

# City of Sisters Residential Land Supply and Demand Analysis

3/17/2005 Update

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## Executive Summary

At densities allowed by the City's current development codes, 25 gross acres of Residential (R District) land are needed in addition to existing supplies of residential lands to meet the need for housing until the year 2025. This takes into consideration the anticipated rapid population growth documented in the 2005 coordinated population forecast, the need for different housing types based on demographic characteristics of people living in the Sisters UGB, current supplies of lots in platted and planned subdivisions, and the amount of undeveloped residential land.

## Introduction

This report estimates how much land will be used by anticipated residential development in the City of Sisters (hereafter, City or city) between 2004 and 2025. There are five main tasks involved in making this estimate:

- Task 1: Inventory the supply of buildable residential land
- Task 2: Determine the actual density and mix of housing
- Task 3: Conduct a Housing Needs Analysis
- Task 4: Housing density and mix analysis
- Task 5: Supply and demand analysis of buildable land in the UGB

This report uses historical demographic and building permit data, field studies, studies on local housing trends, and assumptions about future housing and demographic trends to predict if there is a surplus or shortage of land for residential uses in the City's Urban Growth Boundary (UGB). This report is also an update of previous studies, so the format and content of the older reports were used as the basis for this study, but critical information was updated to more accurately predict future land needs. Updated data includes new land supply information and population and housing unit estimates. As a result, the conclusions of this report differ from previous versions.

### **Task 1: Inventory the supply of buildable residential land**

*Overview: This portion of the analysis calculates how much vacant and re-developable residential land (R and RMFSD land use districts) is inside the Sisters UGB.*

A Geographic Information Systems (GIS) was used to calculate the information needed in Task 1(A)-(D). The information used was the Deschutes County Real Estate Data Package in GIS shapefile format, as 10/24/04.

The methodology and assumptions used in this part of the analysis are presented below.

**Step 1:** Calculate the gross vacant acres by plan designation, including fully vacant and partially vacant parcels.

- All taxlots inside the City of Sisters UGB were included in the initial inventory
- The City of Sisters and Sisters UGB are identical areas
- The zoning of each parcel was determined by overlaying digital zoning maps with digital maps of taxlots
- Duplicate taxlots created by the overlay process were deleted
- Vacant/developed status was determined by analyzing the relationship between improvement values and assessment information
- Parcels with a zero improvement value, or that were assessed showing no structural improvements were assumed to be vacant

- Parcels with improvement values equal to or greater than 30% of the total value, or were assessed with a residential, commercial, or other type of structure were assumed to be developed
- Parcels with an improvement value equal to or less than 30% of the total value were considered re-developable, and not vacant or developed
- Created maps and field-checked to verify or edit the status of the parcel

**Step 2:** Calculate the gross buildable vacant acres by plan designation by subtracting unbuildable acres from total vacant acres.

- Only land designated R and R-MFSD became part of the inventory of residential land, other taxlots were eliminated from the inventory
- Lands owned by the City of Sisters, United States Forest Service, State of Oregon, street right-of-way, and common areas in built subdivisions were subtracted from the land inventory
- The size of each parcel in acres was calculated based on the GIS “AREA” field to result in gross vacant acres for each taxlot
- For each taxlot, the area inside the FEMA flood way and 100-year flood plain was calculated and subtracted from gross vacant acres to result in gross buildable acres. The FEMA 100-year flood plain was digitized by the Deschutes County GIS Department and is part of the Deschutes County GIS Data Package.
- No other significant topographic or natural hazards (high slopes, faults, etc.) limit development in the Sisters UGB
- Lands that are zoned R or R-MFSD, that are privately owned and are outside of the FEMA flood way and 100-year flood plain are included in the inventory of residential lands

Descriptions of these lands are shown in Tables 1 and 2 below

**Step 3:** Separate existing platted and planned subdivisions that will likely not be further partitioned or subdivided from land that is either un-subdivided, or not limited by covenants codes and restrictions (CCRs).

- *Table 3: Platted and Subdivided Property Inventory (approximate numbers)* shows lands determined by the Sisters Planning Department to not be capable of, or unlikely to encounter, further land divisions
- The numbers of parcels that are planned, developed, and vacant (including currently vacant and un-built future parcels) are described in Table 3.
- The number of developed and vacant lots and potential remaining units in platted subdivisions are shown in Table 3.

**Step 4:** For residential lands, calculate vacant gross developable acres by plan designation by subtracting flood plains from gross buildable vacant acres.

**Table 1:** *Vacant Residential Lands in the City of Sisters by Land Use Designation (in gross acres not including platted and planned subdivisions)*

Zone	Number of Tax Lots	Total Area (In Acres)	Area of FP (In Acres)	Vacant Gross Developable Acres
R	35	16.2	2.6	13.6
RMFSD	17	69.1	0.0	69.1

There are 13.6 acres of vacant gross developable acres of land designated Residential in the City of Sisters (hereafter, referred to as City or city). There are 69.1 acres of vacant gross developable acres of Residential Multi-Family Sub-District in the City.

**Table 2:** *Re-developable Residential Lands in the City of Sisters by Land Use Designation (in gross acres not including platted and planned subdivisions)*

Zone	Number of Tax Lots	Total Area (In Acres)	Area of FP (In Acres)	Re-developable Gross Acres
R	2	22.4	0.0	22.4
RMFSD	0	0.0	0.0	0.0

Re-developable parcels were determined based on a variety of methods. To be classified as re-developable, the parcel's improvement value was less than 30 percent of the total parcel value (land and improvements), and be greater than 4 acres in size. Other Deschutes County data sources were used to verify the presence of structures and improvements before classifying a parcel as re-developable. City building permit data was also used to update the county parcel databases. Field investigations also verified the re-developable status. Only two parcels met these criteria, both are zoned Residential, and total 22.4 gross acres.

**Table 3:** *Platted and Subdivided Property Inventory (approximate numbers)*

Name	Total Units	Developed Units	Remaining Single-family	Remaining Multi-family	Total Remaining Units
The Pines	79	46	33	NA	33
PMR	180	63	86	31	117
Buck Run	72	56	16	NA	16
Coyote Springs	47	15	32	NA	32
Timber Creek	154	46	108	NA	108
Creekside	22	16	6	NA	6
South View	6	1	5	NA	5
Aspenwood	26	2	24	NA	24
Sisters Park Place	40	31	9	NA	9
Total	626	276	319	31	350

Table 3 illustrates the number of developed and remaining lots, and thus units, that exist in platted and developing subdivisions throughout the city. As of December 2004, a total of 319 remaining single-family and 31 multi-family units are available for development in existing subdivisions. A total of 350 remaining units can be developed in the subdivisions listed in Table 3.

## Task 2: Determine the actual density and mix of housing

*Overview: This task explores the types and densities of housing that have recently been developed within the Sisters UGB. This information is used to predict how much vacant land will be used if development continues at historic densities, and to predict if needed housing types are likely to be developed based on recent types of development.*

The methodology and assumptions used to complete this task are presented below.

### Step 1: Determine the time period for which the data must be gathered.

- The last periodic review for the City of Sisters was in 1994. Building permit data was gathered from March of 2002, back to January 1, 1994. Data was in the form of hard copy lists of building permits by type, data, owner, address, and value. A total of 165 building permits issued between 1994 and March 2002 were considered in the analysis.

A total of 8 building permits for single-family dwellings were not included because of missing data.

**Step 2:** Identify the types of new housing construction to address.

- Housing types addressed include single-family dwellings (SFD), mobile homes (MOB), manufactured homes (MAN), condos with five units (COND5), duplexes (DUP), and other multifamily dwellings

**Step 3:** Collect data.

- Hard copy lists of building permits were studied to extract the permit types for the aforementioned housing types. Usually, addresses for the building permit were given versus the taxlot of the new development. Based on the address, the building permit type was associated with the taxlot in the GIS.

**Step 4:** Collect data pertaining to the type, zoning, density, and number of units of housing developed.

- The types, density, and number of housing units developed are shown in Table 4

**Step 5:** Calculate the actual mix of housing.

- The actual housing mix is shown in Table 4

**Step 6:** Calculate the average actual density of each housing type.

- The average actual density is by housing type is shown in Table 4

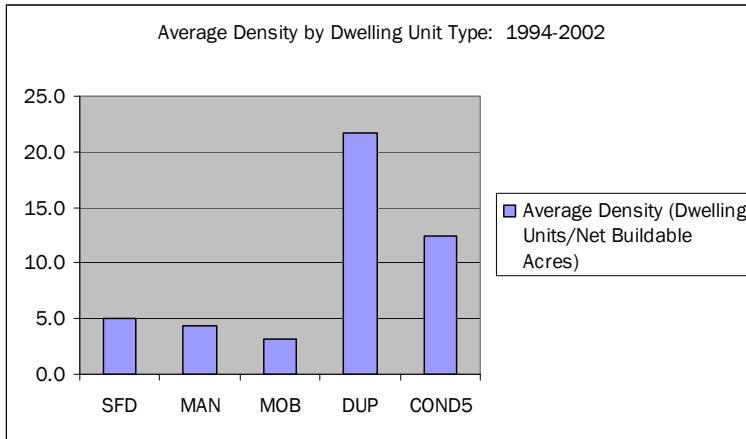
**Step 7:** Calculate the average actual net density of all housing types.

- The average actual net density of all housing types is shown in Table 4

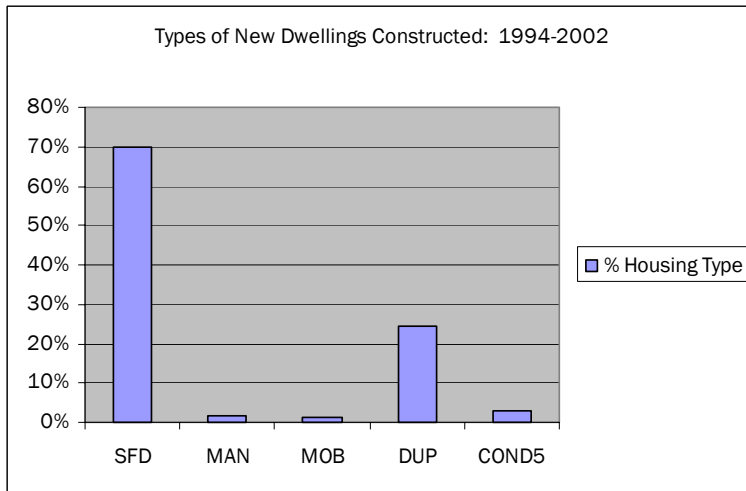
**Table 4:** *Housing Permits by Type in City of Sisters: 1994-2002*

Dwelling Type	Number of Dwelling Units	Total Net Acres	% Housing Type	Average Density (Dwelling Units/Net Buildable Acres)
SFD	115	22.6	70%	5.1
MAN	3	0.7	2%	4.4
MOB	2	0.6	1%	3.2
DUP	40	1.8	24%	21.7
COND5	5	0.4	3%	12.4
TOTAL	165	26.2	100%	6.3

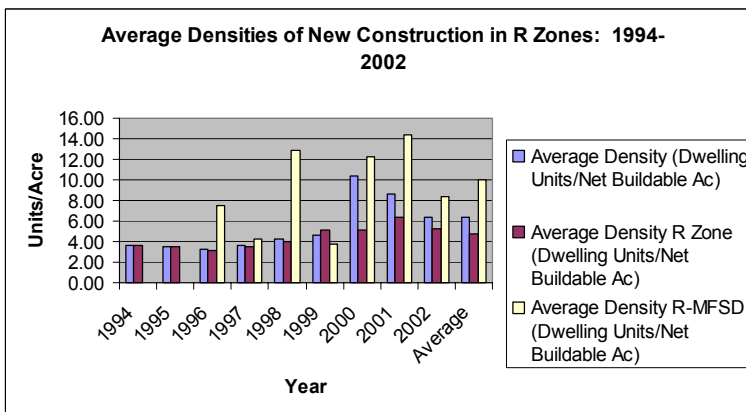
**Figure 1:** Average Density by Dwelling Type Constructed in Sisters UGB: 1994-2002



**Figure 2:** New Dwellings Constructed in Sisters UGB: 1994-2002



**Figure 3:** Average Densities of New Construction in R Zones by Year: 1994-2002



**Task 3: Conduct a Housing Needs Analysis**

*Overview: This task estimates the amount and types of housing needed in the Sisters UGB for the next 20 years based on anticipated population growth and demographic characteristics of the population.*

**Step 1:** Project the number of new housing units needed in the next 20 years.

- Recent demographic trends related to the number of people/dwelling unit inside the City of Sisters tend to vary from state and national trends. National housing trends suggest that households are becoming smaller due to more households being formed by empty nesters, young singles, and couples than by the traditional family (Planning for Residential Growth, June 1997 by Oregon DLCD). However, this trend is not expressed in recent demographic statistics for the City of Sisters.
- For example, the average household size in the State of Oregon was 2.6 people/unit in 1980, 2.52 people/unit in 1990, and 2.4 people/unit in 2000 (U.S. Census). The 1990 ratio of people/unit in the City of Sisters was 1.91 (1990 U.S. Census). This ratio increased to 1.99 by the year 2000 (2000 U.S. Census). This data is shown in Tables 5 and 6.
- The 1990 and 2000 ratios of people/household are lower for the City of Sisters than the State of Oregon ratios for the same periods. This suggests that the City of Sisters is moving towards the State ratio of persons/household in spite of state and national trends favoring a decreasing household size.

**Table 5:** *People per Dwelling Unit in City of Sisters: 1990 U.S. Census Data*

**People per Dwelling Unit: 1990 US Census**  
**City of Sisters**

Year	City of Sisters Population	Housing Units in City of Sisters	People/Unit City of Sisters
1990	679	354	<b>1.91</b>

**Table 6:** *People per Dwelling Unit in City of Sisters: 2000 U.S. Census Data*

**People per Dwelling Unit: 2000 US Census**  
**City of Sisters**

Year	Persons	Total Housing Units	People/Unit
2000	959	482	<b>1.99</b>

- This analysis assumes that in the next 20 years the ratio of people/unit will rise in the City of Sisters as shown in *Appendix 1: Population and Building Permit Forecasts, Sisters UGB*, from 1.99 people/unit to 2.20 people per unit by 2025

- *Appendix 1: Population and Building Permit Forecasts, Sisters UGB* are same population estimates used in the 2005 Deschutes County Coordinated Population Forecasts. These estimates and rates are shown in Appendix 1 and Table 7.
- Appendix 1 demonstrates that a total of 1,125 housing units are expected to be constructed in the city between 2004 and 2025.

**Table 7:** *Sisters UGB Coordinated Population Forecast: 2000-2025*

Year	City of Sisters Population <sup>2</sup>	5-year Average Annual Growth Rate (previous to current year)
2000	975 <sup>1</sup>	NA
2005	1,768	12.64%
2010	2,306	5.46%
2015	2,694	3.16%
2020	3,166	3.28%
2025	3,747	3.43%

<sup>1</sup> Source: PRC July 1, Official Population Estimate for City of Sisters.

<sup>2</sup> Source: Population Estimates by City of Sisters, see Appendix 1.

**Step 2 and 3:** Identify relevant national, state, and local demographic and economic trends and factors that may affect the 20-year projection of structure type and mix. Describe the demographic characteristics of the population and, if possible, household trends that relate to demand for different types of housing.

The Central Oregon Housing Needs Assessment completed in 2000 discusses local factors affecting the need for different structure types. Information from the survey is based on confidential surveys containing 52 questions on demographic and housing characteristics that were mailed to 14,000 households in Central Oregon (Crook, Deschutes, and Jefferson Counties). A total of 2,064 completed, valid surveys were returned via postage-paid envelopes. Excerpts from this report are included below in quotations. Some of the findings and data from this report are provided below.

#### *Housing Characteristics of the Region*

- “Based on the household survey, approximately 69% of the housing units in the three counties (Crook, Deschutes, Jefferson) are single-family homes. Mobile homes also make up a significant percentage of the total with 18% of the supply. Apartments comprise the next largest portion of housing units at 5%. Duplexes, triplexes and townhouses make up 4% of the total and a very small percentage, approximately 1%, are condominiums” (Central Oregon Housing Needs Assessment).
- This demonstrates that single-family dwellings are the most common and preferred housing type in Central Oregon, as well as the City of Sisters, as shown by building permit activity since 1994.
- “There is a wide range in average sales prices for residential properties in the region. The communities of Sunriver and Sisters have dramatically higher average sales prices than elsewhere in the region” (Central Oregon Housing Needs Assessment).

### 1999 Residential Sales Prices by Community

Community	Average Sales Price	Median Sales Price
Sunriver	\$276,344	\$245,000
Sisters	\$260,013	\$210,000
Bend	\$171,070	\$136,500
South Bend	\$161,043	\$115,900
Redmond	\$116,859	\$110,500
Jefferson County	\$91,872	\$88,000
Crook County	\$91,214	\$80,000
Lapine	\$85,290	\$76,000

Source: Multiple Listing Service of Central Oregon (Central Oregon Housing Needs Assessment)

- Sales prices of homes in the City of Sisters and outside the city limits tend to be higher than other urban areas in Deschutes County
- In the City of Sisters, according to the 2000 U.S. Census, the rental vacancy rate is 7.3% and homeowner vacancy rate is 2.1%. Approximately 11% of the housing units in Sisters are for seasonal, recreational, or occasional use.

#### *Building Trends*

- “Future Trends: The staff at the Central Oregon Homebuilders Association provided the names of 25 developers and homebuilders that are active in the region and that, in their estimate, are responsible for up to 75% of all new development. These developers were contacted in a survey conducted during April 2000; a total of 4,865 homes in 37 different developments have been captured in the survey data. Although the survey was not random, the results are accurate indicators of the direction of the residential real estate supply” (Central Oregon Housing Needs Assessment).
  1. “Type of Unit: Of the 4,865 planned units that were identified in the survey, the majority (92%) will be single-family homes. Approximately 2% of the new units will be condominiums and townhouses and 5% will be rental units in apartment projects” (Central Oregon Housing Needs Assessment).
  2. “Housing Costs Compared: As seen previously with the comparison of past sales to current listings (see below), the supply of real estate continues to shift to the more expensive price ranges. Among past sales, 26% were in the price range of \$50,000 to \$99,999. Based on the projected prices, only 7% of homes under development will be in this range. Another significant change can be anticipated to occur in the \$150,000 to \$199,999 range. Previously, past sales made up 13% of the total supply. In the future, homes in this price range will represent 19% of the total supply” (Central Oregon Housing Needs Assessment).
  3. “The most significant changes will occur in the highest range, those homes priced at \$400,000 or above. While this category accounts for 5% of past sales, future sales are anticipated to make up 28% of the supply. It appears that developers in the region anticipate a significant increase in the number of buyers of high-end homes” (Central Oregon Housing Needs Assessment).

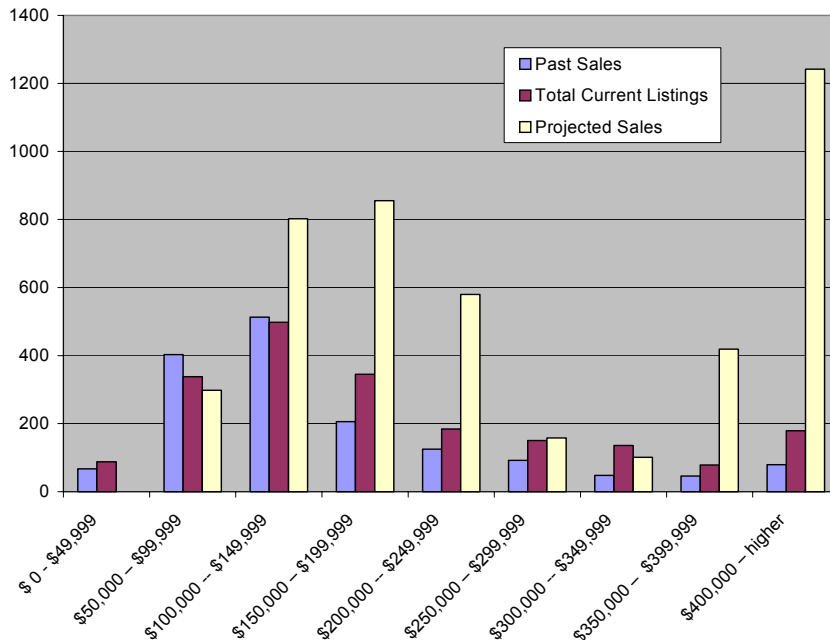
**Comparison of Past, Current and Projected Home Prices**

	<b>Past Sales</b>	<b>Total Current Listings</b>	<b>Projected Sales</b>
\$ 0 - \$49,999	4.2%	4.4%	0.0%
\$50,000 – \$99,999	25.5%	16.9%	6.7%
\$100,000 -- \$149,999	32.5%	24.9%	18.0%
\$150,000 – \$199,999	13.0%	17.3%	19.2%
\$200,000 -- \$249,999	7.9%	9.2%	13.0%
\$250,000 – \$299,999	5.8%	7.5%	3.5%
\$300,000 -- \$349,999	3.0%	6.8%	2.3%
\$350,000 – \$399,999	2.9%	3.9%	9.4%
\$400,000 – higher	5.0%	9.0%	27.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Sources: Multiple Listing Service of Central Oregon and Developer Survey, April 2000 (Central Oregon Housing Needs Assessment)

The following graph clearly illustrates the trend toward more expensive housing.

**Comparison of Past, Current and Projected Home Prices**



Sources: Multiple Listing Service of Central Oregon and Developer Survey, April 2000 (Central Oregon Housing Needs Assessment)

- “Buyer Characteristics: Based on the survey responses, more than half of the buyers of new construction are new to the Central Oregon region. Approximately 24% of all buyers are coming from out of state and 31% are arriving from the Portland-Willamette Valley-west coast area. These percentages reflect the buyer profiles in developments totaling 4,309 homes and are limited to ownership housing” (Central Oregon Housing Needs Assessment).

*Housing Preferences*

- “Overall, the majority of Central Oregon’s residents live in the community where they most want to live” (Central Oregon Housing Needs Assessment)
- “In the City of Sisters, approximately 63% of survey respondents are living in the community they want to live. In the Sisters School District approximately 89% of survey respondents live in the community they want to live” (Central Oregon Housing Needs Assessment).
- “The high cost of housing is by far the greatest barrier to residents living where they want to live” (Central Oregon Housing Needs Assessment).

*Demographic and Housing Characteristics in Sisters Area*

- Summary of household characteristics for the City of Sisters from Central Oregon Housing Needs Assessment:
  - “There are proportionately more adults living alone and fewer households with children than in the region as a whole. “
  - “The unincorporated portion of the Sisters School District contrasts sharply with the Town of Sisters. A far higher percentage of the households are homeowners, fewer live in mobile or manufactured homes, households are larger, and the percentage of adults living alone is smaller.”
  - “The average household income in the Town of Sisters is substantially lower than the average for Deschutes County. “
  - “The average annual income for the unincorporated area is more than twice the average income in the town.”
  - “In the Town of Sisters, over half of the households surveyed are classified as low-income households with annual incomes below 80% of the median family income for Deschutes County. In the unincorporated area, 21% have incomes below 80% of the median.”
- Summary of housing characteristics for the City of Sisters from Central Oregon Housing Needs Assessment:
  - “Sisters has the highest proportion of renter households in the region – roughly half of the town’s households rent.”
  - “A relatively large percentage of residents reside in mobile homes.”
- According to the US 2000 Census, the median mortgage is \$908 and average rent is \$619 in the City of Sisters

*Summary of Housing Issues for the City of Sisters According to the Needs Assessment*

- “A greater percentage of Sisters’ residents feel that housing in their community is a major problem than any other area in the region, with the exception of the Warm Springs Reservation.”
- “About 19% of the households surveyed in the Town of Sisters are not satisfied with their housing, which is nearly double the region’s percentage. In contrast, nearly 94% of the households in the unincorporated area of the School District are satisfied with their housing. “
- “Residents of the Town of Sisters report a high percentage of homes in fair or poor condition and a higher percentage who are not satisfied relative to the region as a whole.”
- “Approximately 32% of the Town’s households live in housing that is not affordable given their incomes, which compares to 17% in the region. In the unincorporated area, just under 20% spend more than 30% of their income on their rent or mortgage payment, which is lower than in the Town but higher than in the region overall.”

- “In the Town of Sisters, the vast majority of residents (92%) believe that there is too little affordable housing in the community, by far the highest percentage in the region. Most also believe that the size and price of new homes is too much. In the unincorporated area, the majority of residents (74%) also believe that there is too little affordable housing in the area but residents are divided on the overall amount of housing being built. The majority feels that the size and price of new homes is too much.”
- *Summary of the Impacts of Planned Development from the Central Oregon Housing Needs Assessment*
  - “New development in the Town of Sisters has been limited in the recent past as the lack of a municipal sewage treatment plant has limited the number of building permits the Town can issue. The process to construct a new sewage treatment facility is under way with the plant scheduled to open in June of 2002. When additional capacity to accommodate growth is available, requests for building permits are likely to grow quite rapidly as it appears that the limited growth rate has not allowed the supply to keep pace with demand.”
  - “Demand for housing will be fueled by increases in the housing supply. Jobs will be created as a direct and indirect result of the residential development planned to occur. Residential development directly creates not only construction jobs but also permanent jobs directly associated with maintenance and operation of the homes including interior designers, landscapers, security personnel, caretakers, and cleaning and cooking staff.”
  - “The impacts of residential development multiply through the community, fueling job creation primarily in the services and retail sectors. The homes planned for development in Sisters appear to be primarily targeting buyers not now living in the area. The population could double in the next seven years if 550 additional units are constructed. The new part-year and year-round residents that would move to the community, will seek goods and services generating demand for additional jobs, many of which would be in the low-wage sectors.”
  - “The demand for housing generated both directly and indirectly by the residential development planned for Sisters is difficult to quantify with information available at present; however, it is clear that workers filling these new positions will need units priced below what it appears the private market is likely to provide.”

This analysis breaks income groups into four main categories shown in Table 8 below.

**Table 8:** *Income Groupings*

**Income Levels in the City of Sisters: 1990 and 2000 Census Data**

Income Levels	1990 U.S. Census City of Sisters	2000 U.S. Census City of Sisters
Households		
low (less than or equal to \$14,999)	42%	17%
lower middle (\$15,000-\$34,999)	41%	33%
upper middle (\$35,000-\$74,999)	15%	31%
high (\$75,000 and greater)	2%	19%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: 1990 and 2000 U. S. Census

- Table 8 demonstrates how rapidly demographic changes can occur within a small city. The percentage decrease of households in the low-income category between 1990 and 2000, from 42% to 17% of households is striking. The lower middle-income category also experienced a decline from 41% to 33% of households in the same period. These decreases were offset by increases in the two higher income groupings.
- Table 9 describes the estimated percentages of the City of Sisters households within the four income groupings. These estimates are based on 2000 U.S. Census data for the City of Sisters and Community Technical Advisory Committee input.

**Table 9:** *Estimated Income Groupings in City of Sisters: 2002-2025*

Income Levels	2000	2002-2025
Households		
low (42.85% Median Household Income)	17%	17%
lower middle (Median Household Income)	33%	33%
upper middle (2.14 x Median Household Income)	31%	31%
high (greater than 2.14 x Median Household Income)	19%	19%
<b>Total</b>	<b>100%</b>	<b>100%</b>
City of Sisters Median Household Income \$35,000 in 2000 (2000 U.S. Census)		

**Step 4:** Determine the types of housing that are likely to be affordable to the projected households based on household income.

- Households spending 30% of their monthly gross income on housing are nearing the upper limit for affording that housing. The monthly housing costs in Table 11 represent the upper limit that each income group can be expected to pay per month for housing. The housing types available to each income level are also described.

**Table 10:** *Income Groups by Available Housing Types and Monthly Costs*

Income Levels	Housing Types Available to Income Levels	Monthly Cost
low (42.85% Median Household Income)	subsidized multi-family, apartments, mobile/manufactured in parks, attached single and multifamily	\$0-\$375
lower middle (Median Household Income)	mobile and manufactured homes on lots and parks, attached single and multi-family, single detached on smaller lots	\$376-\$875
upper middle (2.14 x Median Household Income)	All housing types, predominantly single-family detached	\$876-\$1,875
high (greater than 2.14 x Median Household Income)	All housing types, predominantly larger single-family detached	\$1,876+
City of Sisters Median Household Income \$35,000 in 2000 (2000 U.S. Census)		

**Step 5:** Estimate the number of additional needed units by structure type.

- Table 11 estimates the distribution of housing types demanded by income groups. The Citizens Technical Advisory Committee recommended that the current income

distribution of the population of Sisters as shown in Table 9, remain fixed for the planning period. Demand is highest for single-family type units including more affordable manufactured homes, small single-family units, and more expensive medium to large single-family dwellings. More affordable multi-family dwellings, attached single and multi-family, and condos are demanded by approximately 50% of the City’s population that have household incomes less than and equal to Median Household Income.

**Table 11: Estimated Housing Types Demanded by Income Group, Year 2002-2025**

Income Levels	Housing Types Available to Income Levels	Percent of Population Demanding Housing Type
low (42.85% Median Household Income)	subsidized multi-family, apartments, mobile/manufactured in parks, attached single and multifamily, subsidized housing	17%
lower middle (Median Household Income)	mobile and manufactured homes on lots and parks, attached single and multi-family, single detached on smaller lots	33%
upper middle (2.14 x Median Household Income)	all housing types, predominantly single-family detached	31%
high (greater than 2.14 x Median Household Income)	all housing types, predominantly larger single-family detached	19%
<b>Total</b>		<b>100%</b>

City of Sisters Median Household Income \$35,000 in 2000 (2000 U.S. Census)

**Task 4: Housing density and mix analysis.**

*Overview: Needed housing densities and mixes are compared with actual densities and mixes to determine if measures are needed to provide needed housing densities/mix.*

- Table 12 shows how the actual development of housing types does not match the needed mix based on demographic characteristics of households in the City of Sisters
- The needed mix was calculated by adding the percentages of low and lower middle income groups needing multi-family, manufactured homes in parks and on lots, and attached single-family housing in 2002 (17% +33%)
- The needed mix significantly differs from the actual mix calculated for the 1994-2002 period

**Table 12: Actual Versus Needed Housing Mixes**

Housing Type	Actual and Needed Housing Mixes			Difference
	Actual 1994-2002	Actual 2002	Needed Mix*	
Multi-family (1+ units attached), apartments, condos, duplexes, mobile/manufactured homes	30%	33%	50%	17%
Single Family Detached	70%	67%	50%	-17%

\* Needed mix is based on the percentage of low and lower middle income households needing these housing types

- This table illustrates that there is a need for more development of multi-family, apartments, condos, duplexes, triplex, multiplex, attached single-family, small single family, and manufactured homes in parks and on single lots. These are more affordable housing options available to lower income households.
- Measures in the comprehensive plan and zoning ordinance will be required to encourage the development of more affordable housing types relative to single-family housing

- A number of measures exist in the new code to construct these needed housing types at affordable prices, including incentives such as density and height bonuses for Income and Rent Controlled Housing. In addition, the new code enables higher density residential development such as duplexes, triplexes, townhomes, multi-family apartments, condos, and manufactured home parks.
- Additional measures beyond the new model code may be needed to encourage the development of more affordable housing in the City of Sisters

### **Task 5: Supply and demand analysis of buildable land in the UGB**

*Overview: The supply of buildable residential land from Task 1 is compared with the demand for residential land calculated in Step 5.*

Task 5 involves comparing the supply of buildable land and lots in platted and planned subdivisions with the demand for dwelling units/lots and buildable land.

Tables 1 and 2 (discussed previously in Task 1) demonstrate there are 36 gross acres of vacant and re-developable land designated R (Residential) and 69 gross acres of RMFSD (Residential Multi-Family Sub-District) in the City. Table 3 demonstrates there are 319 remaining single-family lots (for single-family units) and 31 allowed multi-family units in existing subdivisions. These totals are reflected below in Table 13.

Demand for dwelling units inside the Sisters UGB is driven largely by expected population growth and other demographic characteristics. Appendix 1 demonstrates estimated population and housing increases in the city and estimates that 1,125 housing units will be built in the city between 2004 and 2025.

As discussed previously in Task 4, the needed mix of housing requires that half of the units be affordable to households with incomes under the city's median income, and half of the units be affordable to those with incomes over the city's median income. This analysis predicts that to accomplish this, half the units will likely be the type and density typically constructed in the Residential Multi-Family Sub-District (to meet the housing needs of those under the median income level), and half will be the type and density typically constructed in the standard Residential District (to meet the needs of households above the median income level). This assumption is not a policy directive and many high income households will choose to live in multi-family districts and lower income households in the standard Residential areas, but this assumption is made to allocate demand for housing to a specific land use type.

The City's two residential districts facilitate distinctly different housing unit development. Generally, housing types such as subsidized and market rate multi-family, triplexes, duplexes, attached townhomes, condos, and small single-family are more likely to be built in the Residential Multi-Family Sub-District. Housing types such as multi-family can only be constructed in the RMSD land use district. Similarly, in the Residential District, there are prohibitions placed upon multi-family unit construction and restrictions on triplex, duplex, and attached townhome infill construction. Thus, given that half of the future demand for housing will be for families with incomes at and below the City's median income level, most of these units will most likely be built in the Residential Multi-Family Sub-District.

Table 13 demonstrates that of the total demand for housing (1,125 units) between 2004 and 2025, half of the total units (563 units) will need to be built in the Residential Multi-Family Sub-

District, and the other 563 units be constructed in the Residential District. This is demonstrated in Table 13 under the heading, “Population and Housing”.

Table 13 also demonstrates the numbers of lots in existing subdivisions. After subtracting the totals under the heading “Lots in Subdivisions” from the totals under the heading “Housing Units”, by land use district (Residential or Res. Multi-fam), the “Remaining Demand” column shows the number of units needed in addition to existing supplies of units. The remaining demand is for units (by land use district) between 2004 and 2025, after subtracting for the number of existing platted units in subdivisions.

To predict land need, assumptions regarding the future density of residential development must be made. Under the heading “Residential Land Need” in Table 13, the amount of gross acres consumed by anticipated development between years 2004 and 2025 is presented. This is calculated based on the number of units shown under the heading “Remaining Demand”, divided by the anticipated density of future development. For units to be built in the Residential District, a gross density of 5 units/gross acre is used. The assumption is that future development in this land use district will be at 5 units/gross acre given the adopted density range for the Residential District is 3 to 8 units per gross acre. Likewise, given the adopted density range of 9 to 20 units per gross acre in the Residential Multi-Family Sub-District, this analysis assumes that future development in this land use district will be an average of 9 units/gross acre.

Table 13 demonstrates (under the heading “Land Need, Residential”) how much land new residential development will use after considering lots in existing subdivisions. The amount of vacant and re-developable residential land by land use district is shown under the heading “Residential Land Supply”. Under the heading “Land Need, Residential”, figures represent the results of subtracting future demand for residential land from the existing supply of residential land. An additional 25 gross acres of Residential District land is needed to accommodate future demand and a surplus of 10 acres of Residential Multi-Family Sub-District land is predicted. Refer to Chapter 14 of the Comprehensive Plan and the Findings for a UGB Expansion for a discussion of the UGB expansion to meet this predicted need.

**Table 13:** *Supply and Demand for Dwelling Units, Need for Additional Residential Land in City of Sisters to Year 2025.*

<i>Population &amp; Housing</i>		<i>Unit and Land Supply (in gross acres)</i>				<i>Land Need</i>
<b>2025 Population</b>	<b>Housing Units (2004-2025)</b>	<b>Lots in subdivisions</b>	<b>Remaining Demand</b>	<b>Residential Land Need</b>	<b>Residential Land Supply</b>	<b>Residential</b>
3,747	1,125	350	See below	See below	See below	See below
Residential	563	319	244	61	36	25
Res. Multi-fam	563	31	532	59	69	10 (surplus)
<b>Totals</b>	<b>1126*</b>	<b>350</b>	<b>776</b>	<b>120</b>	<b>105</b>	<b>15</b>

Notes:

\* Note: The total of 1,126 is different than the 1,125 based on the Deschutes County Coordinate Population Forecast due to rounding

**Conclusion**

The needed mix for housing differs significantly from the recent mix of housing constructed in the City of Sisters. This analysis estimates that half of the housing built in the Sisters UGB until the year 2025 should be a suitable type affordable to households earning at and under the median household income level of residents living in the City of Sisters. This typically includes housing types such as small single-family, multi-family apartments, attached single and multi-family,

manufactured home parks, and subsidized housing. Creative housing solutions conceived by the community to meet these and other community goals should be sought. Comprehensive Plan policies implemented through the development code will likely be required to meet this need.

At densities allowed by current development codes, a total of 25 gross buildable acres of Residential (R District) land are needed in addition to existing supplies of residential land. This takes into consideration the anticipated rapid population growth documented in the coordinated population forecasts, the need for different housing types based on demographic characteristics of people living in the Sisters UGB, current supplies of lots in platted and planned subdivisions, and undeveloped land.

Appendix 1: Population and Building Permit Forecasts, Sisters UGB

Forecast Year	Forecasted Rate of Building Permit Growth <sup>1</sup>	Forecasted Residential Housing Units <sup>2</sup>	Forecasted New Residential Building Permits Issued/Yr. <sup>3</sup>	Persons per Dwelling Unit <sup>4</sup>	Population Forecast <sup>5</sup>
2003	NA	725	104	NA	1,430
2004	11.10%	805	80	1.99	1,590
2005	11.10%	895	89	1.99	1,768
2006	8.90%	975	80	1.99	1,927
2007	5.40%	1,027	53	1.99	2,031
2008	4.30%	1,071	44	1.99	2,119
2009	4.30%	1,117	46	1.99	2,211
2010	4.30%	1,165	48	1.99	2,306
2011	3.13%	1,202	36	1.99	2,379
2012	3.13%	1,240	38	2.00	2,454
2013	3.13%	1,278	39	2.00	2,532
2014	3.13%	1,318	40	2.00	2,612
2015	3.13%	1,360	41	2.00	2,694
2016	3.13%	1,402	43	2.00	2,780
2017	3.13%	1,446	44	2.10	2,872
2018	3.13%	1,491	45	2.10	2,967
2019	3.13%	1,538	47	2.10	3,065
2020	3.13%	1,586	48	2.10	3,166
2021	3.13%	1,636	50	2.20	3,275
2022	3.13%	1,687	51	2.20	3,388
2023	3.13%	1,740	53	2.20	3,504
2024	3.13%	1,794	54	2.20	3,624
2025	3.13%	1,850	56	2.20	3,747

<sup>1</sup> Source: Rates between 2004 through 2010 based on weighted average of growth rates before and after the construction of the municipal sewer, see Deschutes County Coordinate Population Forecast, 2004. Rates of Building Permit Growth between 2011 and 2025 based on rate of housing unit growth between 1990-2000 as determined by the U.S. Census.

<sup>2</sup> Source: "Forecasted Residential Housing Units" based on "Forecasted Rate of Building Permit Growth" applied to base of 725 Residential Housing Units in 2003, and grown by the applicable rate per year.

<sup>3</sup> Source: Current year minus previous years "Forecasted Residential Housing Units", for example in 2004, 805 Forecasted Residential Units in 2004 minus 725 Forecasted Housing Units in 2003 equals 80.

<sup>4</sup> Source: Persons per Dwelling Unit of 1.99 is from the 2000 U. S. Census, SF-1.

This statistic accounts for vacancy rates and second homes. The statistic increases over time as estimated here by the City of Sisters Planning Department based on the assumption that the City will approach the State of Oregon statistic of 2.4 Persons Per Dwelling Unit as determined by the 2000 U.S. Census, SF-1. In other words, the City of Sisters will become more like the state in terms of persons per household in the future.

<sup>5</sup> Source: Calculated by adding the total of (Total Res. Permits/Yr. in Sisters UGB x Persons Per Dwelling Unit) to previous year's Population Forecast.