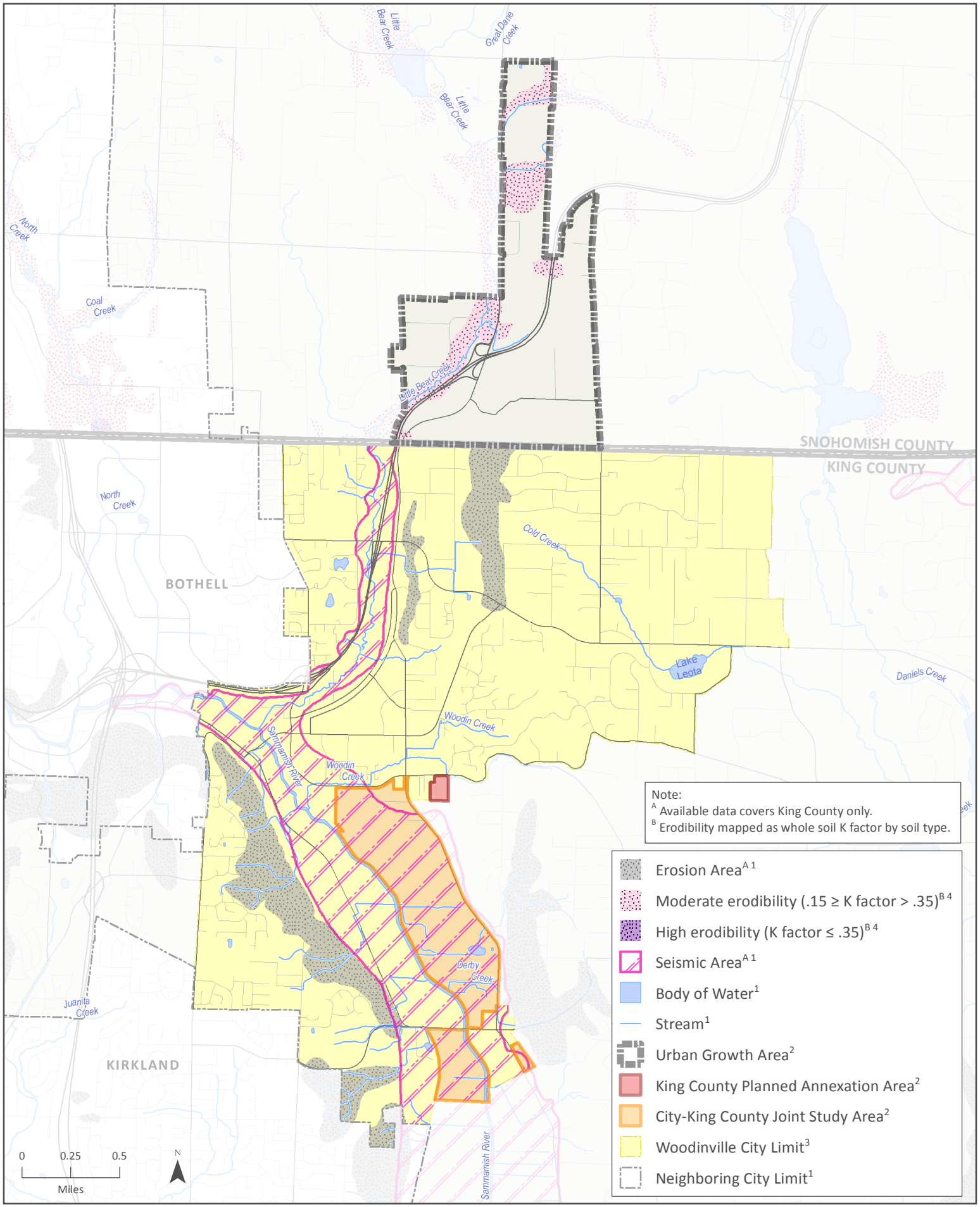
The Watershed Company

IDENTIFIED CRITICAL AREAS: EROSION AND SEISMIC AREA



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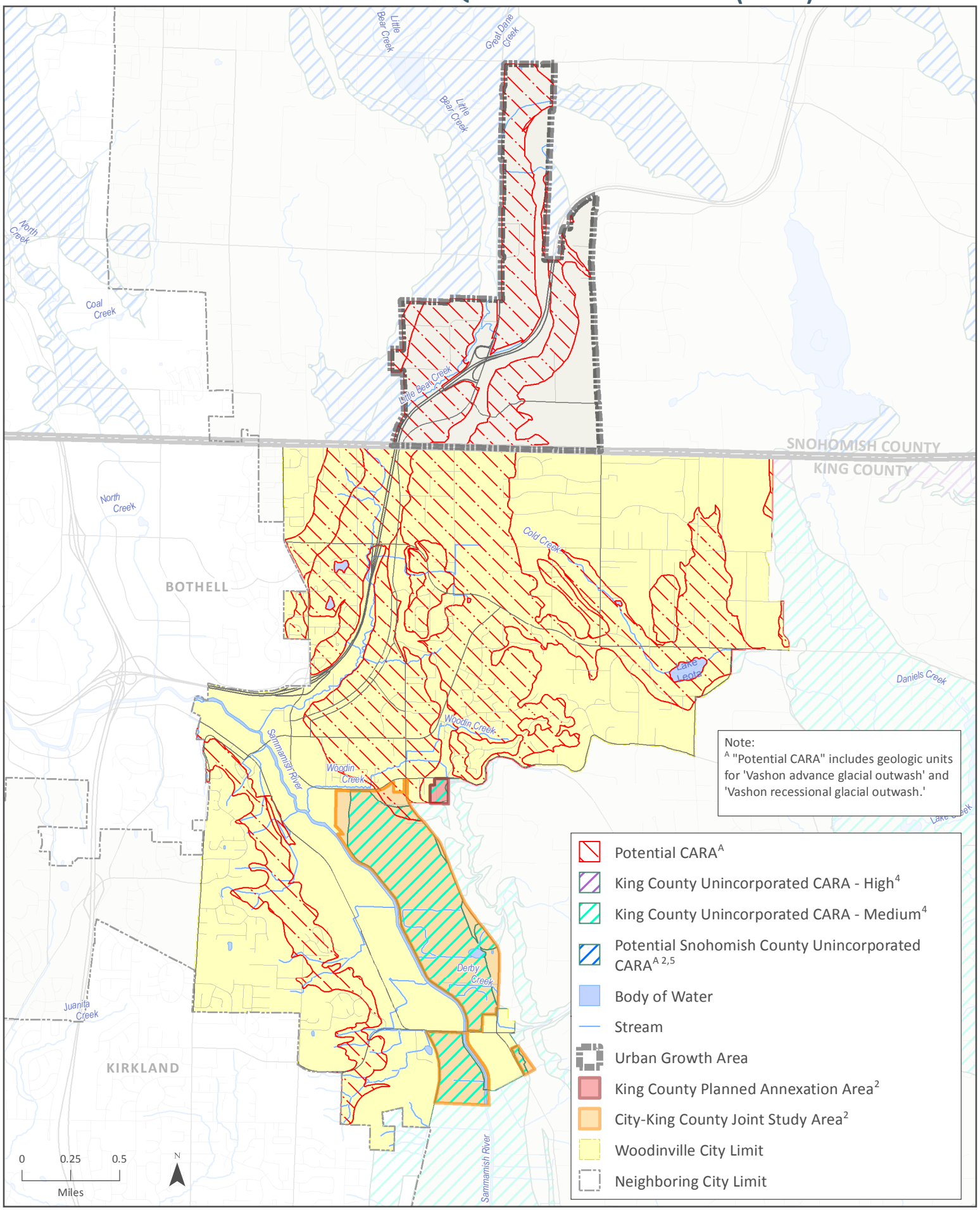
THE WATERSHED COMPANY

IDENTIFIED CRITICAL AREAS: CRITICAL AQUIFER RECHARGE AREA (CARA)



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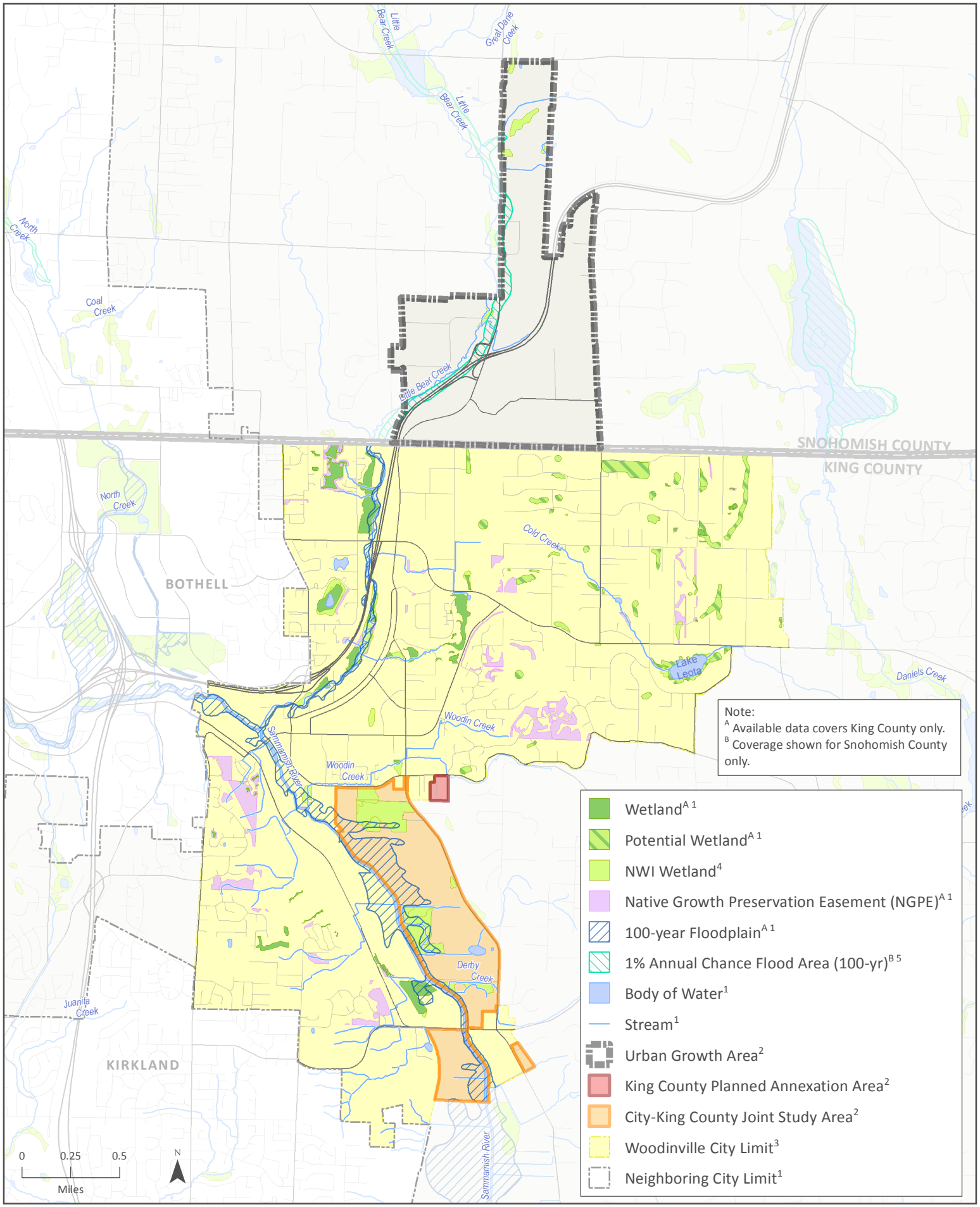
The Watershed Company

IDENTIFIED CRITICAL AREAS: HYDROLOGIC FEATURES



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THE WATERSHED COMPANY