

**Eugene-Springfield Metropolitan Area
Residential Lands and Housing Study
Draft Supply and Demand
Technical Analysis**

February 1999



Acknowledgments

This study was conducted by an intergovernmental staff team with project management by the Lane Council of Governments. The team included representatives from the cities of Eugene and Springfield, Lane County, and the Lane Council of Governments (LCOG). LCOG prepared this preliminary draft report, which serves as a preliminary update to the 1991 residential supply and demand analysis.

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Introduction

This supply and demand analysis is one product of the Residential Land and Housing Study. The Residential Land and Housing Study is a work task in the Periodic Review of the *Eugene-Springfield Metropolitan Area General Plan* (Metro Plan). This supply and demand analysis updates the 1991 Draft Metropolitan Residential Land Study and is being prepared to update the Residential Land Use and Housing Element of the Metro Plan.

This draft report addresses the requirements of Statewide Planning Goal 10, Housing, and its administrative rule for an inventory of buildable lands for residential use and a housing needs projection. This report examines the demand and supply of residential land in the Eugene-Springfield metropolitan area in the 20-year planning period. The report is divided into four sections: Introduction, Demand Analysis, Supply Analysis, and Supply and Demand Comparison.

The Demand Analysis section describes both the housing demand and land demand assumptions and methodologies. In addition, the results of the analysis are presented. The demand analysis is based on an expected population target for the 20-year planning period.

The Supply Analysis section describes the supply of residential land and housing units in the Eugene-Springfield UGB. Both housing stock and existing residential land and buildable residential land are described.

The Supply and Demand Comparison section compares the supply of buildable residential land with the forecasted demand.

Demand Analysis

Housing Demand

To project future demand for residential land it is necessary to project the demand for housing for a forecasted population level. Housing demand was projected by reviewing and making assumptions about the trends in six indicators: population; average household size; group quarter population; structure type mix; vacancy; tenure; structure type; age of householder; and household income.

Population

Population projections serve as the basis for identifying the magnitude of demand. The population projections were created for five-year intervals from 1990 to 2015. They are presented for both Lane County and the Eugene-Springfield metropolitan study area. A projection is an estimate of some future condition based on certain rules and assumptions. These projections are based on the review of relevant historic trends and relationships that are anticipated to continue in the future. No attempt has been made to predict minor alterations in natural, technological, political, social, or cultural trends. Consequently, these projections should not be considered predictions, but rather the extension and outcome of historic trends and anticipated conditions and relationships.

These projections were prepared using a standard cohort survival method and an economic component to project migration. The University of Oregon (UO) students were considered a special population and were not included in the resident population. The model separated population change into components and projected each component independently. The model begins with a base population broken into five-year age cohorts. For these projections, 1990 U.S. Census figures were used for the base year.

Population projections for Lane County were generated first. This allowed for comparison with other projections and actual birth, death, and labor force data. After county projections were arrived at, the metropolitan base population and civilian labor force was entered. The model was then run for the metropolitan study area.

As part of this process, a committee of local experts gathered. This committee consisted of individuals from the Oregon Employment Division, Eugene and Springfield development departments, Eugene and Springfield school districts, Eugene and Springfield Chambers of Commerce, Springfield Utility Board, Eugene Water & Electric Board, and Metro Partnership. This group offered invaluable assistance in evaluating the results of both the population and employment projections.

Description of Methodology

Components of the Model

There are four components of the population model: fertility, mortality, migration, and a special population. The fertility component, which accounts for births, and the mortality component, which accounts for deaths, combine to determine natural increase. This survives the population to the next projection period.

Net migration is the most difficult component of the model to forecast, and in the past 25 years, it has had the greatest effect on population change. In this model, it was assumed that migration is reflected in changes in the size of the labor force.

In this model, the special population consisted of the UO students. The previous projections conducted in 1986 included UO students with the resident population applying fertility rates and surviving them along with the resident population. However, review of the 1986 projections revealed that including the UO students in the resident population resulted in too many persons in the 30-39 year age group and too many babies being born by 1990. Consequently, the UO students in this model are excluded from the resident population; fertility rates and survival rates are not applied. The students are simply added back to the resident population after the resident population is survived and prior to the application of labor force participation rates. To obtain the student population, the UO was contacted regarding the age and sex of students and enrollment projections through the projection period.

Fertility Component

To determine the number of births, projected fertility rates are applied to specific female age cohorts. The sum of these age-specific rates is the total fertility rate meaning the average number of children that a woman would bear during her child-bearing years if she conformed to these fertility rates. Trends in fertility rates were reviewed from 1980 to 1990 in Lane County and the state.

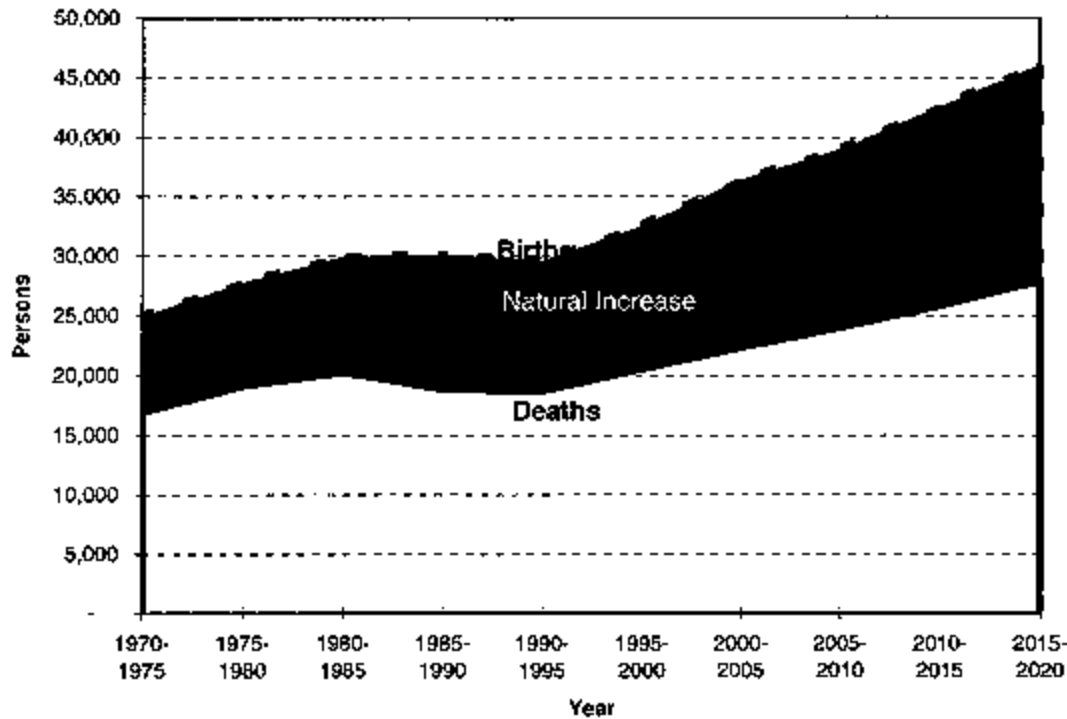
Projected fertility rates were developed for five year age groups between 15 and 44 years of age. For Lane County, fertility rates were developed excluding the student population. The rates were found to be similar to the state. The total fertility rate for the resident population was 2.1.

Mortality Component

Deaths are determined by applying projected survival rates to each age and sex cohort. Survival rates represent the probability that a person in a specific age-sex cohort will survive from one projection period to the next projection period. For example, the survival rate for women aged 30 to 34 is .997 from 1990 to 1995. This indicates that a woman aged 33 has a 99.7 percent probability of surviving to age 38.

Survival rates for this projection model were obtained from the Center for Population Research and Census at Portland State University. The rates were determined by adjusting the 1989 Life Table of the United States with state of Oregon rates from 1989 to 1991.

Lane County Natural Increase



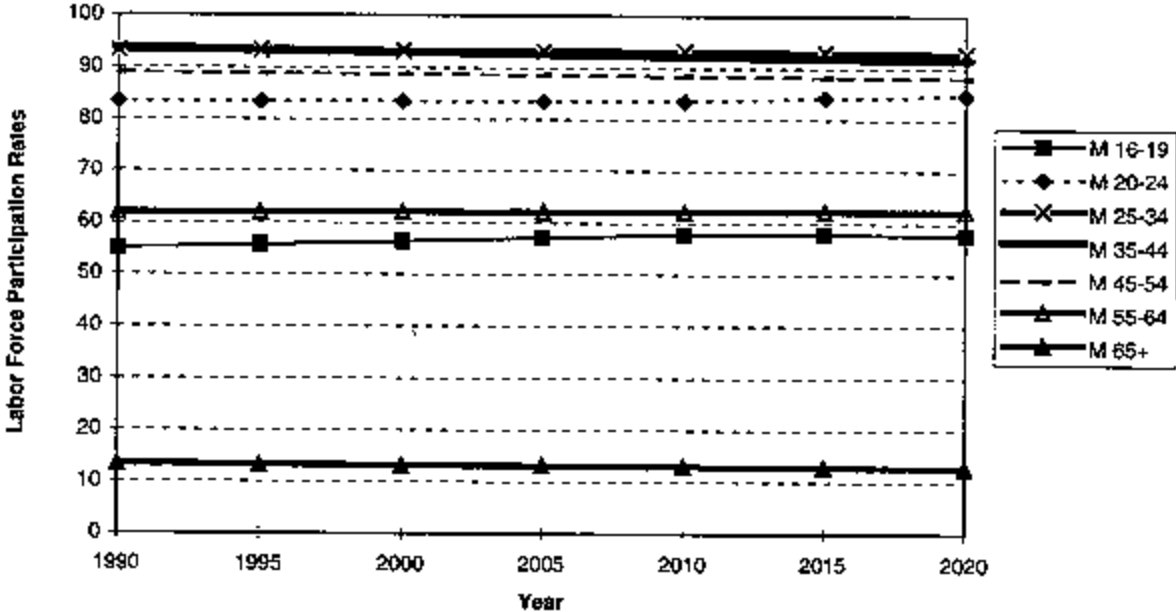
Migration Component

Net migration is the most difficult component of the model to forecast and has had the greatest affect on population change. In this model, it is assumed that net migration is reflected in changes in the size of the labor force.

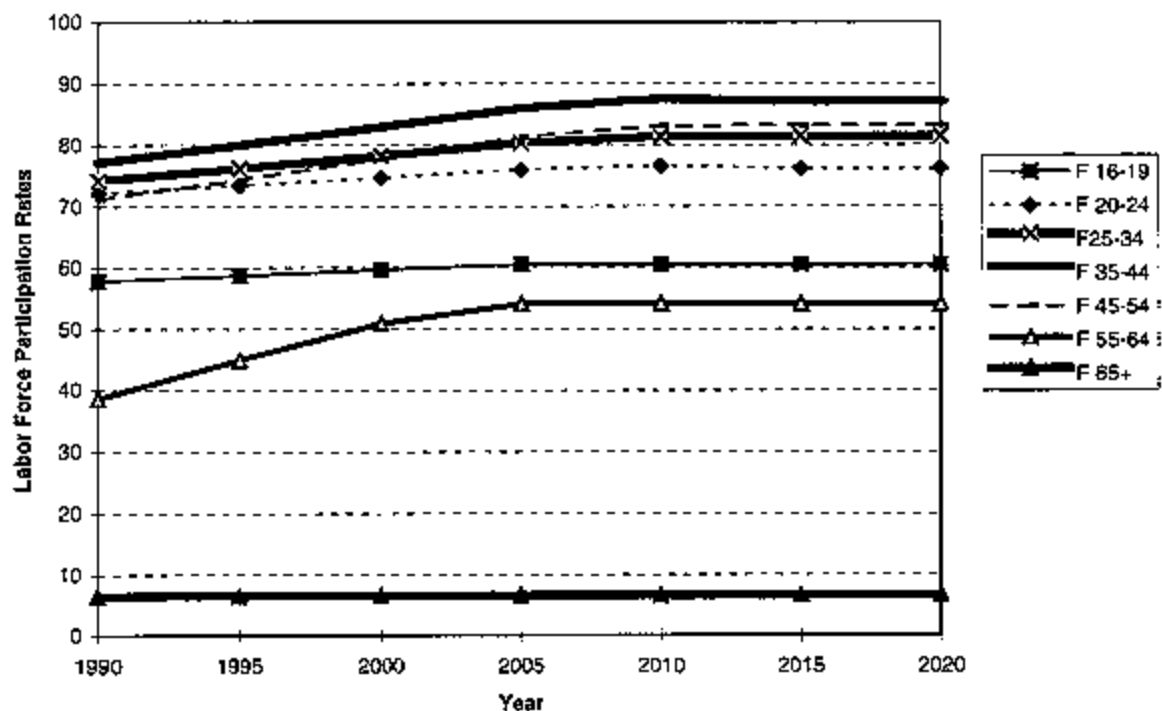
There are three data sources used for developing the migration component: labor force participation rates by age and sex for both the resident population and the special population, independently projected civilian labor force, and the age-sex distribution of net migrants. Specifically, labor force participation rates by age and sex are applied to the survived resident population and the special population and then added together resulting in a derived civilian labor force. This derived civilian labor force is then compared with an independently projected civilian labor force. The difference in the two drives either in- or out-migration for the projection period. This net migration is then distributed by age and sex based on past trends.

Labor Force Participation Rates: The future labor force participation rates were developed comparing the national actual and projected labor force participation rates developed by the U.S. Department of Labor, Bureau of Labor Statistics with actual 1990 labor force participation rates for Lane County. Labor force participation rates were developed for both the resident population and the special population. This was done by assuming that the special population accounted for the variation between the national and local rates. The projected labor force participation rates for the resident population by sex for persons 16 and over are displayed below. As shown, the male participation slightly declines during the projection series while the female participation slowly increases between 2005 and 2010, at which time it levels out.

Projected Labor Force Participation Rates for Males

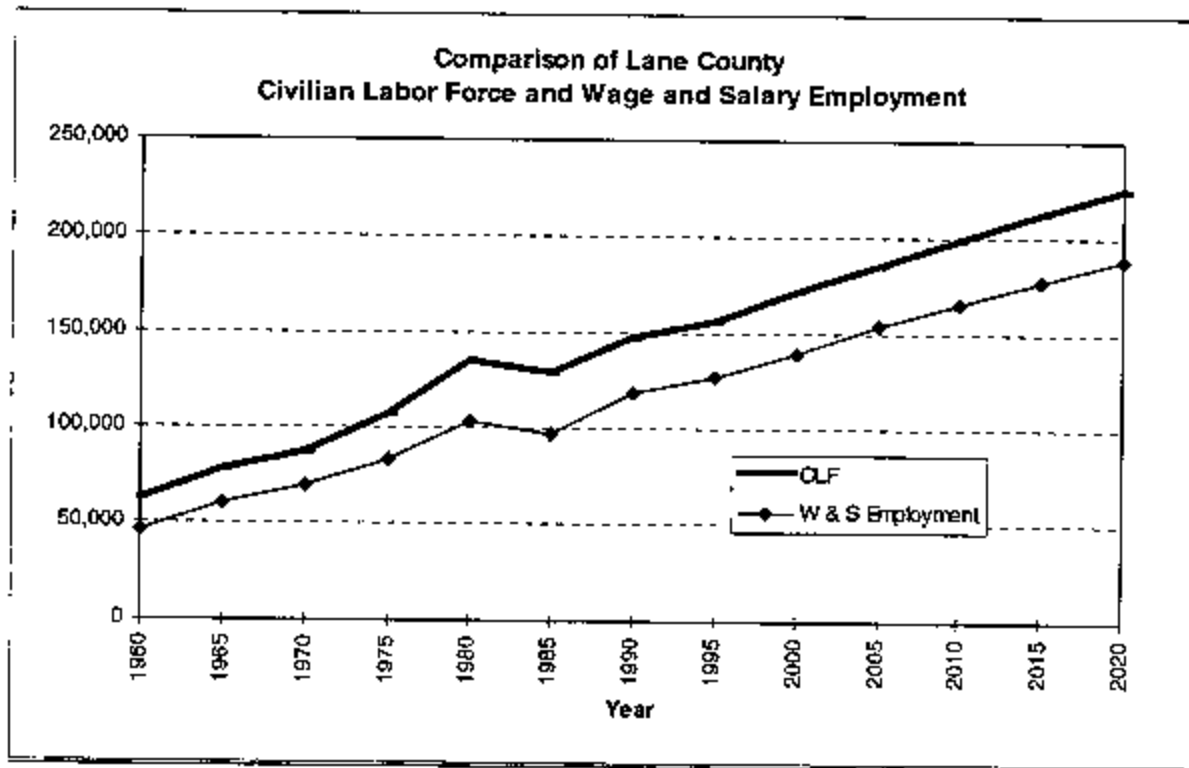


Labor Force Participation Rates Females



Independently-Projected Labor Force: In projecting civilian labor force, an independent analysis of Lane County civilian labor force estimates produced by the Oregon State Employment Division for the period 1960 to 1993 was conducted. This analysis included regression analysis and comparisons to independently projected employment projections.

The following graph shows projected civilian labor force and projected wage and salary employment for Lane County. As displayed, the civilian labor force follows the trend of projected wage and salary employment. In general, the civilian labor force is projected to increase at a rate similar to the rate of growth seen during the 1960s.



Distribution of the Migrant Population: The migrant population is developed by comparing the independently projected civilian labor force with the labor force derived from applying labor force participation rates to the resident and student populations. After the size of the migrant population was determined, it was distributed into age and sex cohorts based on 1990 census figures for Lane County based on the review of *County to County Out and In Migration flows 1989 to 1990* and 1980 census data taken from PC 80-S1-17, *Gross Migration for Counties, 1975 to 1980*.

Results

Historically, Lane County has a record of relatively steady population growth. During the 1970s, the population increased by 59,825 persons or 28 percent. Approximately one-third of this increase was due to natural increase (births minus deaths) while two-thirds was due to in-migration. During the 1980s, the economic recession had an effect on population growth. The population increased by only 7,686 persons; 18,445 persons were added through natural increase and there was an out-migration of 10,759 persons. In 1990, the population reached 282,912 persons.

These projections anticipate growth in the next 20 years to be above the levels that occurred between 1970 and 1990. Between 1970 and 1990, the population in Lane County increased 30.2 percent. It is projected that in the next 20 years the population will increase 35 percent. This is slightly above the growth anticipated for the state, which is expected to be 33 percent.

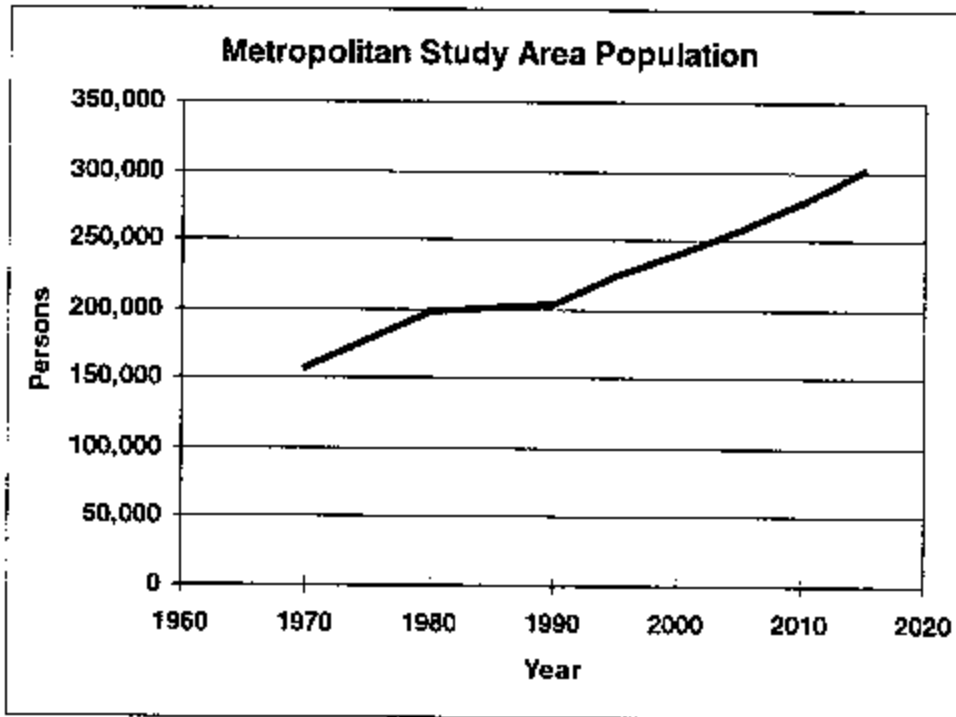
Employment projections for Lane County were developed for the same time period. These projections forecast a 1.6 percent annual average increase in employment for Lane County between

1990 and 2015. For the Eugene-Springfield metro area, a 1.8 percent annual average increase is projected for this time period.

Eugene-Springfield Metropolitan Area

In 1990, the Eugene-Springfield metropolitan study area population was 204,359. The metro area population is projected to reach 301,400 persons by 2015, an increase of 97,041 persons or a 47 percent increase. This represents a 1.57 percent annual average increase over the 25-year period 1990 to 2015. Between 1990 and 2010, the Eugene-Springfield metro area population is expected to grow faster than both the state and the County, increasing at an annual average rate of approximately 1.54 percent compared to the state's 1.45 and the County's 1.50.

Year	Population	Percentage Changed	Percentage Annual Average Increase
1970	156,941	--	--
1980	197,632	25.93	2.33
1990	204,359	3.40	0.34
1995	224,100	9.66	1.86
2000	240,700	7.41	1.44
2005	257,400	6.94	1.35
2010	277,600	7.85	1.52
2015	301,400	8.57	1.66



As shown in the table below, the 1990 metro area population accounted for 72 percent of the total Lane County population. This percentage is expected to increase to 73 percent by 2015.

Year	Metro Population	Lane County Population	Percent Metro of Lane County
1970	156,941	215,401	73
1980	197,632	275,226	72
1990	204,359	282,912	72
1995	224,100	308,200	73
2000	240,700	330,000	73
2005	257,400	352,300	73
2010	277,600	381,000	73
2015	301,400	413,300	73

Comparison With Other Projections

In the early 1990s, Lane County projections were produced by two other agencies: the Center for Population Research and Census (CPRC) at Portland State University and the Oregon Department of Transportation (ODOT). These projections are presented below. The CPRC and ODOT projections were completed in 1993.

Overall, the Lane Council of Governments' (LCOG) projections are close to the CPRC projections. The CPRC projections project an annual average increase of 1.45 over the 20-year period 1990 to 2010, while the LCOG projections forecast a 1.5 annual average increase. The ODOT projections indicate higher population growth between 1990 and 1995. The three projections have similar population forecasts for 2000. After 2000, the ODOT projections forecast less population increase than either the CPRC or LCOG.

Year	1993 ODOT	1993 Center for Population Research and Census	1994 Lane Council of Governments
1990	283,490	282,912	282,912
1995	311,149	306,991	308,200
2000	330,325	330,853	330,000
2005	347,769	354,499	352,300
2010	367,240	377,341	381,000
2015	--		413,000

In 1977, as part of the development of the Metro Plan, LCOG produced Lane County and Eugene-Springfield Metropolitan Study Area projections. The methodology used to produce the 1977 projections is very similar to the methodology used to produce this set of projections. A comparison of the two sets of projections for the Eugene-Springfield metro area follows. The 1977 projections show a population of 293,700 persons in 2000; in the 1994 projections, this figure is not reached until some time between 2010 and 2015.

**Comparison of Eugene-Springfield
Metropolitan Study Area Projections**

	1977 LCOG Population Projections	1994 LCOG Population Projections
1980	194,900	
1985	221,100	
1990	246,200	204,359
1995	271,300	224,100
2000	293,700	240,500
2005		257,400
2010		277,600
2015		301,400

The 1994 population projections forecast slower growth than the 1977 projections. The 1977 projections forecast a 2.07 annual average increase for the 20-year period 1980 through 2000. The 1994 projections forecast a 1.54 annual average increase between 1990 and 2015.

The 1977 projections were developed at a boom time when there was substantial population growth and residential development. This growth stopped in the early 1980s when the economic recession hit the area. At that time, unemployment rates were high and population out-migration occurred. Not until after the 1983 did population statistics show growth.

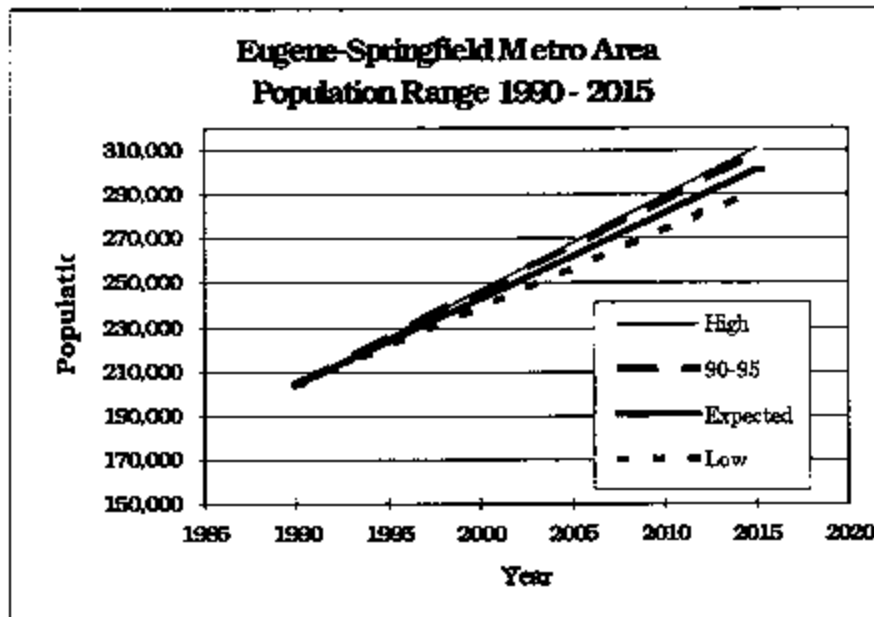
Population Range

As the previous analysis indicates, it is difficult, if not impossible, to predict the future. In order to provide flexibility in this supply and demand analysis, a range from low to high was developed around the projection for the Eugene-Springfield metro area. To develop the range, the amount of growth between 1990 and 2015 was determined. Growth rates were reviewed and a proportion of that growth, 10 percent, was added and subtracted from the projection developed through the methodology described previously.

2015 Population Range	
Low Growth (10 Percent Less Growth Than Expected)	291,700
Expected Growth Over the 25-Year Period	301,400
High Growth (10 Percent More Growth Than Expected)	311,100

Below is a graph of the high and low range in relation to the expected projection and the growth that occurred between 1990 and 1995.

This range from high to low was used in the development of housing demand. Consequently, a high to low range is calculated for households, housing units and land demand in 2015.



Projecting Future Households

Average Household Size

Average household size describes the number of persons who live in an occupied housing unit and is a key variable in the housing demand methodology. Average household size has been declining both nationally and locally. The cause of the decline in household size is due to a variety of factors including lower fertility rates, increased divorce rate, higher survival rates, and delayed marriages. It is expected that household sizes will continue to decline. During the 1990s, the baby boom generation, which constitutes a large proportion of the population, is at the highest household formation ages. As the baby boom generation ages, they will move into ages that typically have smaller household size.

Year	Actual	Projected
1960	3.13	
1970	2.95	
1980	2.51	
1990	2.44	
1995		2.40
2000		2.35
2005		2.32
2010		2.29
2015		2.27

Household size is inversely proportional to unit demand. The higher the household size, the fewer the number of housing units that will be demanded.

Group Quarters Population

The group quarter population includes individuals living in institutions such as dormitories, nursing homes, and jails or are homeless. In the next 20 years, the group quarter population will be affected by the countervailing forces of the student population and elderly population. Most of the present group quarter population are students living in dormitories. At present, UO enrollment is fairly stable and there are no plans for major expansion. The elderly population (80+) will be increasing. However, social service trends are attempting to keep seniors in a home setting.

In 1980 and 1990, the group quarter population was 3.2 percent of the total metro population. It is projected the group quarter population will gradually decline in percentage. For these projections, it was assumed 3 percent of the population would live in a group quarters situation.

Metropolitan Study Area	
Year	Percent Group Quarters Population of Total Metro Area Population
1970	3.4
1980	3.2
1990	3.2
1995-2015	3.0

Household Projections

Household projections can be made using projected population, average household size and group quarter population. The calculation used to develop household projections was as follows:

$$\text{Projected Number of Households} = \frac{\text{Projected Population} - \text{Group Quarter Population}}{\text{Average Household Size}}$$

Using this calculation, projected households were developed for the next 20 years.

Metropolitan Study Area Total Households	
Year	Total Households
1970	49,903
1980	75,804
1990	81,117
	Projections Based on Expected Growth
1995	90,570
2000	99,350
2005	107,600
2010	117,600
2015	128,800

The metro study area contained 81,117 households in 1990. By 2015, it is projected based on expected growth that there will be 128,800 households. This is a 59 percent increase in households. In 2015, based on the range of population growth, the number of households ranges from 124,650 to 132,900. Applying a 3.5 percent vacancy rate results in a 2015 total housing units demand for between 129,000 and 137,600 housing units for the Metro Study area.

2015 Projected Number of Households Range	
Low Growth (10 Percent Less Growth Than Expected)	124,650
Expected Growth Over the 25-Year Period	128,800
High Growth (10 Percent More Growth Than Expected)	132,900

Projected Housing Units in Eugene-Springfield Urban Growth Boundary

The 2015 housing unit demand for the Eugene-Springfield urban growth boundary (UGB) is determined by subtracting the existing developed units and those expected to be built outside the UGB and inside the Metro Study area during the planning period. There were 88,007 existing units based on the Lane County Geographic Information System. It is expected that 680 units will be built outside the UGB and inside the Metro Study area. This results in a 2015 housing unit demand of between 40,000 to 49,000 new units inside the UGB.

Projecting Future Housing Units

There are a number of factors that affect the demand for housing in addition to the growth in households. To identify the *long-run* market for housing in the Eugene-Springfield UGB, two Oregon consultants, ECONorthwest and Leland Consulting Group, conducted an analysis. These consultants identified and projected the relevant factors and projected the residential demand for housing units by housing type. (See Appendix B, *What Is the Market Demand for Residential Real Estate in Eugene-Springfield?*)

In summary, the Market Demand Study analysis indicates that there is a relationship between household characteristics and housing demand and that household characteristics are expected to change. As the baby boomers move into older age groups, the age of the head of household will increase and the size of households will continue to become smaller. In addition, there will continue to be a decline in married-couple families with children. It is also projected that there will be an increase in the proportion of lower- to middle-income households. These new households will increase demand for smaller and alternative housing products.

For the purposes of this analysis, the results of the Market Demand Study were translated into a range. In addition, to make the demand and supply as comparable as possible, it was necessary to bring both the demand and supply to 1992 conditions. The supply analysis represents 1992

conditions even though most of the inventory has been updated to January 1995. To bring the demand analysis to 1992 required determining the residential development that occurred within the Eugene-Springfield UGB between 1990 and 1992. Based on the Lane County Geographic Information Systems (GIS), there were approximately 3,200 units added between 1990 and 1992.

Units Added Inside the Eugene-Springfield Urban Growth Boundary Between 1990 and 1996		
Housing Type	Units Added Between 1990 and 1992*	Units Added Between 1993 and 1996**
Single-Family, detached	1,200	3,121
Single-Family, attached	100	754
Multi-Family	1,200	1,887
Mfr'd in Park	700	N/A
Total	3,200	5,832

* Based on 1/1/90 and 7/1/92 Metro Area Parcel Files

** Based on 7/92 - 6/96 Building Permit Summaries for Eugene and Springfield

While the number of units issued through building permits between 1992 and 1996 is known, the land associated with those units is not known. Consequently, it will not be used in the comparison.

This analysis results in a demand of between 40,000 to 49,000 housing units in the 1992 to 2015 period. The distribution of these units by housing type follows.

Eugene-Springfield Urban Growth Boundary 1990-2015 Housing Unit Demand		
Housing Type	Percentage of Future Housing Units	1992-2015 Range of Number of Units
Single-Family, detached*	40	16,000-19,600
Single-Family, attached	12	4,800-5,880
Multi-Family	35	14,000-17,150
Mfr'd in Park	13	5,200-6,370
Total	100	40,000-49,000

* Includes manufactured dwellings on lots.

The distribution of existing housing stock inside the UGB was reviewed for 1989 and 1998. As shown in the table below, the percentage of single-family, detached declined in this time period from 61 percent to 59 percent. Looking at the distribution of units built between 1989 and 1998 indicates that 45 percent were single-family, detached, including manufactured dwellings on lots. Historic data considered townhouses to be multi-family instead of single-family, attached. Therefore, the historic number and percent of multi-family housing would be lower if townhouses were classified as single-family, attached.

Number of Units by Type in Eugene-Springfield UGB 1989 Metro Parcel File, 1998 Lane County Address Library						
Structure Type	1989		1998		Built Between 1989 and 1998	
	Number	Percent	Number	Percent	Number	Percent
Single Family	46,665	60.41	53,857	56.62	7,192	40.22
Manfcturd Dwelling on Lot	990	1.28	1,943	2.04	953	5.33
Manfcturd Dwelling in Park	3,430	4.44	4,966	5.22	1,536	8.59
Duplex	7,609	9.85	8,877	9.33	1,268	7.09
Multi-Family*	18,552	24.02	25,483	26.79	6,931	38.76
Total	77,246	100.00	95,126	100.00	17,880	100.00

* Includes Townhouses

To accommodate the additional households in 2015, owner, renter, and government-assisted units will be needed. The *What Is the Market Demand for Residential Real Estate in Eugene-Springfield?* report projected households by household income in 1990 constant dollars. From this analysis, an indication of future housing needs can be gleaned.

By 2015, it is projected, there will be 15,000 additional households with incomes less than \$15,000. This translates into a monthly expenditure for housing of \$375 and less using the affordable housing definition that households pay less than or equal to 30 percent of their income on housing. The most recent information on housing costs is a spring 1996, Eugene-Springfield apartment survey. This survey indicates that monthly rents for *pre 1988* one-bedroom apartments averaged \$447 (\$376 in 1990 dollars) in Eugene and \$412 (\$346 in 1990 dollars) in Springfield, and two-bedroom *pre 1988* apartments averaged \$538 (\$457 in 1990 dollars) in Eugene and \$506 (\$425 in 1990 dollars) in Springfield. Monthly rents for new units average over \$100 more. Thus, some households with incomes under \$15,000 would require some government assistance. Furthermore, some households in the \$15,000-\$29,000 range would require government assistance. These assisted units could be of any housing type.

Households with incomes between \$15,000 and \$29,000 would most likely be able to afford rental housing, primarily multi-family. Households with income between \$29,000 and \$48,000 would be able to afford home ownership of multi-family; single-family, attached; and single-family, detached on small lots. Households with incomes over \$48,000 could afford home ownership of all housing types.

Residential Land Demand

To conduct this supply and demand analysis it is necessary to determine the number of net acres of land needed by plan designation. This requires making assumptions on two factors:

- The distribution of new units developed within density categories
- Net density at which new housing units will be built within density categories

Within the Eugene-Springfield UGB, residential development is planned to occur on land designated low-, medium-, and high-density residential (LDR, MDR, and HDR, respectively). Based on the Metro Plan, these three density categories refer to specific housing density categories. Low density includes up to 14.28 dwelling units per net acre; medium density is 14.28 through 28.56 units per net acre; and high density includes 28.56 and more dwelling units per net acre.

The existing distribution of housing types by generalized zoning was reviewed prior to developing assumptions on the future distribution. The table below displays the 1992 existing distribution.

Zonetype by Structure Type 1992 Metro Parcel File				
Zonetype	Single Family + Mf rd on Lot	Duplex	Multi- Family	Mf rd in Park
L	95.4	78.2	21.1	98.3
M	4.3	21.1	50.7	1.7
H	0.3	0.7	28.1	
Total	100.0	100.0	100.0	100.0

Based on development patterns in the Eugene-Springfield UGB and future expectations, the following distribution will be assumed.

	LDR	MDR	HDR	Total
Single-Family, Detached*	95%	5%	0	100%
Single-Family, Attached	90%	10%	0	100%
Multi-Family	20%	50%	30%	100%
Mfr'd in a Park	98%	2%	0	100%

* Include manufactured dwellings on lots.

Housing Density

After the total new units are distributed into the three designations based on the assumed housing distribution, net densities can be applied to determine land demand. Densities by housing type were reviewed for 1986, 1992 and 1994.

Year	Single-Family			Multi-Family			Poplax		
	Units	Acres	Density	Units	Acres	Density	Units	Acres	Density
1986	45,909	11,144	4.12	18,442	794	23.23	7,601	735	10.34
1992	48,488	11,628	4.17	20,098	941	21.36	7,780	752	10.35
1994	49,957	11,962	4.18	21,352	974	21.92	7,922	764	10.37
Change 86-92	2,579	484	5.33	1,656	147	11.27	179	17	10.53
Change 86-94	4,048	818	4.95	2,910	180	16.17	321	29	11.07

Year	Manufactured Dwellings			Total		
	Units	Acres	Density	Units	Acres	Density
1986	4,336	708	6.12	76,288	13,414	5.69
1992	5,641	944	5.98	82,007	14,265	5.75
1994	6,180	1013	6.10	85,411	14,713	5.81
Change 86-92	1,305	236	5.53	5,719	851	6.72
Change 86-94	1,844	305	6.05	9,123	1,299	7.02

For this analysis, the following net density assumptions were used to determine land demand. When comparing land demand with supply, sloped land was assumed to develop at lower densities. See discussion under sloped land on page 42.

Assumed Average Net Densities (Housing Units per Net Acre)			
	LDR	MDR	HDR
Single-Family, Detached	5.5	6.5	0.0
Single-Family, Attached	10.0	12.0	0.0
Multi-Family	14.0	20.0	35.0
Mfr'd in a Park	7.0	10.0	0.0

Based on these assumptions, the following range of land demand by plan density category is projected for the 1992-2015 period.

Projected Net Acre Land Demand for New Units (1992-2015) by Plan Designation for the Eugene-Springfield Urban Growth Boundary in Acres	
Plan Designation	2015 Residential Land Demand Range in Net Acres
Low Density	4,124-5,051
Medium Density	523-641
High Density	120-147
Total	4,767-5,840

Thus, in the planning period, a range of between 4,767 to 5,840 acres of buildable residential land will be necessary to accommodate the projected population and households. Most of the land demand is for single-family, detached units.

Supply Analysis

Housing Stock

A review of the existing housing stock provides information related to the demand for residential land. The housing stock is classified in the following structure type categories: single-family, duplex, multi-family, manufactured home on a lot, and manufactured home in a park.

Single-family residences dominate the metro area with a 59 percent share of the housing stock. Multi-family housing takes second place with a 25 percent share. Duplexes account for 9 percent of the housing stock and manufactured housing on lots and in parks account for a total of 7 percent.

The following two tables show the housing structure types by real numbers and percentage in the Eugene and Springfield areas. The Eugene area has a slightly higher proportion of single-family residences and a significantly higher proportion of multi-family residences than the Springfield area. The Springfield area in turn has a higher proportion of duplexes and manufactured housing than the Eugene area. In fact, the Springfield UGB has more manufactured homes on lots than the Eugene UGB, even though Springfield has fewer than half the housing units of Eugene.

Number of Dwelling Units by Structure Type as of July 1992						
	Manufactured Home in Park	Manufactured Home on Lot	Multi-Family	Duplex	Single-Family	Total
Eugene	2,206	245	15,763	4,300	27,643	50,157
Uninc. Eugene	658	231	141	826	8,051	9,907
Eugene UGB	2,864	476	15,904	5,126	35,694	60,064
Springfield	1,522	555	4,190	2,456	10,083	18,806
Uninc. Springfield	0	224	4	198	2,711	3,137
Springfield UGB	1,522	779	4,194	2,654	12,794	21,943
Metro Total	4,386	1,255	20,098	7,780	48,488	82,007

Percentage of Dwelling Units by Structure Type as of July 1992

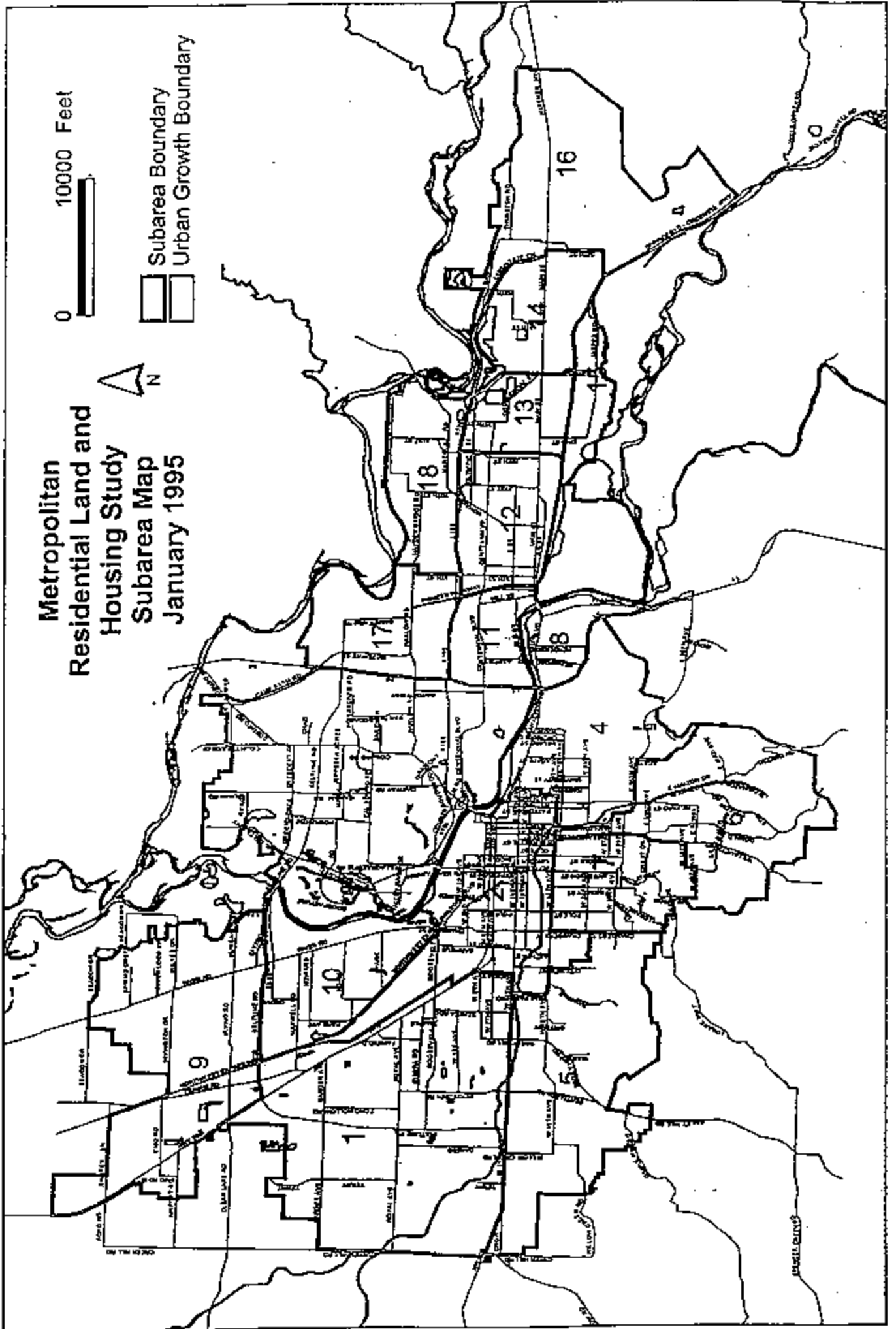
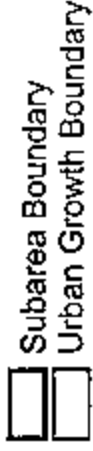
	Manufactured Home in Park	Manufactured Home on Lot	Multi-Family	Duplex	Single-Family	Total
Eugene	4%	0%	31%	9%	55%	100%
Uninc. Eugene	7%	2%	1%	8%	81%	100%
Eugene UGB	5%	1%	26%	9%	59%	100%
Springfield	8%	3%	22%	13%	54%	100%
Uninc. Springfield	0%	7%	0%	6%	86%	100%
Springfield UGB	7%	4%	19%	12%	58%	100%
Metro Total	5%	2%	25%	9%	59%	100%

Charting the metro-wide housing stock for 1977 and 1992 shows that the structure type mix of housing has shifted slightly over those 15 years. Due to increases in construction of multi-family residences and increases in the number of manufactured homes, the proportion of single-family residences in the metro area declined. The percentage of single-family residences in the region's housing stock decreased from 64% to 59% from 1977 to 1992. During the same time period, multi-family housing increased slightly from 22% to 25%. Manufactured homes on lots and manufactured homes in parks both increased their percentage of the region's housing stock by 1%. The percentage of duplexes remained unchanged.

The housing type mix did not change in the same way within the Eugene UGB and the Springfield UGB between 1977 and 1992. The proportion of duplexes remained constant in the Eugene UGB, but increased from 8% to 12% in the Springfield UGB. The proportion of multi-family units remained constant in Springfield's UGB, but increased from 23% to 26% in Eugene's UGB. The other changes in housing type mix were similar in the Eugene and Springfield areas.

Looking at subareas within the metro area reveals some interesting facts about the distribution of housing types. The following tables show the housing stock by structure type for subareas within the Eugene and Springfield UGBs, first by real numbers and then by percentage within the subarea.

**Metropolitan
Residential Land and
Housing Study
Subarea Map
January 1995**



Number of Dwelling Units by District and Type as of July 1992

District	Mfr'd Home in Park	Mfr'd Home on Lot	Multi- Family	Duplex	Single- Family	Total
1 Bethel-Danebo	1,370	161	666	697	4,417	7,311
2 Central	87	3	7,536	955	3,593	12,174
3 Willakenzie	675	141	2,897	1,072	6,267	11,052
4 University	0	2	1,393	350	2,806	4,551
5 Southwest	154	16	1,439	164	3,126	4,899
6 Southeast	0	4	1,129	483	4,132	5,748
7 South	0	2	428	569	3,578	4,577
8 Glenwood	488	42	20	20	160	730
9 Santa Clara	84	56	37	414	4,362	4,953
10 River Road	6	49	359	402	3,253	4,069
Eugene UGB	2,864	476	15,904	5,126	35,694	60,064
11 SPR_CW	57	5	718	494	1,483	2,757
12 SPR_DT	200	7	1,013	244	3,303	4,767
13 SPR_C	66	173	232	236	962	1,669
14 SPR_CE	703	123	282	428	1,252	2,788
15 SPR_S	0	174	54	32	598	858
16 SPR_E	108	100	174	407	2,215	3,004
17 SPR_NW	303	165	1,379	501	1,262	3,610
18 SPR_N	85	32	342	312	1,719	2,490
Springfield UGB	1,522	779	4,194	2,654	12,794	21,943
Metro Total	4,386	1,255	20,098	7,780	48,488	82,007

Percentage of Dwelling Units by District and Type as of July 1992

District	Mfr'd Home in Park	Mfr'd Home on Lot	Multi-Family	Duplex	Single-Family	Total
1 Bethel-Danebo	19%	2%	9%	10%	60%	100%
2 Central	1%	0%	62%	8%	30%	100%
3 Willakenzie	6%	1%	26%	10%	57%	100%
4 University	0%	0%	31%	8%	62%	100%
5 Southwest	3%	0%	29%	3%	64%	100%
6 Southeast	0%	0%	20%	8%	72%	100%
7 South	0%	0%	9%	12%	78%	100%
8 Glenwood	67%	6%	3%	3%	22%	100%
9 Santa Clara	2%	1%	1%	8%	88%	100%
10 River Road	0%	1%	9%	10%	80%	100%
Eugene UGB	5%	1%	26%	9%	59%	100%
11 SPR_CW	2%	0%	26%	18%	54%	100%
12 SPR_DT	4%	0%	21%	5%	69%	100%
13 SPR_C	4%	10%	14%	14%	58%	100%
14 SPR_CE	25%	4%	10%	15%	45%	100%
15 SPR_S	0%	20%	6%	4%	70%	100%
16 SPR_E	4%	3%	6%	14%	74%	100%
17 SPR_NW	8%	5%	38%	14%	35%	100%
18 SPR_N	3%	1%	14%	13%	69%	100%
Springfield UGB	7%	4%	19%	12%	58%	100%
Metro Total	5%	2%	25%	9%	59%	100%

The Willakenzie subarea most closely mirrors the metro-wide housing type mix.

Both the River Road and Santa Clara subareas have high percentages of single-family units. The Santa Clara subarea has the highest percent of single-family homes: 88 percent of the housing mix in that area. It also has the lowest percentage of multi-family units, only 1 percent.

Central Eugene, Glenwood, and Northwest Springfield are the only areas where single-family homes are not the predominant structure type. In the Central Eugene subarea, the dominant housing type is multi-family. This area contains 7,536 multi-family units, almost half of the total multi-family housing stock in Eugene's UGB. Also, in the Northwest Springfield area, the dominant housing type is multi-family. This area contains 1,379 multi-family units, one third of the total multi-family stock in Springfield's UGB. In the Glenwood area, manufactured homes in parks dominate the structure types where two-thirds of all housing units are manufactured homes in parks.

Four subareas: University, Southeast Eugene, South Eugene, and South Springfield, have no parks for manufactured homes. However, South Springfield has the highest concentration of manufactured homes on lots in the metro area: one in five housing units is a manufactured home.

Central West Springfield has the highest concentration of duplexes in the metro area with 18 percent of the subarea's housing stock. Southwest Eugene and Glenwood have the lowest rates of duplexes with 3 percent shares of those areas' housing stock.

Manufactured Dwelling Inventory

Methodology

Park managers were contacted by phone to update capacity and vacancy information for 1995. In cases where a park manager could not be contacted, staff conducted a site visit to determine the park capacity and number of vacancies. Recreational vehicles serving as a permanent residence and occupying a site within a manufactured home park were included within the inventory. The inventory did not include conventional houses or apartments within the manufactured home park.

Findings

As of June 1995, there were 4,611 manufactured dwelling spaces in parks within the metro area UGB; 2,566 of those spaces were within Eugene and 1,391 were within Springfield. There were 654 spaces outside Eugene's city limits, but within Eugene's UGB. No manufactured home parks exist in the unincorporated portion of Springfield's UGB. For more information about each park, see Appendix A, **Manufactured Home Parks**.

The number of spaces increased 7.6 percent from 3,466 in 1988 to 3,730 in 1990. The number of spaces then increased 2.4 percent from 1990 to 1995, to reach a total of 4,611 spaces. The increase of 881 spaces over the past five years is primarily due to seven new parks in Eugene and one in Springfield (Hidden Meadows, Lakeridge of Eugene, Roosevelt Acres, Falcon Wood Village, Songbrook, Eldon Park, Rosewood Manufactured Home Park, and Lake Court). Four parks substantially increased their size (Town and Country Trailer Park, Shamrock Village, Eugene Mobile Village, and Santiago Estates).

The overall vacancy rate dropped from 8 percent in 1988 to 2.2 percent in 1990 and increased to 3.4 percent in 1995. Currently, there are 155 vacancies in the Eugene-Springfield UGB, of which only five are in Springfield. Most of the manufactured home parks are full. The available spaces are concentrated in four parks. Topper Village is currently "cleaning out" the park by evicting residents involved in criminal activities, resulting in 25 vacancies. As a new park, Songbrook has 61 vacancies, 19 of which are reserved. The park caters to the double- and triple-wide market. One section of Seavers Trailercourt has been renovated to provide 16 available spaces for single-wide homes. Woodland Park Estates has developed in phases and currently has 23 vacancies; 18 of which are occupied by model manufactured homes. Management is in the process of developing 120 new spaces.

Land in Residential Use

Residential land is defined as land that is zoned or designated residential in the Eugene-Springfield UGB. The data base for this analysis is the 1992 Metropolitan Parcel File. In 1992, there were 25,741 acres of residential land within the UGB. Of this total, 54 percent was in residential use, approximately one-third was undeveloped, and 12 percent was in a non-residential use. Non-residential uses include education/government, commercial, industrial, parks, and another category that consists of roads, railroads, water, religious, and charitable organizations, etc.

Summary of Residential Land by Use in Acres* as of July 1, 1992							
Generalized Land Use	Eugene	Uninc. Eugene	Eugene UGB	Springfield	Uninc. Springfield	Springfield UGB	Total
Residential	7,753	2,444	10,196	2,684	910	3,594	13,790
Undeveloped	3,354	2,801	6,155	1,043	1,487	2,530	8,685
Education/ Govt	453	102	555	172	12	184	739
Commercial	552	91	643	106	16	122	765
Industrial	137	34	171	48	39	86	257
Parks	488	72	560	60	21	81	641
Other	623	104	728	105	30	135	863
Total	13,360	5,648	19,008	4,218	2,515	6,732	25,741

* Note: Totals may vary due to rounding

The Eugene UGB contained 19,008 acres of residential land. Approximately 54 percent was in residential use, 32 percent undeveloped and 14 percent in non-residential use. The Springfield UGB contained 6,732 acres of residential land, about 53 percent in residential use, 37 percent undeveloped, and 10 percent in non-residential use.

Infill And Redevelopment

Some demand for new residential development will be met by infill and redevelopment. Infill, in this case, refers to single-family infill that occurs primarily through the partitioning process. In Eugene, between 1990 and 1997 there was an average of 26 applicable low-density minor partitions per year, which created 1.24 new lots. In addition, between 1994 and 1997, there were three to four subdivisions per year on small portions of land that would be considered developed. These subdivisions created an average of ten new lots per year. This totals 42.24 lots per year, which sums to 845 infill lots in the 20-year period.

In Springfield, between 1994 and 1998 there was an annual average of 14 applicable low-density minor partitions, which created 1.26 new lots. In this time period, there were three subdivisions on land which the Lane County GIS considered completely developed. These subdivisions created an annual average of 2.3 new lots. This totals approximately 398 infill lots over the 20-year period.

The Lane County GIS was used to estimate the number of tax lots that could potentially be partitioned. The criteria used to develop this estimate included:

- Tax lots with an existing single-family dwelling built prior to 1970;
- Assessed improvement value under \$100,000;
- Tax lot larger than 1/3 acre; and
- Slope less than 25 percent.

Based on this analysis, in 1992, there were 399 tax lots in the Springfield UGB and 1,655 tax lots in the Eugene UGB that met all four criteria. For this analysis, it will be assumed that in the 20-year planning period 845 infill lots will be created in the Eugene UGB, while in the Springfield UGB, 398 infill lots will be created.

Redevelopment refers to land already zoned for residential use on which development has occurred but where there is a strong likelihood that existing development will be converted to more intensive residential use based on present or expected market forces. Local examples of residential redevelopment have occurred in the West University area where single-family dwellings are either being moved or demolished and multi-family apartments are being built. Again, the Lane County GIS was used to estimate the number of parcels that were likely to redevelop. The criteria included:

- Tax lots designated medium or high density;
- In single-family, duplex or manufactured dwelling use;
- An improvement value equal to or less than the land value; and
- An improvement value per acre less than \$100,000.

This analysis indicated there were 47.4 acres of medium-density designated land and 11.3 acres of high-density designated land available for redevelopment inside the Eugene-Springfield UGB. This redeveloped land displaces 142 single-family dwellings, one manufactured dwelling, and six duplex units. These displaced low-density type units were added back into the demand.

Undeveloped Residential Land Supply

Methodology for Determining Supply of Buildable Land

The 1995 Residential Land and Housing Study supply methodology was developed using a variety of steps. The base information for the analysis was the 1992 Metro Area Parcel File from the Lane County GIS. For a variety of reasons, it was considered that July 1992 was not current enough for this supply and demand analysis; consequently, methods were developed to update some of the information. The resulting methodology is based on discussions amongst planning staff at LCOG, the cities of Springfield and Eugene, and Lane County. The methodology separates the residential land supply into three components based on the designation or zoning and the size of the parcel. The three components will be referred to as smaller parcel land supply, low-density land matrix, and the site inventory.

As part of the supply analysis, unbuildable land was identified and subtracted from all the supply components. Unbuildable land included the following:

Unbuildable

- Floodway;
- In Eugene = Protected wetlands, wetland mitigation sites, and other significant wetlands;
- In Springfield = Wetlands larger than 0.25 acres;
- Land within easement of 230 KV powerlines;
- Land within 75 feet of Class A stream or pond;
- Land within 50 feet of Class B stream or pond; and
- Small irregularly shaped lots were also subtracted from the total buildable land supply during the adjustment to the land supply.

In addition, for each component of the land supply an analysis of the following constraints was conducted.

Constraints to Development

- Floodplain;
- In Eugene = wetlands in the National Wetland Inventory or wetlands in the West Eugene Special Area Study that were not a mitigation site or protected;
- In Springfield = Wetlands smaller than 0.25 acres in the Springfield Wetland Inventory;
- Hydric Soils; and
- Slopes greater than 15 percent.

For the Low-Density Land Matrix and Site Inventory components of the supply, land on which public services were not available were identified and the number of years it would take to get services was estimated. The service was primarily sanitary sewers and the analysis was conducted by the cities' public works departments.

Information for each of the supply components follows. The components are then summarized together to get the entire picture of the supply of residential buildable land. The land that was removed due to development or subdivision approval between July 1, 1992 and January 1, 1995 is also described and is considered in the supply analysis because it meets some of the demand in the 1992 to 1995 time period.

Land In Small Parcels

Methodology

The smaller parcel land supply includes all undeveloped whole tax lots or underdeveloped parcels zoned or designated low-density, residential under five acres or medium- and high-density under one acre. These parcels were selected from the July 1, 1992 Metro Parcel File and a polygon overlay analysis was conducted of the unbuildable constraints to determine the amount of buildable land. This portion of the supply was not updated to 1995.

Analysis

This portion of the supply accounted for 31 percent of all residentially zoned or designated buildable land or approximately 2,895 buildable acres. The following table shows the total land, unbuildable land, and buildable land by city, UGB, and metro total.

Small Parcel Inventory

July, 1992 Metro Area Parcel File

Eugene UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,097.8	18.6	2,079.2
Medium	53.9	2.9	51.1
High	6.6	0.1	6.5
Total	2,158.3	21.6	2,136.7

Eugene			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	1,253.3	18.0	1,235.3
Medium	45.0	2.9	42.2
High	4.6	0.0	4.6
Total	1,302.9	20.9	1,282.0

Eugene Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	844.5	0.6	843.9
Medium	8.9	0.0	8.9
High	2.0	0.1	1.9
Total	855.4	0.7	854.7

Springfield UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	727.97	30.65	697.32
Medium	58.22	4.87	53.35
High	7.65	0.00	7.65
Total	793.84	35.52	758.32

Springfield			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	376.7	19.6	357.1
Medium	53.2	4.9	48.4
High	7.7	0.0	7.7
Total	437.6	24.4	413.1

Springfield Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	351.3	11.1	340.2
Medium	5.0	0.0	5.0
High	0.0	0.0	0.0
Total	356.3	11.1	345.2

Metro Total			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,825.8	49.3	2,776.5
Medium	112.1	7.7	104.4
High	14.3	0.1	14.1
Total	2,952.2	57.1	2,895.0

Most of the buildable land in this component of the supply is designated low-density, residential, approximately 96 percent. Approximately 75 percent of this buildable low-density land is located in the Eugene UGB. Buildable medium- and high-density land is split about equally between the Springfield and Eugene UGB.

There were approximately 97 acres that were zoned residential but designated a non-residential designation. Most of these parcels, 94 percent, are zoned low density. Reviewing the designations for these parcels, 25 percent were park and open space, 25 percent were commercial, and 33 percent were light-medium industrial.

All medium- and high-designated tax lots and underdeveloped parcels in this part of the inventory are under one acre. Below is a table that displays the size breakdown for buildable low-density designated tax lots in this portion of the supply.

Place	.1 - .24 acre		.25 - .49 acre		.5 - 1 acre		>1 acre		Total	
	Acres	Taxlots	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels
Eugene	336.79	1,963	193.59	584	99.87	146	351.49	154	981.73	2,847
Uninc. Eugene	43.84	274	42.01	118	70.77	94	234.49	100	391.11	586
Eugene UGB	380.63	2,237	235.60	702	170.64	240	585.97	254	1,372.84	3,433
Springfield	184.95	958	39.00	119	25.45	37	56.37	30	285.77	1,144
Uninc. Springfield	20.68	108	18.62	55	30.76	44	100.21	52	170.27	259
Springfield UGB	185.63	1,066	57.62	174	56.21	81	156.58	82	456.04	1,403
Metro Total	566.26	3,303	293.22	676	226.85	321	742.55	336	1,829.88	4,836

For purposes of the supply analysis, buildable tax lots between .1 and .25 acres designated low density were identified as buildable lots. In the supply analysis, these tax lots will be dealt with as buildable lots on which single-family, detached units could be placed. Based on this analysis, there are approximately 3,300 buildable lots, which account for 566 acres.

Low Density Land Matrix

Methodology

This component of the supply includes all undeveloped whole or partial tax lots, zoned or designated low-density residential, smaller than ten acres and larger or equal to five acres. These parcels were selected from the July 1992 Parcel File and updated to January 1, 1995 as to development and final subdivision approval. To do this update, these parcels were plotted and planners from the cities of Eugene and Springfield reviewed these parcels indicating any development or final subdivision approval as of January 1, 1995. Parcels that were developed or had a final subdivision approval were removed from the supply. After this was accomplished, polygon overlay analysis was conducted to determine the amount of buildable land.

Analysis

There were 705 acres that were zoned or designated low-density residential smaller than ten acres and larger or equal to five acres. Of these 705 acres, 29 acres were unbuildable, leaving 677 buildable acres. Most of this land is within the Eugene UGB.

Low Density Residential Matrix			
Designated or Zoned Low Density 5 - 10 acres			
	Total Area	Unbuildable Acres	Total Buildable
Eugene	240.0	11.4	228.6
Unic. Eugene	311.8	4.8	307.0
Eugene UGB	551.8	16.2	535.6
Springfield	71.4	5.2	66.2
Unic. Springfield	82.4	7.3	75.1
Springfield UGB	153.8	12.5	141.3
Metro Total	705.5	28.7	676.9

Site Inventory

Methodology

The site inventory is basically an update of the 1990 site inventory that was conducted for the 1991 Supply and Demand Analysis. The site inventory was updated to January 1, 1995. A site was defined as contiguous parcels with the same ownership and plan designation. To update the inventory, all whole or partial undeveloped tax lots, residentially zoned or designated low density, of ten acres and greater, or medium and high density of one acre or more were selected from the July 1, 1992 Metro Parcel File. This selected group of parcels was matched to the 1990 site inventory and lists were made of discrepancies between the two files. These lists were reviewed and parcels were either added, subtracted, or modified to the inventory on both paper copies and

GIS maps of the 18 subareas within the Eugene-Springfield UGB. (See map in Housing Stock section of report.)

Planners from the cities of Eugene and Springfield reviewed the site information on the maps and indicated any development or final subdivision approval as of January 1, 1995. In addition, each site was overlaid over aerial photos taken in December 1995 to identify development on the sites. Changes were noted and the site inventory was adjusted accordingly. Unbuildable acres were then determined. The information for each site was entered into an ACCESS data base from which queries could be conducted. To obtain more information about the site inventory methodology, maps and/or details about individual sites see the *1997 Residential Land and Housing Study Draft Site Inventory Document*.

Between 1992 and 1995, some development and subdivision activity occurred on sites. These developed or subdivided acres met some of the housing demand in the 1992 to 1995 period. Consequently, they will be added back into the supply for analysis purposes. There were a total of 361.7 acres added back in. Approximately 197 of these acres were designated low density, 163 acres medium density, and two acres high density. In addition, there were instances where development occurred on a portion of the site, reducing its size below the size criteria and thus removing it from the site inventory. There were eight sites on which this occurred, accounting for 31 acres; 1.4 acres medium density and 30.1 acres low density. These acres were also added back into the supply.

Analysis

There are 5,838 acres in the site inventory. Approximately 368 acres were found to be unbuildable, leaving 5,470 acres of buildable land. Most of this buildable land is low-density residential, approximately 4,256 acres. There were 950 acres of medium-density residential and 264 acres of high density. Below are tables that show the distribution of buildable land by UGB area, city, and subarea.

January 1, 1995 Site Inventory
 Buildable Land by UGB and City

Eugene UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,576.5	120.3	2,456.2
Medium	675.3	45.4	629.9
High	253.4	42.7	210.7
Total	3,505.2	208.4	3,296.8

Eugene			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	1,187.9	22.1	1,165.8
Medium	369.5	37.3	332.2
High	188.3	41.9	146.4
Total	1,745.7	101.3	1,644.4

Eugene Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	1,383.6	98.2	1,290.4
Medium	305.8	8.1	297.7
High	65.1	0.8	64.3
Total	1,754.5	107.1	1,652.4

Springfield UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	1,917.2	117.9	1,799.3
Medium	355.3	35.0	320.3
High	60.0	6.3	53.7
Total	2,332.5	159.2	2,173.3

Springfield			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	348.4	28.0	320.1
Medium	180.3	10.4	149.9
High	51.2	6.3	44.9
Total	580.0	45.0	535.0

Springfield Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	1,569.9	89.6	1,479.2
Medium	195.0	24.6	170.4
High	8.8	0.0	8.8
Total	1,773.7	114.2	1,659.5

Metro Total			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	4,493.7	238.2	4,255.5
Medium	1,030.6	80.4	950.2
High	313.4	49.0	264.4
Total	5,837.7	367.6	5,470.1

January 1, 1995 Site Inventory

Buildable Land by Subarea

Eugene UGB		
Subarea	Plan Use	Buildable Land
Bethel-Danbo	L	644.3
	M	110.5
	H	22.6
Total		777.3
Central	M	9.8
Total		9.8
Willakenzie	L	444.1
	M	117.0
	H	129.9
Total		690.9
University	L	324.3
Total		324.3
Southwest	L	488.4
	M	263.8
	H	58.2
Total		810.4
Southeast	L	300.8
Total		300.8
Santa Clara	L	254.3
	M	46.2
Total		300.6
River Road	M	82.8
Total		82.8
Total Eugene UGB		3,296.8

Springfield UGB		
Subarea	Plan Use	Buildable Land
Central West	L	13.6
Total		13.6
Central	L	5.7
	M	39.6
Total		45.3
Central East	L	125.1
	M	3.5
	H	28.6
Total		157.3
South	L	101.6
	M	60.1
	H	9.1
Total		170.8
East	L	1394.7
	M	27.0
	H	10.8
Total		1,432.5
Northwest	M	153.9
	H	5.1
Total		159.0
Northwest	L	158.7
	M	36.7
Total		195.4
Total Springfield UGB		2,173.4
METRO TOTAL		5,470.2

Combined Buildable Land Inventory

Total Buildable Land

Combining the buildable acres across the three components results in 9,535 acres of buildable residential land.

Total Buildable Acres

Component of Inventory	Generalized Plan Use			Total	Percent of Supply
	Low	Medium	High		
Small Parcels	2,776.5	104.4	14.1	2,895.0	30.7
LDR Matrix	676.9	-	-	676.9	7.2
Site Inventory	4,255.5	950.2	264.4	5,470.1	58.0
Land developed 1992-1995	197.0	163.0	2.2	362.2	3.8
Taxlots below size criteria	30.1	1.4	-	31.0	0.3
TOTAL	7,936.1	1,219.0	280.7	9,435.3	100.0

Based on the 1995 supply analysis, 84 percent, of the buildable residential land is zoned or designated low-density residential at approximately 7,935 acres. There were approximately 1,219 buildable acres of medium-density (13 percent) and 281 acres of high-density (3 percent) designated land.

Most of the buildable land is located on the fringe of the UGB. The Eugene portion of the UGB contains approximately 67 percent of the buildable low-density land, 69 percent of the medium-density land, and 77 percent of the high-density land. The Springfield UGB contains 33 percent of the buildable low-density land, 31 percent of the medium-density land, and 23 percent of the high-density land. (See table below.) Relating this distribution of land to 1990 distribution of population, the Eugene UGB contained 72 percent of the 1990 UGB population, while Springfield UGB contained 28 percent.

While small, irregularly shaped lots were considered unbuildable, they were not subtracted from the supply until the other land adjustments were made. To determine how much land was affected, maps were reviewed to identify small, irregularly shaped parcels that would be difficult to develop. These lots accounted for 19.7 acres of buildable low-density residential land, 1.3 acres of medium-density, and .2 acres of high-density for a total of 21.2 acres.

**Buildable Residential Land
Eugene-Springfield Urban Growth Boundary
Combined Supply Analysis**

Eugene UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	5,440.5	155.1	5,285.4
Medium	893.1	48.3	844.8
High	280.0	42.8	217.2
Total	6,593.6	246.2	6,347.4

Eugene			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,895.6	51.5	2,844.1
Medium	578.4	40.2	538.2
High	192.9	41.9	151.0
Total	3,666.9	133.6	3,533.3

Eugene Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,544.9	103.6	2,441.3
Medium	314.7	8.1	306.6
High	67.1	0.9	66.2
Total	2,926.7	112.6	2,814.1

Springfield UGB			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,811.2	161.1	2,650.2
Medium	414.0	39.9	374.1
High	69.9	6.3	63.6
Total	3,295.1	207.2	3,087.8

Springfield			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	808.7	53.1	755.7
Medium	214.0	15.3	198.7
High	61.1	6.3	54.8
Total	1,083.9	74.6	1,009.2

Springfield Uninc.			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	2,002.5	108.0	1,894.5
Medium	200.0	24.6	175.4
High	8.8	0.0	8.8
Total	2,211.3	132.6	2,078.7

Metro Total			
Generalized Plan Use	Total Area	Total Unbuildable	Total Buildable
Low	8,251.7	316.2	7,935.6
Medium	1,307.1	88.1	1,218.9
High	329.9	49.1	280.8
Total	9,888.6	453.4	9,435.3

Development Constraints on Buildable Land

Once unbuildable land was subtracted from the supply, an analysis was conducted to determine constraints that may not totally preclude development but would affect development. These constraints included the following:

- Floodplain;
- In Eugene = wetlands in the National Wetland Inventory or wetlands in the West Eugene Wetlands Special Area Study that were not a mitigation site or protected;
- In Springfield = Wetlands smaller than 0.25 acres in the Springfield Wetland Inventory;
- Hydric Soils; and
- Slopes greater than 15 percent.

Sloped Land

Approximately 26 percent of the buildable residential land have slopes over 15 percent. Most of the buildable land with slopes over 15 percent are planned for low-density residential development. Steeply sloped buildable land with slopes over 25 percent is primarily in larger parcel sizes. The Springfield UGB has slightly more than half of the steeply sloped land. The following table summarizes sloped land by UGB area. Additional tables on sloped land are contained in Appendix C.

Eugene and Springfield UGB Areas Summary of Sloped Buildable Residential Land as of 1/95 in acres					
Eugene UGB					
Generalized Plan Use	Slope Less Than 15%	Slope 15 - 25%	Slope 25 - 45%	Slope 45-9%	Buildable Land
Low	3,894	890	471	30	5,285
Medium	783	58	3	0	845
High	217	1	-	-	218
Total	4,894	949	474	30	6,347

Springfield UGB					
Generalized Plan Use	Slope Less Than 15%	Slope 15 - 25%	Slope 25 - 45%	Slope 45-9%	Buildable Land
Low	1,658	452	455	85	2,650
Medium	362	3	6	3	374
High	61	1	1	0	63
Total	2,081	456	462	88	3,087

Note: Totals may differ due to rounding.

For the purposes of this analysis, in Springfield on slopes of 15 to 25 percent it is assumed that the housing density will be four units per net acre and for slopes above 25 percent the density will be 1.25 units net per acre. These assumptions reflect the existing Hillside Development Code.

In Eugene, on slopes above 25 percent it is assumed that the developed density will be three units per net acre. This density level is based on an analysis of existing development in sloped areas. The Eugene Land Use Code contains a Planned Unit Development (PUD) ordinance that is used in most sloped areas, especially the south hills. This PUD ordinance and regulations respond to slope constraints by locating development on shallower slopes, clustering development and encouraging attached dwelling units.

Constrained Land

Land constrained by floodplain, buildable wetlands or hydric soils affected 22 percent of the buildable residential land. Most, about 81 percent, of this constrained land is planned for low-density residential development. Approximately 89 percent of the constrained land is located in the Eugene UGB. Most of the constrained land is in the larger parcel sizes, over five acres.

The tables on page 45 display the number of constrained acres by UGB area. Because constraints overlap, adding up the acreages in each constraint category will not equal the total constrained acres. The constraint analysis found 795 acres of buildable residential land on which there were two or more development constraints. Additional tables on constrained lands are contained in Appendix C.

Floodplain

Approximately 7 percent or 706 acres of the buildable residential land is located in the floodplain outside the floodway. Eight percent of the low-density residential buildable land, 7 percent of the medium-density, and 2 percent of the high-density residential buildable land is in the floodplain. Most, 87 percent, of the floodplain land is located in the Eugene UGB.

For this analysis, land within the floodplain outside the floodway in the Springfield UGB will not receive any housing density. This decision was based on the fact that about 80 to 90 percent of the floodplain is located adjacent to the McKenzie River. Land located in the floodplain in these locations was impacted by flooding in both the 1996 and 1997 flood events and there was damage to property within the UGB. These sensitive floodplain areas along the McKenzie are further impacted by the fact that the (storm) waters from the south east hills discharge into these areas. This pattern is not true in the Eugene UGB. Historically, due to the stormwater system and major upstream flood control dams there has not been any flooding in the floodplain areas currently within the UGB. Many areas of the floodplain in Eugene are also developed in open space, parks, and wetlands areas, which also reduces the impact on development. In addition, floodplain areas are subject to special FEMA regulations requiring the finished floor elevation of any structure to be above the floodplain elevation.

Wetlands

Wetlands, not classified as unbuildable, constrain 10 percent of the buildable residential land. Approximately 10 percent of the low-density residential buildable land, 7 percent of the medium-density, and 12 percent of the high-density residential buildable land is in a wetland. All but one acre of the buildable wetlands are in the Eugene UGB.

The supply analysis mapped and took out of the inventory protected wetlands or mitigation sites in the West Eugene Wetland Study Area and also significant wetlands in the National Wetlands Inventory. There are other wetland areas that are either mapped on the National Wetlands Inventory or are hydric soils that contain the potential for being jurisdictional wetlands.

As development occurs on these other wetland areas, some of these lands may be found to not have jurisdictional wetlands. Other areas may be wetlands required to be preserved as open space. In some cases, wetlands can be preserved as open space and the housing density can be transferred to the remaining portion of the site. In a Planned Unit Development, for example, the housing density could be transferred to the remaining portion of the site and the wetland can become the required open space. In subdivisions, the housing can be clustered on the remaining portion of the site. Still other areas may have wetlands that are developed after mitigation under an approved fill permit. Over half of identified wetlands on which fill permits are sought receive approval from the U.S. Army Corp and wetlands can be mitigated outside the UGB on acquired lands near Fern Ridge.

At this time, there are no reliable data about the development potential of these wetland areas. For the purpose of this analysis, one-third of this wetland acreage, 313 acres, will not receive any housing allocation.

Hydric Soils

Hydric soil is not considered a constraint in and of itself. It serves as an indicator of a potential wetland and soils that may require differing construction techniques. Approximately 14 percent or 1,366 acres of buildable residential land contain hydric soils. Most of the hydric soils are low-density residential buildable land and located in the Eugene UGB.

Eugene and Springfield UGB Areas Summary of Constrained Buildable Residential Land as of 1/95 in acres					
Eugene UGB					
Generalized Plan Use	Buildable Land	Total Constrained Land	Floodplain	Wetland	Hydric
Low	5,285	1,556	569	823	973
Medium	845	241	42	85	174
High	218	73	6	34	63
Total	6,348	1,870	617	942	1,210

Springfield UGB					
Generalized Plan Use	Buildable Land	Total Constrained Land	Floodplain	Wetland	Hydric
Low	2,650	162	45	1	120
Medium	374	75	43	-	32
High	64	4	0	-	3
Total	3,088	241	88	1	155

Note: Totals may differ due to rounding.

Service Availability

Although all land within the Eugene-Springfield UGB is anticipated to be served within the planning period, there are some places inside the UGB where services are not presently available. In 1997, an analysis of service availability, primarily sewer, was conducted of the low-density buildable land five acres or greater and medium- and high-density buildable land one acre and greater by Eugene and Springfield Public Works Department staff. Based on this analysis, public services are available to 6,782 acres or 72 percent of the residentially zoned or designated buildable land. This assumes services are available to the buildable residential parcels under this size threshold. There are approximately 2,653 acres that do not presently have services. Of this total, about 1,136 acres will not be served for ten or more years; 521 acres in five to ten years; 476 acres in three to five years, and 520 acres in one to three years. The largest area to which services will not be available for ten or more years is in the southeast Springfield area. This land is primarily low-density residential land.

Eugene and Springfield UGB Areas Summary of Service Availability as of 1/95 in Acres				
Eugene City				
Generalized Plan Use	Buildable Land	Buildable Land with Services	Buildable Land with Services Within 1-5 Years	Buildable Land with Services Within 6 or More Years
L	5,285.4	4,313.9	774.8	196.7
M	844.8	596.2	12.1	236.5
H	217.2	217.2	-	-
Total	6,347.4	5,127.3	786.9	433.2

Springfield UGB				
Generalized Plan Use	Buildable Land	Buildable Land with Services	Buildable Land with Services Within 1-5 Years	Buildable Land with Services Within 6 or More Years
L	2,650.2	1,383.9	72.3	1,194.0
M	374.1	215.9	136.7	21.5
H	63.6	54.8	-	8.8
Total	3,087.9	1,654.6	209.0	1,224.3

Note: totals may differ due to rounding.

An analysis was conducted of constrained and sloped buildable land in relationship to anticipated service delivery as known in 1997. Approximately 54 percent or 381 acres of the land in the floodplain was not serviced in 1997 but the majority, 377 acres, of this land was anticipated to receive services within one to five years. In 1997, there were about 584 acres of buildable wetlands

that did not presently have services. Approximately 73 percent of this unserved land was anticipated to have services in one to three years.

The majority, 67 percent, of the steep sloped land greater than 25 percent had services in 1997. Approximately 354 acres of steep sloped land did not have services and 85 percent of this land was not anticipated to have services for ten or more years.

Eugene-Springfield Metro Area Summary of Anticipated Service Delay as of 1997 and Constrained & Sloped Land in acres								
FLIGHT USE	SERVICES Delay	Available	Pool	Water	Other	SLOPE 15-25	SLOPE 25-75	SLOPE 75+
	Services Available	5,122	293	359	700	781	424	29
	1-3 years	438	215	424	257	-	-	-
	3-5 years	353	109	142	144	42	21	1
	5-10 years	376	-	17	87	121	28	1
	10+ years	58	-	-	22	6	1	-
TOTAL		6,347	617	942	1,210	950	474	30

STEEP SLOPE USE	SERVICES Delay	Available	Pool	Water	Other	SLOPE 15-25	SLOPE 25-75	SLOPE 75+
	Services Available	1,654	32	-	82	215	190	58
	1-3 years	82	43	-	0	0	-	-
	3-5 years	127	9	-	-	1	-	-
	5-10 years	146	-	-	22	2	1	-
	10+ years	1,078	4	1	51	238	271	29
TOTAL		3,087	88	1	155	456	462	87

Inter-Flow	SERVICES Delay	Available	Pool	Water	Other	SLOPE 15-25	SLOPE 25-75	SLOPE 75+
	Services Available	6,777	326	359	782	996	614	87
	1-3 years	520	259	424	257	0	-	-
	3-5 years	480	118	142	144	42	21	1
	5-10 years	523	-	17	109	123	30	1
	10+ years	1,136	4	1	73	245	272	29
TOTAL		9,435	706	943	1,366	1,405	936	118

Note: Totals may differ due to rounding.

Supply and Demand Comparison

Comparing the 1992 -2015 demand for residential land with the buildable land supply requires a method to account for demand met by buildable lots, redevelopment, infill, and nonresidential uses on residential land. The following section describes how each of these factors were dealt with.

Housing Demand Met Through Buildable Lots

As noted earlier, there are approximately 3,300 low-density buildable lots inside the Eugene and Springfield UGB. Furthermore, it is assumed that 1,243 infill lots will be created in the next 20 years.

2015 Single-Family, Detached Unit Demand Met by Buildable Lots		
Demand	Units/Lots	Acres
1992-2015 Low-Density Residential Land Demand		4,124-5,051 acres in low density
Supply		
Existing Buildable Lots	3,300 low-density lots	566 acres
Infill Lots	1,243 low-density lots	No Vacant Land
Remaining Demand		
1992-2015 Low-Density Residential Land Demand Remaining for Buildable Land		3,298-4,225 acres in low density

Existing low-density buildable lots and infill lots met the demand for 4,543 single-family, detached housing units. Subtracting these units from the low-density demand results in a demand for 3,298-4,225 acres of low-density land.

Housing Demand Met Through Buildable Land

Adjustments to the Buildable Land Supply

Before conducting the comparison between the supply and demand of residential land, small, irregular lots and land in buildable lots must be subtracted. In addition, as noted earlier, no housing density will be applied to floodplain land in Springfield or one-third of the buildable wetlands in Eugene. This results in a remainder of 8,447 buildable acres.

Land for Nonresidential Use

There are numerous nonresidential uses, such as churches, day care centers, neighborhood commercial, etc., that locate on residential land. In addition, public facilities such as streets, schools, and parks are necessary to serve residential land. Based on review of existing nonresidential uses on residential land, it was assumed that 32 percent of residential land would be used for all nonresidential uses.

To determine the amount of buildable land available for residential development, land for nonresidential uses must be subtracted. Furthermore, land determined likely to be redeveloped must be added to the supply and the housing lost through redevelopment must be added to the demand.

The following table summarizes the adjustments to the residential land supply and presents the information for both the Springfield and Eugene UGB areas and for both flat and sloped land since density assumptions vary by UGB area and slope of land.

Buildable Land Supply Adjustments in Acres				
	Low	Medium	High	Total
Total Undeveloped Residential Land	8,252	1,307	330	9,889
Total Buildable Land	313	88	15	416
Total Buildable Acres	7,935	1,219	281	9,435
Subtract Irregular Lots	26			26
Subtract Agricultural/Low Density Buildable Lots	367			367
Floodplain in Springfield Receives No Benefit	45	3		48
One-third of the Eugene Buildable Wetlands Receives No Benefit	27	28		55
Total Buildable Acres Remaining For Units after subtracting for Irregular Lots, Low Density Buildable Lots, Springfield Floodplain and Eugene Wetlands	7,030	1,147	270	8,447
Flat Buildable Acres	4,646	1,074	267	5,987
15-25% Sloped Land	1,343	61	2	1,406
Eugene	890	58	1	949
Springfield	452	3	1	456
Steep (>25%) Sloped Buildable Acres	1,041	12	1	1,054
Eugene	501	3	0	504
Springfield	540	9	1	550
Total Buildable Acres for Nonresidential Uses	2,250	30	39	2,319
Flat Buildable Acres for Nonresidential Uses	148	3	3	154
15-25% Sloped Land	90	20		110
Eugene	235	28		263
Springfield	25			25
15-25% Sloped Buildable Acres for Nonresidential Uses	233			233
Estimate Steep Sloped Acres for Nonresidential Uses	32			32
Springfield Steep Sloped Acres for Nonresidential Uses	33	3	3	39
Total Net Buildable Acres for Housing	4,780	828	195	5,802
Flat Buildable Acres	3,159	777	192	4,129
15-25% Sloped Land	913	41	1	955
Eugene	605	39	1	645
Springfield	307	2	1	310
Steep (>25%) Sloped Buildable Acres	708	9	1	718
Eugene	341	2	0	343
Springfield	367	6	1	374

Note: Totals may differ due to rounding
Assumptions are estimates based on available data.

Supply and Demand Comparison

Once adjustments have been made to the buildable land supply, the land demand can be compared to the adjusted land supply. This comparison is presented below in both acres and units because an acre-to-acre comparison is somewhat deceptive in that sloped land can accommodate fewer units than flat land. The conversion from acres of supply to units of supply is consistent with the demand assumptions and assumptions of densities on sloped land.

Supply and Demand Analysis in Acres				
	Low Density	Medium Density	High Density	Total
Supply				
Total Net Buildable Acres for Housing	4,780	828	195	5,802
Flat Buildable Acres	3,159	777	192	4,129
15-25% Sloped Land	913	41	1	955
Eugene	605	39	1	645
Springfield	307	2	1	310
Steep Sloped Buildable Acres	708	9	1	718
Eugene	341	2	0	343
Springfield	367	6	1	374
Demand				
Low - High Range Residential Demand Remaining After Subtracting Demand Met by Buildable Lots	3,298 - 4,225	523 - 641	120 - 147	3,941 - 5,013
Land Demand for Housing Displaced by Redevelopment	27	0	0	27
Total Expected Residential Land Demand 1992 - 2015	3,840	589	135	4,564
Low-High Range Residential Land Demand 1992 - 2015	3,325 - 4,252	523 - 641	120 - 147	3,968 - 5,040
Difference between Total Buildable Supply and Expected Residential Land Demand in acres*	940	239	60	1,238

Note: Totals may differ due to rounding. Assumptions are estimates based on available data.

* Units are not allocated to commercial and mixed use designated land due to State Administrative Rules although it is known that some units will be built on commercial and mixed use land

Supply and Demand Analysis in Units				
	Low Density	Medium Density	High Density	Total
Supply				
Total Units on Buildable Acres	28,681	13,078	6,760	48,519
Units on Flat Buildable Land	21,797	12,432	6,720	40,949
Units on 15-25% Sloped Land	5,403	632	39	6,074
Eugene (same density as flat)	4,175	624	35	4,834
Springfield (@4 dus/acre)	1,228	8	4	1,240
Units on Steep Sloped Buildable Land	1,482	14	1	1,497
Eugene (@3 dus/acre)	1,023	6	0	1,029
Springfield (@1.25 dus/acre)	459	8	1	468
Demand				
Low - High Range Residential Demand Remaining After Subtracting Demand Met by Buildable Lots & Infill	22,873 - 29,042	8,384 - 10,270	4,200 - 5,145	35,457 - 44,457
Unit Demand for Housing Displaced by Redevelopment	149	0	0	149
Total Expected Residential Demand 1992 - 2015	26,449	9432	4725	40,606
Low-High Range Residential Demand 1992-2015	23,022 - 29,191	8,384 - 10,270	4,200 - 5,145	35,606 - 44,606
Difference between Total Buildable Supply and Expected Residential Demand in units *	2,232	3,646	2,035	7,913

Note: Totals may differ due to rounding. Assumptions are estimates based on available data.

* Units are not allocated to commercial and mixed use designated land due to State Administrative Rules although it is known that some units will be built on commercial and mixed use land

Conclusions

Overall, there is sufficient buildable residential land to meet the future 20-year high-end land demand in all three plan designation categories. There is not enough flat land in the low-density category to meet the expected or high-end demand, so some development will occur on sloped land.

Appendix A

Manufactured Home Parks - 1995

CITY OF EUGENE

Name	Address	Total Spaces	Occupied Units	Number of Vacancies
	102 Alberta Ln.	6	6	0
Hidden Meadows	Archie, La Casa, & Elmir	125	124	1
Camelot Manufactured Home Village	3700 Babcock Ln.	116	116	0
Briarwood	4800 Barger Dr. & 1400 Candlelight Dr.	249	247	2
Churchill Meadows	1415 S. Bertelsen Rd.	154	154	0
Town & Country Trailer Park	2 Coburg Rd.	40	40	0
Mobile Towne West	555 N. Danebo Ave.	154	154	0
Lakeridge of Eugene	3355 N. Delta Hwy.	191	189	3
Lee's Mobile Home Park	501 Division	68	68	0
Roosevelt Acres	4175 Fergus Ave.	44	44	0
Westwood Park	111 N. Garfield St.	33	33	0
Garfield Trailer	120 N. Garfield St.	18	18	0
Falcon Wood Village	1475 Green Acres Rd.	183	183	0
Topper Village	717 Hwy. 99 N	33	8	25
West Lane	751 Hwy. 99 N	22	22	0
Camelia Court	785 Hwy. 99 N	11	11	0
Shady Dell	795 Hwy. 99 N	9	9	0
Lakewood Park	1800 Lakewood Ct.	181	181	0
Royal Trailer Court	1445 Railroad Blvd.	23	23	0
Songbrook	4055 Royal Ave.	79	18	61
Royal Oaks	4900 Royal Ave.	109	109	0
Eldon Park	Swain Ln.	18	18	0
Daneland	1199 N. Terry St.	277	277	0
Woodland Park Estates	1699 N. Terry St.	283	242	23
Rosewood Manufactured Home Park	2350 N. Terry St.	119	109	10
Plaza West	1403 W. 6th Ave.	21	21	0
City of Eugene Total		2566	2424	125
EUGENE - URBANIZABLE				
Idle Wheels	3900 Coburg Rd.	64	64	1
Parkside	3950 Coburg Rd.	82	82	1
Ponderosa Mobile Village	3998 Franklin Blvd.	48	48	0
Seavers Trailercourt	4405 & 4475 Franklin Blvd.	25	9	16
River Bank Trailer Park	4501 Franklin Blvd.	20	20	0
Shamrock Village	4531 Franklin Blvd.	128	128	0
Twin Totem	4660 Franklin Blvd.	38	38	4
Eugene Mobile Village	4750 Franklin Blvd.	91	91	0
Riverside Mobile Home Court	4795 Franklin Blvd.	71	68	3
Does not exist	4990 Franklin Blvd.			
Midway Manor	1625 Henderson Ave.	87	87	0
Eugene's Urbanizable Total		654	635	25
EUGENE UGB TOTAL		3220	3059	150

CITY OF SPRINGFIELD				
Name	Address	Total Spaces	Occupied Units	Number of Vacancies
Lake Court	2435 N. A St.	12	12	0
Country Manor	4475 Daisy St.	132	129	3
Santiago Grenada	5335 Daisy St.	113	113	0
Fairview Mobile Home Park	1120 Fairview Dr.	65	65	0
Patrician	3530 E. Game Farm Rd.	81	81	0
Monta Loma	2150 Laura St.	143	142	1
El Rancho	1263 Main St.	81	81	0
Santiago Estates	5335 Main St.	137	137	0
Springlane	157 N. 12th St.	74	74	0
Mar Shell	725 N. 28th St.	15	15	0
Red Bird	775 N. 28th St.	15	15	0
Welcome West	2145 N. 31st St.	85	85	0
Parklane	225 N. 41st St.	82	82	0
	170 N. 43rd Pl.	6	5	1
Chalet Village	205 S. 54th St.	143	143	0
Emerald Isle	658 S. 57th St.	98	98	0
Golden Oaks	1125 N. 58th St.	109	109	0
City of Springfield Total		1391	1386	5
METRO AREA TOTAL		4611	4445	155

Appendix B

WHAT IS THE MARKET DEMAND FOR RESIDENTIAL REAL ESTATE IN EUGENE/SPRINGFIELD?

THE EUGENE/SPRINGFIELD REGION WILL GROW

Long-run national, Northwest, and local economic conditions are favorable

- Continued westward migration supports continued population growth.
- Increasing Pacific Rim trade creates opportunities for economic growth.
- An educated and productive workforce allows Northwest firms to remain competitive.
- The Northwest has relatively well-maintained investments in infrastructure and public services that support growth.
- Most of the population and economic growth in the west has been concentrated along the I-5 corridor.
- The Eugene/Springfield region is planning for public services to support growth, and has some economic development programs that encourage the expansion of existing firms and location of new firms.

SEVERAL FACTORS AFFECT THE MARKET FOR RESIDENTIAL REAL ESTATE PRODUCTS IN NODES

Both demand and supply factors are important

Demand Factors	Supply Factors
<ul style="list-style-type: none"> • Population growth • Demographic conditions: Household size Age distribution Age of household head Marital status & presence of children • Household income • Net worth 	<ul style="list-style-type: none"> • Availability and price of buildable land • Location of residential land: Neighborhood characteristics School district quality Proximity to employment, shopping, and recreation • Cost of construction • Availability of financing • Experienced builders of alternative housing

ALMOST 100,000 NEW PEOPLE ARE EXPECTED IN THE EUGENE/ SPRINGFIELD METRO AREA BETWEEN 1990 AND 2015

An average of about 4,000 people per year over the 25-year period; an overall increase of 48%; an average growth rate of 1.6% per year

Population Growth in the Eugene/Springfield Metropolitan Study Area, 1990-2015

	1990	1995	2000	2005	2010	2015	1990- 2015
Population	204,000	224,000	241,000	257,000	278,000	301,000	97,000
Average annual growth		4,000	3,400	3,200	4,200	4,600	3,880
Average annual growth rate		1.89%	1.47%	1.29%	1.58%	1.60%	1.57%

Source: Lane Council of Governments

Note: The Eugene/Springfield Metropolitan Study Area is slightly larger than the Eugene/Springfield Urban Growth Boundary (UGB) area used for household forecasts in this report. Population forecasts for the UGB area are not available.

THE POPULATION WILL GET OLDER

The share of population over 55 will increase over the next 20 years, but the amount of growth will be greatest for younger age groups

Persons in the Eugene/Springfield Metropolitan Study Area by Age, 1990 and 2015

Age	1990		2015		Change 1990-2015	
	#	Share	#	Share	#	Share
<25	76,000	38%	107,000	35%	31,000	-3%
25-54	88,000	43%	115,000	38%	27,000	-5%
55-64	15,000	7%	35,000	12%	20,000	5%
65+	25,000	12%	44,000	15%	19,000	3%
Total	204,000	100%	301,000	100%	97,000	0%

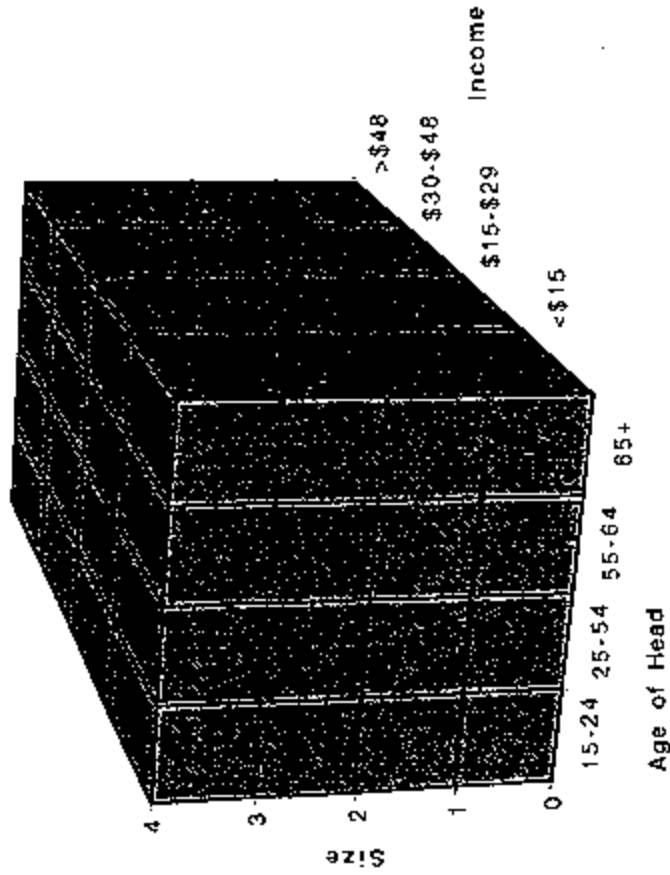
Source: Lane Council of Governments

- Important to household formation and housing is the fact that there will be an increase of about 50,000 people between the ages of 25 and 64.

HOUSEHOLDS CAN BE GROUPED BY INCOME, SIZE, AND AGE OF HOUSEHOLD HEAD

Household types can be correlated to housing types and tenure

- Low-income (<\$15,000), and increasingly, moderate-income (\$15-\$30,000), young (head 15-24), and single-person households are predominantly apartment renters.
- Remaining households predominantly own single-family homes, with the share in single-family homes and ownership increasing with income and household size.



- The share of households in single-family homes and ownership declines for household heads over 64, but these households are still predominantly in owner-occupied single-family housing.

INCOME AFFECTS THE TYPE OF HOUSING THAT IS FINANCIALLY ATTAINABLE

New, unsubsidized housing is unattainable to low-income and, increasingly, lower-middle income households

Market Segment by Income ¹	Household Income Range	Financially Attainable Products
High (21%)	\$48,000 or more	All housing types
Upper Middle (21%)	\$29,000 to \$48,000	Small lot and cluster housing Attached housing Multi-family housing
Lower Middle (30%)	\$15,000 to \$29,000	Garden apartments
Low (28%)	Less than \$15,000	Low-rise high-density Mid-rise housing Apartments Subsidized housing

↑

New housing

Used housing

↓

Source: Claritas, Inc. and Leland Consulting Group
¹Percentages are approximate share of total households in 1990.

HIGHER INCOME IS CORRELATED WITH HIGHER RATES OF OWNERSHIP AND SINGLE-FAMILY HOUSING

Low-income households are predominantly apartment renters

Percent of Households in Eugene by Income, Structure Type, and Ownership, 1990 (thousands of dollars)

Structure Type	<\$15	\$15-29	\$30-48	>\$48	All
Single-family detached	26%	54%	72%	85%	56%
Single-family attached	7%	8%	9%	4%	7%
Apartments	60%	32%	16%	9%	32%
Mobile Home	6%	6%	3%	1%	4%
Other	1%	1%	0%	1%	1%
Total	100%	100%	100%	100%	100%

Tenure	<\$15	\$15-29	\$30-48	>\$48	All
Own	23%	46%	65%	85%	51%
Rent	77%	54%	35%	15%	49%
Total	100%	100%	100%	100%	100%

Source: U.S. Census Public Use Microdata Samples and ECONorthwest. Note: Public Use Microdata Samples are only available for Eugene or the remainder of Lane County. The Eugene area was used to represent housing relationships in the Eugene/Springfield metropolitan area. Differences between Eugene and Springfield are not likely to be enough to change the general conclusions of this analysis.

HOUSEHOLDS WITH INCOME >\$50,000 WILL GROW SLOWLY

Households in all income ranges will grow in absolute number, and those with income <\$50,000 will gain relative share

Households in Eugene/Springfield by Household Income, 1990, 2000, and 2015 (thousands of 1990 dollars)

Income	1990		2000		2015		1990-2015	
	Share	Share	Share	Share	Share	Share	Share	
< \$15	22,000	28%	27,000	31%	37,000	31%	15,000	3%
\$15-\$29	23,000	30%	27,000	31%	37,000	31%	14,000	1%
\$30-\$49	16,000	21%	20,000	23%	28,000	23%	12,000	2%
\$50-\$99	14,000	18%	12,000	13%	17,000	13%	3,000	-5%
>\$100	2,000	3%	2,000	2%	3,000	2%	1,000	-1%
Total	77,000	100%	88,000	100%	122,000	100%	45,000	0%

Source: Claritas, Inc. (1990 and 2000); ECONorthwest (2015 and conversion to 1990 dollars)
 Note: Claritas forecasts income for five years only; 2015 forecast calculated by applying the 2000 distribution to the total households in 2015.

COUPLES AND FAMILIES ARE MORE LIKELY TO OWN SINGLE-FAMILY DETACHED HOMES

Single-person households are predominantly apartment renters

Percent of Households in Eugene by Household Size, Structure Type, and Tenure, 1990

Structure Type	1	2	3	4+	All
Single-family detached	29%	58%	68%	84%	56%
Single-family attached	8%	8%	8%	5%	7%
Apartments	57%	28%	20%	10%	32%
Mobile Home	6%	6%	3%	0%	4%
Other	1%	1%	1%	0%	1%
Total	100%	100%	100%	100%	100%
Tenure					
Own	33%	55%	58%	67%	51%
Rent	67%	45%	42%	33%	49%
Total	100%	100%	100%	100%	100%

Source: U.S. Census Public Use Microdata Samples and ECONorthwest

HOUSEHOLD SIZE IS EXPECTED TO DECREASE SLIGHTLY

One- and two-person households will grow relative to larger households

Households in Eugene/Springfield by Household Size, 1990 and 2015

Persons	1990		2015		1990-2015	
	Share	Share	Share	Share		
1	21,000	27%	37,000	30%	16,000	3%
2	28,000	36%	46,000	38%	18,000	2%
3	12,000	16%	18,000	15%	6,000	-1%
4+	16,000	21%	21,000	17%	5,000	-4%
Total	77,000	100%	122,000	100%	45,000	0%

Source: Lane Council of Governments (1990 and 2020); 2015 distribution imputed by ECONorthwest

- The 1990 share of households living in apartments (32%) and growth of households between 1990 and 2015 implies a demand over 14,000 apartment units, or an average of about 560 units per year.

HOUSEHOLDERS 15-24 ARE MOSTLY APARTMENT RENTERS

Householders 25-64 predominantly own; the share in apartments or renting increases again after age 65

**Percent of Households in Eugene by Age of Head,
Structure Type, and Tenure, 1990**

Structure Type	15-24	25-54	55-64	65+ All
Single-family detached	15%	63%	68%	54%
Single-family attached	8%	9%	5%	4%
Apartments	74%	27%	18%	31%
Mobile Home	2%	2%	10%	9%
Other	1%	0%	0%	1%
Total	100%	100%	100%	100%
Tenure				
Own	5%	50%	81%	67%
Rent	95%	50%	19%	33%
Total	100%	100%	100%	100%

Source: U.S. Census Public Use Microdata Samples and ECONorthwest

THE SHARE OF HOUSEHOLDS WITH HEADS OVER 55 WILL INCREASE

Households with heads over 55 will account for half of the growth in households over the 25-year period

Households in Eugene/Springfield by Age of Head, 1990 and 2015

Age of Head	1990		2015		1990-2015	
	Count	Share	Count	Share	Count	Share
15-24	8,000	10%	12,000	10%	4,000	0%
25-54	46,000	60%	62,000	51%	16,000	-9%
55-64	8,000	10%	20,000	16%	12,000	6%
65+	15,000	20%	28,000	23%	13,000	3%
Total	77,000	100%	122,000	100%	45,000	0%

Source: Lane Council of Governments

FAMILY TYPES AND LIFE CYCLE AFFECT HOUSING CHOICES

Households with people never married and young married couples with no children are more likely to rent housing

Never Marrieds

- These households are most likely to live in rented units near other rental units.
- Of the "never marrieds" under 30, only 12 percent were homeowners.
- Home ownership increases in likelihood as these households age. Of the "never marrieds" between 45 and 59, 45 percent were homeowners.

Married couples, no children

- Married couples without children under the age of 30 are more likely to rent (60 percent of households in this category) than to own (40 percent)
- For all ages, these couples generally select single-family units or multi-family units in buildings with fewer units.

Source: U.S. Census Public Use Microdata Samples and Leland Consulting Group

FAMILY TYPE AND LIFE CYCLE AFFECT HOUSING CHOICES

Families with children and older households are more likely to own housing

One-parent families

- These households, with lower median incomes than two-parent households, have lower rates of home ownership than their two-parent counterparts.
- Ownership rates increase as the age of the youngest child increases, and are higher than for single people.

Older households (ages 45 to 64)

- These households have a strong tendency to own their own homes and to remain in their current housing unit. Although households have been shown to move motivated by the need for additional space, the same motivation has not been found for households with excess space.
- Many households view these years as a transitional period before retirement, and generally defer major housing changes until retirement.

Source: U.S. Census Public Use Microdata Samples and Leland Consulting Group.

LOCAL CHANGES IN HOUSEHOLDS ARE CONSISTENT WITH NATIONAL TRENDS

Fewer married couples with children under 18, more married couples without children, and more persons living alone

Share of Total U.S. Households by Family Type

	1995	2010	1995-2010
Families	70%	68%	-2%
Married couples	55%	52%	-3%
with children <18	25%	20%	-5%
with children 18+ only	5%	6%	1%
with no children	25%	26%	1%
Single parents	8%	8%	0%
Other families	7%	8%	1%
Nonfamilies	30%	32%	2%
Persons living alone	25%	27%	2%
Other nonfamilies	5%	5%	0%

Source: American Demographics, 1993

Note: Each higher level is a subtotal of the levels immediately underneath it. Thus, columns do not sum to 100%.

SUMMARY OF DEMAND CONDITIONS

Changing composition of households will affect demand for residential real estate

- Growth in households with income <\$15,000 should increase demand for moderate rent apartments. Most of these households will occupy older units, and many may require subsidy.
- Growth in households with income \$30-\$49,999 should increase demand for low-to moderately-priced single-family housing.
- The market for high-end housing, though lucrative, is not deep. Slow growth of households with income >\$50,000 should reduce the relative demand for standard- and large-lot single-family housing.
- Growth of one- and two-person households should increase demand for apartments and smaller forms of single-family housing.
- Declining share of three- and four- or more-person households should reduce the relative demand for traditional single-family housing.
- Aging households should increase the number of households making post-retirement transitions out of traditional single-family housing.
- The direction of the demographics and economics is toward reducing housing cost (in part by reducing land and built space), smaller households, and older households, all of which are consistent with the type of housing compatible with nodes.

MANUFACTURED HOUSING HAS BEEN 20% OF NEW RESIDENTIAL CONSTRUCTION LOCALLY

Manufactured housing should capture a larger share of new housing than the 5-6% share suggested by 1990 Census data on housing stock

Permits for New Residential Construction in Eugene, 1985-1995	Structure Type	1985-1995
Single Family Detached		44%
Single Family Attached		5%
Apartment		31%
Mobile Home		20%
Total		100%

Source: City of Eugene Building & Permit Services Division

- In 1995, 72% of Manufactured Homes in Eugene were in parks and 28% were on single-family lots.
- Manufactured home parks appear popular; 988 spaces in parks were created between 1990 and 1995 in Eugene.

- Manufactured homes on lots have about the same density as single-family detached housing, while those in parks result in higher densities.

IMPLIED RESIDENTIAL DEMAND IN EUGENE/SPRINGFIELD

Household forecasts imply demand for about 45,000 dwelling units

Additional Dwelling Units by Structure Type and Tenure, Based on Existing Housing Stock and Potential Distribution, 1990-2015

Based on 1990 Housing Stock Potential Distribution¹

Structure Type	Total Units	%	Avg. Units	Total	%	Units
	(1,000)	Units	/Year	Units	Units	/Year
Single-family detached ²	23-26	52-57%	980	18,000	40%	720
Single-family attached	2.8-3.4	6-8%	120	4,500	10%	180
Apartments	13-16	30-35%	590	15,750	35%	630
Manufactured Homes ³	2.1-2.8	5-6%	100	6,750	15%	270
Tenure						
Own	21-27	47-59%				
Rent	18-24	41-53%				

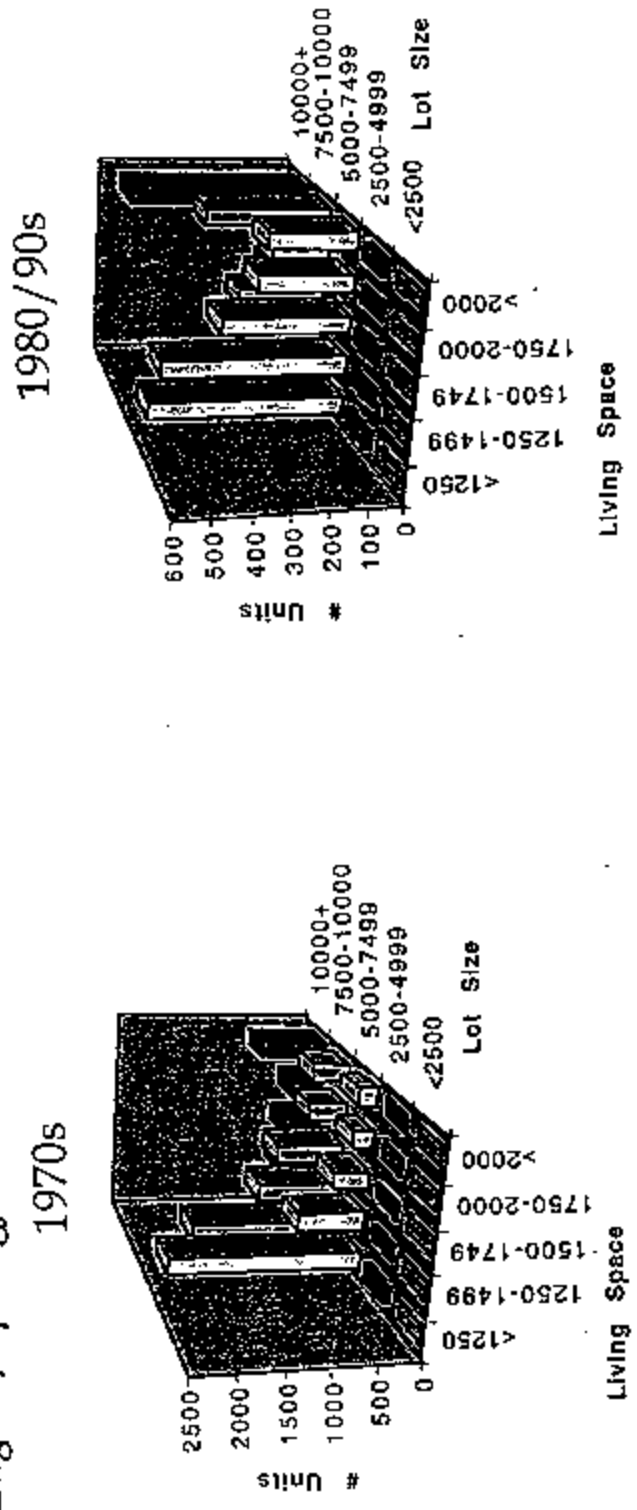
Source: ECONorthwest

Note: Based on demographic forecasts and the relationship of household income, size, and age of head with structure type and tenure in 1990. Estimates do not include adjustments for demolitions, or vacancies, or any existing under-supply.

1. Potential distribution assumes increasing cost of land and buildings, resulting in more alternative housing.
2. Single-family detached includes manufactured housing on single-family lots.
3. Manufactured homes includes only those in manufactured home parks.

DEMAND FOR NEW LARGE HOMES ON LARGE LOTS HAS GROWN

Square feet of single-family lot size and living space, 1970s and 1980-92, in Eugene/Springfield



Source: Lane Council of Governments, from Lane County assessor files

- Small homes (<1,250 sq. ft.) on moderate lots (5,000-7,499 sq. ft.) have been the most popular product in the 1970s and 1980/90s.
- 1980/90s chart shows a shift to larger homes and some shift to larger lots, with significant growth in the share of large homes on large lots.

DEMOGRAPHIC FORCES SUGGEST THOSE TRENDS WILL CHANGE

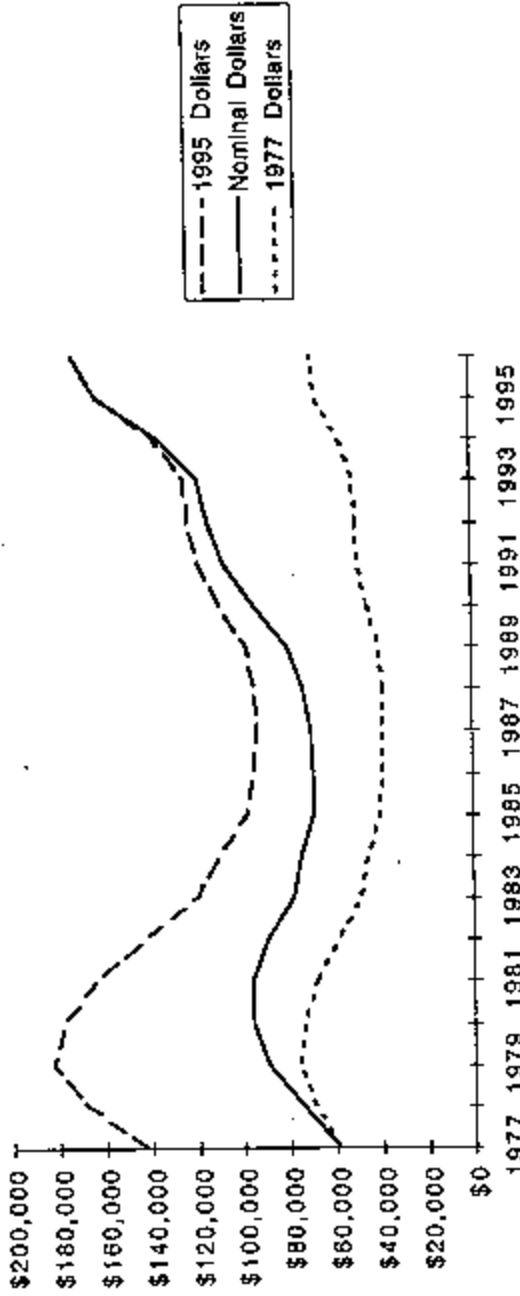
The amount of demand and how it will be supplied with housing is influenced by the amount and price of buildable land, and is illustrated by trends in construction and absorption

- In the 1980s and 1990s, there has been growing demand for large new homes on large lots.
- But the supply of buildable land is decreasing (at least temporarily) and dispersing.
- Public policies (e.g., the UGB, environmental regulation, and the cost of services) and market forces (growth pressure) will increase the cost of land and housing.

HOUSING PRICES HAVE CLIMBED DRAMATICALLY SINCE 1988

In real terms, housing prices have only recently reached the level of the late 1970s

Price Trend of a \$60,000 House in 1977



Source: Real Estate Valuations Northwest; converted to 1977 and 1995 dollars by ECONorthwest using the Personal Consumption Expenditure deflator reported in the Economic Report of the President, 1996.

MOST BUILDABLE RESIDENTIAL LAND IS DESIGNATED FOR LOW-DENSITY DEVELOPMENT

Acres of vacant unconstrained land in the UGB designated for residential use, 1992

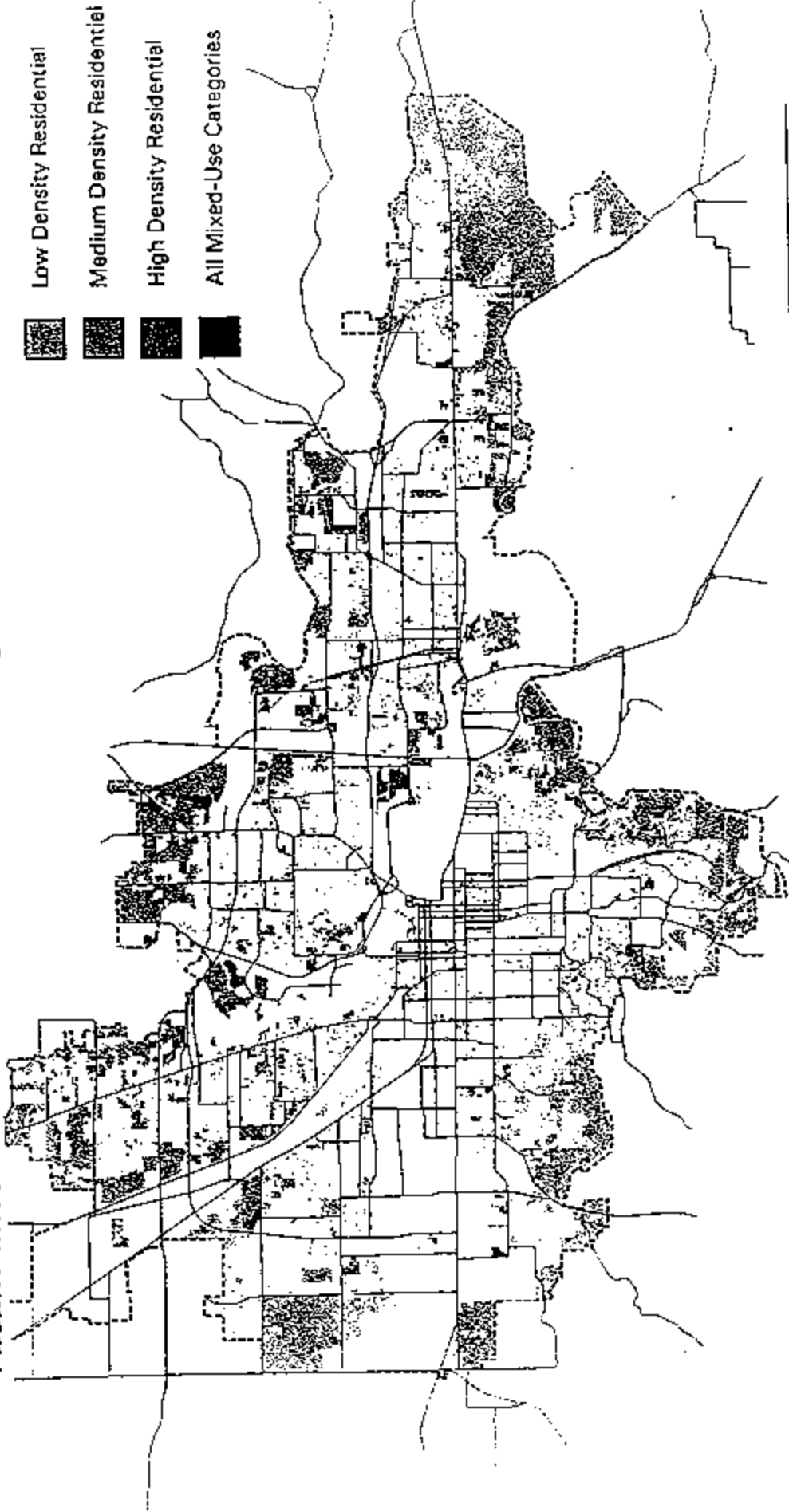
	Acres	Share
Low density	8,225	84%
Medium density	1,305	14%
High density	222	2%
Total	9,752	100%

Source: Lane Council of Governments

- As currently zoned, low-density residential land will be developed primarily with single-family homes, with some duplex, multi-family, and manufactured home development.
- Medium- and high-density residential land will be developed almost entirely with multi-family housing.
- 26 acres are in mixed use areas that allow residential along with commercial and industrial uses.

MOST BUILDABLE RESIDENTIAL LAND IS LOCATED IN THE PERIPHERY OF THE URBAN AREA

Vacant unconstrained land in the UGB designated for residential use, 1992.



RESIDENTIAL DEVELOPMENT WILL REDUCE THE SUPPLY OF LAND IN EUGENE/SPRINGFIELD

Potential demand could consume 56-78% of the available residential land by 2015

Estimated Acres Used by Residential Development in Eugene/Springfield, 1990-2015

	Dwelling Units	Net Density (d.u./acre)	Gross Acres
Single-family detached	18,000	5-7	3,500-4,800
Single-family attached	4,500	12-18	300-500
Apartments	15,750	21-25	800-1,000
Manufactured Home	6,750	7-10	900-1,300
Total	45,000		5,500-7,600

Source: ECONorthwest

Note: Based on the potential distribution of demand by structure type and net density of residential real estate by structure type. Net acres are generally 75% of total development area, with the remaining 25% in roads and open space.

IMPLICATIONS OF DEMAND, SUPPLY, AND TRENDS FOR THE RESIDENTIAL MARKET IN EUGENE/SPRINGFIELD

Demographic and economic forecasts suggest a market for higher-density housing that would be compatible with nodes

- Declining household size, an aging population, and more households with non-traditional families should increase demand for smaller and alternative housing products.
- If the population grows as forecasted and the residential land supply continues to decrease, the price of land will increase, reducing lot sizes for single-family development and increasing densities for all residential structure types.
- Households must trade off the housing characteristics they want with the price they have to pay to get them. Higher-density housing will be more successful if it incorporates characteristics households look for in standard single-family homes, such as privacy, security, and storage.
- The challenge for smaller units and lots: deliver equivalent adequate amenity at the same price.

SMALL-LOT RESIDENTIAL HOMES HAVE FOUND A NICHE IN THE LOCAL MARKET

Several successful developments in the region would fit well in nodes

There have been several examples of small-lot residential developments that incorporate neotraditional designs similar to those envisioned for nodal development. Examples include:

- Overbrook in south Eugene, with small homes on lots that average 2,500 square feet (for a gross density of about 12 units/acre).
- Champignon, a series of small craftsman-style cottages off of Spyglass Drive in Eugene.
- Field of Dreams, 44 small 2, 3, and 4 bedroom homes on lots less than 4,500 square feet. The homes all use a neotraditional design, with front porches and no garages.

While these developments were successful, there were some marketing challenges. The lack of garages in Field of Dreams deterred some buyers, who want garage space for storage more than for cars. In general, small-lot residential must be designed to address market preferences for privacy, security, and storage.

MULTI-FAMILY HOUSING HAS BEEN SUCCESSFUL IN THE EUGENE/SPRINGFIELD MARKET

Typical apartment developments have the density to be suitable for nodes

- Multi-family housing is already accepted in the market—39% of households in Eugene lived in apartments or single-family attached housing in 1990.
- The market also accepts multi-family housing in mixed-use nodes—multi-family developments have often been used as a buffer between commercial and single-family areas.
- There is a current boom in apartment construction, with over 1,500 units built in the last two years. Many of these apartments respond to demand from the high end of the market with average rents greater than \$600. Much of the demand for these units is from newcomers who are here temporarily to participate in construction projects or that intend to stay and purchase a single-family home.
- Employment in high-tech industries may sustain demand for high-end apartments. In the long run, most demand for apartments will come from young, small, households in the lower half of the income distribution.

WHAT WOULD DEVELOPMENTS WITH ALTERNATIVE HOUSING LOOK LIKE?

Summary of density, unit size, and typical ownership of alternative housing

Product	Ownership propensity	
	Owner	Renter
	Units per Net acre	Unit size (sq. Ft.)
Standard single-family	4 to 7	1,600 to 2,200
Small lot single-family	7 to 10	1,200 to 1,800
Clustered housing	8 to 14	1,400 to 1,900
Townhouses	12 to 18	1,400 to 1,600
Stacked low-rise	15 to 22	600 to 2,000
Garden apartments	18 to 24	450 to 1,300
Low-rise high-density ¹	30 to 90	450 to 1,600
Mid-rise ¹	40 to 120	450 to 1,600

¹ Low-rise high-density and Mid-rise housing could be rental apartments or condominium units.

EVEN SMALL MARKET SHARES COULD RESULT IN SIGNIFICANT RESIDENTIAL DEVELOPMENT IN NODES

It is not unreasonable to expect average development on the order of 250 units per year in areas designated for nodal development

Potential Annual Residential Development in Nodes by Structure Type, 1990-2015

Structure Type	1996-2000		2001-2015	
	Annual Units	Percent in Nodes	Annual Units /Year	Percent in Nodes
Single-family detached	720	8-12%	72	12-15%
Single-family attached	180	15-20%	32	20-25%
Apartments	630	12-16%	88	16-20%
Total	1,530		192	251

Source: Leland Consulting Group and ECONorthwest

Note: Based on potential distribution of implied demand forecast and assumptions about market share by structure type for nodes. Market share for nodes varies with the removal of barriers and increased incentives for nodal development.

Appendix C

Eugene-Springfield Metro Area					
Summary of Sloped Buildable Residential Land as of 1/95 in acres					
Generalized Planuse	Parcel Size	Buildable Land	Slope 15 - 25%	Slope 26 - 45%	Slope 45+%
Low	< 1 acre	1,237	176	83	12
	1 - 5 acres	1,554	243	157	12
	5+ acres	5,145	924	686	90
	Subtotal	7,936	1,343	926	115
Medium	< 1 acre	107	2	4	1
	1 - 5 acres	169	7	2	2
	5+ acres	944	52	3	0
	Subtotal	1,219	61	10	3
High	< 1 acre	12	0	0	-
	1 - 5 acres	15	1	1	0
	5+ acres	253	1	-	-
	Subtotal	281	2	1	0
METRO TOTAL	< 1 acre	1,356	178	87	13
	1 - 5 acres	1,738	250	160	14
	5+ acres	6,342	977	689	90
	Grand Total	9,435	1,405	936	118

Note: Totals may differ due to rounding.

Eugene-Springfield Metro Area						
Summary of Constrained Buildable Residential Land as of 1/95 in acres						
Generalized Planuse	Parcel Size	Buildable Land	Total Constrained Land	Floodplain	Wetland	Hydric
Low	< 1 acre	1,237	207	42	57	141
	1 - 5 acres	1,554	279	95	68	168
	5+ acres	5,145	1,232	477	699	785
	Subtotal	7,936	1,718	614	824	1,093
Medium	< 1 acre	107	31	6	1	25
	1 - 5 acres	169	98	8	0	30
	5+ acres	944	247	71	84	151
	Subtotal	1,219	316	85	85	206
High	< 1 acre	12	3	0	0	2
	1 - 5 acres	15	6	2	-	4
	5+ acres	253	68	4	34	60
	Subtotal	281	77	7	34	67
METRO TOTAL:	< 1 acre	1,356	240	48	59	168
	1 - 5 acres	1,738	324	106	68	202
	5+ acres	6,342	1,547	552	817	896
	Grand Total	9,436	2,111	706	943	1,366

Note: Totals may differ due to rounding.

Eugene-Springfield Metro Area									
Summary of Combined Constraints on Buildable Residential Land as of 1/95 in acres									
Generalized Planuse	Parcel Size	Buildable Land	Wetland & Hydrlic	Hydrlic & Slope 15-25%	Hydrlic & Slope 26-45%	Floodplain & Wetland	Floodplain & Hydrlic	Floodplain, Hydrlic & Wetland	
Low	< 1 acre	1,237	17	10	1	3	8	3	
	1 - 5 acres	1,554	23	23	8	6	8	7	
	5+ acres	5,145	140	92	23	63	27	247	
	Subtotal	7,936	180	124	32	72	43	257	
Medium	< 1 acre	107	1	0	0	-	1	-	
	1 - 5 acres	169	-	0	0	-	0	-	
	5+ acres	944	40	0	0	4	1	6	
	Subtotal	1,219	41	1	0	4	2	6	
High	< 1 acre	12	0	-	-	-	-	-	
	1 - 5 acres	15	-	-	1	-	-	-	
	5+ acres	253	31	-	-	-	-	-	
	Subtotal	281	31	-	1	-	-	-	
METRO TOTAL	< 1 acre	1,356	17	10	1	3	9	3	
	1 - 5 acres	1,738	23	23	9	6	8	7	
	5+ acres	6,342	212	92	24	68	28	254	
	Grand Total	9,435	252	125	33	77	45	263	

Note: Totals may differ due to rounding

**Service Availability of Buildable Residential Land
Eugene-Springfield Urban Growth Boundary
Combined Supply Analysis**

Eugene UGB				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	437.8	337	138.5	58.2
Medium	0	12.1	236.5	0
High	0	0	0	0
Total	437.8	349.1	375	58.2

Eugene				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	119.1	30.2	0.0	0.0
Medium	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0
Total	119.1	30.2	0.0	0.0

Eugene Urban				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	318.7	306.8	138.5	58.2
Medium	0.0	12.1	236.5	0.0
High	0.0	0.0	0.0	0.0
Total	318.7	318.9	375.0	58.2

Springfield UGB				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	47.1	25.2	146.3	1,047.7
Medium	35.1	101.6	0.0	21.5
High	0.0	0.0	0.0	8.8
Total	82.2	126.8	146.3	1,078.0

Springfield				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	0.0	0.0	0.0	101.0
Medium	0.0	0.0	0.0	0.0
High	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	101.0

Springfield Urban				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	47.1	25.2	146.3	946.7
Medium	35.1	101.6	0	21.5
High	0.0	0.0	0	8.8
Total	82.2	126.8	146.3	977

Metro Total				
Generalized Plan Use	Service Delay			
	1-3 Years	3-5 Years	5-10 Years	10+ Years
Low	484.9	362.2	284.8	1,105.9
Medium	35.1	113.7	236.5	21.5
High	0.0	0.0	0.0	8.8
Total	520.0	475.9	521.3	1,136.2