

APPENDIX 3: LAND USE

A-3.1 Carrying Capacity Analysis

A-3.1.1 Introduction

The Growth Management Act requires that Urban Growth Area boundaries be established to accommodate urban growth projected to occur in King and Snohomish Counties for a 20-year period. Each county and its respective cities must demonstrate that a sufficient supply of land exists within the Urban Growth Area to accommodate the forecasted growth. Both residential and non-residential (e.g., commercial) land requirements must be considered in this assessment of Urban Growth Area land capacity. The majority of data for this appendix update is through December 31, 2000. The date is consistent with the Buildable Lands Tracking requirement of the Growth Management Act and is used by other cities and counties so that buildable lands data can be compared between jurisdictions.

A-3.1.1.2 Growth Forecast

According to the Growth Management Act, all cities and counties required to prepare a comprehensive plan must accommodate additional population and employment according to projections provided by the Washington State Office of Financial Management to each county. Counties are required to allocate growth to cities within their jurisdiction.

The King County Growth Management Planning Council is responsible for establishing net new population (counted as new households) and employment in cities within King County.

The City's original 20-year housing and employment target period was 1993-2012. For this period, the City has a housing target range of 1,750 to 1,842 new dwelling units or the planning average number of 1,797. From incorporation through the year 2000, the City added 648 dwelling units. Based on the City's residential and non-residential carrying capacity analysis (reference Tables A3-2 through A3-12), this leaves a remaining allocation for the 1993-2012 period of 1,149 households. The employment target range for the 1993-2012 period is 1,900 to 2,000, or the planning average number of 1,950. There is no remaining employment target for this period since the City reached its employment target by 2001.

In accordance with the GMA requirement to update growth forecasts every 10 years, the King County Growth Management Council established updated household and employment targets for the 2001-2022 planning period for all cities county-wide. The City of Woodinville is expected to plan for an additional 720 households and 2,000 jobs within the 10 year period extending from 2012-2022. To convert this to a new 20-year target, the remaining existing allocation of 1,149 households is added to the new allocation of 720, resulting in a new target of 1,869 for the 2001-2022 planning period. These targets are shown in Table A3-1(A).

This appendix describes the results of the City of Woodinville Community Development Department's residential and non-residential land carrying capacity analysis for land within the Urban Growth Area including city limits, as well as limited information for the Grace Neighborhood. The analysis is consistent with the methodology for land capacity as identified by the King County Buildable Lands Program.

The target allocation for new households and employment within the current city limits of Woodinville are based on countywide and city growth forecast as estimated by the State Office of Financial Management (OFM), the Puget Sound Regional Council, and the City of Woodinville's analysis of remaining residential and non-residential capacity. The allocation and future forecast for population, households, and employment are shown in Tables A3-1(A) and A3-1(B).

Table A3-1(A): Existing and Targeted Net New Households, Population, and Employment for the City of Woodinville

King County Growth Targets for Woodinville

	1993-2012 Growth Target	2001-2012 Remaining Growth Target	2012-2022 Growth Target	2001-2022 Growth Target
Households	1,797	1,149	720	1,869
Population	4,323 - 4,550 ¹	2,838 ¹	1,778 ¹	4,616 ¹
Employment	1,900 - 2,000	0	2,000	2,000

Source: King County, and Census 2000.

¹ King County allocates growth targets only in terms of households, not population. Using a household size of 2.47 times the 2012-2022 housing target results in the estimated population growth found in this table. Assumes a year 2000 estimated average household size of 2.47 per Puget Sound Regional Council and Economic Consulting Services, 1994.

Table 3A-1(B): Existing and Projected Total Population, Household and Employment for the City of Woodinville.

	1990 Census	2000 Census	2012 Projection	2022 Projection
Population	8,590	9,809 ¹	12,647 ³	14,425 ⁴
Households	3,297	3,900 ¹	5,049 ⁵	5,769 ⁶
Employment	N/A	10,383 ²	12,283 - 12,383	14,283-14,383

¹This reflects the revised U.S. Census population and dwelling unit counts dated April 30, 2003

²2001 King County Annual Growth Report of covered employment as of March 1999.

³This number is derived by adding the 2001-2012 remaining population growth target (2,838) in Table 3A-1(A) to the population reported by the 2000 Census (9,809).

⁴ This number is derived by adding the 2001-2022 population growth target (4,616) in Table 3A-1(A) to the population reported by the 2000 Census (9,809).

⁵This number is derived by adding the 2001-2012 remaining household growth target (1,149) in Table 3A-1(A) to the number of households reported by the 2000 Census (3,900).

⁶This number is derived by adding the 2001-2022 household growth target (1,869) in Table 3A-1(A) to the number of households reported by the 2000 Census (3,900).

The City's overall gross population density is approximately 2.7 persons/acres (9,809 population/3,587 acres). The City's population density for residentially zoned land is 4.6 (9,809 population/2,130 acres of land). By the year 2012, the overall gross population density is estimated to be approximately 3.5 persons/acres (12,647 projected population/3,587 acres). By the year 2022, the overall gross population density is estimated to be approximately 4.0 persons/acres (14,425 projected population/3,587 acres). This future projection is assuming no new annexations take place within the City. It is important to note that this carrying capacity analysis does not necessarily mean that land will be built-out over the growth period. The

purpose of the carrying capacity analysis is to determine the extent or limit to which development could theoretically occur.

A-3.1.2 Approach

The original carrying capacity analysis made extensive use of land use survey data collected in the Spring of 1994 as part of the comprehensive planning process. This information was then compiled into a database and displayed and analyzed using a Geographic Information System. Aerial photographs were also used to determine the level of development on non-residential land. For both the residential and non-residential land, all existing road and rail rights-of-way as well as sensitive areas and their buffers were not included (see Environmental Element).

The City is participating in the King County Buildable Lands Tracking Program that monitors land capacity. The revised information is based on the data gathered for this program, the City's Land Use Survey update including development permit data from 1993 to 2000, and other sources. This information is presented in Tables A3-3.1 through A3-3.12.

The analysis also assumed that no new non-conforming uses would occur. Only residentially zoned land is analyzed for residential carrying capacity while only commercially zoned land is considered for the employment carrying capacity.

A-3.1.3 Carrying Capacity Analysis for Existing Comprehensive Plan and Zoning Code

The estimates of residential and non-residential carrying capacity described below is based upon existing land use plans, policies, development standards and criteria as defined in the City of Woodinville's Comprehensive Plan and Zoning Code. Two assumptions were made prior to conducting this carrying capacity:

1. No residential development potential was assumed for parcels which currently have a non-residential use within a residential plan designation, and
2. No residential development potential was assumed for parcels within commercial plan designation and zones even though the Zoning Code allows multiple residential and mixed use development in commercial zones.

Residential Carrying Capacity Analysis

The calculation of residential carrying capacity involves the analysis of vacant and redevelopable lands which can accommodate future residential growth. Vacant land was defined as those parcels, which have no structure on them. Redevelopable land is defined as follows:

R-1 Parcels that contain over two acres of land that are subdividable.

R-4 through R-8 Parcels that contain greater than three times the base density per unit for the zone (R-4 = .75 or 32,670 square feet, R-6 = .50 or 21,780 square feet, R 8 = .38 or 16,335 square feet).

Example

R-4: 1 acre = $43,560/4 = 10,890$ (base density); base density x 3 = 32,670
Multi-family parcels were considered redevelopable when the value of improvements on the land was less than 50% of the value of the land itself. These values were taken from the records of the King County Assessor's office. Redevelopable parcels found in subdivisions where further platting is not possible were removed from the Buildable Lands inventory.

Existing commercial entities within residential zoned land were considered redevelopable (except for churches).

A summary of the steps involved in calculating the net additional residential holding capacity of vacant and redevelopable land follows:

1. Inventory the total acreage of vacant and redevelopable residentially designated parcels.
2. Reduce this total acreage by the following factors:
 1. sensitive areas and buffers including wetlands, streams, and steep slopes,
 2. market factor, (A reduction in the likelihood that any particular parcel will be available for sale at any given time),
 3. future public purpose, (storm drainage facilities, neighborhood parks, public utility facilities),
 4. right-of-way requirements. In some cases, known acreage totals were used. Where factor actuals were not known, a typical percentage amount was used, and
5. Multiply the total land available for development (acres) by the minimum density factor as defined by the Zoning Code.

The City's original Growth Management Act housing allocation from King County is 1,797 dwelling units for the time period 1992 through 2012. Between 1993 and 2000, 663 new housing units were constructed. During the same seven-year period 15 units were demolished, creating a net effect of 648 new dwelling units since 1993. Therefore the remaining units for the growth allocation period ending in 2012 equals 1,149 (1,797 – 648). The City has estimated the carrying capacity in Table A3-2. The carrying capacity analysis shown in Table A3-2 and Table A3-3 indicates the City is able to accommodate the remaining allocation under existing Comprehensive Plan land use designations and zoning. Buildable Lands calculated carrying capacity is shown graphically in Figure A3-3.

Table A3-3 shows a summary of the City's "Buildable Lands" inventory for the five-year period 1996-2000. The Buildable Lands statute is a 1997 amendment to Washington's Growth Management Act. This statute (RCW.70A.215) includes as one of its requirements an inventory of the supply of land suitable for development. Based on this inventory, Table A3-3 also shows the remaining vacant and redevelopable lands in the various zones of the City and provides an estimate of remaining capacity in terms of dwelling units, commercial areas, and employment capacity. These estimates are based on the City's actual historical achieved development densities. Background data on the Buildable Lands Tables & referenced in Table A3-3, are on file at the City of Woodinville Community Development Department.

Employment Carrying Capacity Analysis

The employment capacity analysis is a demand/supply analysis. That is, demand for land to meet the requirements to accommodate the job forecasts is compared to supply of land. By making this comparison, the capacity for growth can be calculated. An excess supply beyond projected demand is surplus capacity, whereas inadequate supply would be a deficit of adequate land. The City's 2001 land supply for the City of Woodinville in the commercial and industrial zones is detailed in Table 3-4.

Employment capacity was projected for all non-residentially zoned land. Employment sectors were defined using Standard Industrial Code categories that are commonly used by the Puget Sound Regional Council. These categories are:

1. Construction/Resources,
2. Manufacturing,
3. Wholesale, Transportation, Communication, & Utilities (WTCU),
4. Retail Trade,
5. Finance, Insurance, Real Estate, and Services (FIRES),
6. Government, and
7. Education.

King County allocated 1,950 new jobs for the City of Woodinville for the 20-year growth period of 1992-2012. Snohomish County calculated employment outside the Urban Growth Area over a broad area, which included Grace. In discussions between EDAW and Snohomish County Planning Staff (2/95) an allocation estimate of 332 new jobs was established for Grace. Snohomish County will be revisiting their job allocations in 2003 when updating the Comprehensive Plan. Actual employment data is not available for the Grace area.

To determine how jobs in King County will be allocated, 1995 employment conditions were used as a baseline¹. The percentage of existing jobs by employment was applied to the remaining Growth Management Act allocation total to determine the allocation of new employees by sector. Using space requirements per employee typical of suburban cities, an estimate of the total number of acres by employment sector was determined. This analysis concluded that a total of 23.76 acres of land are required within the City of Woodinville and 11.9 acres of land in the Grace Neighborhood are required to accommodate the respective County's employment allocations for the remaining growth period ending in 2012 (see Table A3-5). Actual detailed employment data is not available for the Grace area. Results of the Buildable Lands process shows the City has an employment capacity of 2,466 as of the beginning of 2001. For more information, see Tables A3-3.7 through A3-3.11.

¹ 1995 was the first year data was available for the City limit boundaries.

These employment acreage requirements were then combined into two categories; industrial and commercial, so that they could be applied to the broader zoning classifications in the Zoning Code and for the Grace Neighborhood. A market factor was then applied to avoid artificial constraints on real estate values (see Table A3-6). Consistent with the King County Buildable Lands Tracking criteria¹. Non-residential parcels were considered redevelopable when the value of improvements on the land was less than 50% of the value of the land itself. These values were taken from the records of the King County Assessor's Office. Residential properties within commercial zones (except multi-family) were considered redevelopable. The total acres required (demand) were then compared to the total acres available (supply).

The build-out analysis for non-residential land for the existing Comprehensive Plan indicates a surplus of 5.94 acres of industrial zoned land and a surplus of 65.21 acres of commercially zoned land. These calculations do not include Grace.

A-3.2 Land Use Background Information

The current land use pattern in the City of Woodinville is largely the result of natural conditions and historic development patterns. The Sammamish River provided the earliest and most efficient transportation corridor to and through the area. Native Indians were the first to settle on the shores of the Sammamish River, followed by homesteaders. Logging in the area encouraged the development of rail service to the area, and rail lines within the city center and along the Sammamish River are still noticeable today.

In the 1950s and '60s, automobile transportation became the popular mode of transit, enabling people to live farther from the urban center of Seattle. This increased accessibility resulted in very rapid growth in the area, particularly in the past 40 years (see Economic Development Element). A majority of this growth has been residential development, primarily single-family.

This section provides a description of previous land use conditions. Some information was provided at the original Woodinville Planning Area level, but a majority of the analysis focuses on the original Woodinville Survey Area and the city limits. A discussion of existing conditions below includes a description of:

1. the Urban Growth Area,
2. land cover and development patterns within the Woodinville Planning Area,
3. land use, including a discussion of vacant land,
4. previously existing zoning in the City of Woodinville, and
5. land utilization in downtown Woodinville.

These are followed by a discussion of land use trends and projections, which includes a discussion of the development of natural areas between 1984 and 1992 (based on satellite imagery) and projected population, housing, and employment growth for the City of Woodinville. This section concludes with a summary of countywide planning policies for land use for both King and Snohomish counties.

A-3.2.1 Existing Conditions

A-3.2.1.1 Urban Growth Areas

The identification of an Urban Growth Area is defined under Growth Management Act as, "within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature." The Growth Management Act states that urban growth areas are to "include areas and densities sufficient to permit the urban growth that is projected to occur in

¹ King County Buildable Lands Coordinator

the County for the succeeding 20-year period,” based on population forecasts made for the county by the state Office of Financial Management.

The Urban Growth Area boundary is shown in Figure A3-4. In King County, the boundary of the Urban Growth Area generally follows the eastern limits of the City of Woodinville. Within Snohomish County, the Urban Growth Area boundary is generally defined by the business corridor along Hwy 9, known as the Maltby UGA.

A-3.2.1.2 Land Cover and Development Patterns

Land cover information provides a way of understanding general development patterns in Woodinville in context to surrounding communities and environmental conditions.

Developed land is generally concentrated near the major transportation corridors of Interstate-405 and State Route 522. Developed areas are also more concentrated in the western portion of the Woodinville Planning Area and closer to the cities of Bothell and Kirkland.

Within the City of Woodinville, developed areas are concentrated in the Town Center, North Industrial, and Valley Industrial neighborhoods, as well as the western portion of the West Ridge Neighborhood. Developed lands are also concentrated along both sides of State Route 522. Agricultural land cover is concentrated in the Sammamish River Valley where a number of large farms (particularly turf farms) exist. Much of this Agricultural land is located within the 100-year floodplain of the river.

Natural Open Land and Forest Land is generally located east of the city limits, with the exception of the eastern half of the Leota Neighborhood, and generally contain single family houses located on large lots.

Water within the Woodinville Planning Area includes the Sammamish River, Little Bear Creek and Leota, Crystal, and Cottage lakes.

A-3.2.1.3 Land Use

The predominant land use for each parcel within the City of Woodinville was identified as part of the land use survey conducted in 2000. The survey results were then compared to aerial photographs and assessor's maps. Discrepancies were field verified for accuracy.

Land uses for each parcel were classified according to one of the 14 categories. Acreages for each land use category are shown in Table A3-7 and illustrated in Figure A3-1. Note that averages shown in Figure A3-1 are as of January 1, 2001. Acreages or land uses in Figures 3-2 and A3-2 are based on the proposed revisions in this Comprehensive Plan update.

Vacant

Vacant land is defined as undeveloped parcels. These parcels generally do not contain permanent structures nor are they used for agricultural or recreation purposes. Vacant parcels may or may not be suitable for development based on environmental constraints or otherwise. According to the survey data, approximately 358 acres of land (10 percent) within the city limits are vacant. Of these acres, 296 are in residential zoned land including 129 acres in R-4 zones and 115 acres in R-1 zones. Within the commercially zoned areas, approximately 62 acres (8 percent) are vacant. Most of this is located in Industrial zoned land (33 acres). Of the 177 acres zoned Central Business District there are only 2 acres that remain vacant. See Figure A3-3.

Table A3-7 Land Use Within the City of Woodinville (in acres)¹

	City of Woodinville	Percent of Total
Single Family	1,985.37	55%
Multi-Family	98.95	3%
Parks/Open Space	45.95	1.2%
Retail Services	287.83	8%
Office	18.97	0.5%
Industrial	561.72	16%
Public/Institution	128.24	3.5%
Tourist Business	32.57	.9%
Vacant	427.24	12%
Total ²	3,586.84	100.1%

Notes:

¹ Acreages were calculated from Geographic Information System data layers ²Area totals may vary from totals in other tables due to discrepancies in Geographic Information System data sources.

Source: City of Woodinville 2000 Land Use Survey

Agriculture

Agriculture is limited to 3 parcels in the Woodinville City limits. Parcels identified as agriculture include pasture and/or farmland (i.e., livestock, turf farms, crops) and may include a farmhouse if associated with the agricultural activity.

Open Space

Open space parcels have been defined as those areas identified on the King County assessor's maps as land set aside for open space (identified as "tracts"), usually as part of a subdivision development and cannot be developed. (To avoid duplication with vacant parcels, this classification does not include land that may or may not be developable due to environmentally sensitive conditions. For a more detailed description of open space, see Chapter 7).

Table A3-8 2000 Gross Acreage Vacant Land Within the Woodinville City Limits

Zone/Neighborhood	Total Acres¹	Percentage of Total	Vacant Acres	Percent Vacant
Residential				
Residential-1	1,102	31%	115	10%
Residential-4	422	12%	129	31%
Residential-6	489	13%	16	3%
Residential-8 ³	28	<1%	12	43%
Residential-12	8	<1%	0	0
Residential-18	30	<1%	0	0
Residential-24	22	<1%	0	0
Residential-48	5	<1%	0	0
Residential-48/O	24	<1%	24	100%
<i>Residential Sub-Total</i>	<i>2130</i>	<i>62%</i>	<i>296</i>	<i>17%</i>
Commercial				
Office	14	<1%	0	0
Neighborhood	46	1%	6	13%
Business				
Central Business District	177	5%	2	1%
District				
Industrial	485	13%	33	7%
General Business	94	3%	21	22%
<i>Commercial Sub-total</i>	<i>816</i>	<i>23%</i>	<i>62</i>	<i>8%</i>
Other (right-of-way, public purposes)	669	19%	0	--
Total² for	3610	104%	348	10%
City of Woodinville				
Grace Neighborhood	479		89	19%

Notes:

¹ Acreages were calculated from Geographic Information System coverages and rounded to the nearest whole number.

Source: City of Woodinville Community Development Department..

² Total exceeds 100% because of rounding to the nearest whole number.

1. Greenbrier Development

Public Parks

Within the City of Woodinville there are approximately 45 acres of land zoned P (Parks). This includes the Sammamish River Trail, which parallels the Sammamish River; Woodin Creek Park, Wilmot Park, DeYoung park positioned in the heart of downtown along 175th Street, Little Bear Creek Lineal Park Property and a small residential pocket park in the Wedge Neighborhood.

Private Recreation

There are approximately 1.2 acres of private recreation facilities in the City of Woodinville. In the Urban Growth Area it is estimated that there are 345 acres of private recreation that include picnic areas, golf courses, and private sports complexes. These include; the Woodinville Indoor Soccer Center, Wellington Golf Course, and Gold Creek Tennis and Sport Club.

Public Schools

Schools within the City of Woodinville include Woodinville High School in the Wedge Neighborhood, Wellington Elementary and Leota Junior High in the Leota Neighborhood. They comprise a total of approximately 78 acres.

Private Schools

Private Schools within the City of Woodinville include Bellevue Christian Mack Elementary (K-6), Chrysalis School (K-12), Dartmoor School (1-12), and Woodinville Montessori School (K-6).

Single-Family

Single-family parcels include all detached and zero lot line housing structures.¹ Single-family land use is the largest single land use within the City of Woodinville (2,013 acres) and is the predominant land use in the Leota, Wedge, and West Ridge Neighborhoods, as well as the eastern side of the Town Center Neighborhood. Many of the homes in the Leota Neighborhood were built between the late 1960s and 1980s and are located on larger lots. The homes in the other neighborhoods are generally newer and are located on smaller lots.

Multi-Family

Multi-family parcels include all attached housing structures such as apartments and townhouses.

Within Woodinville, there are approximately 117 acres of multi-family classified parcels. Most of them are located on the eastern and western boundaries of the Town Center Neighborhood. Many of these developments are large units that have been developed in the recent past. Along with newly developed multifamily units, Brittany Park is a new successful senior housing complex just south of Woodinville City Hall along NE 171st Street.

Mobile Homes

Although there are a few mobile homes located throughout the residential neighborhoods of the City of Woodinville Planning Area, the only mobile home park within the City of Woodinville is Canterbury Square located in the Town Center Neighborhood, approximately two blocks south of NE 175th Street. Canterbury Square currently has 123 mobile homes.

Retail/Services

Retail/Services land uses include those parcels that provide retail goods (i.e., supermarket, hardware store, nursery, service station) and services (i.e., bank, medical care, day care, professional services). There are approximately 176 acres of retail/services currently in Woodinville. The largest concentration of this land use in the Town Center Neighborhood occurs along NE 175th Street. Smaller neighborhood retail areas are located at the intersection of Woodinville-Redmond Road and 140th Place and NE Woodinville-Duvall Road and 156th Avenue NE. There are little or no retail services along Little Bear Creek Parkway since the designation of the General Business that allows retail uses in 1996.

Office

Within the City of Woodinville, there are 14 acres of Office zone. There are also parcels that have offices associated with other land uses (primarily retail/services). There are three areas zoned office which are located as follows: (1) east of 140th Avenue NE in the northeastern portion of the Town Center Neighborhood, (2) the corner of Woodinville Way and, (3) at the SE corner of 140th Avenue and 171st Street that also have existing NB office use.

Industrial/Business Parks

There are approximately 565 acres of industrial/business parks within the City of Woodinville. This includes both heavy and light industrial, as well as a large number of warehousing and business park developments that are located primarily along Woodinville-Redmond Road and east of Woodinville-Snohomish Road.

Public/Utility

There are approximately 50 acres of public/utility parcels within the City of Woodinville. This includes Woodinville City Hall, Woodinville Fire and Life Safety District Headquarters station, storm water detention facilities, Puget Power substations and land associated with transmission lines, and communication facilities.

Right-of Way

Within the City of Woodinville, there are approximately 427 acres of right-of-way. This includes all roads and railroad.

A-3.2.1.4 Zoning

Year 2001 zoning classifications within the City of Woodinville are shown in Figure A3-2. The acreages for each of these zones is shown in Table A3-9.

Of the approximately 3,610 acres of land in the City of Woodinville, 59 percent (2,136 acres) is zoned for residential use. Of this residential zoning, approximately 52 percent is zoned for one residential unit per acre and is located primarily in the Leota Neighborhood.

Table A3-9 2001 Zoning Within the City of Woodinville by Neighborhood (in Acres)¹

Zone	The Wedge	Town Center	Leota	North Industrial	Valley Industrial	West Ridge	Tourist District	TOTAL
Residential								
R-1			1,101	1				1,102
R-4		6				416		422
RI-6	199	103	34			153		489
R-8	6	22						28
R-12		4					4	8
R-18		24				6		30
R-24		19				3		22
R-48		5						5
R-48/0		24						24
<i>Residential Sub-total</i>	<i>205</i>	<i>207</i>	<i>1,135</i>	<i>1</i>	<i>0</i>	<i>578</i>	<i>4</i>	<i>2,130</i>
Commercial								
Neighborhood Business			8				38	46
Central Business District		171			2	4		177
General Business		3		91				94
Office		14						14
Industrial		10		194	192	2	87	485
<i>Commercial Sub-total</i>	<i>0</i>	<i>198</i>	<i>8</i>	<i>285</i>	<i>194</i>	<i>6</i>	<i>125</i>	<i>816</i>
<i>Other (right-of-way, public purposes)</i>								<i>664</i>
TOTAL²	205	405	1143	286	194	584	129	3610

Notes:

¹ Acreages were calculated from Geographic Information System coverages and rounded to the nearest whole number. Numbers do not include right-of-way.

² Area totals may vary from totals in other tables due to discrepancies in Geographic Information System data sources.

Source: City of Woodinville Community Development Department.

Commercially zoned areas within the Town Center Neighborhood make up 5 percent of the City of Woodinville. The Industrial zoned land is 13 percent of the total land in Woodinville and is located in the North Industrial, Valley Industrial, and Tourist District Neighborhoods. The Office zone has increased four times the previous amount, since incorporation, to 16 acres.

A-3.2.2 Trends and Projections

As a complement to the land classification coverage, the Puget Sound Regional Council also conducted a change detection analysis of the Puget Sound region. This analysis compared satellite images from 1984 to 1992 to determine those lands that have been converted from natural lands (i.e., Forest, Natural Open Lands, Agriculture) to Developed. The goal of this change detection analysis was to identify past development trends and project potential future land development.

It is important to note that the Geographic Information System-produced change detection coverage describes land now categorized as Developed that was previously natural (i.e., Natural Open Land, Forested Land, Agriculture). The change detection coverage did not identify lands that have been redeveloped. The change detection was conducted by analyzing the spectral (color) change between the two satellite images on a pixel-by-pixel basis. An assessment of the data found a classification accuracy of 84.5 percent, based on a limited field verification analysis and is considered to be adequate for regional planning purposes (Puget Sound Regional Council, April 1994).

A summary of acres developed between 1984-1992 within Woodinville is shown in Table A3-10.

Within the City of Woodinville, approximately 279 acres of natural land were developed during the change detection period, between 1984-1992. This represents approximately 8 percent of the total land within the city limits and is considered a very rapid pace of development in just 8 years.

Of this 279 acres, 150 acres (6 percent) of natural land developed was residentially zoned primarily in lower density zoned areas. In commercial areas, there were 126 acres (13 percent) of natural land developed; whereas, 102 (14 percent) acres of natural land zoned industrial was developed.

**Table A3-10 Development of Natural Areas Within Woodinville in (acres)
(1984-1992)¹**

Zone/Neighborhood	Total Acres²	Acres Developed	Percent Developed
City of Woodinville			
Residential-1	1,291	29	2.2%
Residential-4	448	31	7%
Residential-6	659	58	9%
Residential-8	10	0	0%
Residential-12	51	2	4%
Residential-18	87	21	24%
Residential-24	24	9	38%
<i>Residential Total</i>	<i>2,570</i>	<i>150</i>	<i>6%</i>
Office	15	3	20%
Neighborhood Business	48	0	0%
Regional Business	215	24	11%
Industrial	709	102	14%
<i>Commercial Total</i>	<i>972</i>	<i>126</i>	<i>13%</i>
City of Woodinville Total³	3,557	279	8%
Grace Neighborhood	479	37	8%
East Valley Neighborhood	436	9	2%

Notes:

¹ Acreages were calculated from Geographic Information System coverages and rounded to the nearest whole number.

² Includes road right-of-way.

³ Area totals may vary from totals in other tables due to discrepancies in Geographic Information System data sources.

Source: Puget Sound Regional Council and EDAW, Inc., 1994.

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 between 1992-2012. Land use goals and policies are established to reflect the needs and desires 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 is given to the ways in which these changes will affect the general character of the community. Land use objectives and policies are 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. The City of Woodinville has demonstrated that the growth allocation can be accommodated.

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 would be needed for site-specific data.

The City of Woodinville currently has adopted Sensitive Areas Regulations in compliance with the Growth Management Act as part of the Zoning Code. For the Comprehensive Plan update in 2002, the City of Woodinville added an Environmental Element to further address sensitive areas. Woodinville's natural environment includes sensitive hydrologic areas and sensitive geologic areas, as discussed in the Environmental Element.

A-3.4 Summary of Countywide Policies for Land Use

A-3.4.1 King County

Chapter III—Land Use Pattern of the County's Countywide Planning Policies—describes policies relating to land use and development. It is divided into six sub-sections. A summary of each is provided below.

Resource Lands: Agricultural, Forestry, and Mineral

Countywide policies regarding resource lands require the county and jurisdictions to protect the natural environment by reducing the consumption of land and concentrating development—a major focus of the Growth Management Act. Agricultural and forest lands shall be protected for the long-term productive value, however, secondary benefits such as open space, scenic views and wildlife habitat are permitted.

All jurisdictions are required to protect existing resource lands within their boundaries that have long-term commercial significance (i.e., agricultural lands). Additionally, all jurisdictions are required to encourage compatible land uses adjacent to the natural resource areas, which support utilization of the resource and minimize conflicts among uses.

Rural Areas

Rural areas have been designated through King County's Countywide Planning Policy process. For Woodinville, this generally includes those areas east of the city limits. Designated rural areas are considered to be permanent and shall not be re-designated to an Urban Growth Area. These rural areas will have low densities and be sustained by minimal infrastructure improvements. The County requires clustering of new development on all existing parcels of contiguous ownership of ten or more acres.

Urban Areas

Urban Areas, which includes all of the City of Woodinville, are designated to accommodate a majority of future growth, and at least the 20-year projection of population and employment growth. Within these urban areas shall be urban separators, defined as permanent low density lands which protect resource lands and environmentally sensitive areas and create open space corridors within and between urban areas.

Phased growth is required to promote efficient use of the land, add certainty to infrastructure planning, and to ensure that urban services can be provided to urban development. Phasing includes those areas in jurisdictions, which do not have urban services and are not scheduled to receive them within the next 10 years.

Within Urban Growth Areas, growth should be directed as follows:

1. first, to centers and urbanized areas with existing infrastructure capacity,
2. second, to areas which are already urbanized such that infrastructure improvements can be easily extended, and
3. last, to areas requiring major infrastructure improvements.

All jurisdictions are required to develop growth phasing plans within urban areas by identifying areas for growth for the next ten to twenty years. These growth phasing plans shall be based on locally adopted definitions, service levels, and financing commitments, consistent with State Growth Management Act requirements.

In collaboration with adjacent counties and cities, and the public, each city shall designate a potential annexation area. Growth phasing plans shall not extend beyond these potential annexation areas. Within the potential annexation areas, each city shall adopt criteria for annexation, including conformance with countywide planning policies, and a schedule for providing urban services and facilities. A city may annex territory only within its designated potential annexation area. All cities shall phase annexation to coincide with the ability for the City to coordinate the provisions of a full range of urban services to areas to be annexed and developed according to the City's and King County's growth phasing plan.

Potential Annexation Areas

The City of Woodinville's Potential Annexation Areas in King County are relatively small. These are properties located outside the city limits but within the urban growth area and are located along the southern boundary bordering NE 171st Street. The area includes 19 parcel totaling less than seven acres.

Urban and Manufacturing/Industrial Centers

Urban and Manufacturing/Industrial Centers are envisioned as areas of concentrated employment and housing, with direct services by high capacity transit, and a wide range of other land uses such as retail, recreation, public facilities, parks, and open space. There are no Urban and Manufacturing/Industrial Centers located within the Woodinville Planning Area (King County). The closest urban centers are the Totem Lake Area and the City of Redmond, both located to the south.

Activity Areas

The Countywide Policies require jurisdictions to develop Activity Areas that contain a moderate concentration of commercial land uses and some adjacent higher density residential areas. Each jurisdiction is required to designate boundaries, maximum densities, and uses within all activity areas to provide for local employment, commercial activities, and public facilities and should be serviced by frequent peak hour transit service. Each jurisdiction should also encourage transit use by establishing minimum and maximum parking requirements that reduce dependence on the single-occupant vehicle. The City's Town Center serves as an

activity center.

The City's Potential Annexation area in Snohomish County is the Grace area located in the Maltby Urban Growth Area.

Urban Growth Outside of Centers

Local land use plans will be responsible for the designation, character, and utilization of urban areas outside of the urban centers. King County's Countywide Policies provide guidance for these areas to ensure they support the urban centers.

The Countywide Policies require that in order to provide for housing and employment opportunities, each jurisdiction shall:

1. establish a target minimum number and mix of net new dwelling units in their comprehensive plan for 1992-2012 and adopt regulations to achieve the target number and mix,
2. establish a minimum density (not including critical areas) for new construction in each residential zone, and
3. establish targets for employment growth for the next twenty years and show how they will meet these target employment numbers.

To encourage infill development and enhance the existing community character and mix of uses, Countywide Policies require jurisdictions to develop neighborhood planning and design processes. The City of Woodinville has met these requirements.

A-3.4.2 Snohomish County

The City of Woodinville's Urban Growth Area (UGA) within Snohomish County (Grace) has been designated "urban" by Snohomish County, and is inside the Snohomish County urban growth area. Countywide policies for rural areas within Snohomish County are described in six policies. County-wide Planning Policies for Snohomish County direct joint county and city planning within urban growth areas. The planning efforts included interlocal agreements for services, consistency in level of service issues within comprehensive plans, and participation in Snohomish County Tomorrow interjurisdictional planning group.