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**ORDINANCE NO. 185**

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AN ORDINANCE OF THE CITY OF WOODINVILLE, WASHINGTON, AMENDING THE CITY OF WOODINVILLE COMPREHENSIVE PLAN AS ADOPTED BY ORDINANCE NO. 157, BY AMENDING THE INTRODUCTION; BY AMENDING THE LAND USE, PARKS, RECREATION, AND OPEN SPACE, TRANSPORTATION, CAPITAL AND PUBLIC FACILITIES, AND UTILITIES ELEMENTS; BY AMENDING THE REFERENCES SECTION; AND BY AMENDING THE FUTURE LAND USE MAP OF THE COMPREHENSIVE PLAN, AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the Woodinville City Council adopted Ordinance No. 157, adopting the City's GMA Comprehensive Plan on June 24, 1996.

WHEREAS, the Woodinville City Council adopted Ordinance No. 172, establishing a procedure for amending its Comprehensive Plan;

WHEREAS, the Woodinville City Council has determined that certain amendments to text and maps of the Plan are necessary to keep the Comprehensive Plan updated, to respond to the comments of other agencies, and to accommodate the needs of its citizens;

WHEREAS, The Woodinville City Council has reviewed the amendments contained in Attachment A, and finds that they meet the required criteria in Ordinance no. 172, as follows:

- A. The proposed amendments are consistent with the Growth Management Act and other applicable state laws;
- B. The proposed amendments are consistent with the applicable Countywide Planning Policies;
- C. The proposed amendments are consistent with the Goals and Policies of the Comprehensive Plan;
- D. The proposed amendments are beneficial to the City as a whole, and to the health, safety, and welfare of its residents;
- E. The amendments to the City's Future Land Use Map (Figure 3-3) are consistent with the criteria listed in Section 3.4.2 of the City's Comprehensive Plan;
- F. The amendments to the City's Goals and Policies meet the criteria described in Section 3.7.2 of the City's Comprehensive Plan;
- G. The amendments to the text of the Comprehensive Plan are in response to changes to the State Office of Financial Management's population projection; correct clerical errors that require correction; refine the text to better reflect the Goals and Policies of the Comprehensive Plan; clarify the Comprehensive Plan's ability to provide services or accommodate the needs of the City's citizens; and clarify conditions in the field.

WHEREAS, specific amendments are required in response to the Central Puget Sound Hearings Board remand of the Comprehensive Plan; and

WHEREAS, a public hearing was held by the City of Woodinville Planning Commission on July 16, 1997.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF WOODINVILLE, WASHINGTON, DO ORDAIN AS FOLLOWS:

**Section 1. Amendments to the Introduction of the Comprehensive Plan adopted.**

The City of Woodinville hereby adopts the amendments to Sections 1.6.1 and 1.7.1 of the Introduction to the City of Woodinville Comprehensive Plan as presented in Attachment A, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 2. Amendments to the Land Use Element of the Comprehensive Plan adopted.**

The City of Woodinville hereby adopts amendments to Section 3.2, and Figures 3-1, 3-4, A3-6, and A3-7; and new or relocated text for Section A-3.3 of the Land Use Element of the City of Woodinville Comprehensive Plan as presented in Attachment B, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 3. Amendments to the Future Land Use Map of the Comprehensive Plan adopted.**

The City of Woodinville hereby adopts amendments to Figure 3-3 Future Land Use Map, including amendments to the Snohomish County Urban Growth Boundary and the Grace annexation area, as presented in Attachment C, which is incorporated by reference as if set forth in full. The area of change is noted with arrows.

**Section 4. Amendments to the Parks, Recreation, and Open Space Element of the Comprehensive Plan adopted.** The City of Woodinville hereby adopts amendments to Table 7-3 and Figure A7-1 of the Parks, Recreation, and Open Space Element of the City of Woodinville Comprehensive Plan as presented in Attachment D, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 5. Amendments to the Transportation Element of the Comprehensive Plan adopted.** The City of Woodinville hereby adopts amendments to Sections 9.1.2, 9.2, and 9.3; Figures 9-5, 9-6, and 9-9; and Table 9-1 of the Transportation Element of the City of Woodinville Comprehensive Plan as presented in Attachment E, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 6. Amendments to the Capital and Public Facilities Element of the Comprehensive Plan adopted.** The City of Woodinville hereby adopts amendments to Sections 10.1 and 10.2 of the Capital and Public Facilities Element of the City of Woodinville

Comprehensive Plan as presented in Attachment F, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 7. Amendments to the Utilities Element of the Comprehensive Plan adopted.** The City of Woodinville hereby adopts amendments to Figure A11-1 of the Capital and Public Facilities Element of the City of Woodinville Comprehensive Plan as presented in Attachment G, which is incorporated by reference as if set forth in full.

**Section 8. Amendments to the References Section of the Comprehensive Plan adopted.** The City of Woodinville hereby adopts amendments to Section 12.2 of the References Section of the City of Woodinville Comprehensive Plan as presented in Attachment H, which is incorporated by reference as if set forth in full. New text is shown by underline; deleted text is shown by ~~strike through~~.

**Section 9. Savings.** The amendment of the text, figures, tables, or Future Land Use Map of the Woodinville Comprehensive Plan by this ordinance, shall not affect the regulation and applicability of the applicable text, tables, figures, or maps mentioned herein, before the effective date of this ordinance.

**Section 10. Severability.** Should any section, paragraph, sentence, clause, or phrase of this ordinance be held invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause, or phrase of this ordinance. Provided, however, that if any section, sentence, clause, or phrase of this ordinance, or any change in a land use designation is held to be invalid by a court of competent jurisdiction, or by the Growth Management Hearings Board, then the section, sentence, clause, phrase, or land use designation in effect prior to the effective date of this ordinance, shall be in full force and effect for that invalidated section, sentence, clause, phrase, or land use designation, as if this ordinance had never been adopted.

**Section 11. Copy to CTED.** Pursuant to RCW 36.70A.106(3), the City Clerk is directed to send a copy of the amendments to the State Department of Community, Trade, and Economic Development for its files within ten (10) days after adoption of this ordinance.

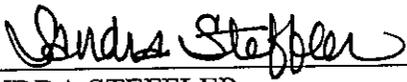
**Section 12. Effective Date.** The adoption of this ordinance, which is a power specifically delegated to the City legislative body, is not subject to referendum. This ordinance or a summary thereof shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

PASSED BY THE CITY COUNCIL OF THE CITY OF WOODINVILLE THIS 11th  
DAY OF AUGUST, 1997.

APPROVED:

  
ROBERT R. MILLER, MAYOR

ATTEST/AUTHENTICATED:

  
SANDRA STEFFLER  
CITY CLERK

APPROVED AS TO FORM:

OFFICE OF THE CITY ATTORNEY

By   
WAYNE TANAKA, City Attorney

FILED WITH THE CITY CLERK: 8-12-97  
PASSED BY THE CITY COUNCIL: 8-11-97  
PUBLISHED: 8-18-97  
EFFECTIVE DATE: 8-22-97  
ORDINANCE NO. 185

## 1.6 A Demographic Profile of Woodinville and Its Neighbors

This section presents a demographic profile of conditions for both the City of Woodinville and the Woodinville Planning Area. For consistency purposes, these data were collected from the Puget Sound Regional Council and are based on survey data from the 1990 U.S. Census. To provide a basis for comparison, data from King County as a whole and several Eastside cities are included. These cities are Mill Creek, Bothell, Kirkland, Redmond, Bellevue, and Issaquah. The King County data include both incorporated and unincorporated areas. A more detailed description of the methodology used to compile these census data can be found in Chapter 6. For cities adjoining or near Woodinville, see Figure 1-4.

### 1.6.1 Population

Compared to other Eastside cities, Woodinville is a moderate-sized community, with a 1990 census population of 8,587 people. The current (1997<sup>5</sup>) population estimate for the City of Woodinville is 9,980<sup>9</sup>,614 (Washington State Office of Financial Management). Woodinville is similar in size to the cities of Mill Creek (9,798<sup>7</sup>,472) and Issaquah (9,610<sup>7</sup>,786). As of the 1990 census, the Woodinville Planning Area population (42,675) was similar to that of the City of Kirkland (40,052), the second largest city on the Eastside (see Table 1-3).

**Table 1-3 1990 Census Population Comparison of Woodinville and Surrounding Communities**

Jurisdiction	Population
City of Woodinville	8,587
Woodinville Planning Area	42,675
Redmond	35,800
Kirkland	40,052
Issaquah	7,786
Bothell	12,345
Bellevue	86,874
Mill Creek	7,172

Source: Puget Sound Council of Governments, 1990 Census Reports, and Economic Consulting Services.

In recent years, the rate of growth in the Woodinville Planning Area has been very rapid. Between 1980 and 1990, the population in the Woodinville Planning Area grew by 45.3 percent (3.8 percent per year), more than twice as fast as King County. Population growth over the decade was higher in Bothell (55.42 percent) and Redmond (53.53 percent). Although the percentage of population growth for the Eastside cities was highest in Kirkland, most of the growth rate increase was attributed to annexation (see Table 1-4).

### 1.6.4 Educational Attainment

As a community, Woodinville ranks high in terms of educational attainment. In the Woodinville Planning Area, 41.8 percent of residents have completed a college degree: 8.9 percent an associates degree, 23.7 percent a bachelor's degree, and 9.2 percent a graduate or professional degree. Of the comparison communities, only Bellevue and Redmond have higher proportions of residents who have earned a graduate or professional degree (see Table 1-8).

**Table 1-7 Median Household Income for Woodinville and Surrounding Communities**

Jurisdiction	Household Income
City of Woodinville	N/A
Woodinville Planning Area	\$50,130
Bothell	\$37,159
Redmond	\$42,299
Kirkland	\$38,437
Issaquah	\$35,422
Mill Creek	\$50,250
Bellevue	\$43,800
Seattle	\$29,353
King County	\$36,179

Source: Puget Sound Regional Council, 1990 Census Reports, and Economic Consulting Services, 1994.

**Table 1-8 Educational Attainment for Woodinville and Surrounding Communities**

Jurisdiction	Percent of Population Over Age 18 Who Have Completed:		
	Associates degree	Bachelor's degree	Graduate professional degree
Woodinville Planning Area	8.9%	23.7%	9.2%
Bothell	8.9%	19.1%	5.9%
Redmond	8.7%	27.0%	10.3%
Kirkland	8.9%	25.0%	7.7%
Issaquah	7.4%	20.6%	9.1%
Bellevue	7.7%	29.1%	12.5%
Mill Creek	9.0%	29.5%	9.0%
King County	7.5%	21.3%	8.8%

Source: Puget Sound Regional Council, 1990 Census Reports, and Economic Consulting Services, 1994.

## 1.7 The Natural Environment

This section provides a general overview of the key natural environment components found within the Woodinville Planning Area as a basis for land use planning and for regulation of critical areas. This section discusses the natural

environment in terms of sensitive hydrologic (water) and geologic (soil) areas. Hydrologic resources encompass five of the critical areas defined by the Growth Management Act: fish and wildlife habitat, water quality, frequently flooded areas, wetlands, and aquifers. Geologic resources encompass two types of critical areas: geologic hazard areas and aquifer recharge areas.

This section includes digitally-produced maps with data of sensitive areas obtained from Snohomish County and King County. The data from Snohomish County were digitized from hard copy maps obtained from the Cathcart-Maltby-Clearview Area Comprehensive Plan (Snohomish County, 1987). The King County data, obtained in digital form, were converted from mylars used to produce the 1990 Sensitive Area Folio. For both sources, the boundaries of sensitive areas displayed on these maps are generalized as appropriate for planning at a city-wide scale. Additional studies will be needed for site-specific data.

The City of Woodinville currently has adopted an Interim Sensitive Areas Regulations in compliance with the Growth Management Act as part of the Interim Zoning Code (March 1993). It is anticipated that these regulations will be revised based on the findings and conclusions of the Comprehensive Plan. Changes and/or clarifications to regulations may require additional analysis on the sensitive environmental areas discussed in this section as well as other sensitive areas not included herein.

### **1.7.1 Existing Conditions**

Woodinville's natural environment includes sensitive hydrologic areas and sensitive geologic areas, as discussed below. Table 1-9 provides an overview of these areas for both the Woodinville Survey Area as well as the Woodinville Planning Area (within King County).

#### **1.7.1.1 Sensitive Hydrologic Areas**

Hydrologic areas include rivers, streams, lakes, ponds, wetlands, and floodplains. Within the Woodinville Planning Area, sensitive hydrologic areas include two hydrologic systems: (1) the Sammamish River and associated floodplain and tributaries located in the valley south of downtown Woodinville; and (2) Bear Creek and its associated lakes and tributaries, located mostly to the east of the City limits (see Figure 1-5). Hydrologic areas are often defined geographically according to the watershed basin of which they are a part. A watershed may be defined as a landscape catchment basin, including terrestrial slopes, streams, and lakes, drained by a common stream outlet. For study and management, a watershed is a conveniently sized ecosystem with definable boundaries that operates as a unified, co-dependent ecosystem.

Table 1-9 Sensitive Areas in and around Woodinville<sup>1</sup>

Sensitive Environmental Feature	Woodinville Survey Area			Total	Woodinville
	City of Woodinville	East Valley Neighborhood	Grace Neighborhood		Planning Area <sup>2</sup>
<b>Hydrologic-</b>					
<b>Streams<sup>3</sup></b>					
— Class 1	2 miles	0.5 miles	0 miles	2.5 miles	6.5 miles
— Class 2	5 miles	0.5 miles	16 miles	21.5 miles	16.5 miles
— Unclassified	6 miles	1.0 mile	N/A	7.0 miles	28.0 miles
— Streams Total	13 miles	2.0 miles	16 miles	31.0 miles	51.0 miles
<b>Wetlands</b>					
— Wetlands	100 acres	42 acres	16 acres	142 acres	986 acres
<b>Floodplains</b>					
— Floodplains	433 acres	103 acres	N/A	536 acres	1,187 acres
<b>Geologic</b>					
— Erosion	347 acres	0 acres	N/A	347	1,285 acres
— Landslide Hlzrd.	314 acres	76 acres	27 acres <sup>4</sup>	417	955 acres
— Seismic	664 acres	275 acres	N/A	939	2,110 acres

Notes:

- <sup>1</sup> Acreages were calculated from Geographic Information System coverages and rounded to the nearest whole number.
- <sup>2</sup> Includes land only within King County and the Grace Neighborhood.
- <sup>3</sup> Distances were calculated from Geographic Information System coverages and rounded to the nearest half mile.
- <sup>4</sup> Slope greater than 25 percent.

Source: EDAW, Inc., King County, and Snohomish County

Within the Woodinville Planning Area, there are two watershed basins—the Sammamish River Basin and the Bear Creek Basin. King County has prepared a corridor enhancement report for the Sammamish River and a basin plan for Bear Creek that provide useful guidelines on the management and protection of these two basins.

Sammamish River Basin

The Sammamish River has played a significant role in shaping the natural environment in and around the Woodinville Planning Area. The river connects two major water bodies on the Eastside—Lake Sammamish and Lake Washington. Within the Woodinville Planning Area, the river flows north from Redmond to the southwestern edge of downtown Woodinville before turning west toward the City of Bothell.

Within the Woodinville Planning Area, a number of tributaries feed into the Sammamish River from the hillsides east and west of the Sammamish River Valley. Farther north, in Snohomish County, there are several tributaries flowing west and south into the main channel of Little Bear Creek. This creek parallels State Route 9 and State Route 522, and flows through the North Industrial and Town Center neighborhoods before entering the Sammamish River.

A basin plan for the Sammamish River has not yet been completed. However, the Sammamish River Multi-Objective Greenway Plan (King County Surface

Water Management, 1992) and the Sammamish River Corridor Conditions and Enhancement Opportunity Report (King County, 1993) are currently being used (in coordination with planning efforts of the King County Parks Division) as a starting point for the development of the Sammamish River Basin Plan. Both documents provide recommendations for guiding mitigation or enhancement projects that take place within the river corridor before completion of the basin plan.

To reduce agricultural damage along the Sammamish River and to regulate the level of Lake Sammamish, the U.S. Army Corps of Engineers dredged a channel, filling in the former meanders. The new channel, completed in 1966, was designed to contain a 40-year springtime flood event. The U.S. Army Corps of Engineers construction and subsequent maintenance program for the Sammamish River was a "single-objective" program intended to maximize the area protected and conserve usable agricultural land. Maintenance requirements have kept the stream bank devoid of significant vegetation and the banks have been regularly lined with riprap to prevent erosion and natural channel migration.

The Sammamish River Corridor Conditions and Enhancement Opportunity Report has recommended "multi-objective" management of the corridor to balance increasing development pressures with needs for fish and wildlife habitat protection and public river access. This management approach includes the construction of "setback" levees that reduce flow velocities, provide additional floodwater storage, and can significantly improve fish and wildlife habitat when combined with vegetated "benches" or terraces constructed between the levee and the low-flow channel.

Under the Water Resource Development Act of 1986, the U.S. Army Corps of Engineers is authorized to review existing federally authorized projects for opportunities to improve the quality of the environment in the public interest. As a result, the U.S. Army Corps of Engineers has initiated the Sammamish River Channel Improvement Project. Fish and wildlife habitat in the area will be improved through the creation of wetland areas and bypass culverts for fish migration.

Wetlands located within the basin occur in isolated areas, primarily along tributaries to the Sammamish River. Within the city limits, there are approximately 100 acres of wetlands. The most significant of these is a 24-acre wetland associated with Little Bear Creek in the North Industrial Neighborhood. There is also a large wetland located within the East Valley Neighborhood.

Within the basin, the 100-year floodplain extends along the entire Sammamish River and comprises 433 acres of land within the City.

#### Bear Creek Basin

The Bear Creek Basin is located east of the Sammamish River Basin and extends from Redmond north into Snohomish County (see Figure 1-5). This basin is the most productive spawning salmonid basin for its size in the Puget Sound area, often with over 30,000 fish returning annually. Significant water systems within the basin include Bear Creek, Daniel's Creek, Cottage Lake Creek, and Evans Creek. All of these water systems flow south and drain either

directly into the Sammamish River or into Lake Sammamish which flows into the Sammamish River. The Bear Creek Basin Plan (King County, 1990) provides guidelines for protection and enhancement of this basin. PAGE 6 OF 7

The Bear Creek Basin is divided into four major sub-basins: (1) Cottage Lake Creek, (2) Upper Bear Creek, (3) Lower Bear Creek, and (4) Evans Creek. The first two of these sub-basins are located within the Woodinville Planning Area.

The Cottage Lake Creek sub-basin has a very high fish population, particularly downstream of Cottage Lake. The upper part of the sub-basin is rural, but development is proceeding rapidly downstream of Cottage Lake. Cottage Lake Creek is noted for its rare run of naturally spawning chinook salmon.

The Upper Bear Creek sub-basin contains rural development, upstream of its confluence with Cottage Lake Creek. This area is conducive to a large fish population, particularly along the mainstem of the creek, as well as its numerous tributaries draining the eastern uplands. The Upper Bear Creek sub-basin contains excellent spawning and rearing areas in diverse stream habitat and extensive wetland systems as well as an abundant freshwater mussels population, indicating very good water quality.

Farther east and within the Woodinville Planning Area in Snohomish County, there are also a number of streams that form the headwaters of Bear Creek. These streams flow generally south and are outlets for both Crystal and Echo lakes. Bear Creek flows into the Sammamish River south of downtown Redmond.

Present problems in the basin reflect the nature and intensity of urban development. Generally sparse urbanization in the northern and eastern parts of the basin have allowed upper Bear Creek and Cottage Lake Creek to maintain high quality fish habitat and to avoid most drainage-related problems. Recommendations of the Basin Plan seek to protect aquatic resources in the face of expanding urbanization, and to enhance these resources wherever feasible.

Wetlands within the basin and Woodinville Planning Area are scattered throughout the basin and constitute an important natural feature for plant and wildlife habitat. The most significant of these wetlands for this basin is a large U-shaped wetland located west of Cottage Lake.

Floodplains within the basin and Woodinville Planning Area are located along the southern end of Cottage Lake Creek and Bear Creek.

#### 1.7.1.2 Sensitive Geologic Areas

Sensitive geologic areas include erosion problem areas, landslide hazard areas, and seismic hazard areas. Each of these sensitive areas is described below and shown in Figure 1-6.

##### Erosion Problem Areas

There are approximately 347 acres of erosion problem areas in the City of Woodinville (see Table 1-9). Most of these areas can be found on the hillsides to the east and west of the Sammamish Valley, in or adjacent to the neighborhoods of West Ridge and East Valley, as well as in the south-southeast portion of the Woodinville Planning Area. There are also erosion problem areas east of State Route 522 in the North Industrial and Grace neighborhoods. Many of these areas contain glacial deposits of loose, gravelly or sandy soils that compact poorly and erode quickly when in contact with surface water runoff. The most erosive soils require special construction techniques to avoid dangerous landslides and the rapid formation of gullies.

#### Landslide Hazard Areas

Within the Woodinville Planning Area and within King County, approximately 417 acres of landslide hazard areas are located along the east and west ridge lines of the Sammamish River Valley (see Table 1-9). The area on the west side of the valley is located just west of the Burlington Northern railroad tracks in the West Ridge neighborhood. The area on the east begins just east of Woodinville-Redmond Road. These areas contain steeply sloping unconsolidated glacial deposits that are highly susceptible to landslides, and are a major hazard to people and structures.

#### Seismic Areas

More than three earthquakes a day, on average, are documented in the State of Washington, the majority occurring in the western half of the state. Most of these are too small to be felt, but large earthquakes have occurred in the Puget Sound during historic times that demonstrate the potential for earthquake caused damage and loss of life. Seismic areas are identified on Figure 1-6 according to the King County Sensitive Areas Ordinance. Seismic areas are those areas subject to severe risk of earthquake damage as a result of seismically induced settlement or soil liquefaction. These conditions occur in areas underlain by cohesionless soils of low density, usually in association with a shallow groundwater table.

Within the King County portion of the Woodinville Planning Area, there are approximately 939 acres of seismic hazard areas, which include almost all of the Sammamish River Valley as well as the areas in and around Daniel's Creek and Paradise Lake, east of the City.

**GOAL LU-3: To attain a wide range of residential patterns, densities, and site designs consistent with Woodinville's identified needs and preferences.**

ATTACHMENT B  
PAGE 1 OF 18

Policies

- LU-3.1 Encourage development that complements the existing residential development patterns in Woodinville's neighborhoods.
- LU-3.2 Preserve the existing natural environment of Woodinville's neighborhoods.
- LU-3.3 Maintain each residential area as a safe, pleasant, and enjoyable place to live.
- LU-3.4 Provide controls to minimize encroachment by incompatible land uses within and between zoning districts.
- LU-3.5 Utilize lot clustering where possible when residential development abuts agricultural districts to provide open space buffers between agricultural lands and housing, and to reduce potential land use conflicts.
- ~~LU-3.6 Allow densities higher than one dwelling unit per acre only when adequate services and facilities are available to serve the proposed development.~~
- LU-3.7 Encourage medium and moderate density housing throughout the community where sufficient public facilities and services are available, where the land is capable of supporting such uses, and where compatible with adjacent land uses.
- LU-3.8 Permit a range of densities to encourage a variety of housing types that meet the housing needs of residents with a range of incomes.
- LU-3.9 Allow for an appropriate level of flexibility in the development regulations, while balancing community goals and the need for predictability in decision making.
- LU-3.10 Where appropriate, allow larger parcels with moderate density land use designations to develop with a mix of housing types, including single family, townhouse, apartment, and senior-assisted residences.

**GOAL LU-4: To establish land use patterns that encourage a variety of commercial services and employment opportunities.**

Policies

- LU-4.1 Create a vibrant downtown Woodinville that is an inviting place to work, shop, live, and socialize.
- LU-4.2 Encourage mixed-use development that balances residential and business uses within commercial areas.

GOAL LU-13: To protect and enhance the Sammamish River Shoreline and the portion of the Little Bear Creek Shoreline within Shoreline jurisdiction, while providing for public enjoyment and use of these water resources.

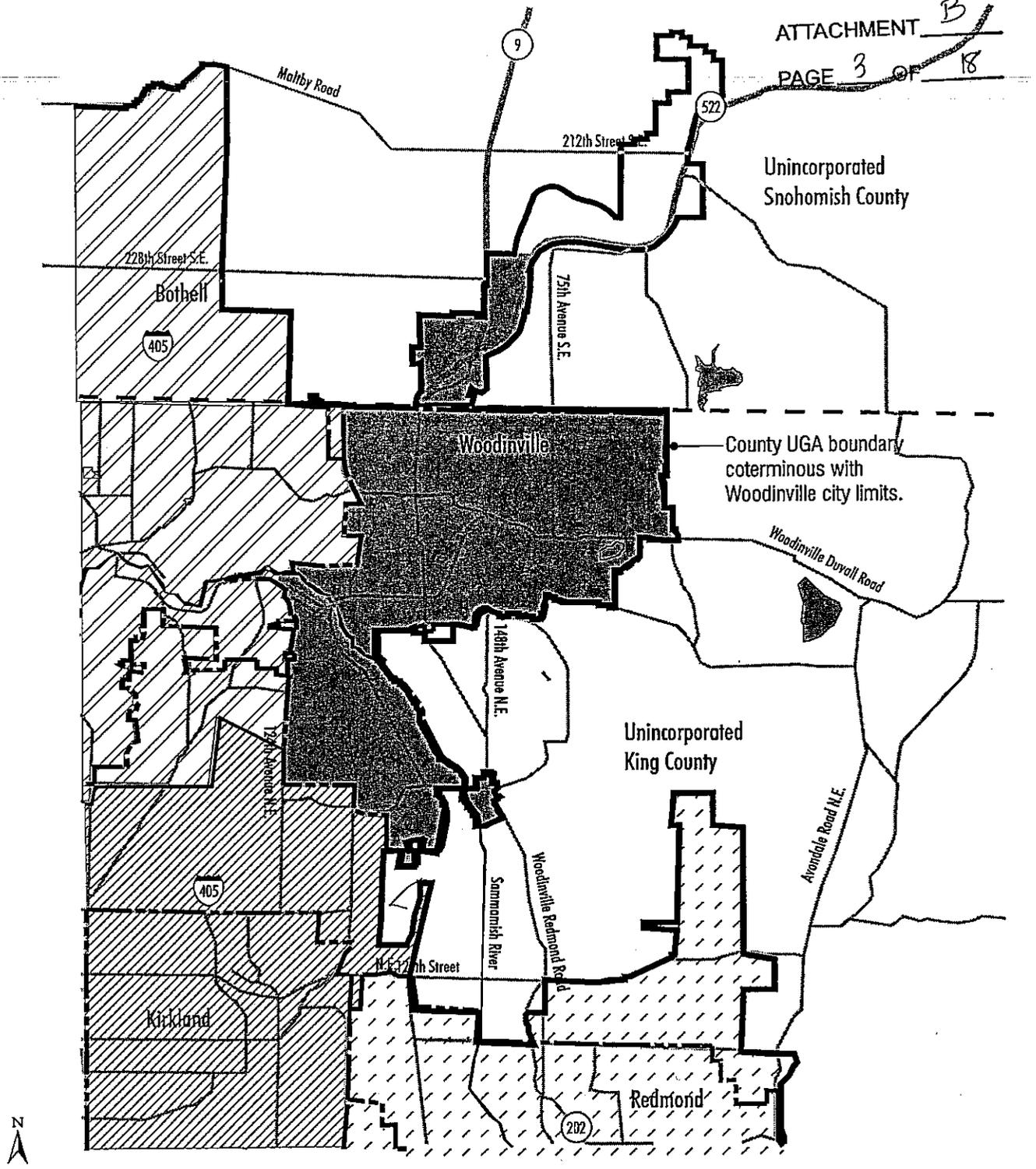
The Goals and Policies of the City's Shoreline Master Program are adopted here by reference and may be found in that document.

### 3.3 Urban Growth Areas

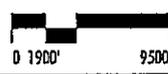
The Growth Management Act requires that each county planning under the act shall designate an Urban Growth Area or areas within which urban densities shall be developed. An Urban Growth Area may include territory located outside of a city if such territory is characterized by urban growth or is adjacent to territory already characterized by urban growth. Within the overall Urban Growth Area defined by counties, cities must also establish an urban growth area.

The Growth Management Act has established three criteria for establishing a city's Urban Growth Area:

1. Based on the growth management planning population and employment projections made for the county by the Washington State Office of Financial Management, the Urban Growth Area in the city shall include areas and densities sufficient to permit their county allocation of urban growth that is projected to occur for the succeeding 20-year period. Each Urban Growth Area shall permit urban densities and shall include greenbelt and open space areas.
2. Urban growth should be located in areas already characterized by urban growth that have existing public facility and service capacities to serve such development.
3. Urban growth should be located in areas already characterized by urban growth that will be served by a combination of both existing public facilities and services and any additional needed public facilities and services that are provided by either public or private sources.



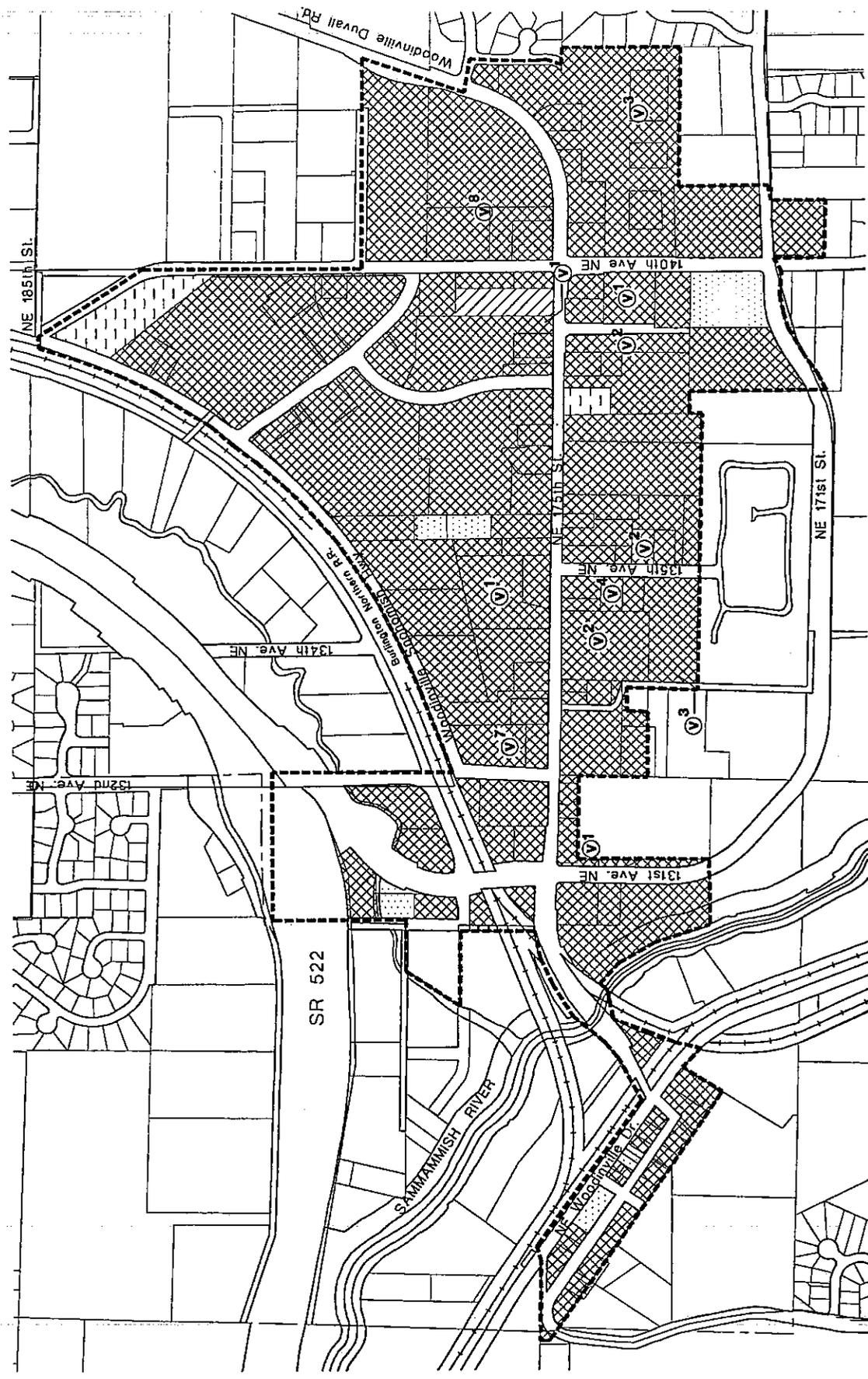
Source: King County, City of Woodinville, and ED&AW, Inc., 1997.



<b>LEGEND</b>	
	County line
	Current city limits
	Woodinville UGA
	Kirkland UGA
	Bothell UGA
	Redmond UGA
	County UGA Boundary

**Figure 3-1**  
**Current City Limits and Urban Growth Areas in the Woodinville Planning Area**

Figure A3-4  
**1997 LAND UTILIZATION  
 IN THE DOWNTOWN AREA**



**LEGEND**

	Vacant 8.2 AC		51-75% Utilized 0 AC		RB Zone 222.4 AC
	1-10% Utilized 4.1 AC		76-99% Utilized 0 AC		Vacant Storefront 10 (Number denotes number of vacant storefronts per parcel)
	11-25% Utilized 3.8 AC		100% Utilized 188.8 AC		
	26-40% Utilized 1.6 AC		100% Utilized 44.8 AC		
			100% Utilized 44.8 AC		
			100% Utilized 44.8 AC		

NOTE: Based on field observations and land use survey.

0 150 300 450 600 750 North

EDAW, Inc.  
 August, 1997

### A-3.2.3 Planning Implications

An essential element of the Comprehensive Plan is the development of a future land use map. This map establishes both the type and location of growth that can be expected to occur within and around Woodinville for the next 20 to 25 years.

Land use goals and policies should be established which reflect the needs of the community. This includes a proper mix of residential and commercial land uses, sufficient land and densities to accommodate projected growth, and careful consideration of the fiscal impacts related to land use development.

In addition to the more tangible elements of land use allocation and capital financing, consideration should be given to the ways in which these changes will affect the general character of the community. Land use objectives and policies should be directed from an over-riding goal that clearly expresses the future vision developed through the community visioning and the planning process.

More specifically, the land use plan must demonstrate how the City of Woodinville plans to accommodate the additional growth in population and employment that has been targeted for the City by King County. While vacant lands provide a possible source of accommodating some of this growth, these lands may not be sufficient based on environmental constraints, economic conditions, land ownership issues, etc. If growth cannot be accommodated within the current city limits, there may be opportunities to annex lands outside of the city limits.

## A-3.3 The Natural Environment

This section provides a general overview of the key natural environment components found within the Woodinville Planning Area as a basis for land use planning and for regulation of critical areas. This section discusses the natural environment in terms of sensitive hydrologic (water) and geologic (soil) areas. Hydrologic resources encompass five of the critical areas defined by the Growth Management Act: fish and wildlife habitat, water quality, frequently flooded areas, wetlands, and aquifers. The hydrologic resources portion also includes a description of current surface water management practices in the City of Woodinville and a summary of surrounding drainage, flooding, and stormwater runoff. Geologic resources encompass two types of critical areas: geologic hazard areas and aquifer recharge areas.

This section includes digitally produced maps with data of sensitive areas obtained from Snohomish County and King County. The data from Snohomish County were digitized from hard copy maps obtained from the Snohomish County Tomorrow Critical Areas Planning Project, Wetland Areas for the cities of Bothell, Brier, Everett, and Mill Creek, 1991. The King County data, obtained in digital form, were converted from mylars used to produce the 1990 Sensitive Area Folio. For both sources, the boundaries of sensitive areas displayed on these maps are generalized as appropriate for planning at a city-wide scale. Additional studies will be needed for site-specific data.

The City of Woodinville currently has adopted an Interim Sensitive Areas Regulations in compliance with the Growth Management Act as part of the Interim Zoning Code (March 1993). It is anticipated that these regulations will be revised based on the findings and conclusions of the Comprehensive Plan. Changes and/or clarifications to regulations may require additional analysis on the sensitive environmental areas discussed in this section as well as other sensitive areas not included herein.

Woodinville's natural environment includes sensitive hydrologic areas and sensitive geologic areas, as discussed below. Table A-3-15 provides an overview of these areas for both the Woodinville Survey Area as well as the Woodinville Planning Area (within King County).

**A-3.3.1 Sensitive Hydrologic Areas**

Hydrologic areas include rivers, streams, lakes, ponds, wetlands, and floodplains. Within the Woodinville Planning Area, sensitive hydrologic areas include three hydrologic systems: (1) the Sammamish River and associated floodplain and tributaries located in the valley south of downtown Woodinville; (2) Bear Creek and its associated lakes and tributaries, located mostly to the east of the City limits; and (3) Little Bear Creek Basin (see Figure A3-6). Hydrologic areas are often defined geographically according to the watershed basin of which they are a part. A watershed may be defined as a landscape catchment basin, including terrestrial slopes, streams, and lakes, drained by a common stream outlet. For study and management, a watershed is a geographic area with definable boundaries that operates as a unified, co-dependent ecosystem.

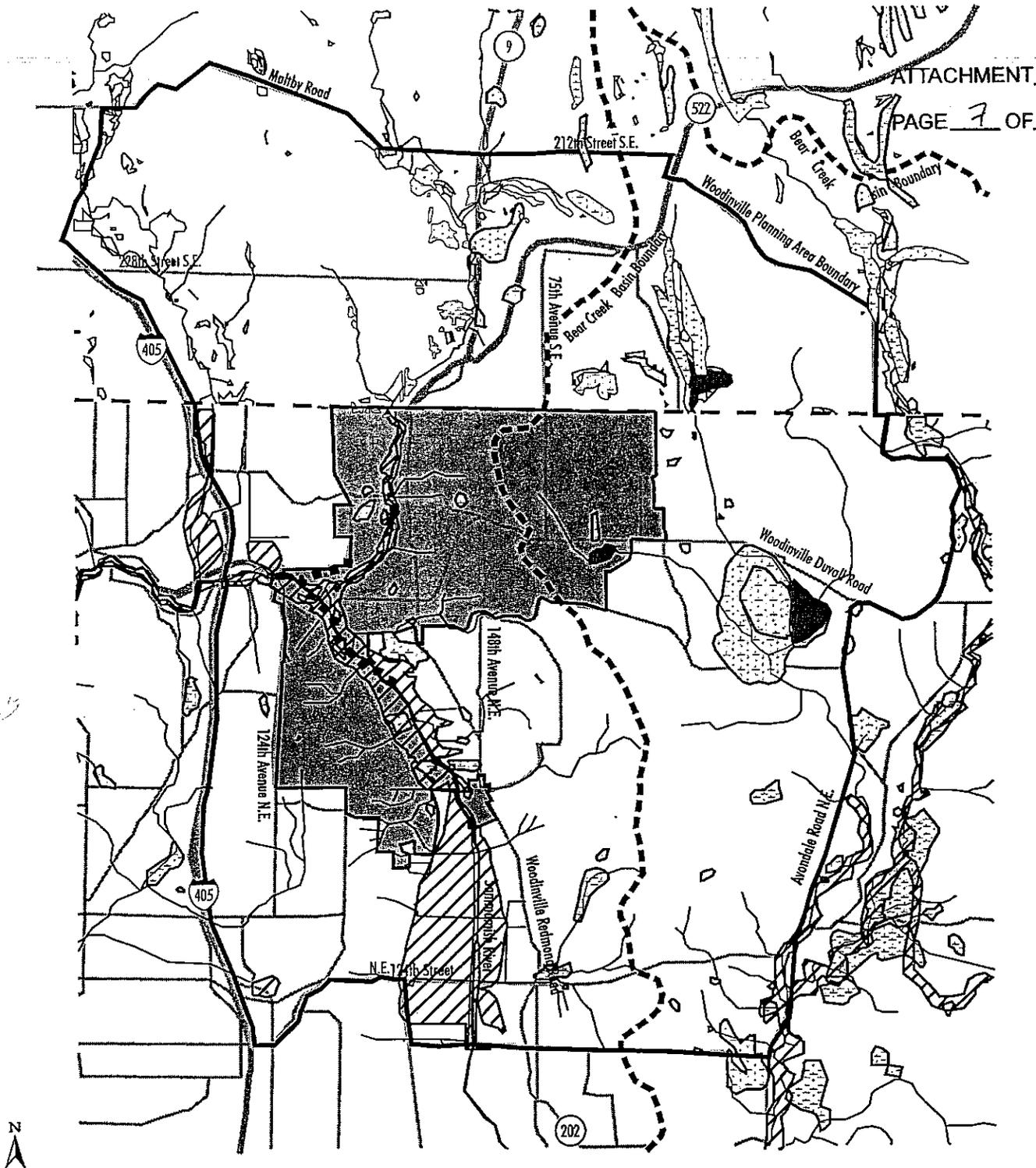
**Table A-3-15 Sensitive Areas in and around Woodinville<sup>1</sup>**

Sensitive Environmental Feature	Woodinville Survey Area				Woodinville Planning Area <sup>2</sup>
	City of Woodinville	East Valley Neighborhood	Grace Neighborhood	Total	
<b>Hydrologic</b>					
Streams <sup>3</sup>					
Class 1	2 miles	0.5 miles	0 miles	2.5 miles	6.5 miles
Class 2	5 miles	0.5 miles	16 miles	21.5 miles	16.5 miles
Unclassified	6 miles	1.0 mile	N/A	7.0 miles	28.0 miles
Streams Total	13 miles	2.0 miles	16 miles	31.0 miles	51.0 miles
Wetlands	100 acres	42 acres	16 acres	142 acres	986 acres
Floodplains	433 acres	103 acres	N/A	536 acres	1,187 acres
<b>Geologic</b>					
Erosion	347 acres	0 acres	N/A	347	1,285 acres
Landslide Hazard	314 acres	76 acres	27 acres <sup>4</sup>	417	955 acres
Seismic	664 acres	275 acres	N/A	939	2,110 acres

**Notes:**

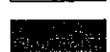
- <sup>1</sup> Acreages were calculated from Geographic Information System coverages and rounded to the nearest whole number.
- <sup>2</sup> Includes land only within King County and the Grace Neighborhood.
- <sup>3</sup> Distances were calculated from Geographic Information System coverages and rounded to the nearest half mile.
- <sup>4</sup> Slope greater than 25 percent.

Source: EDAW, Inc., King County, and Snohomish County



Source: King County 1990, National Wetland Inventory/Snohomish County 1994, and EDAW, Inc., 1997.

**LEGEND**

- |   |                           |   |             |
|---|---------------------------|---|-------------|
|  | Floodplain                |  | Wetlands    |
|  | City of Woodinville       |  | Lakes       |
|  | Streams                   |  | County line |
|  | Bear Creek Basin boundary |   |             |

**Figure A3-6**  
**Hydrologic Areas in the**  
**Woodinville Planning Area**

### A-3.3.2 Watershed Basins

Within the Woodinville Planning Area, there are three watershed basins - the Sammamish River Basin, the Bear Creek Basin, and Little Bear Creek Basin, which extends into Snohomish County.

#### Sammamish River Basin

The Sammamish River has played a significant role in shaping the natural environment in and around the Woodinville Planning Area. The river connects two major water bodies on the Eastside - Lake Sammamish and Lake Washington. Within the Woodinville Planning Area, the river flows north from Redmond to the southwestern edge of downtown Woodinville before turning west toward the City of Bothell.

A number of tributaries feed into the Sammamish River from the hillsides east and west of the Sammamish River Valley. Farther north, in Snohomish County, there are several tributaries flowing west and south into the main channel of Little Bear Creek. This creek parallels State Route 9 and State Route 522, and flows through the North Industrial and Town Center neighborhoods before entering the Sammamish River.

To reduce agricultural damage along the Sammamish River and to regulate the level of Lake Sammamish, the U.S. Army Corps of Engineers dredged a channel for the river, filling in the former meanders. The new channel, completed in 1966, was designed to contain a 40-year springtime flood event. The U.S. Army Corps of Engineers construction and subsequent maintenance program for the Sammamish River was a "single-objective" program intended to maximize the area protected and conserve usable agricultural land. Maintenance requirements have kept the stream bank devoid of significant vegetation and the banks have been regularly lined with riprap to prevent erosion and natural channel migration.

Under the Water Resource Development Act of 1986, the U.S. Army Corps of Engineers is authorized to review existing federally authorized projects for opportunities to improve the quality of the environment in the public interest. As a result, the U.S. Army Corps of Engineers has initiated the Sammamish River Channel Improvement Project. Fish and wildlife habitat in the area will be improved through the creation of wetland areas and bypass culverts for fish migration.

Wetlands located within the basin occur in isolated areas, primarily along tributaries to the Sammamish River. Within the city limits, there are approximately 100 acres of wetlands. The most significant of these is a 24-acre wetland associated with Little Bear Creek in the North Industrial Neighborhood. There is also a large wetland located within the East Valley Neighborhood.

Within the basin, the 100-year floodplain extends along the entire Sammamish River and comprises 433 acres of land within the City.

#### Bear Creek Basin

The Bear Creek Basin is located east of the Sammamish River Basin and extends from Redmond north into Snohomish County (see Figure A-3.6). This basin is the most productive spawning salmonid basin for its size in the Puget Sound area, often with over 30,000 fish returning annually. Significant water systems within the basin include Bear Creek, Daniel's Creek, Cottage Lake Creek, and Evans Creek. All of these water systems flow south and drain either directly into the Sammamish River or into Lake Sammamish which flows into the Sammamish River.

The Bear Creek Basin is divided into four major sub-basins: (1) Cottage Lake Creek, (2) Upper Bear Creek, (3) Lower Bear Creek, and (4) Evans Creek. The first two of these sub-basins are located within the Woodinville Planning Area.

The Cottage Lake Creek sub-basin has a very high fish population, particularly downstream of Cottage Lake. The upper part of the sub-basin is rural, but development is proceeding rapidly downstream of Cottage Lake. Cottage Lake Creek is noted for its rare run of naturally spawning chinook salmon.

The Upper Bear Creek sub-basin contains rural development, upstream of its confluence with Cottage Lake Creek. This area is conducive to a large fish population, particularly along the mainstem of the creek, as well as its numerous tributaries draining the eastern uplands. The Upper Bear Creek sub-basin contains excellent spawning and rearing areas in diverse stream habitat and extensive wetland systems as well as an abundant freshwater mussels population, indicating very good water quality.

Farther east and within the Woodinville Planning Area in Snohomish County, there are also a number of streams that form the headwaters of Bear Creek. These streams flow generally south and are outlets for both Crystal and Echo lakes. Bear Creek flows into the Sammamish River south of downtown Redmond.

Present problems in the basin reflect the nature and intensity of urban development. Generally sparse urbanization in the northern and eastern parts of the basin have allowed upper Bear Creek and Cottage Lake Creek to maintain high quality fish habitat and to avoid most drainage-related problems. Recommendations of the Basin Plan seek to protect aquatic resources in the face of expanding urbanization, and to enhance these resources wherever feasible.

Wetlands within the basin and Woodinville Planning Area are scattered throughout the basin and constitute an important natural feature for plant and wildlife habitat. The most significant of these wetlands for this basin is a large U-shaped wetland located west of Cottage Lake.

Floodplains within the basin and Woodinville Planning Area are located along the southern end of Cottage Lake Creek and Bear Creek.

Little Bear Creek Basin

Little Bear Creek is approximately 9 miles in length and its watershed covers approximately 15 square miles in south Snohomish County and north King County, including Woodinville. Little Bear Creek flows into the Sammamish River about 5 miles upstream from Lake Washington. Six tributaries flow into Little Bear Creek, and the watershed contains 71 wetlands. The lower 2.9 miles of Little Bear Creek have been straightened and altered for agriculture and subsequently industrial purposes.

The Little Bear Creek watershed is rapidly urbanizing, with residential development and hobby farms located in the upper watershed. Most of the Little Bear Creek watershed within Snohomish County is medium density rural residential (1 dwelling unit/2.3 acres). The Highway 9 and Highway 522 corridors support light and heavy industry.

Little Bear Creek, like north and Swamp Creeks, flows into Lake Washington. The Washington Department of Ecology (1995) assessed Little Bear Creek as not supporting the designated uses of primary and secondary contact recreation because of pollutants. The major pollutant identified by the DEPARTMENT OF ECOLOGY was bacteria. Sources of bacteria include runoff from pasture land, animal holding, and failing septic systems. Runoff from roads and the industrial areas in the lower watershed also contributes petroleum products, metals, and sediment to the creek.

Little Bear Creek watershed supports a variety of fish species, including coho salmon, sea-run cutthroat trout, steelhead, chinook salmon, sockeye and kokanee salmon, resident cutthroat trout, rainbow trout, sculpins, lampreys, and stickleback. However, the abundance of fish such as coho salmon has noticeably decreased in recent years. The decline of salmon in the Little Bear Creek watershed is consistent with other watershed in the Sammamish River and Lake Washington Basin.

#### A-3.3.3 Summary of Surrounding Drainage, Flooding, and Stormwater Runoff

The following summary provides a review of drainage, flooding, and stormwater runoff in the area and nearby jurisdictions, pursuant to RCW 36.70A.010(1). The plans and studies listed below provide guidance to the City of Woodinville for corrective actions to mitigate or cleanse those discharges that pollute waters of the state including Puget Sound. The City supports and adopts the mitigation measures and corrective actions outlined by the surrounding jurisdiction's plans and policies, which will be reviewed for incorporation. The review also recognizes the fact that drainage, flooding, and storm-water runoff are watershed basin concerns that are not confined by the political or planning boundaries of the City Woodinville.

#### City of Woodinville

Upon incorporation, the City established a storm water utility to manage flooding, erosion, sedimentation, aquatic habitat, and water quality. The King County Surface Water Management Division of King County Public Works has been

retained under contract to provide technical and administrative services related to this utility. Duties include facilities maintenance, drainage investigation, public education and involvement, billing and revenue collection, and planning. The City uses the *King County Surface Water Design Manual* to regulate runoff within its boundaries. This documents contains provisions for Best Management Practices (BMPs), such as oil/water separators, and erosion control practices consistent with the State DEPARTMENT OF ECOLOGY's requirements. The City is planning to develop and adopt its own stormwater management plan, which is in the City's Capital Improvements Program for 1998. When this document is being prepared, the City will consider and include appropriate corrective measures defined in the plans that follow.

#### City of Redmond

The *City of Redmond Comprehensive Stormwater Plan* (City of Redmond, 1997) is Redmond's first effort to produce a stormwater plan incorporating recent stormwater regulation and issues of concern. Four water bodies directly receive the majority of Redmond's stormwater runoff: Lake Sammamish, the Sammamish River, Big Bear Creek, and Evans Creek. The City of Woodinville, which lies downstream from the city of Redmond, shares a portion of the Sammamish River Basin.

The Plan outlines a number of corrective actions to protect water quality and reduce runoff in the city of Redmond. The Plan establishes that all projects which create more than 5,000 square feet of impervious area shall provide treatment of runoff from the added impervious area and control runoff from the development. The maximum discharge rates allowed for these projects depend on the environmental sensitivity of the downstream conveyance system. The Plan also outlines a number of management practices to control pollutants associated with rapid growth, such as sediments, nutrients, bacteria, and petroleum hydrocarbons. Some of the management practices to control these elements include limiting the size and timing of clearing and grading projects, creating artificial wetlands and detention basins, converting failing septic systems to sewer, educating the public on fertilizer use, utilizing proper operations and maintenance practices for all stormwater systems, and enforcing spill control and response measures. The Plan also includes recommended Basin planning efforts to determine how the 11 major basins in the city of Redmond should develop to best protect associated natural resources. The City of Woodinville supports the recommended corrective actions in the Redmond Comprehensive Stormwater Plan.

#### City of Bothell

The *Comprehensive Stormwater Master Plan* (Bothell, 1992) and *City of Bothell Surface Water Quality Plan* (Bothell, 1992) were recently adopted by the City of Bothell which lies to the northeast of Woodinville. The majority of the stormwater runoff in the Bothell area discharges to North Creek, Horse Creek, Swamp Creek, and the Sammamish River. The city of Woodinville lies upstream from Bothell along the Sammamish River.

The *Comprehensive Storm Water Master Plan* is an update to a 1977 Plan, and reflects current standards and regulations related to flood control and stormwater

runoff. The primary goal of the Plan is to identify areas of frequent flooding and identify implementation actions or strategies to prevent, control, or reduce those flooding problems. Complementing the plan are program recommendations to enhance public involvement and establish drainage design standards, operation and maintenance policies, and monitoring activities which accommodate development while ensuring the environmental health of the area.

The *Surface Water Quality Plan* for Bothell focuses on the protection of surface waters within Bothell. The Surface Water Quality Plan includes ordinances requiring stormwater controls for both new development and redevelopment, programs for operation and maintenance, a stormwater management manual containing best management practices (BMPs), education programs to inform citizens about stormwater, and requirements incorporated in local drainage basin planning processes. Specific recommendations and corrective actions outlined in the Plan include treatment of stormwater runoff related to development and redevelopment, reduction of discharge volumes, construction of oil/water separators, erosion and sediment control practices, septic failure monitoring, identifying illegal connections, public education programs on water quality, and installing a permanent water quality monitoring program. The City of Woodinville supports the recommended ordinances and programs described in the City of Bothell's Comprehensive Stormwater Master Plan and Surface Water Quality Plan.

#### King and Snohomish Counties

King County uses the *King County Surface Water Design Manual* (see discussion under City of Woodinville above). King County is also largely responsible for the basin planning that has taken place (see below). Snohomish County has a *Snohomish County Drainage Ordinance and Procedures Manual (1979)*. However, because this manual is outdated, Snohomish County relies on the Department of Ecology's *Manual* (see below), and is planning to adopt a new surface water design manual consistent with the State's next year.

#### Bear Creek Basin

The *Bear Creek Basin Plan* (King County Surface Water Division, 1990) is the surface water management plan for the Bear Creek Basin, a portion of which lies within the City of Woodinville. The document was a result of an interlocal effort involving King County, Snohomish County, and the City of Redmond from 1987 to 1990, prior to the City of Woodinville's incorporation. In order to prevent flooding, erosion, and preserve salmon spawning habitat in the 50-square mile Bear Creek Basin, the Plan contains a number of basin management recommendations. It offers a broad range of management approaches, included land use controls, specific regulations including stream buffers and floodplain development limits, and the hiring of a "stream steward" to conduct education and citizen participation programs. The document seeks to balance choices between resource protection and regional growth by focusing efforts where the resource is most valuable and the present impacts of urbanization are to date least damaging. The Plan also seeks to identify which of the basin's components are most critical, how protection of these components is best achieved, and what minimum level of protection is necessary for the remainder of the system.

Some of the specific recommendations outlined in the Basin Plan include low density zoning ¼ mile in either direction from the stream banks, a minimum buffer of 150 feet from the ordinary high water mark on each side of the stream for class 1 streams, on-site detention/retention facilities to control downstream or downslope impacts of new development, limit clearing to 25% of sites smaller than 2.5 acres to reduce erosion, revegetation of cleared areas, maintenance of road ditches, and water quality and sediment transport monitoring. The City of Woodinville supports the recommended development regulations and water quality protection programs described in the Bear Creek Basin Plan, where appropriate for urban areas.

The Redmond-Bear Creek Valley Ground Water Management Plan (Washington State Department of Ecology, 1994) is the ground water management plan for the Redmond-Bear Creek Valley, within which a portion of the City of Woodinville is located. Although not a drainage, flooding or stormwater runoff plan itself, this Plan illustrates the effect that rain, stormwater runoff, surface water have on the quality of ground water in the Redmond-Bear Creek Valley. The Plan is intended to inform and guide ground water protection efforts and safeguard the quality and availability of groundwater within management the area. The Plan also provides a characterization of the Redmond-Bear Creek Valley ground water management Area (RBC-GWMA), including land use impacts on ground water, general hydrology of the area, and water balance (ground water discharge and recharge).

Some of the specific recommendations outlined in the Plan include the augmentation of the state's Underground Storage Tanks Program to reduce the possibility of leakage from home heating oil tanks into groundwater supplies, the development of an improved Local Emergency Management plan for hazardous material spills, development of a Wellhead Protection Program for sewer systems serving over 1,000 connections to reduce nitrate contamination of ground water, and the development of a public education program to increase the awareness of on-site sewage system operation and maintenance. The City of Woodinville supports the recommended management strategies and ground water quality protection programs described in the Redmond-Bear Creek Valley Ground Water Management Plan.

#### Sammamish River Basin

The King County Surface Water Management Division originally planned to complete a Sammamish River Basin Plan. However, due to the number of cities which have recently incorporated in the area, the County has decided to pursue a comprehensive study of the Sammamish watershed in conjunction with the neighboring cities. To accomplish this task, the County has formed the Sammamish Watershed Interjurisdictional Forum which includes the cities of Woodinville, Bothell, and Redmond. Until this comprehensive study of the watershed is completed, the Sammamish River Multi-Objective Greenway Plan (King County Surface Water Management, 1992) and the Sammamish River Corridor Conditions and Enhancement Opportunity Report (King County, 1993) are currently being used in the interim (in coordination with planning efforts of the King County Parks Division). Both documents provide recommendations for guiding mitigation or enhancement projects that take place within the river corridor before completion of the watershed study.

The Sammamish River Corridor Conditions and Enhancement Opportunities Plan (King County Surface Water Division, 1993) combines natural resource and land use information for the Sammamish River corridor with discussions of multi-objective river corridor management and current maintenance practices. The report defines the Sammamish River Basin as consisting of only those areas draining directly into the mainstem Sammamish River, including the City of Woodinville, that have not been included in any of the Surface Water Management (SWM) Division's other identified basin or sub-basin study areas. As a result, the study area of this Plan is limited to the immediate river corridor and the other smaller mainstem tributaries, an area of approximately 26 square miles. The Plan also defines the corridor as the river itself and the adjacent land areas, including parks, trails, and floodplains lining the Sammamish River for approximately fourteen miles from Lake Sammamish to Lake Washington, as well as portions of some tributary streams, wetlands, residential areas, nearby businesses and community centers. Aside from the city of Woodinville, the river basin also includes portions of Redmond and Bothell.

The Sammamish River Corridor Conditions and Enhancement Opportunities report provides recommendations for guiding mitigation or enhancement projects that may take place within the river corridor before completion of the basin plan. The report is broken into sections which include Sammamish River corridor management alternatives, system-wide enhancement objectives, system-wide recommendations, and reach-by-reach conditions and opportunities. Some of the system-wide recommendations for the Sammamish corridor include maintenance of the channel for flood control purposes, the excavation of benches or terraces along the river banks in certain areas to increase channel capacity and enhance fish and wildlife habitat, increasing streamside vegetation to improve water quality, and enhancing the recreational opportunities along the Sammamish. The City of Woodinville supports the proposed enhancements and corrective actions in the Sammamish River Corridor Conditions and Enhancement Opportunities Plan.

The Sammamish River Multi-Objective Greenway Plan (King County Surface Water Division, 1992). The Multi-Objective Greenway Plan presents a number of ways to enhance the natural features of the Sammamish River, as well as recapture some of the river's natural features before it was channelized in the 1960's. The plan offers a diverse mix of recreational improvements, re-establishment of native streamside vegetation, and enhancements for fish and wildlife habitat throughout the corridor as system-wide recommendations. The overall goal of the Plan is to coordinate flood control improvements with river recreation, habitat, and open space systems. Also included in the Plan is an hydraulic analysis of the river's current capacity, as well as an analysis of the effects of all proposed environmental enhancements on the hydraulic systems.

The Plan outlines a number of system-wide recommendations and corrective actions. These include the improvement and expansion of existing park and trail systems, the reestablishment of native streamside vegetation, improving fish rearing and migrating habitats (such as the placement of log structures along both banks to form protective rearing habitats), and changes to the configuration of the river's edge in selected places to improve fish and wildlife habitat, to reestablish some of the historic river alignment, and to create visual variety. The City of Woodinville references the proposed enhancements and corrective actions in the Sammamish River Multi-Objective Greenway Plan when defining mitigation for new developments along the Sammamish River.

Little Bear Creek Basin

Complete basin plans have not been prepared for Little Bear Creek Basin. However, two informative documents are available. The *Snohomish County Ambient Water Quality Monitoring Summary Report 1992-1995* (Snohomish County, 1996) was conducted to monitor water quality throughout Snohomish County from 1992 through 1995 as part of the county's Ambient Water Quality Monitoring Program. The Program was designed to establish baseline conditions for Snohomish County surface waters, to identify problem areas for nonpoint pollutants, and to correlate nonpoint pollution with land use. The Surface Water Management Department (SWM) uses the results of the Program to determine which educational programs and best management practices will most effectively reduce nonpoint pollution to surface waters.

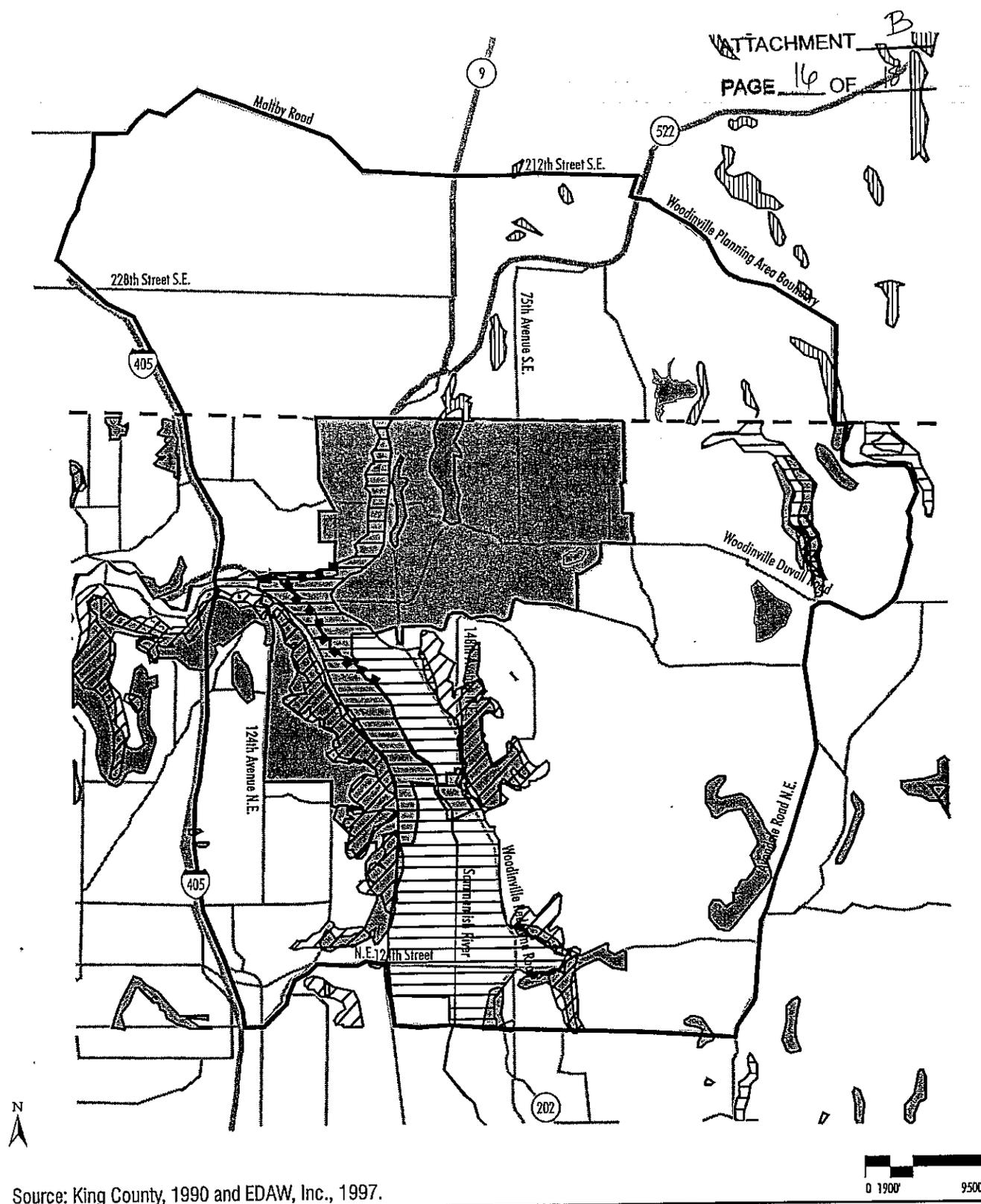
The report concluded that the surface waters of Snohomish County consistently failed to meet water quality standards established by the State of Washington. Bacteria levels violate state standards in the monitored streams throughout the county, and the areas with the highest bacteria concentrations are Quilceda, Allen, and Little Bear Creeks. The report concludes that the Little Bear Creek watershed is undergoing rapid low density residential development, yet retains an intact riparian stream buffer. Upper Little Bear Creek is relatively undeveloped with good water quality except for high bacteria and nutrient levels. The report recommends further monitoring. The City of Woodinville agrees with the findings of this report and supports further monitoring of Little Bear Creek.

The *Little Bear Creek Watershed Reconnaissance Report No. 2* (Snohomish County Public Works, 1993) describes the general watershed characteristics, its hydrologic features, water quality, fish habitat, comprehensive planning policies impacting water quality, and makes recommendations to improve water quality. Based on field recommendations taken during May and June of 1993, this reconnaissance report identified recommended actions that the Snohomish County Surface Water Management (SWM) Division and citizens can take to capitalize on the watershed's opportunities. These recommendations are 1) educational and technical assistance, including general education for citizens, assistance to farmers to reduce stream bank trampling, and acquisition of sensitive habitats, 2) capital projects to reduce localized flooding, enhance fish passage, and reduce erosion from road runoff, 3) drainage facilities maintenance, 4) the preparation of a watershed management plan, and 5) the implementation of a water quality monitoring program to track long-term water quality problems (already implemented by SWM - see above), a habitat evaluation study to identify critical habitats, and a business outreach program to prevent nonpoint pollutants from entering Little Bear Creek. The City of Woodinville supports the recommendations outlined in the Little Bear Creek Watershed Reconnaissance Report and will participate in any future management plans for the area.

Puget Sound Region

The *Stormwater Management Manual for the Puget Sound Basin* (Washington State Department of Ecology, 1992) is essentially a Best Practices Management (BMP) manual which addresses erosion and sediment control, runoff and pollution control from urban land use, and provides implementation guidance for local governments including model ordinances. This manual is included in this

ATTACHMENT <sup>B</sup>  
PAGE 16 OF 18



Source: King County, 1990 and EDAW, Inc., 1997.

0 1900' 9500'

LEGEND

- County line
- Planning Area Boundary
- Landslide hazard >15% slope
- Seismic hazard
- Slopes >25%
- City of Woodinville
- Erosion hazard

**Figure A3-7**  
**Sensitive Geologic Areas in the**  
**Woodinville Planning Area**

review of drainage, flooding, and stormwater runoff plans because most surface water runoff from the city of Woodinville ultimately enters the Puget Sound.

The Manual contains four volumes that address minimum requirements for all new development and redevelopment, including preparation of stormwater site plans, and a BMP selection process for permanent stormwater quality control plans, erosion and sedimentation control, guidelines for controlling pollutants other than sediment, NPDES stormwater permit requirements, infiltration, and detention BMPs, natural wetlands and stormwater management, biofilter and vegetated BMPs, streamside stabilization methods, and source control BMPs for many types of urban land uses. The City of Woodinville supports the minimum technical requirements for all new development and redevelopment, the erosion/sediment/runoff control requirements, and best management practices described in the Stormwater Management Manual for the Puget Sound Basin.

The Puget Sound Water Quality Management Plan (Washington State Department of Ecology, 1994), was developed to fulfill the requirements of the Puget sound Water Quality Act and the federal Clean Water Act. The goal of the Plan is to restore and protect the biological health and diversity of Puget Sound. The strategy for achieving this purpose is to protect and enhance Puget Sound's water and sediment quality; its fish and shell fish; and its wetlands and other habitats. This plan is included in this review because most surface water runoff from the City of Woodinville ultimately enters the Puget Sound.

The regulatory heart of the Plan is the "Action Plan," which contains a number of programs to restore and protect the biological health and diversity of Puget Sound by preserving and restoring wetlands and aquatic habitats, preventing increases in pollutants entering the sound and its watersheds, and ultimately eliminating harm from the entry of pollutants to the waters, sediments, and shorelines of Puget Sound. These programs include an Estuary Management and Plan Implementation Program, a Fish and Wildlife Habitat Protection Program, a Spill Prevention and Response Program, and Education and Public Involvement Program, and a Nonpoint source Pollution Program. Some of the specific recommendations outlined in this last program include the creation of local on-site sewage operation, maintenance, inspection, and operation programs to reduce surface water contamination from septic systems, an animal waste management program through the Department of Ecology to protect surface water from animal wastes, the implementation of new forest practices to reduce erosion, the enforcement of boating-related activities which affect water quality (such as sewage, petroleum, and other pollutants), and a household waste management plan to reduce household hazardous wastes effecting water quality. The City of Woodinville supports the programs and the corrective actions contained in the Puget Sound Water Quality Management Plan, as they apply to Woodinville's watersheds.

#### **A-3.3.2 Sensitive Geologic Areas**

Sensitive geologic areas include erosion problem areas, landslide hazard areas, and seismic hazard areas. Each of these sensitive areas is described below and shown in Figure A-3.7.

### Erosion Problem Areas

There are approximately 347 acres of erosion problem areas in the City of Woodinville (see Table A3-15). Most of these areas can be found on the hillsides to the east and west of the Sammamish Valley, in or adjacent to the neighborhoods of West Ridge and East Valley, as well as in the south-southeast portion of the Woodinville Planning Area. There are also erosion problem areas east of State Route 522 in the North Industrial and Grace neighborhoods. Many of these areas contain glacial deposits of loose, gravelly or sandy soils that compact poorly and erode quickly when in contact with surface water runoff. The most erosive soils require special construction techniques to avoid dangerous landslides and the rapid formation of gullies.

### Landslide Hazard Areas

Within the Woodinville Planning Area and within King County, approximately 417 acres of landslide hazard areas are located along the east and west ridge lines of the Sammamish River Valley (see Table A3-15). The area on the west side of the valley is located just west of the Burlington-Northern railroad tracks in the West Ridge neighborhood. The area on the east begins just east of Woodinville-Redmond Road. These areas contain steeply sloping unconsolidated glacial deposits that are highly susceptible to landslides, and are a major hazard to people and structures.

### Seismic Areas

More than three earthquakes a day, on average, are documented in the State of Washington, the majority occurring in the western half of the state. Most of these are too small to be felt, but large earthquakes have occurred in the Puget Sound during historic times that demonstrate the potential for earthquake-caused damage and loss of life. Seismic areas are identified on Figure A3-7 according to the King County Sensitive Areas Ordinance. Seismic areas are those areas subject to severe risk of earthquake damage as a result of seismically induced settlement or soil liquefaction. These conditions occur in areas underlain by cohesionless soils of low density, usually in association with a shallow groundwater table.

Within the King County portion of the Woodinville Planning Area, there are approximately 939 acres of seismic hazard areas, which include almost all of the Sammamish River Valley as well as the areas in and around Daniel's Creek and Paradise Lake, east of the City.

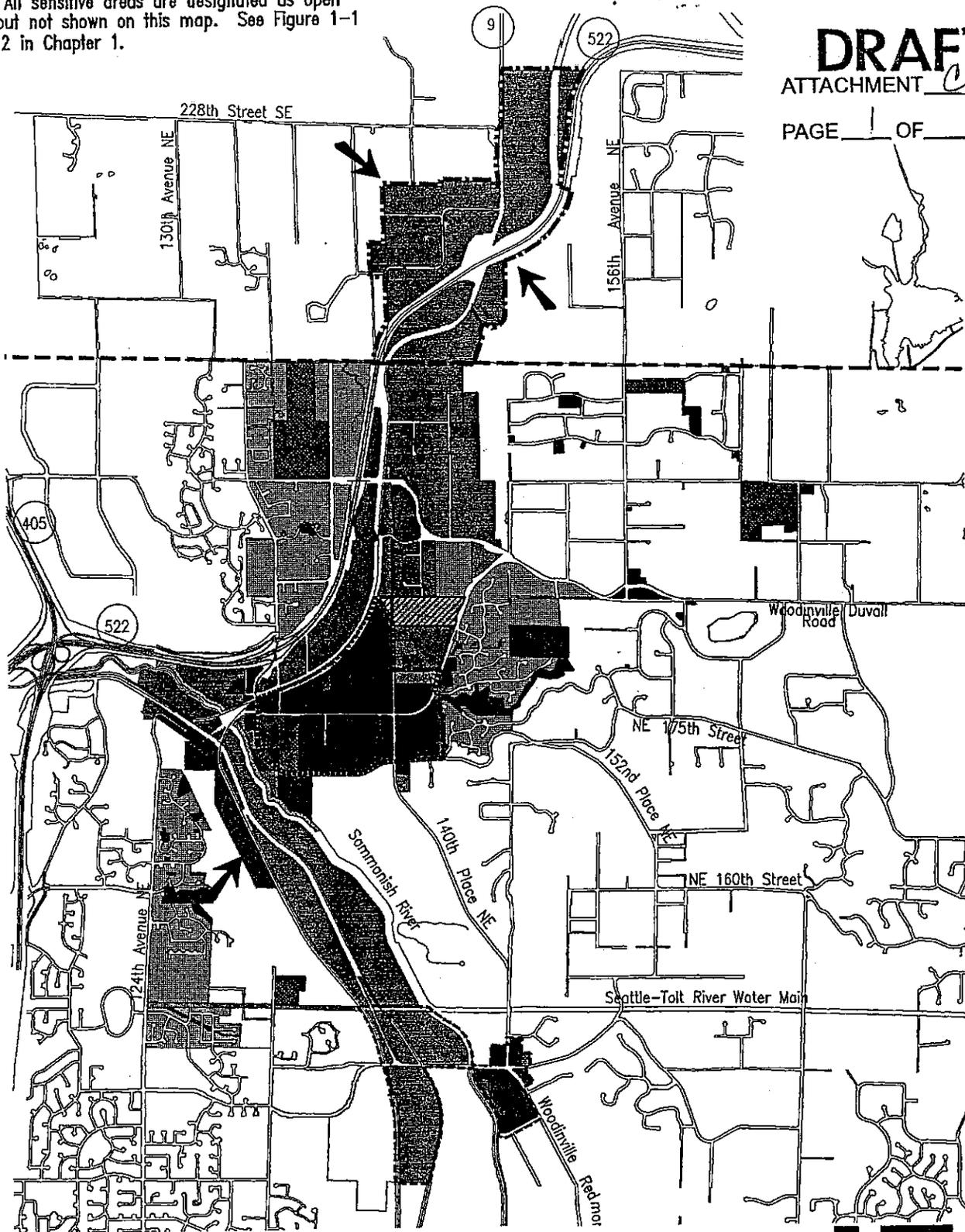
NOTE: All sensitive areas are designated as open space but not shown on this map. See Figure 1-1 and 1-2 in Chapter 1.

**DRAFT**  
ATTACHMENT *C*

PAGE 1 OF

JUL 16 1997

CITY OF WOODINVILLE  
PLANNING DEPARTMENT



Source: City of Woodinville and EDAW, Inc. 1997.

0 1000' 5000'

Figure 3-3

**LEGEND**

	Low Density Res.		Auto/General Commercial		High Density Res./Office
	Mod. Density Res.		Openspace		Industrial
	Med. Density Res.		Public/Institutional		Tourist District Overlay
	High Density Res.		Public Parks		Mixed-Use Overlay
	Central Business		Office		Joint Planning Area
	Neighborhood Bus.				

Future Land Use Map for  
the City of Woodinville

Table 7-3 Existing Recreation and Open Space Resources for the City of Woodinville (by Neighborhood)

	Citywide	The Wedge	Leota	Town Center	West Ridge	Tourist District
<b>Population</b>						
Est. pop. by neighborhood	10,000	1,900	3,000	2,000	3,000	100
Total Est. Pop. Distribution	100%	19%	30%	20%	30%	1%
<b>ACRES</b>						
<b>Neighborhood Parks</b>						
City Neighborhood Parks	0.05	0.0	0.0	0.05	0.0	0.0
Exist. Elementary Schools	10.0	0.0	3.0	7.0	0.0	0.0
<i>Sub-total</i>	<u>10.05</u>	<u>0.0</u>	<u>3.0</u>	<u>7.05</u>	<u>0.0</u>	<u>0.0</u>
Level of Service <sup>1</sup>	1.01	0.0	1.0	3.58	0.0	0.04
<b>Community Parks<sup>3</sup></b>						
City Community Parks	0.07.8					
Exist. Mid. & High Schools	28					
<i>Sub-total</i>	<u>2835.8</u>					
Level of Service <sup>1</sup>	2.83.6					
<b>Trails</b>						
Sammamish Valley Trail	0.00.5	0.0	0.0	0.0	0.0	0.05
Tolt Pipeline	99.0	0.0	0.0	0.0	9.0	0.0
<i>Sub-total</i>	<u>9.09.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>9.0</u>	<u>0.05</u>
Level of Service <sup>1</sup>	0.091.0	0.0	0.0	0.0	3.0	0.0
<b>Open Space</b>						
Open Space "Tracts"	39.138.6	1.1	15.3	12.94	9.8	0.0
Sensitive Areas <sup>2</sup>	655.1	29.4	44.3	64.3	334.3	182.8
<i>Sub-total</i>	<u>694.2693.7</u>	<u>30.5</u>	<u>59.5</u>	<u>77.276.7</u>	<u>344.2</u>	<u>182.8</u>
Level of Service <sup>1</sup>	69.4	16.0	19.8	38.64	114.7	1828.3

Notes:

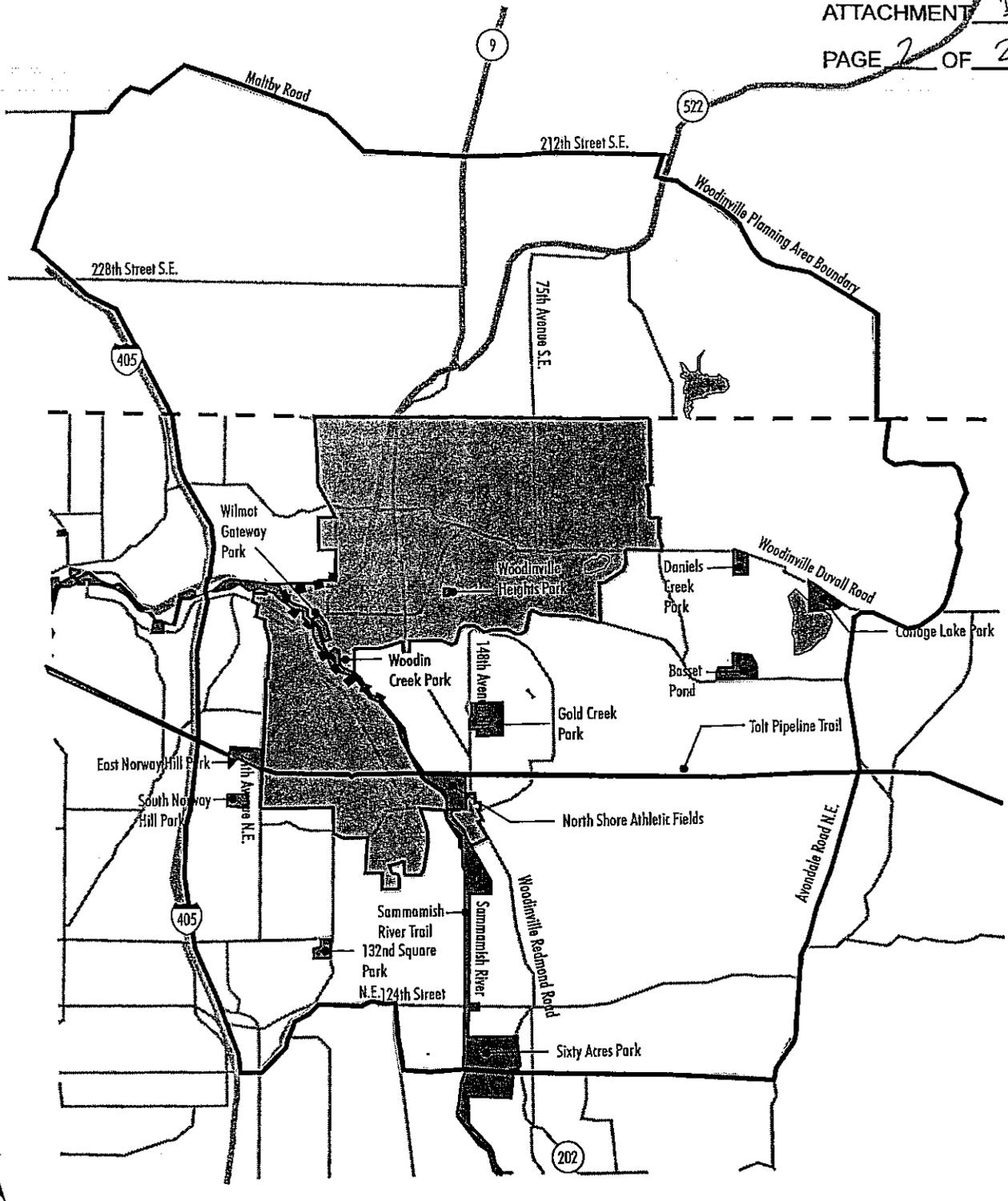
<sup>1</sup> Acres per 1,000 population.

<sup>2</sup> Includes wetlands, streams, and steep slopes, which includes the Puget Power electrical utility corridor in West Ridge.

<sup>3</sup> Determined at a citywide basis only because of large service area.

### 7.3.4 Capital Funding for Park Development

The Growth Management Act requires that cities plan for future capital facilities, including parks. Capital funding can be obtained from a number of sources including the city's general fund account, State and Federal grants, and impact fees. However, impact fees can only be charged as related to new population



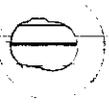
Source: EDAW, Inc. and King County, 1997.



LEGEND

-  County line
-  Woodinville City Limits
-  Parks

**Figure A7-1**  
**County and City parks in the**  
**Woodinville Planning Area**



## CHAPTER 9 TRANSPORTATION

ATTACHMENT E  
PAGE 1 OF 10

### 9.1 Introduction

#### 9.1.1 Purpose of the Transportation Element

The Transportation Element consists of goals, policies, recommendations, and implementation plans to guide the development of the City's transportation system in support of the City's vision for the future.

The Transportation Element is intended to ensure that the City's transportation infrastructure and its management meet the needs of the City's populace and economy for safe, efficient, and economical local transportation and access to regional transportation facilities and services. It is intended that the Transportation Element:

- Support, coordinate, and integrate with the plans of the other elements of the Comprehensive Plan, especially the Land Use and the Capital and Public Facilities Elements.
- Establish a framework for transportation system planning, development, and management processes.
- Meet level of service, concurrency, and related elements of the Growth Management Act.
- Address transportation facilities, services, and strategies for providing an array of practical alternatives for multimodal mobility via:
  - automobile and truck
  - public transit, high-occupancy vehicle, and rideshare modes
  - bicycle and pedestrian modes
- Emphasize cost-effective, environmentally-sound, and fundable transportation improvement measures which promote and enhance the livability of the City's neighborhoods and activity centers.
- Promote efficient use of the existing transportation system components through Transportation System Management, and reduce the growth in single-occupant vehicle travel via Transportation Demand Management.
- Coordinate with all transit, municipal, regional, and state jurisdictions, as well as the private sector, in development and operation of the transportation system and transportation services.

#### 9.1.2 The Transportation Setting

Travel within and through Woodinville is heavily dependent on the automobile, with about 98 percent of daily motor vehicle trips made by automobile and 2 percent (mostly to/from Seattle) via transit. This fact, together with a limited arterial system, limited transit service, and limited nonmotorized travel facilities characterizes much of the City's current transportation system and the challenges and opportunities for its future betterment. It is important to recognize

that travel volumes and transportation to, in, and through Woodinville is also conditioned by its regional location, especially for automobile and transit travel (Figure 9-1). Specific challenges are posed by:

1. Nearly all of the arterial traffic is accommodated by only a few routes, all of which traverse or pass near the downtown: State Route (State Route) 202, NE 175th Street-Woodinville-Duvall Road, 140th Place NE-148th Avenue NE, and arterial NE 190th-195th Streets. Most of the level of service E and F intersections and high-accident locations are on these routes, principally in and near downtown (Figures 9-2 and 9-3). Several two-lane arterial segments carry average weekday traffic volumes of 15,000 to 25,000 vehicles (Figure 9-4).

Consequently, Woodinville's unique geographic location and its limited arterial network reflect the high percentage of through traffic on all of the principal routes serving and traversing the Woodinville Planning Area: Interstate-405, State Route 522, State Route 202, State Route 9, the Woodinville-Duvall Road, and the 140th Avenue NE-148th Avenue NE corridor.

2. Woodinville-Duvall Road (with NE 175th Street) is the only east-west arterial across the Woodinville Planning Area.
3. Gaps in much of the local street network necessitate excessive use of the major routes for local circulation, with attendant adverse impacts on Level of Service, traffic friction and delay, safety, and inconvenience (see Figure 9-2).
4. Eastbound State Route 522 access into downtown is impeded by bottlenecks and circuitous routing along 131st Avenue NE slowing both automobile and transit travel.
5. Transit service is mainly oriented to peak-hour connections to the Interstate-405 and State Route 522 corridors south and west toward Bellevue and Seattle. Large portions of the WPA's residential and employment areas lack local transit service.
6. Most of Woodinville lacks adequate pedestrian and bicycle facilities, with only a few sidewalk and bicycle lane segments in or near downtown. Most of the low-density residential areas lack paved shoulders for nonmotorized travel. The incomplete road network and hilly terrain also restrict safe and convenient nonmotorized access to downtown and the Sammamish River Trail.
7. Regional air service in the Puget Sound area is provided by Seattle-Tacoma International Airport.

T-4.10

Continue to consider King County's (Metro's) and Community Transit's level-of-service guidelines for transit when making transportation decisions.

**GOAL T-5: To improve and increase use of public transit, paratransit, and ridesharing in cooperation with transit providers, adjacent jurisdictions, and the private sector.**

Policies

T-5.1

Work with transit providers, adjacent jurisdictions, and private development to:

1. Encourage commuters to use car/vanpool programs, public transit, and nonmotorized transportation as alternatives to the single-occupancy vehicle;
2. Develop ride sharing, transit use, and incentive programs through the development review process and/or in accordance with state and local legislation for residential and commercial development;
3. Promote and encourage coordination between transit service and new development to facilitate transit use; and
4. Encourage transit providers, paratransit operators, and private purveyors to provide mobility for elderly, disabled, low income, youth, and other mobility-disadvantaged residents in the City of Woodinville and the surrounding community.

T-5.2

Work with King County Department of Metropolitan Services to increase service frequency and Woodinville-to-Eastside route development while encouraging Woodinville residents to take advantage of them.

T-5.3

Improve transit service in the more developed portions of Woodinville by extending existing transit routes or creating new routes.

T-5.4

Work with Community Transit to achieve increased service from Woodinville to Community Transit's Snohomish County service area.

T-5.5

Work with King County Department of Metropolitan Services and Community Transit, in coordination with local and regional transportation and planning efforts, to establish one or more transit centers in the Woodinville area to facilitate transit options for local and trunk travel, and to shift dependence away from single-occupancy vehicle automobile travel.

T-5.6

Locate park-and-ride lots along major transit corridors and near areas where high density residential development is planned to intercept trips close to their origin and to make use of effective transit/high-occupancy vehicle facilities.

## 4. Increase use of public transportation

- T-7.2 Implement the requirements of the Commute Trip Reduction Act and meet mandated deadlines.
- T-7.3 Encourage smaller employers not under the Commute Trip Reduction Act requirements to offer trip reduction programs for employees.
- T-7.4 Encourage the development of Transportation Management Associations in areas where employers are clustered within the same vicinity.
- T-7.5 Work with other jurisdictions to develop Transportation Demand Management programs, policies, regulations, and strategies which are fair, consistent, and in support of local land use and transportation objectives.
- T-7.6 Implement Transportation Demand Management strategies that emphasize incentives rather than disincentives, but avoid imposing disincentives to single-occupancy vehicle travel in the absence of reasonable alternatives.
- T-7.7 Encourage development to provide physical features supportive of convenience, comfort, and safety in the use of alternative modes of travel.
- T-7.8 Work to reduce parking demand by requiring accommodation within site plans of pedestrians, public transportation, ridesharing, and bicycles.
- T-7.9 Pursue with neighboring jurisdictions, the development community, and Woodinville businesses active public education on the benefits of carpooling by assisting public transit providers and employers in providing information on the carpool/vanpool ride match services.
- T-7.10 Continue on-going promotion of Transportation Demand Management and Commute Trip Reduction programs and activities.

**GOAL T-8: To coordinate with local, regional, and State jurisdictions in the development and operation of the transportation system.**

Policies

- T-8.1 Plan, develop, and maintain transportation systems through intergovernmental coordination, including the development of transportation facilities of regionwide and countywide significance with state and regional transportation agencies.
- T-8.2 Participate with the Puget Sound Regional Council and the Eastside Transportation Program as the primary forum for the development of Eastside transportation systems plans and strategies.

**GOAL T-12: To provide transportation facilities and services that enhance the health, safety, welfare, and mobility of all citizens regardless of age, disability, or income.**

ATTACHMENT EPAGE 5 OF 10Policies

- T-12.1** Use generally accepted state, national, and other applicable standards and guidelines for design and operation of new and improved transportation facilities.
- T-12.2** Develop programs in cooperation with the Washington State Department of Transportation, transit operators, and adjacent cities to identify and mitigate any roadway hazards that may result in accidents and threats to public safety. Seek the input of local bicycle and trail/ walking clubs, school transportation officials, and other interested groups and individuals in this endeavor.

**GOAL T-13: To help the region meet federal and state clean air requirements, as well as regional air quality policies for the reduction of air pollutants such as carbon monoxide (CO), ozone (HC and No<sub>x</sub>), and particulate matter (PM<sub>10</sub>).**

Policies

- T-13.1** Work with State, regional and local agencies and jurisdictions to develop transportation control measures and/or similar mobile source emission reduction programs.
- T-13.2** Support the air pollution abatement and prevention activities of the Puget Sound Air Pollution Control Agency as it works to satisfy federal and state clean air acts.
- T-13.3** Collaborate with other jurisdictions and agencies in ways to leverage federal and state programs and funding for clean air protection and enhancement.
- T-13.4** Consider the air quality implications of new growth and development when considering annexations, making Comprehensive Plan and zoning changes, and planning street and utility extensions.
- T-13.5** Promote the following strategies to increase the public reduction of criteria pollutants:
1. trip reduction strategies;
  2. employer-based transportation management programs;
  3. work schedule changes;
  4. ridesharing programs;
  5. improved public transit;
  6. dedicated facilities for high-occupancy vehicles;
  7. traffic flow improvements;
  8. parking management;
  9. park-and-ride facilities; and
  10. concentrated and mixed use development

As in most travel modes, the Woodinville model operates by dividing the region including the Woodinville Planning Area into small geographic areas known as subarea analysis zones. From estimated land use in each Subarea Analysis Zone, vehicular trip generation rates for the afternoon peak hour, and the travel time separation between Subarea Analysis Zones, the demand for travel in the afternoon peak can then be forecasted as a set of hourly vehicle volumes from every Subarea Analysis Zone to every other Subarea Analysis Zone. This representation of travel demand, known as a trip table, then is assigned to a computer representation of the existing street system using the shortest time paths (taking into account the effects of congestion) between Subarea Analysis Zones. The model is considered *calibrated* when its predicted hourly volumes match observed traffic counts with a sufficient level of accuracy.

The Woodinville model was adapted from a travel model developed in 1993 for the City of Bothell to represent 1990 and 2010 travel conditions. Travel demand in the Bothell model generally is based on the land use estimates and forecasts provided by the Puget Sound Regional Council. The trip generation rates, choice of travel mode, automobile occupancy rates, and parameters describing the distribution of trip purposes and trip lengths also are consistent with those used by the Puget Sound Regional Council. The main modifications introduced for the Woodinville model were: (1) the addition of network and Subarea Analysis Zone detail in and around Woodinville; (2) modifications in methodology for calculating street capacity (the maximum possible traffic volume on a given street segment for one hour); (3) adjustments to depict the year 1994 rather than 1990; (4) incorporation of more recent land use plans for the City of Woodinville; and (5) use of the most recent short- and long-term transportation improvement plans of Woodinville and neighboring jurisdictions, as well as new road improvements addressed in the Transportation Element.

The calibrated model was used to generate 2014~~0~~ traffic forecasts for three land use/transportation scenarios:

Land Use Alternatives	Street Network Alternative	
	Base	Preferred
Current	Scenario 1 <sup>a</sup>	-
Preferred	Scenario 2 <sup>a</sup>	Scenario 3 <sup>b</sup>

- a with existing downtown grid
- b with proposed downtown grid

Figures 9-5 and 9-6 present 2014~~0~~ average weekday traffic volume forecasts (24-hour volumes) estimated from the peak-hour volumes. The forecasts are presented for Scenario 3—the Preferred Arterial Network Plan with the Preferred Land Use Alternative. Table 9-1 highlights overall travel characteristics for the Woodinville Planning Area.





Table 9-1 Profile of 2014~~0~~ Woodinville Planning Area Travel<sup>1</sup>

Trip Generation	P.M. Peak Autos	Percent
Internal-Internal <sup>2</sup>	1,742	13.9%
Internal-External <sup>3</sup>	<u>10,806</u>	<u>86.1%</u>
Total	12,548	100.0%
<b>Work Trip Mode of Travel<sup>4</sup></b>	<b>Daily Persons</b>	<b>Percent</b>
1 Occupant Vehicle	18,071	67.0%
Transit	5,695	21.1%
2 Occupant Vehicle	2,776	10.3%
3+ Occupant Vehicle	<u>437</u>	<u>1.6%</u>
Total	26,979	100.0%
<b>Trips To or From</b>	<b>P.M. Peak Autos</b>	<b>Percent</b>
Snohomish County	2,416	22.4%
Bear Creek Planning Area <sup>5</sup>	1,938	17.9%
Bothell	1,673	15.5%
Other Eastside	2,944	27.2%
Kenmore/Inglewood	823	7.6%
Seattle (excludes Central Business District CBD)	726	6.7%
South King County	156	1.4%
All Other	94	0.9%
Seattle Central Business District CBD	<u>35</u>	<u>0.3%</u>
Total	10,805	100.0%

1 Excludes through-traffic.

2 Trips that begin and end in the Woodinville Planning Area.

3 Trips that begin or end (but not both) in the Woodinville Planning Area.

4 Estimated from Bothell model mode shares.

5 King County planning area immediately east/southeast of Woodinville Planning Area which nominally includes Redmond area east of Avondale Road.

Source: City of Woodinville and Entranco Inc., 1995.

## 9.4.2 Road System Facilities Plan

The Road System Facilities Plan addresses measures to meet needs for route or corridor vehicular capacity and Level of Service improvements, safety, travel comfort improvements; and preservation of existing roadbed investments and multimodal circulation and access enhancements. The Road System Facilities Plan incorporates the Preferred Street Network Alternative (Scenario 3) and includes recommended capital improvement projects in four categories:

1. **New Roadway Links or Segments.** Includes new freeway ramps and roads or construction of missing links and road extensions.
2. **Major Widening.** Add one or more through traffic lanes or a continuous two-way, left-turn lane.



## CHAPTER 10 CAPITAL AND PUBLIC FACILITIES

ATTACHMENT F  
PAGE 1 OF 3

### 10.1 Introduction

Capital facilities, defined as public facilities considered necessary for development, represent much of the infrastructure necessary for accommodating a community's growth. The Growth Management Act requires that communities prepare and adopt a Capital Facilities Element in their comprehensive plans (Revised Code of Washington 36.70A.070). This Capital Facilities Element has been prepared in accordance with applicable King County and Snohomish County countywide planning policies.

This element and its appendix provide an inventory of capital facilities in the Woodinville Planning Area, analyze the City's current and future requirements; present goals and policies related to the continuation, development, and expansion of capital facilities; and provide a strategy for meeting the capital facility needs of the City.

#### 10.1.3 ~~Surface Water Management~~

~~The Woodinville Planning Area is part of an important network of rivers, streams, lakes, and wetlands that feed into the Puget Sound. In addition to the natural water system, the area contains a complex system of built conveyance, water quality protection, and storage facilities. The increase in population in this area, with a resulting increase in impervious surface, has led to degraded water quality, erosion, flooding, and loss of habitat for fish and wildlife. Resources are also impacted by point source pollution such as industrial tank leaks, development activities, and nonpoint sources of pollution from streets, parking lots, commercial areas, lawns, and failing septic systems. Conveyance and storage systems require maintenance and upgrading to meet new demands.~~

~~Upon incorporation, the City established a storm water utility to manage flooding, erosion, sedimentation, aquatic habitat, and water quality. The King County Surface Water Management Division of King County Public Works has been retained under contract to provide technical and administrative services related to this utility. Duties include facilities maintenance, drainage investigation, public education and involvement, billing and revenue collection, and planning.~~

~~Completed basin planning affecting the Woodinville Planning Area has been limited to the Bear Creek Basin Plan. This is a multi-jurisdictional study which has developed a management policy and capital improvement plan for the basin. A portion of the Woodinville Planning Area is located within the Cottage Lake and Bear/Evans sub-basins.~~

~~Along with the other affected agencies in the region, the City of Woodinville will participate in any future river system planning for the Sammamish River and basins within the service area. These plans might identify programs or capital projects necessary to protect or restore aquatic habitat and water quality, prevent flooding, or correct storage and conveyance deficiencies. Until these basin or~~

river system plans are adopted, the City will work to maintain the existing surface water system in accordance with local, state, and federal regulations.

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## 10.2 Goals and Policies

**GOAL CF-1: To enhance the quality of life in Woodinville through the planned provision of public and private capital facilities, either directly by the City or via coordination with other public and private entities.**

### Policies

#### CF-1.1

When planning, developing, and administering the City's capital investment program, give primary consideration to the following:

1. Protect public health and safety;
2. Provide infrastructure to support the vision of Woodinville's future as articulated in the Comprehensive Plan;
3. Support the provision of City services consistent with the expectations of the community, as expressed in the City's adopted level of service standards;
4. Maintain, rehabilitate, or replace the City's facilities and infrastructure as necessary to extend the useful life of existing facilities and ensure continued efficiency and conservation of energy and resources; and
5. Provide facilities which meet special needs of the community, such as those supported by voter-approved bonds.

#### CF-1.2

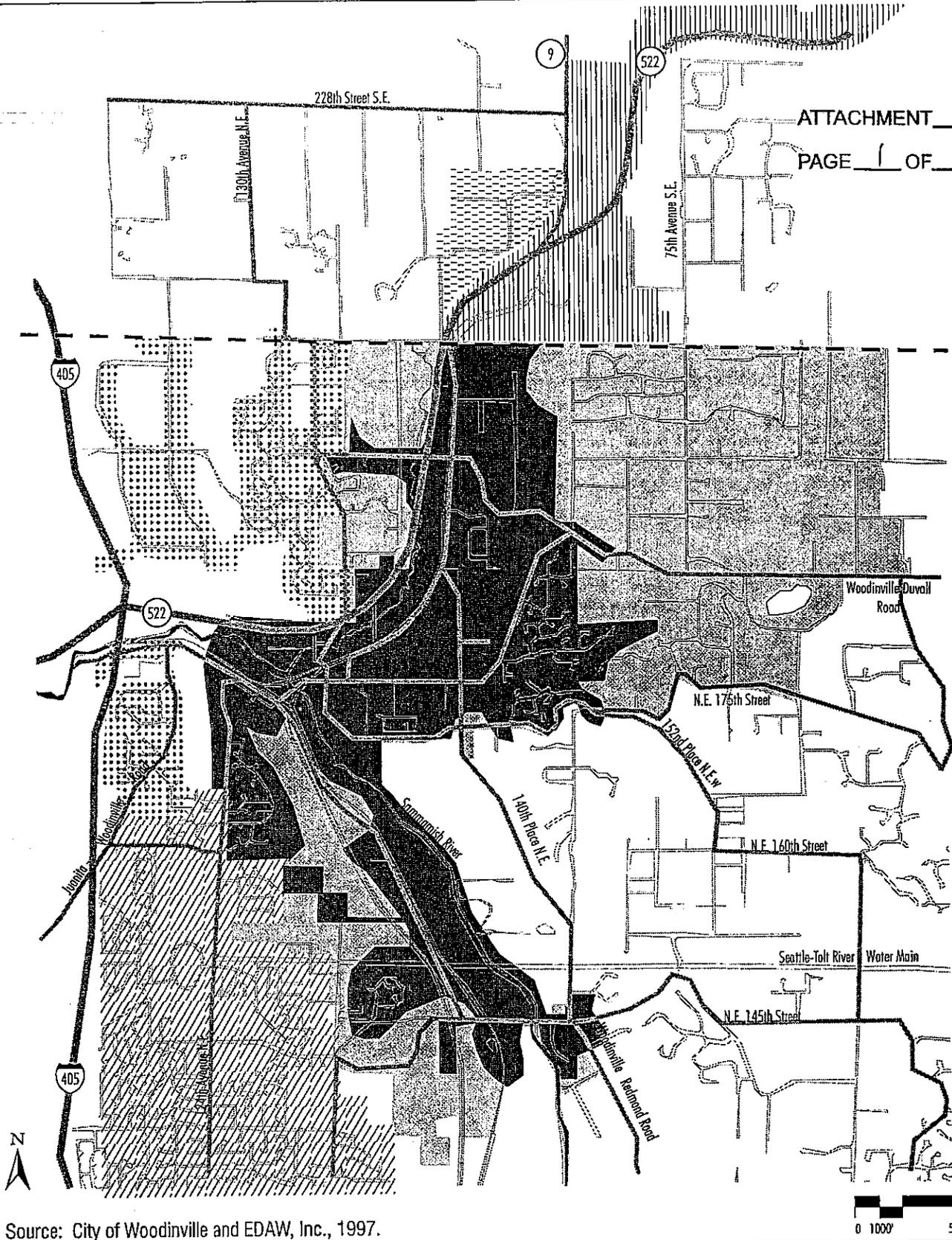
Require water and sewer utilities, as well as those special-purpose districts for which the City collects fees, to prepare a Capital Facilities Plan that includes:

1. A long-range plan for capital improvements and construction needed to support the level and distribution of the adopted 20-year population and employment growth target;
2. A demonstration of how facility and service needs are determined;
3. At least a six-year finance plan, which is to be updated on an annual basis, demonstrating how needs are to be funded;
4. Population and employment projections consistent with those used in developing the Woodinville Comprehensive Plan; and
5. A strategy for achieving consistency between the land use and the capital facility plan beyond the six-year capital improvement program, including identified potential funding sources.

- CF-1.3 Maintain an inventory of existing capital facilities owned by public entities. This inventory should include the locations and capacities of such facilities, and will be updated annually.
- CF-1.4 Project needed capital facilities based on adopted level of service standards and forecasted growth in accordance with the Land Use Element of the Comprehensive Plan. This projection, along with project costs and financing should be updated annually. To ensure concurrency, the Northshore School District #417 and the Lake Washington School District #414 shall submit their Six-Year Capital Facilities Plans to the City annually and the Plans shall be adopted by reference annually as a sub-element of the Capital Facilities Element of the Comprehensive Plan. Accordingly, the 1995/1997 Capital Facilities Plans of Northshore School District #417 and the Lake Washington School District #414 are adopted by reference.
- CF-1.5 Identify deficiencies in public facilities serving existing development, based on adopted level of service standards, and the means and timing by which those deficiencies will be corrected.
- CF-1.6 Prepare and adopt a six-year Capital Facilities Plan annually that identifies projects, outlines a schedule, and designates realistic funding sources for all City capital projects.
- CF-1.7 Include acquisition and development costs for trails projects specified in the City Comprehensive Park and Recreational Facilities Plan within its six-year Capital Facilities Plan.
- CF-1.8 Require new development to include storm water facilities in compliance with city ordinances and regulations and incorporate low-cost, long-term maintenance methods and, whenever possible, recreational facilities and good aesthetics.
- CF-1.9 Encourage public and private community service providers to share or reuse facilities when appropriate, to reduce costs, conserve land, and provide convenience and amenity for the public. Encourage joint siting and shared use of facilities for schools, community centers, health facilities, cultural and entertainment facilities, public safety/public works, libraries, swimming pools, and other social and recreational facilities.

**GOAL CF-2: To ensure that public facilities (other than transportation) necessary to support new development are adequate or available without compromising public health and safety to serve the development at the time the development is available for occupancy and use, based on locally adopted level of service standards and guidelines and in accordance with State law.**

#### Policies



Source: City of Woodinville and EDAW, Inc., 1997.

- LEGEND**
-  City Limits
  -  Woodinville Service Areas
  -  Alderwood Service Areas
  -  Cross Valley Service Areas
  -  Bothell Service Areas
  -  Northshore Service Areas

**Figure A11-1**  
**Sewer Service Areas**  
**within the**  
**Woodinville Survey Area**

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