**APPENDIX D: UMATILLA COUNTY POPULATION DISCUSSION,
POTENTIAL DEVELOPMENT IMPACT ANALYSIS,
AND POTENTIAL DEVELOPMENT IMPACT ANALYSIS**

Umatilla County Population Discussion

METHODOLOGY AND DATA SOURCES

Population estimates and projections were developed from historical data, official annual estimates, official long-range forecasts, and an impact analysis of four major employers entering or expanding in western Umatilla County. Historical data are compiled as reported by the Census Bureau. Portland State University's Center for Population Research and Census developed annual population estimates for cities and counties for the purpose of allocating certain state tax revenues to cities and counties. The State of Oregon Office of Economic Analysis (OEA) provided long-term (through year 2040) state population forecasts, disaggregated by county, for state planning purposes.

The Office of Economic Analysis used business-cycle trends (as reflected by the Employment Department's employment forecasts) as the primary driver of population and employment for the short term. For the long term, the forecasts shift to a population-driven model, which emphasizes demographics of the resident population, including age and gender of the population, with assumptions regarding life expectancy, fertility rate, and immigration. DEA used a methodology based on OEA's county-distribution methodology in developing population and employment forecasts for each of the cities in Umatilla County. DEA calculated a weighted average growth rate for each jurisdiction (weighting recent growth more heavily than past growth) and combined this average growth rate with the projected county-wide growth rate. This methodology assumes convergence of growth rates because of the physical constraints of any area to sustain growth rates beyond the state or county average for long periods of time. These constraints include availability of land and housing, congestion, and other infrastructure limitations.

These preliminary forecasts were used as a basis for discussion with individuals who have local knowledge and expertise. The projections were then revised based on local input and analysis. One element that had a significant impact on the population analysis was the HUES (Hermiston, Umatilla, Echo, and Stanfield) Growth Impact Study, conducted by the Benkendorf Associates Corporation, Hobson Johnson & Associates, and Martin Davis Consulting, which quantifies the impact of the construction and operation of four major employers.

As required by state policy, this forecast is consistent with the State of Oregon Office of Economic Analysis forecast at the end of the 20-year planning period. Because of the impact of the four large employers, however, the growth of Umatilla County will occur faster in the beginning of the planning horizon, slowing to compensate near the end of the planning period.

These population and employment forecasts were developed to determine future transportation needs. The amount of growth, and where it occurs, will affect traffic and transportation facilities in the study area. This report is not intended to provide a complete economic forecast or housing analysis, and it should not be used for any purpose other than that for which it was designed.

CURRENT POPULATION AND EMPLOYMENT LEVEL

Estimated at 65,500 in 1997, the population of Umatilla County has grown relatively rapidly since the 1990 Census, with an average annual growth rate of over one-and-one-half percent. The following table shows the estimated change in population for Umatilla County and the jurisdictions of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston for 1990 and 1996.

Umatilla County Population Level
1990 and 1996

	1990	1997	1990-1997 Change	
			Number	CAARG*
Umatilla County	59,249	65,500	6,251	1.4%
Adams	223	265	42	2.5%
Athena	997	1,120	123	1.7%
Echo	499	585	86	2.3%

Helix	150	190	40	3.4%
Pilot Rock	1,478	1,585	107	1.0%
Stanfield	1,568	1,770	202	1.7%
Ukiah	250	240	-10	-0.6%
Weston	606	680	74	1.6%

* Compound Average Annual Rate of Growth

Source: Portland State University Center for Population Research and Census.

Most of the jurisdictions in Umatilla County have grown at a healthy rate, comparable to the annual growth rate of 1.4 percent for the county overall. The smaller jurisdictions of Adams and Helix have grown at a slightly faster rate, starting from the smaller population bases of 223 (Adams) and 150 (Helix) in 1990.

Populations with Specific Transportation Needs

Certain populations have been identified as having more intensive transportation needs than the general population. These populations include people under the legal driving age, those under the poverty level, and those with mobility limitations.

As stated above, Portland State University's Center for Population and Census estimates the Umatilla County's population as 65,500 in 1997. The Center further estimates that 18,623 of these people, or about 28 percent of the population, is under the age of 18 and that 5,505 are under age 5. Because the purpose of this analysis is to determine the number of people with specific transportation needs, DEA used PSU's age disaggregation to estimate that 16,617 people are under 16, the legal driving age in Umatilla County.

According to the 1990 Census, 16.5 percent of the 57,046 persons living in Umatilla County (for whom poverty status is determined) were below poverty level. Poverty statistics are based on a threshold of nutritionally-adequate food plans by the Department of Agriculture for the specific size of the family unit in question. The distribution of the population below poverty level shows that a larger proportion of younger persons than older populations are affected by this indicator, as shown in the following table.

Poverty Status
Umatilla County--1990 Census

	Below Poverty Level				Percent of
	Male	Female	Total Below Poverty Level	Total* Population	Total Population Below Poverty
11 and under	1,408	1,175	2,583	10,929	23.6%
12 to 17	481	517	998	5,223	19.1%
18 and over	2,300	3,538	5,838	40,894	14.3%
Total	4,189	5,230	9,419	57,046	16.5%

* For whom poverty status is determined.

Source: U.S. Census Bureau.

The Census Bureau reports that 3.3 percent of the population 16 and older had a mobility limitation in 1990. Persons were identified as having a mobility limitation if they had a health condition (physical and/or mental) that lasted for six or more months and which made it difficult to go outside the home alone. A temporary health problem, such as a broken bone that was expected to heal normally, was not considered a health condition.

Using the proportion of the population with mobility limitations and below the poverty level[1] in 1990, DEA estimated the number of people with specific transportation needs in 1996. The following table

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[1] DEA used the Census Bureau's age disaggregation to estimate that 10.7 percent of the population over the age of 16 was under the poverty level in 1990.

shows that an estimated 34.8 percent of the population may have specific transportation needs. (There is likely to be some overlap between the 3.3 percent of the population with mobility limitations and the 14.5 percent below the poverty level; therefore, the sum of the figures may overstate the proportion of the population with specific transportation needs.)

Estimated Population with Specific Transportation Needs
1996, Umatilla County

	Percent of Total Population	Estimated Number
Persons between the ages of 5 and 15	17.0%	11,115
Persons 16 and older under Poverty Level	14.5%	9,480
Persons 16 and older with Mobility Limitation	3.3%	2,130
Total Specific Transportation Needs Population	34.8%	22,725

Source: U.S. Census Bureau.

Planning for the overall transportation system will need to consider the special needs of these populations.

HISTORICAL GROWTH

The population of Umatilla County has grown since the 1970s, with significantly slower growth in the 1980s, reflecting a general slowdown in the state's economy. Helix, Pilot Rock, and Weston actually experienced a net population loss between 1970 and 1990. The following table shows the population trend for Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston, and Umatilla County as a whole.

Umatilla County Historical Population Trend

	1970	1980	1985	1990	1995	1997	1970-1990 Change Number	1970-1990 Change CAARG*
Umatilla County	44,923	58,855	60,000	59,249	65,200	65,500	14,326	1.4%
Adams	219	240	245	223	260	265	4	0.1%
Athena	872	965	955	997	1,080	1,120	125	0.7%
Echo	479	624	605	499	530	585	20	0.2%
Helix	152	155	155	150	170	190	(2)	(0.1%)
Pilot Rock	1,612	1,630	1,630	1,478	1,560	1,585	(134)	(0.4%)
Stanfield	891	1,568	1,660	1,568	1,700	1,770	677	2.9%
Ukiah	N.A.	249	230	250	270	240	N/A	N/A
Weston	660	719	730	606	655	680	(54)	(0.4%)

* Compound Average Annual Rate of Growth
Ukiah was incorporated in July 1972.
Source: Portland State University Center for Population Research and Census.

The number of people residing in Stanfield nearly doubled between 1970 and 1980. This population growth may have been fueled by some significant housing developments and the location of several food processing plants in Stanfield during this time.

POPULATION AND EMPLOYMENT FORECASTS

Umatilla County is expected to experience population gains for the next 20 years. Like much of rural Oregon, the economy of Umatilla County remains largely seasonal, with nearly one-quarter of all employment agriculture-based. Therefore, population increases are difficult to predict, and are not likely to be as stable as the forecasts appear to imply.

The State Office of Economic Analysis prepared long-term population projections by county. Based on these projections and the methodology described above, preliminary population forecasts for the jurisdictions of Adams, Athena, Echo, Helix, Pilot Rock, Stanfield, Ukiah, and Weston were developed in five-year increments.

An ad-hoc HUES (Hermiston, Umatilla, Echo, and Stanfield) Impact Planning Group was formed in early 1997 to lead cooperative efforts to address growth concerns in western Umatilla County arising from four major employers locating or expanding in the region. The HUES Growth Impact Study, conducted by the Benkendorf Associates Corporation, Hobson Johnson & Associates, and Martin Davis Consulting, quantifies the impact of the construction and operation of these four facilities. Employment impacts are translated into household and population impacts, and disaggregated across the four HUES communities, Pendleton, and rural Umatilla County.

Of these four employers (the Two Rivers Correctional Institution, the Umatilla Chemical Agent Disposal Facility, the Union Pacific Railroad Hinkle Locomotive Shop, and the Wal-Mart Distribution Center and Truck Maintenance Facility), only one (the Wal-Mart Distribution Center) had been announced and incorporated in the long-range population and employment forecast prepared by the Office of Economic Analysis. Because the Umatilla County site was selected as the location for the Wal-Mart Distribution Center in 1994, its impacts were already incorporated in the Office of Economic Analysis long-term population and employment forecast. Applying the HUES methodology, DEA, Inc. subtracted out the impact of the Wal-Mart Distribution Center, in order to identify the population impacts resulting from the three "big four" employers otherwise not accounted for in the OEA forecast.

HUES Population Impacts by Community
HUES Study "Scenario One" Less Wal-Mart Distribution Center

	Base Population	Population Impact		
	1996	2000	2005	2007
Hermiston	11,050	1,681	2,354	1,412
Umatilla	3,310	503	705	423
Echo*	530	81	113	68
Stanfield	1,755	267	374	224
HUES communities subtotal		2,531	3,545	2,128
Pendleton		223	313	188
Rural Umatilla County		223	313	188
Total Population Impact		2,978	4,171	2,503

*   *The HUES study estimates Echo's base population using utility hook-up data and a 2.5 average household size. However, this methodology yields a base-year estimate inconsistent with the "official" state estimate. As required by state policy, the Transportation System Plan uses the official state estimate as the base population. As appropriate, the TSP uses utility hook-up data as the base number of households.*
Source: HUES Growth Impact Study and David Evans and Associates, Inc.

These estimated impacts were then applied to the original population forecast for Echo and Stanfield by the mathematical model. The resulting population forecast is shown in five-year increments in the table below.

Umatilla County Population Forecast

	1995	2000	2005	2010	2015	2017	1995-2000 CAARG	1995-2017 CAARG
Umatilla County	65,200	72,800	77,000	78,300	79,500	80,073	2.2%	0.9%
Adams	260	270	280	290	300	310	0.7%	0.8%
Athena	1,080	1,160	1,210	1,270	1,330	1,360	1.4%	1.1%
Echo	530	610	640	650	660	660	2.9%	1.0%
Helix	170	190	210	220	230	230	2.7%	1.4%
Pilot Rock	1,560	1,580	1,600	1,610	1,640	1,650	0.3%	0.3%
Stanfield	1,700	2,020	2,130	2,290	2,430	2,490	3.5%	1.8%
Ukiah	270	290	310	320	340	340	1.6%	1.1%
Weston	655	690	700	710	720	730	1.0%	0.5%

Source: 1995 estimates developed by Portland State University Center for Population Research and Census; long-term County forecasts developed by State of Oregon Office of Economic Analysis; and Jurisdiction forecasts and intermediate County forecasts developed by David Evans and Associates, Inc.

Overall, Umatilla County is expected to experience healthy rates of population growth, averaging nearly one percent annually over the planning horizon. As shown in the table, the western portion of Umatilla County is expected to grow faster than the rest of Umatilla County, fueled by the four major employers. Of all jurisdictions included in this analysis, Stanfield is expected to grow the fastest, at an annual average of 3.5 percent at the beginning of the planning horizon, slowing somewhat, but still achieving a very rapid average annual rate of 1.8 percent for the 20-year planning period.

Umatilla County

Population Analysis

December 16, 1998

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Umatilla County and its incorporated cities wish to formally propose a modification to the official Umatilla County population forecast, prepared by the State of Oregon Office of Economic Analysis (OEA). In Executive Order 97-22, Governor Kitzhaber directed any use of state resources to encourage the "development of quality communities," specifying that "each Community Solutions Team agency shall use the population and employment forecasts developed or approved by the Department of Administrative Service's Office of Economic Analysis in coordination with Oregon's 36 counties to plan and implement programs and activities."

Recognizing that forecasts are based on the best information available during their creation but that economic and employment conditions change, a county allocation review procedure has been instituted by the state to allow for modifications in the county-level forecasts. The process for modifying the OEA forecasts is initiated by the county who supplies the new information to a panel with representatives from the following state agencies: State of Oregon Office of Economic Analysis (OEA), Oregon Department of Transportation (ODOT), and the Department of Land Conservation and Development (DLCD).

In order to successfully challenge the existing forecast, the county needs to identify and demonstrate structural changes to the regional economy, changes that would leave the area less susceptible to downturns in the economy as experienced in the 1980s. Contributing to these changes are several newly-released siting decisions of major employers. In compliance with these requirements, this memorandum documents new information made available since the original forecasts were prepared by the State of Oregon Office of Economic Analysis. This analysis is based on the best population and employment information currently available.

This memorandum is organized as follows:

- Overview of methods and data sources
- Identification of materials submitted by the local community
- Overview of historic population growth
- Analysis of the employment and economic environment
- Review of the original population and employment forecasts
- Analysis of recent building permit activity
- Analysis of estimated impact of new major employers
- Development of proposed population forecast

This information is provided to the representatives of the relevant state agencies and Umatilla County to facilitate discussions regarding a new forecast. The new county forecast will be used to disaggregate the Umatilla County population forecasts to its incorporated cities.

METHODS AND DATA SOURCES

Historical population data were obtained from official sources as reported by the Census Bureau and Portland State University's Center for Population Research and Census. Employment and income data were collected from the State of Oregon Employment Department. These data are used to present the overall employment and economic environment of the Umatilla County region. OEA's long-term state population and employment forecasts, disaggregated by county, were described as the baseline forecast. Employment Department forecasts were compared to OEA forecasts to identify specific inconsistencies and areas of divergence. New information about new employers to the Umatilla County region was analyzed and discussed among representatives of the county, DLCD, OEA, and ODOT.

The outcome of this discussion was the acceptance of certain impacts as "extraordinary" to the original OEA forecast. These extraordinary impacts were categorized as economically-driven (i.e. new employment) or other factors (i.e. prison inmates). The economically-driven impacts were added to the original forecast in the intermediate year (in five-year increments) which the impacts were expected to first occur, creating higher base years early in the planning horizon from which future years' population forecasts were calculated. Finally, the inmate population of the Two Rivers Correctional Institution (TRCI) was added to the forecast previously adjusted.

The new county forecast will be used to disaggregate the Umatilla County population forecasts to its incorporated cities. As the OEA forecasts are provided only at the county and state levels, the counties are responsible for disaggregating the county-wide populations to their incorporated cities and rural areas. Like the original forecast that these numbers are intended to replace, this new forecast is only as accurate as the data that were used to create it. As economic conditions will continue to change, this forecast should be viewed as a tool for long-range planning in the county; and, like all tools, must be continually updated and revised.

MATERIALS SUBMITTED BY LOCAL JURISDICTIONS

In response to Umatilla County's decision to pursue an update to the existing population and employment forecasts, the County solicited the local jurisdictions for materials in support of structural changes to the regional economy. In addition to materials prepared and collected by David Evans and Associates, Inc. (DEA), Umatilla County, and the HUES analysis consulting team, the following materials were received in response to the solicitation:

- Several newspaper articles from the Valley Times, June 30, 1998 through August 27, 1998, describing the incentive package Sykes Enterprises has requested from the Milton-Freewater City Council and the proposed development.

- A letter and supporting material from the City of Echo, describing a household-by-household census conducted in July, 1998.

- Building Permit information for the City of Milton-Freewater.

- A letter from the City of Umatilla indicating their support of the HUES analysis.

- A memo and supporting material from the City of Hermiston with data on building permits and subdivision approvals.

- A memo and supporting information from the City of Pendleton with building permit information.

- Another memo and supporting material from the City of Pendleton indicating their support for the Employment Department's employment projections and the HUES analysis.

- A memo from the City of Pilot Rock with household data for their Urban Growth Area (UGA).

- Notes from the City of Weston indicating a potential proposal to develop 28 acres within the City limits.

- Notes from the City of Ukiah indicating that there was a recent property transfer of 160 acres adjacent to, but outside of, its current UGB.

- A letter and supporting materials from the City of Stanfield that indicate that its recent Water System Study (June 1998) assumes 10 percent annual growth for five years, followed by annual growth of 1 percent annually for the remainder of the 22-year planning horizon.

- A letter with information from the City of Athena relating to utility hookups, recent building permits, and pending permit applications.

Many of these materials submitted by the incorporated cities support higher population and employment forecasts. For example, an analysis of recent building permit data is provided later in this memorandum. Some of the materials submitted, however, are based on assumptions of population growth previously applied. Such materials do not demonstrate significant structural economic changes, as required to modify the existing forecast.

HISTORIC POPULATION GROWTH

Although the population of Umatilla County has grown since the 1970s, significantly slower growth occurred in the 1980s, reflecting a general slowdown in the state's economy. Helix, Pilot Rock, and Weston actually experienced a net population loss between 1970 and 1990. Table 1 shows the population trend for Umatilla County's cities and the county as a whole over the 1970 to 1997 period.

Table 1
Umatilla County Historical Population Growth

	1970	1980	1985	1990	1997	Change 1970-1997	
						Number	CAARG*
Umatilla County	44,923	58,855	60,000	59,249	65,500	20,577	1.4%
Adams	219	240	245	223	265	46	0.7%
Athena	872	965	955	997	1,120	248	0.9%
Echo	479	624	605	499	585	106	0.7%
Helix	152	155	155	150	190	38	0.8%
Hermiston	4,893	9,408	9,890	10,047	11,340	6,447	3.2%
Milton-Freewater	4,105	5,086	5,850	5,533	6,200	2,095	1.5%
Pendleton	13,197	14,521	14,400	15,142	16,180	2,983	0.8%
Pilot Rock	1,612	1,630	1,630	1,478	1,585	(27)	-0.1%
Stanfield	891	1,568	1,660	1,568	1,770	879	2.6%
Ukiah**		249	230	250	240	(9)	-0.2%
Umatilla	679	3,199	2,980	3,046	3,375	2,696	6.1%
Weston	660	719	730	606	680	20	0.1%
Sum of Incorporated Cities	26,189	36,535	37,525	37,820	41,560	15,371	1.7%
State of Oregon	2,091,533	2,633,156	2,633,156	2,842,321	3,217,000	1,125,467	1.6%

* Compound Average Annual Rate of Growth
** Ukiah's growth rate is for the years 1980-1997, as it was not incorporated until 1972.

Source: Portland State University Center for Population Research and Census.

In November 1998, PSU CPRC released its preliminary 1998[1] county-level population estimates to the county governments. The population of Umatilla County was preliminarily estimated at 67,100, a 2.4 percent increase over the 1997 estimate of 65,500. Based on this estimate, population growth in Umatilla County has been relatively rapid since the 1990 Census, with an average annual growth rate of 1.6 percent, comparable to the growth rate experienced by the State of Oregon overall. Though the 1998 estimates for incorporated cities are not yet available, based on the 1997 estimates, most jurisdictions in Umatilla County have also grown at healthy rates. Fueled by some significant housing developments and the location of several food processing plants, the jurisdictions of Hermiston, Umatilla, and Stanfield have grown at rates slightly faster than the county overall.

EMPLOYMENT AND INCOME

Total employment in Umatilla County has grown in the last decade, from an estimated 27,000 jobs in 1987 to an estimated 30,270 in 1997, as shown in Figure 1. Unemployment rates have dropped accordingly, from a high of 11.9 percent in 1987 to a low for the decade of 6.9 in 1995. The rate rose again slightly in recent years, but at 8.2 percent, is near its low for the decade.

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[1] These figures reflect the population as estimated on July 1, 1998.

Figure 1
Total Employment and Unemployment Rates, 1987 to 1997
Umatilla County
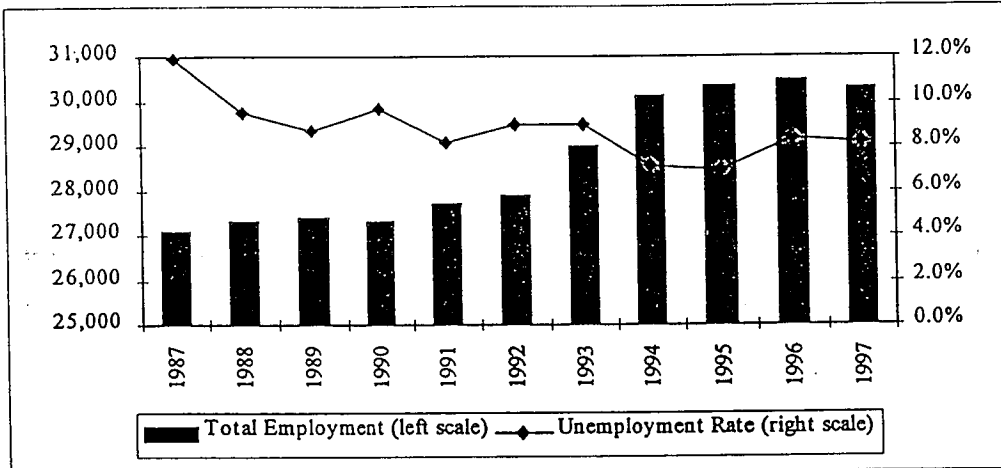
Source: State of Oregon Employment Department.

Historically, Umatilla County has experienced higher rates of unemployment than the statewide average during the last decade. However, the differential between the Umatilla County average unemployment rate and the State of Oregon average unemployment rate has declined from the late 1980s, as shown in Figure 2. As of August 1998, the county employment had grown to 33,270, with unemployment dropping to a rate equal to the state's low rate of 5.2 percent. In comparison, employment one year previous (in August, 1997) was estimated at 32,470, with an unemployment rate of 6.0 percent.

Figure 2
Unemployment Rate Comparison, 1987 to 1997
Umatilla County and State of Oregon
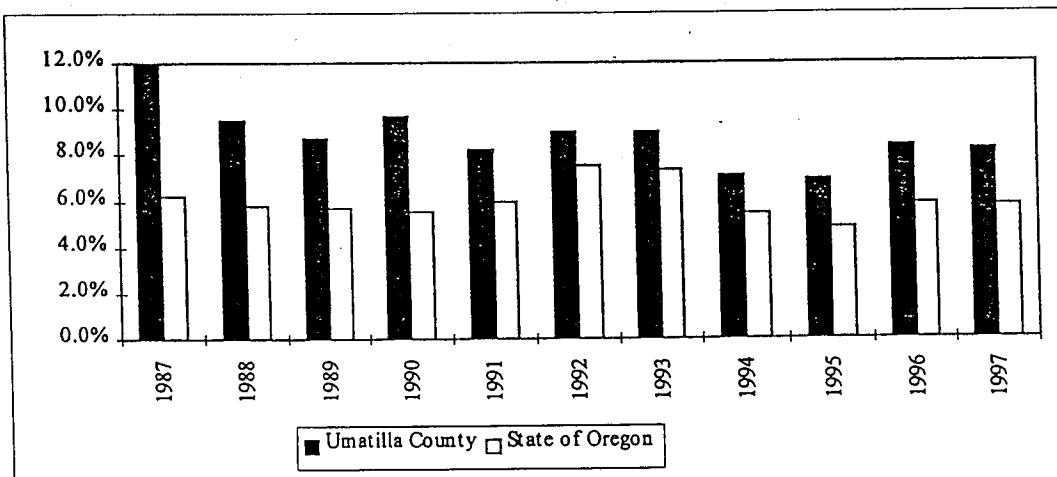
Source: State of Oregon Employment Department.

The industrial mix of jobs in Umatilla County shares some commonalties with the industry mix of the State as a whole, as well as some distinct differences, as shown in Figure 3.

Figure 3
Non-Agricultural Employment by Industry Group, 1997
Umatilla County and State of Oregon
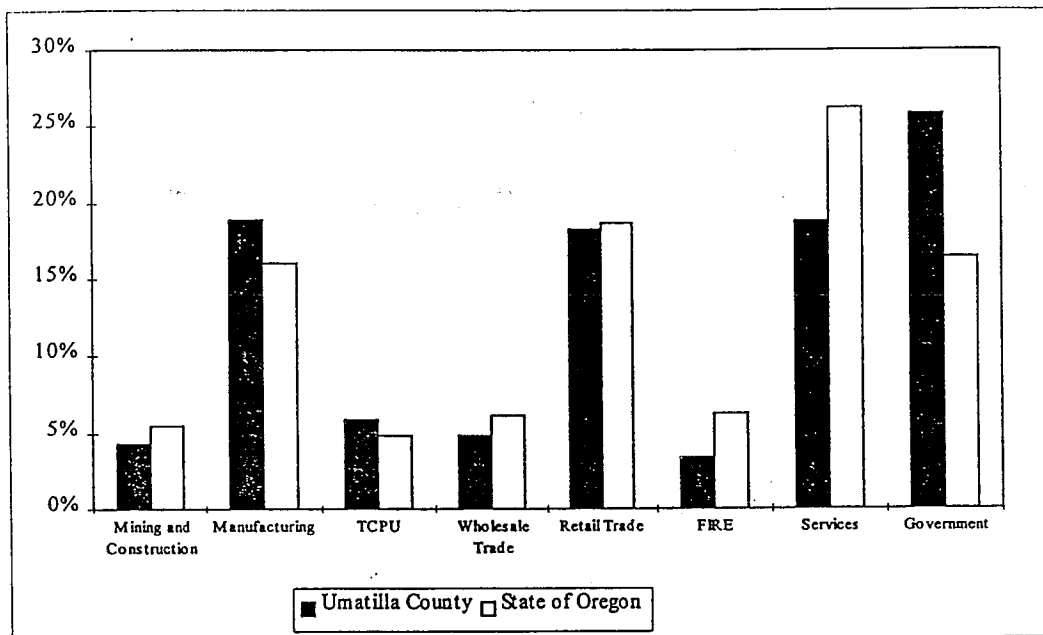
TCPU=*Transportation, Communications, and Public Utilities.*
FIRE=*Finance, Insurance, and Real Estate.*

Source: State of Oregon Employment Department.

Over one-quarter of all employment in Umatilla County is in the government sector, compared with the statewide average of only 16 percent. Similarly, one-fifth of total employment is in manufacturing, again higher than the statewide average of 16 percent. The service sector, though a large player for the Umatilla County economy with 19 percent of total employment in the county, is more dominant in the overall state's economy comprising 26 percent of employment statewide, as shown in Figure 3.

One indicator of the type of wage an industry provides is average annual payroll (total covered payroll divided by the total number of employees in that industry group). Figure 4 shows average payroll by industry in the county compared to the State of Oregon as a whole. The declining importance of the manufacturing sector statewide has resulted in slower growth of manufacturing jobs, that traditionally have been higher paying than those in the retail trade and service sectors.

Figure 4
Average Covered Payroll by Industry, 1996
Umatilla County and State of Oregon
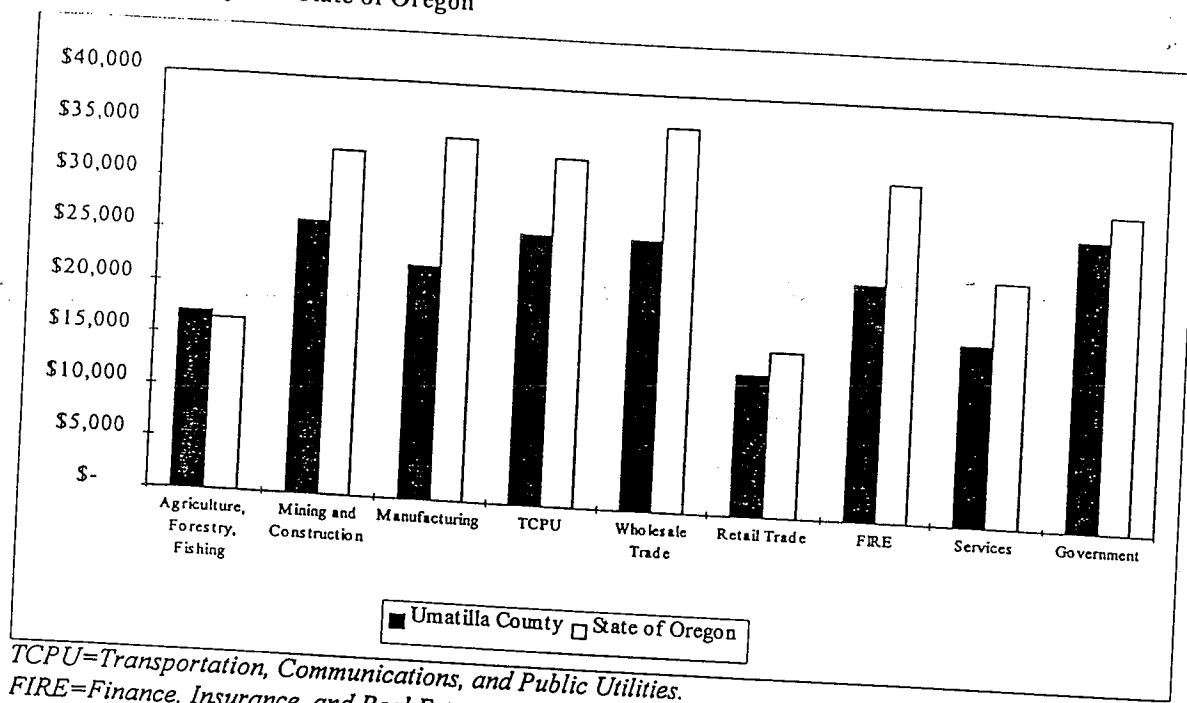
TCPU=Transportation, Communications, and Public Utilities.
FIRE=Finance, Insurance, and Real Estate.

Source: State of Oregon Employment Department.

As shown in Figure 4, Umatilla County's average payrolls are lower than the statewide averages in all industry groups with the exception of agriculture, forestry, and fishing. The largest differentials occur in the relatively higher-paying industry groups of manufacturing and wholesale trade. Lower wages can affect net migration in different ways. They can serve to attract employers looking to lower their labor costs. On the other hand, potential migrants may be discouraged from moving to a new area if their potential earnings are higher in their current place of residence.

ORIGINAL POPULATION AND EMPLOYMENT FORECASTS

Based on the original forecasts prepared by the State of Oregon Office of Economic Analysis, Umatilla County is expected to experience population gains for the next 20 years. Released in January of 1997, these forecasts were based on the best information available at that time. When the analysis was conducted, the most current official population estimates were those PSU provided for July 1995. The most current employment estimates were the Employment Department's annual figures from 1995 and the Employment Department's June 1995 10-year employment forecast. The resulting OEA population and employment projections for Umatilla County are displayed in Table 2.

Umatilla County Population Analysis

December 16, 1998

Table 2
OEA Population and Employment Forecasts
Umatilla County and State of Oregon

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040
Umatilla County										
Population	65,200	69,854	72,870	75,869	78,936	81,964	84,873	87,501	89,851	91,932
Employment	23,510	26,313	27,688	28,703	29,262	29,766	30,303	31,021	31,781	32,328
State of Oregon										
Population	3,132,000	3,406,000	3,631,000	3,857,000	4,091,000	4,326,000	4,556,000	4,776,000	4,988,000	5,193,000
Employment	1,416,900	1,601,718	1,718,659	1,814,276	1,882,653	1,947,702	2,014,350	2,094,256	2,179,730	2,253,736

These forecasts were supported by other current population and employment forecasting efforts. For example, the State of Oregon Employment Department's 1995 to 2005 employment forecasts by region indicated similar growth rates in employment for region 12, defined as Umatilla and Morrow counties. The 1995 to 2005 forecast showed an increase of approximately 6,000 jobs within the two-county area in the 10-year forecast, as shown in Table 3.

Table 3
Employment Projections by Industry, 1995-2005
Region 12: Morrow and Umatilla Counties

	1995	2005	1995-2005 Change	1995-2005 % Change
Nonagricultural Employment	26,190	32,100	5,910	22.6%
Goods Producing	6,570	7,220	650	9.9%
Service Producing	19,620	24,880	5,260	26.8%
Manufacturing	5,650	6,310	660	11.7%
Mining	10	20	10	100.0%
Construction	910	890	(20)	-2.2%
Transportation, Communications, Utilities	1,570	1,850	280	17.8%
Trade	5,660	7,670	2,010	35.5%
Wholesale	1,270	1,570	300	23.6%
Retail	4,390	6,100	1,710	39.0%
Finance, Insurance, Real Estate	690	850	160	23.2%
Services	5,430	7,430	2,000	36.8%
Government	6,270	7,080	810	12.9%
Federal	900	820	(80)	-8.9%
State	1,410	1,580	170	12.1%
Local	3,960	4,680	720	18.2%

Source: State of Oregon Employment Department.

In order to compare the Employment Department's forecast to the Office of Economic Analysis' forecast, forecast employment for Morrow and Umatilla counties are combined in Table 4.

Table 4
Original OEA Employment Forecasts
Umatilla and Morrow Counties

	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040
Umatilla County	23,510	26,313	27,688	28,703	29,262	29,766	30,303	31,021	31,781	32,328
Morrow County	2,793	3,283	3,613	3,890	4,097	4,290	4,487	4,713	4,956	5,184
Region 12 total	26,303	29,596	31,301	32,593	33,359	34,056	34,790	35,734	36,737	37,512

Source: State of Oregon Office of Economic Analysis.

The combined employment for Morrow and Umatilla counties was forecast by OEA to total 31,301 by year 2005, comparable and consistent with the Employment Department's forecast of 32,100 for the same year. In the 1996-2006 forecast, however, the Employment Department significantly increased the forecast employment for the region to 37,080, as shown in Table 5.

Table 5
Employment Projections by Industry, 1996-2006
Region 12: Morrow & Umatilla Counties

	1996	2006	1996-2006	
			Change	% Change
Total Non-Farm Employment	27,100	37,080	9,980	36.8%
Mining and Construction	950	1,340	390	41.1%
Manufacturing	5,590	5,820	230	4.1%
TCPU	1,630	3,050	1,420	87.1%
Wholesale Trade	1,280	2,410	1,130	88.3%
Retail Trade	4,570	6,080	1,510	33.0%
FIRE	930	1,250	320	34.4%
Services	5,370	8,100	2,730	50.8%
Government	6,780	9,030	2,250	33.2%

TCPU=Transportation, Communications, and Public Utilities.
FIRE=Finance, Insurance, and Real Estate.

Source: State of Oregon Employment Department.

Four primary developments caused the increase in forecast employment. As a result of a multi-billion dollar government contract to dispose of chemical weapons and location of a locomotive maintenance facility, the region's transportation, communications, and utilities sector will nearly double in 10 years. The trade sector is also expected to grow rapidly, due to the location of a wholesale distribution facility of a major retailer in the area. Finally, government employment is expected to grow as a result of a new corrections facility. The specific impacts of these four large employers will be examined further in the discussion of the HUES Analysis.

BUILDING PERMIT INFORMATION

Another way to confirm the recent growth of the area is by analyzing building permits for new housing units in the area. In the absence of other factors, population growth results in an increase in household formations. As the population grows, new families and incoming migrants require additional housing units. Other factors which affect household growth include changing household size and changing vacancy rates. Despite these other factors, household growth—as reflected in building permit activity—tends to support population growth.

The cities of Milton-Freewater, Pendleton and Athena provided recent building permit activity in support of the population analysis effort.

Pendleton and Milton-Freewater reported building permit activity on an annual basis. As shown in Table 6, the City of Milton-Freewater issued permits for 260 housing units between January, 1990 and August, 1998. The City of Pendleton issued permits for 462 units between 1990 and 1997.

Table 6
Residential Units Permitted
Milton-Freewater and Pendleton

	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Milton-Freewater	8	6	21	24	29	17	23	66	66	260
Pendleton	47	25	28	76	38	48	128	72	N.A.	462

Source: Cities of Milton-Freewater and Pendleton.

Using 1990 Census data as the base year information, the permits reported suggest housing growth estimated at 1.0 percent (Pendleton) and 1.4 percent (Milton-Freewater), as shown in Table 7. These household growth rates are consistent with population growth since 1990 for these jurisdictions, estimated at 1.0 percent for Pendleton and 1.6 percent for Milton-Freewater.

Table 7
Estimated Annual Growth in Residential Units
Milton-Freewater and Pendleton

	Housing Units in 1990	New Units Permitted	Estimated Annual Growth
Milton-Freewater	2,251	260	1.4%
Pendleton	6,174	462	1.0%

Source: U.S. Census Bureau (Housing Units in 1990) and Cities of Milton-Freewater and Pendleton (New Residential Units Permitted).

Athena reported building permits for 46 residential units between March, 1995 and March, 1998. Since March, 1998, permits for 11 housing units have been issued. Over the last several decades, Athena has experienced average population growth of approximately 1 percent annually. Without specific data on the number of residential units existing in March of 1995, it is not possible to identify a rate of growth.

However, using the 1990 Census count of 402 housing units in Athena, we can estimate that the recent building activity represents housing growth of approximately 3 percent annually. Although housing growth is affected by factors other than population growth, this recent housing growth supports an increase in population growth forecast for the Athena area.

As noted earlier, residential building activity supports population growth. Although housing growth is affected by additional factors (including vacancy rates and changing household size), it tends to occur at a rate comparable to population growth. Recent housing growth in Umatilla County—as documented by permitted building activity reported by the cities of Athena, Milton-Freewater, and Pendleton—supports an increase in population growth forecast for the area.

IMPACT OF NEW EMPLOYERS

DEA reviewed new information available about the impact of new major employers and other factors having an impact on the population. New information has included data on the four larger employers which were the subject of the HUES analysis, the inmate population of the Two Rivers Correctional Institution (TRCI), and a Sykes Enterprises new call center.

HUES Analysis

An ad-hoc HUES (Hermiston, Umatilla, Echo, and Stanfield) Impact Planning Group was formed in early 1997 to lead cooperative efforts to address growth concerns in western Umatilla County arising from four major employers locating or expanding in the region. The HUES Growth Impact Study, conducted by the Benkendorf Associates Corporation, Hobson Johnson & Associates, and Martin Davis Consulting, quantifies the impact of the construction and operation of these four facilities. Employment impacts are translated into household and population impacts, and disaggregated across the four HUES communities, Pendleton, and rural Umatilla County.

Of these four employers (the Two Rivers Correctional Institution, the Umatilla Chemical Agent Disposal Facility, the Union Pacific Railroad Hinkle Locomotive Shop, and the Wal-Mart Distribution Center and Truck Maintenance Facility), only one (the Wal-Mart Distribution Center) had begun the development process at the time of the OEA forecasting effort. Estimated employment impacts generated by the operation of the four large employers is shown in Table 8.

Table 8
Employment Impact from New Primary Employers
HUES Scenario One

Year	Direct Impact	Total Impact
1998	568	922
1999	861	1,459
2000	1,641	2,735
2001	2,162	3,838
2002	2,289	4,164
2003	2,289	4,164
2004	2,289	4,164
2005	2,289	4,164
2006	2,289	4,164
2007	1,474	2,991

Source: HUES Growth Impact Study.

Direct employment at the four new developments will reach a peak of 2,289 by year 2002, and continue through year 2006. Direct employment is expected to decline again to 1,474 with the closure of the Umatilla Army Depot Incinerator Project in May of 2006. Total impacts (which include indirect and induced impacts) will similarly increase to nearly 4,200 in year 2002, declining to just under 3,000 jobs by year 2006.

The employment impact was then translated to households. Several factors were considered in this translation, including the average number of workers per household, and the number of workers who would commute from outside the target HUES area. The resulting household impact is shown in Table 9.

Table 9
Household Impact
HUES Scenario One

	Households 1996	Household Growth		
		2000	2005	2007
Hermiston	4,420	877	1,335	959
Umatilla	1,324	263	400	287
Echo	246	49	74	53
Stanfield	702	139	212	152
Subtotal (HUES)	6,692	1,328	2,022	1,452
Pendleton		117	178	128
Rural Umatilla County		117	178	128
Total		1,562	2,379	1,709

Source: HUES Growth Impact Study.

Applying an average household size of 2.5 persons, the calculated household impact of 1,562 will have an estimated population impact of nearly 4,000 persons by year 2000, increasing to nearly 6,000 by year

2005, declining again to 4,300 with the completion of the Incinerator Project. These estimates of population impact are shown in Table 10.

Table 10
Population Impact
HUES Scenario One

	Population 1996	Population Impact		
		2000	2005	2007
Hermiston	11,050	2,193	3,339	2,398
Umatilla	3,310	657	1,000	718
Echo	615	122	186	133
Stanfield	1,755	348	530	381
Subtotal (HUES)	16,730	3,320	5,055	3,631
Pendleton		293	446	320
Rural Umatilla County		293	446	320
Total		3,906	5,947	4,272

Source: HUES Growth Impact Study.

Informed of the Union-Pacific and Umatilla Army Incinerator project as part of the community meetings, the OEA forecast accounted for the impacts of these employers, as well as the Wal-Mart facility. OEA Senior Demographer Kanhaiya Viadya indicated that the impacts which would justify an increase in the population forecast for Umatilla County were those caused by the Sykes Enterprises Development, the Two Rivers Correctional Institution (TRCI) employment, and TRCI inmate population.

Two Rivers Employment and Inmate Population Impacts

As part of their search for new sites, the Oregon Department of Corrections selected a site in the City of Umatilla for development of the Two Rivers Correctional Institution (TRCI). TRCI will be a 640,000-square-foot facility on a 42-acre site. At full capacity, it will house 1,500 medium-security inmates, and 100 minimum-security inmates, for a total prison population of 1,600 inmates. There will be an estimated 510 employees related to the operation and maintenance of the correctional institution.

According to Bob Hensel, the Department of Corrections Community Coordinator, substantial completion is expected by November 1999, with potential phase-in of 100 inmates per month. Currently, 96 minimum-security inmates are in place at the facility. It is expected that the facility will reach full capacity sometime during the first part of year 2002. Based on this phase-in schedule and the impact analysis described in the HUES Analysis, DEA translated these impacts to population impacts, as shown in Table 11.

Table 11
Estimated Impacts of the Two Rivers Correctional Institution

	2000	2005
Direct Employment	65	510
Total Employment Impact*	167	1,302
Household Impact	95	744
Population Impact from Employment	238	1,859
Inmate Population	400	1,600
Total Population Impact	638	3,459

* *Total employment impact includes indirect (response to a change in output by the primary employer) and induced (response to an increase in expenditures caused by new income) impacts, and were calculated using the multipliers from the HUES analysis.*

Source: HUES Analysis (Employment Impacts), Department of Corrections (Phase-in of Inmate Population).

Based on the impact factors as applied in the HUES analysis, total population impact of TRCI is expected to reach an estimated 3,500 at full capacity, with 510 direct employees having a total population impact of over 1,800 and an inmate population of 1,600.

Sykes Enterprises

Another major employer affecting the population in Umatilla County is in Milton-Freewater. Negotiations between Key Investments and the City of Milton-Freewater have resulted in the development of a new Sykes Enterprises call center. Based on $3.5-million incentive package, Sykes has begun construction on a 42,000-square-foot office building, which will house 432 operators who would answer questions for computer users and others who call in for technical support. Applying impact factors as defined in the HUES Analysis, the total impact of the Sykes is shown in Table 12.

Table 12
Estimated Impacts of the Sykes Enterprises Call Center

	2000	2005
Direct Employment	200	432
Total Employment Impact*	513	1,103
Household Impact (OR only)	160	345
Population Impact (OR only)	399	862

* *Total employment impact includes indirect (response to a change in output by the primary employer) and induced (response to an increase in expenditures caused by new income) impacts, and were calculated using the multipliers from the HUES analysis.*

Source: City of Milton-Freewater (Sykes employment information).

Because of the development's proximity and ease of access to the Walla Walla area, the State of Oregon Employment Department expects approximately one-half of the employment impact to be absorbed by commuters who live outside Umatilla County. Applying this ratio to the employment impact, the total

population impact of the Sykes Enterprises call center upon Umatilla County is still expected to reach over 850 when all 432 employees are hired and the center is fully operational.

PROPOSED POPULATION FORECASTS

In order to incorporate these impacts into a set of proposed population figures, the impacts have been separated into two categories: those caused by economic and employment factors, and those caused by other factors. As the Umatilla County population includes all people who usually reside in the county, the population figure includes people living in correctional institutions, nursing homes, and college dormitories. As the imprisoned population is not a direct result of the kinds of economic growth and industrial changes discussed in this analysis, the impact of those estimated 1,600 prison inmates expected to reside at TRCI will be addressed after incorporating economically-driven factors.

Addressing the economically-driven population growth first, OEA Senior Demographer Kanhaiya Viadya indicated that the impacts which would justify an increase in the population forecast for Umatilla County were those caused by the Sykes Enterprises Development and the Two Rivers Correctional Institution (TRCI) employment. These factors and the amount of population growth attributable to their impacts are summarized in Table 13.

Table 13
Summary of Economically-Driven Population Impacts

	2000	2005	2010
Population Impact of TCRI Employment[1]	238	1,859	1,859
Population Impact of Sykes Employment[2]	399	862	862
Total Cumulative Population Impact	638	2,721	2,721

[1]From Table 11
[2]From Table 12

These impacts are based on long-term employment from the operation and maintenance of the TRCI and the Sykes call-in center. In order to integrate these impacts into the original forecasts, the new impact for each of the intermediate years is distinguished from impacts captured and integrated into the economy from previous intermediate years. A summary of the new impacts by intermediate year is shown in Table 14.

Table 14
Summary of Impacts by Integration Year

	2000	2005	2010
Total Cumulative Population Impact	638	2,721	2,721
Less Impact Captured in Previous Periods		(638)	(2,721)
Total New Impact not Captured in Previous Periods	638	2,084	0

These impacts are added to the original forecasts, and the original growth rate forecast by OEA applied. The results of this modification are shown in Table 15.

Table 15

Umatilla County Population Forecast Adjusted for New Economically-Driven Factors

	1998	2000	2005	2010	2015	2020	2025	2030	2035	2040
Original Forecast	67,100	69,854	72,870	75,869	78,936	81,964	84,873	87,501	89,851	91,932
Adjusted Forecast*	67,100	70,490	75,620	78,730	81,910	85,050	88,070	90,800	93,240	95,400

* *Adjusted for economically-driven factors accepted as extraordinary impacts: population growth generated by employment at Sykes and the Two Rivers Correctional Institution. These population increases become part of the base from which future increases are calculated.*

Source: State of Oregon Office of Economic Analysis (Original forecast), and David Evans and Associates, Inc. (New forecast).

As shown in Table 15, the incorporation of these impacts would increase the population forecast for Umatilla County raising the year 2020 forecast population from just under 82,000 persons to 85,050. The growth rates represented by the adjusted population forecasts are shown in five-year increments in Table 16.

Table 16

Population Growth Rates after Adjusting for Economically-Driven Factors

	1998-2000	2000-2005	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030	2030-2035	2035-2040
Original Forecast	2.03%	0.85%	0.81%	0.80%	0.76%	0.70%	0.61%	0.53%	0.46%
Adjusted Forecast	2.49%	1.41%	0.81%	0.80%	0.76%	0.70%	0.61%	0.53%	0.46%

Source: State of Oregon Office of Economic Analysis (Original forecast), and David Evans and Associates, Inc. (New forecast).

The proposed forecast represents short-term (between 1998 and year 2000) growth of 2.49 percent, consistent with the 2.44 percent rate of growth suggested by the 1998 preliminary estimate. As noted earlier, the newly-released 1998 population estimate, at 67,100, represents a 2.44 percent increase over the 1997 estimate of 65,500. This growth, faster than historically experienced by Umatilla County, is fueled by the location of the new employers which are the subject of this analysis, increasing the overall county population base.

Based on the phase-in schedule expected by the Department of Corrections, the prison inmates are expected to number approximately 400 by year 2000, reaching the full-capacity population of 1,600 in year 2002. By simply adding this population after the analysis of the economically-driven growth, the result is a one-time (non-compounded) increase of 1,600 persons, yielding a year 2020 projected population of 86,050 and a year 2040 projected population of 97,000. Total proposed population figures by five-year increments are shown in Table 17.

Table 17
Proposed Umatilla County Population Forecast
With the Addition of the Two Rivers Correctional Institution Inmates

	2000	2005	2010	2015	2020	2025	2030	2035	2040
Original Forecast	69,854	72,870	75,869	78,936	81,964	84,873	87,501	89,851	91,932
Adjusted Forecast	70,490	75,620	78,730	81,910	85,050	88,070	90,800	93,240	95,400
TCRI Inmates*	400	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600
Proposed Forecast	70,890	77,220	80,330	83,510	86,650	89,670	92,400	94,840	97,000

* *The inmate population of 1,600 was simply added to the adjusted forecast at the rate at which DOC expects inmates to be moved in. These figures are separate from the population base from which future increases have been calculated.*

Because the inmate population is simply added to the population as adjusted for economically-driven factors, a stable inmate population (of 1,600) becomes a smaller proportion of the overall county population as the population grows. The addition of these inmates yields the forecast proposed by Umatilla County: 86,650 persons by year 2020 and 97,000 persons by year 2040, as shown in the last line of Table 17.

This new county forecast will be used by Umatilla County and its incorporated cities to disaggregate the county population forecasts to the incorporated cities and rural areas. The population to be disaggregated to the incorporated cities does not include the population of inmates at the Two Rivers Correctional Institution, as those inmates will necessarily reside in Umatilla.

POTENTIAL DEVELOPMENT IMPACT ANALYSIS

Draft Report

UMATILLA COUNTY

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TABLE OF CONTENTS

1.1   INTRODUCTION

This Potential Development Impact Analysis (PDIA) report provides development estimates for a maximum development scenario in Umatilla County. All land outside of urban growth boundaries (UGBs) zoned for residential, commercial, and industrial uses was analyzed. The analysis was designed to assist ODOT in answering the question, "How many vehicle trips would be produced if every vacant parcel of residential, commercial, and industrial property in the County was developed at maximum density?" The following development figures were estimated in the analysis:

- The total number of acres zoned for residential, commercial and industrial uses;
- The portion of residential, commercial, and industrial acres that are vacant (buildable);
- The number of existing residential units;
- The number of buildable residential units; and
- The amount of leasable commercial square footage.

Analysis Limitations are outlined in Section 1.2, and Findings are presented in Section 1.3. Appendix A contains a Methodology summary, as well as the Development Standards used in the analysis. Appendix B is comprised of three Spreadsheet Tables which contain the analysis data figures.

1.2   ANALYSIS LIMITATIONS

This analysis was intended to provide a maximum development scenario for residential, commercial, and industrial land in the county. Because low density development is common, the development estimates provided in this report likely overestimate the actual development that will occur.

The development estimates presented in this report were calculated based on a number of assumptions and limitations which are summarized below:

1.2.1   Residential Development Estimate Limitations

- We made allowances for parking requirements and design standards, but because of the high cost of aerial photographs, we did not make allowances for extreme slopes, bodies of water, riparian areas, and other features which constrain development. Therefore, the vacant residential acres figure may overstate the amount of buildable residential acreage, and the potential buildable units figure may overstate the number of residential units that are buildable.

- In order to estimate the existing number of units in residential zones, we summed the number of units for each census block that contains residential zones. The assumption is that most of the units that the Census tallies for a block containing residential zoning actually occur within the residential zone, rather than within non-residential zones.

- Residential units that occur in a census block that does not contain residential zoning were not added into the existing residential units figure.

- The development estimates do not account for market factors, such as the supply of available housing and demand for that housing, that affect residential development. Market demand for housing is related to a number of factors, including employment and income trends, that are not considered in this analysis.

1.2.2 Commercial Development Estimate Limitations

- We determined that any land that was not built upon and did not have physical constraints was developable. We did not consult tax assessor lot lines to determine if a lot was already improved. Since lots with vacant land that are improved are less likely to have future development, the vacant commercial acreage estimate may be overstated.

- In cases where the zoning ordinance does not specify parking requirements for a commercial zoning designation, a parking requirement allowance cannot be calculated. Therefore, the maximum leasable commercial square footage may be overstated.

- Because we could not accurately determine the height of existing buildings or predict future building heights, we assumed that all existing and future commercial development is and will be one-story high.

1.2.3 Industrial Development Estimate Limitations

- The industrial development estimates are expressed as total industrial acreage and vacant industrial acreage. Maximum leasable square feet per acre was not calculated for industrial zones. The main reason for this is that many trip generation models for industrial development use "trips per employee" to estimate trips, rather than using density or leasable square feet per acre. Calculating trips per employee is beyond the scope of this analysis.

- We determined that any land that was not built upon and did not have physical constraints was developable. We did not consult tax assessor lot lines to determine if a lot was already improved. Since lots with vacant land that are improved are less likely to have future development, the vacant industrial acreage estimate may be overstated.

1.3   FINDINGS

This section summarizes the development estimates presented in Appendix B, Spreadsheet Tables.

1.3.1   Residential Development Estimates

Approximately 20,104 acres of land is zoned residential with 2,944 existing residential units. Of this residential acreage, approximately 14,338 acres are vacant with a potential buildout of 44,888 units. Maximum development (existing plus potential) is estimated at 47,832 units.

1.3.2   Commercial Development Estimates

Approximately 437 acres of land is zoned commercial. Of this commercial acreage, an estimated 201 acres are vacant, which translates into 2,048,700 square feet of leasable commercial space.

1.3.3   Industrial Development Estimates

Approximately 3,643 acres of land is zoned industrial. Of this industrial acreage, an estimated 2,243 acres are vacant.

APPENDIX A
METHODOLOGY AND DEVELOPMENT STANDARDS

Appendix A contains a description of the project methodology, as well as a detailed description of the Development Standards.

A-1 METHODOLOGY

We established the following six chronological phases for the county analysis:

Phase I: Data Gathering and Development Standards
Phase II: Initial Map Analysis
Phase III: Polygon Map
Phase IV   Commercial/Industrial Aerial Analysis
Phase V: Data Entry
Phase VI: Final Report

In Phase I, we compiled the materials necessary to begin the analysis. This process involved reading the county zoning ordinance to determine which zones needed to be analyzed, and interpreting zone descriptions in order to write the Development Standards that are presented in Section A-2.

In Phase II, we studied zoning maps to identify all lands within the county, outside of incorporated urban areas, zoned for residential, commercial, and industrial use. We compared the zoning maps to U.S. Census maps to identify all the census blocks within the residential, commercial, and industrial polygons. We identified the census block acreage and the number of residential units within each census block using 1990 U.S. Census Data. We calculated the amount of acreage within each residential, commercial, and industrial polygon using a grid transparency measuring system. All this data was recorded on data sheets.

In Phase III, we created a polygon map that links each block in the spreadsheet to its location on the county map. This process involved drawing zoning polygons found on individual zoning maps onto a map of the county and assigning each data sheet entry a polygon descriptor number. The creation of the polygon map served as an important accuracy check of the work completed in Phase II, since each data sheet entry had to be reviewed. Polygons comprised solely of residential zoning were labeled "R." Polygons comprised solely of commercial zoning were labeled "C." Polygons comprised solely of industrial zoning were labeled "I." Polygons comprised of two or more of the three zoning classes were labeled "M" if the zoning classes could not be labeled separately.

In Phase IV, we completed an aerial analysis of commercial and industrial lands. For each commercial and industrial data sheet entry, we used a grid transparency to determine the amount of land that was vacant (buildable). The aerial analysis served as a second accuracy check step for the commercial and industrial data sheet entries completed in Phase II, since each entry was reviewed for a second time.

In Phase V, we entered the data sheet entries into the Residential Spreadsheet (Table 1.) and the Commercial/Industrial Spreadsheet (Table 2). The third Spreadsheet Table summarizes Tables 1 and 2. The following Residential Spreadsheet columns contain input data: Polygon Descriptor Number, Census Tract, Census Block, Census Block Acres, Census Block Residential Units (Existing), Zoning Type, Residential Acres by Zone, and Allowable Density. See Section A-2, Development Standards, for an explanation of the Allowable Density calculation.

Explanations of the Residential Spreadsheet columns that are calculated follow:

- Percent of Total Residential is calculated for each type of zoning within a census block by dividing Residential Acres by Zone by the total residential acres.
- Average Density is a weighted average based on the acreage within each zone. This calculation is necessary for census blocks that contain two or more zones (multi-zone blocks). If there is only one type of zoning within the census block, then Average Density is the same as Allowable Density.
- Developed Residential Acres is calculated by dividing Census Block Residential Units (Existing) by the Average Density.
- Percent Vacant is calculated by dividing Vacant Residential Acres by Residential Acres by Zone.
- Vacant Residential Acres is calculated by subtracting Developed Residential Acres from Residential Acres by Zone.
- Potential Buildable Units is calculated by subtracting Census Block Residential Units from Maximum Allowed Units.
- Maximum Allowed Units is calculated by multiplying Residential Acres by Zone and Average Density.

The following Commercial/Industrial Spreadsheet columns contain input data: Polygon Descriptor Number, Census Tract, Census Block, Census Block Acres, Zoning Type, Commercial/Industrial Acres by Zone, Developed Commercial Acres, and Developed Industrial Acres.

Explanations of the Commercial/Industrial Spreadsheet columns that are calculated follow:

- Vacant Commercial Acres is calculated by subtracting Developed Commercial Acres from the Commercial/Industrial Acres by Zone.
- Leasable Commercial Square Feet is calculated by multiplying Vacant Commercial Acres by the Maximum Leasable square footage per acre. See Section A-2, Development Standards, for an explanation of the Maximum Leasable square footage per acre calculation.
- Vacant Industrial Acres is calculated by subtracting Developed Industrial Acres from the Total Commercial/Industrial Acres by Zone.

A-2   DEVELOPMENT STANDARDS

In accordance with the county zoning ordinance, this section provides *maximum allowable density per acre factors* for residential zones and *maximum leasable square feet per acre factors* for commercial zones. These factors are used in the Spreadsheet Tables to calculate the development estimates.

A-2.1 Residential Zoning Designations

Five residential zoning designations were identified in the county zoning ordinance. For each designation, we provide the *maximum allowable residential density* (expressed in units per acre). In calculating densities for zones with a minimum lot size of less than one acre, we use a *net acre* (34,848 square feet). A net acre is calculated by subtracting 20 percent from a gross acre (43,560 square feet) to account for streets and right-of-ways.[1] To calculate densities for residential zones with minimum lot sizes of one acre or greater, we use the gross acre figure. This is based on the assumption that larger lots are often platted along existing roads and additional streets and/or access points will not be needed.

A summary of residential zones and their maximum allowable densities is presented in Table 1. Following the table is a description of each zone density calculation.

Table 1
Residential Zoning Designations

Residential Zoning Designation	Abbreviation	Maximum Allowable Residential Density (Units Per Acre)
Unincorporated Community	UC	5.8
Rural Residential 2	RR-2	0.5
Rural Residential 4	RR-4	0.3
Multiple Use Forest 10	MUF-10	0.1
Forest Residential 5	FR-5	0.2
Mountain Residential 1	MR-1	1.0

Unincorporated Community (UC)

The minimum lot size for the Unincorporated Community zoning designation is 6,000 square feet. To calculate the maximum residential density per net acre, we divided 34,848 square feet by the 6,000 square foot minimum lot size. The resulting density is 5.8 units per acre.

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[1]   Derived from Land Use in 33 Oregon Cities, Bureau of Municipal Research and Service, University of Oregon, 1961

Rural Residential 2 (RR-2)

The minimum lot size for the Rural Residential 2 designation is 2.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 2.0 acre minimum lot size. The resulting density is 0.5 units per acre.

Rural Residential 4 (RR-4)

The minimum lot size for the Rural Residential 4 designation is 4.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 4.0 acre minimum lot size. The resulting density is 0.3 units per acre.

Multiple Use Forest 10 (MUF-10)

The minimum lot size for the Multiple Use Forest 10 designation is 10.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 10.0 acre minimum lot size. The resulting density is 0.1 units per acre.

Forest Residential 5 (FR-5)

The minimum lot size for the Forest Residential 5 designation is 5.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 5.0 acre minimum lot size. The resulting density is 0.2 units per acre.

Mountain Residential 1 (MR-1)

The minimum lot size for the Mountain Residential 1 designation is 1.0 acres. To calculate the maximum residential density per acre, we divided 1.0 gross acre by the 1.0 acre minimum lot size. The resulting density is 1.0 units per acre.

A-2.2 Commercial Zoning Designations

Three commercial zoning designations were identified in the county zoning ordinance. We calculated the *maximum leasable commercial area* (expressed in square feet per gross acre) for each designation. A summary of findings is presented in Table 2, followed by an explanation of the analysis used to calculate leasable area in each zone.

Table 2
Commercial Zoning Designations

Commercial Zoning Designation	Abbreviation	Maximum Leasable Commercial Area (Square Feet Per Acre)
Retail/Service Commercial	RSC	12,104
Commercial Rural Center	CRC	10,821
Tourist Commercial	TC	6,298

The zoning ordinance provides unique criteria for each commercial zoning designation. Therefore, the methodology for determining the maximum leasable commercial area per acre for each zoning designation differs. For all commercial zones on county lands, the net usable area figure we base calculations on is a gross acre (43,560 square feet). From this figure, allowances for setbacks, yards, and parking are subtracted to obtain the maximum leasable commercial area. If setbacks and yards are not required, a parking requirement allowance is generally the only figure subtracted from the net usable area figure. In cases where the zoning ordinance does not specify parking requirements, a parking requirement allowance cannot be calculated and the maximum leasable commercial area may be overstated.

In cases where setbacks and yards are required, minimum lot dimensions must be determined in order to calculate how much area will be subtracted from the net usable area figure. If a minimum lot size is not specified in the zoning ordinance, the default minimum lot size that calculations are based on is one acre. If minimum lot dimensions are not provided in the zoning ordinance, the lot is assumed to be square and the lot dimensions are derived by taking the square root of the minimum lot size. Front and rear setbacks are subtracted from the minimum lot depth measurement to obtain the buildable lot depth. Side setbacks are subtracted from the minimum lot width measurement to obtain the buildable lot width. After subtracting setbacks, lot width is multiplied by lot depth to obtain the buildable (usable) area per lot. This figure multiplied by the number of lots per acre provides the net usable area per acre.

The parking requirement allowance is determined by averaging the parking requirements for permitted uses, as specified in the zoning ordinance. These are provided in terms of one space per "X" square feet of gross floor area (gfa). In calculating parking allowances, we use a standard allowance of parking lot space (parking, turning space, ingress, and egress) of 325 square feet per space.[2] The parking requirement average is divided into the standard allowance of parking lot space, which provides the parking ratio. The parking ratio plus one (1) is divided into the net usable area figure, providing leasable square feet per acre.

If the zoning ordinance provides a maximum lot coverage percent figure, the calculated leasable square feet figure (net usable area minus setbacks and parking allowance) must be less than or equal to the provided percentage.

Tables 3, 4, and 5 display the data used to determine the maximum leasable commercial area per acre for each commercial zoning designation.

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[2]   Derived from Site Planning, Kevin Lynch and Gary Hack, 1985, page 461. This book suggests a range of 250-400 square feet per car be used. We selected the midpoint in this range.

Table 3
Retail/Service Commercial (RSC)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	1 acre, 43,560 sq. ft. (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 (one acre) ÷ 43,560 (min. lot size)	1.0 lots per acre
Setbacks & Yards (Linear Feet)	front = 20, side = 10, rear = 20	n/a
Maximum Lot Coverage	Not specified	n/a
Minimum Lot Dimensions (Linear Feet)	width = 100 (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	[Commercial Uses (200)] ÷ 1	200 sq. ft. gfa
Parking Ratio	325 (one space fixed) ÷ 200 (parking requirement)	1.63
Net Usable Area Per Acre	sq. root of 43,560 (min. lot size) = 208.7 (lot width and depth); 208.7 (lot depth) - 40 (front & rear setbacks) = 168.7 (buildable lot depth); 208.7 (width) - 20 (side setbacks) = 188.7 (buildable lot width); 168.7 (lot depth) * 188.7 (lot width) = 31,834 (buildable land per lot); 31,834 * 1 (lots per acre)	31,834 sq. ft.
Leasable Sq. Ft. Per Acre	31,834 (net usable area) ÷ 2.63 (parking ratio + 1)	12,104 sq. ft.

Table 4
Commercial Rural Center (CRC)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	1 acre, 43,560 sq. ft. (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 (one acre) ÷ 43,560 (min. lot size)	1.0 lots per acre
Setbacks & Yards (Linear Feet)	all sides = 20	n/a
Maximum Lot Coverage	Not specified	n/a
Minimum Lot Dimensions (Linear Feet)	width = 150 (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	[Commercial Uses (200)] ÷ 1	200 sq. ft. gfa
Parking Ratio	325 (one space fixed) ÷ 200 (parking requirement)	1.63
Net Usable Area Per Acre	sq. root of 43,560 (min. lot size) = 208.7 (lot width and depth); 208.7 (lot width & depth) - 40 (setbacks for two sides) = 168.7 (buildable lot width & depth); 168.7 (lot depth) * 168.7 (lot width) = 28,460 (buildable land per lot); 28,460 * 1 (lots per acre)	28,460 sq. ft.
Leasable Sq. Ft. Per Acre	28,460 (net usable area) ÷ 2.63 (parking ratio + 1)	10,821 sq. ft.

Table 5
Tourist Commercial (TC)

Criteria	Formula	Result
Minimum Lot Size (sq. ft.)	1 acre, 43,560 sq. ft. (default = 43,560 sq. ft., a gross acre)	n/a
Maximum Lots Per Acre	43,560 (one acre) ÷ 43,560 (min. lot size)	1.0 lots per acre
Setbacks & Yards (Linear Feet)	all sides = 40	n/a
Maximum Lot Coverage	Not specified	n/a
Minimum Lot Dimensions (Linear Feet)	width = 100 (default width & depth = square root of minimum lot size)	n/a
Parking Requirement Average	[Commercial Uses (200)] ÷ 1	200 sq. ft. gfa
Parking Ratio	325 (one space fixed) ÷ 200 (parking requirement)	1.63
Net Usable Area Per Acre	sq. root of 43,560 (min. lot size) = 208.7 (lot width and depth); 208.7 (lot width & depth) - 80 (setbacks for two sides) = 128.7 (buildable lot width & depth); 128.7 (lot depth) * 128.7 (lot width) = 16,564 (buildable land per lot); 16,564 * 1 (lots per acre)	16,564 sq. ft.
Leasable Sq. Ft. Per Acre	16,564 (net usable area) ÷ 2.63 (parking ratio + 1)	6,298 sq. ft.

A-2.3 Industrial Zoning Designations

All industrial zones are referred to as "I" in the spreadsheet tables. Table 7 shows the industrial zoning designations used in this analysis.

Table 7
Industrial Zoning Designations

Industrial Zoning Designation	Abbreviation
Agribusiness	A-B
Light Industrial	LI
Heavy Industrial	HI

APPENDIX B
SPREADSHEET TABLES

We present the data from the county analysis in three Spreadsheet Tables. Tables 1 and 2 are organized by census tract and block in ascending order.

- **Table 1** provides residential development estimates.
- **Table 2** provides commercial and industrial development estimates.
- **Table 3** provides summary data totals for Tables 1 and 2.

Zoning Designations

The following zoning designations are found in Spreadsheet Tables 1 and 2:

UC	Unincorporated Community
RR2	Rural Residential 2
RR4	Rural Residential 4
MUF10	Multiple Use Forest 10
FR5	Forest Residential 5
MR1	Mountain Residential 1
CRC	Commercial Rural Center
RSC	Retail/Service Commercial
TC	Tourist Commercial
I	Agribusiness, Light Industrial, Heavy Industrial

Location: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
M4	9501	101	39.5	6	RR2	28.3	100%	0.5	0.5	12.0	58%	16.3	8	14
M5	9501	102	6.7	5	RR2	5.9	100%	0.5	0.5	5.9	0%	0.0	0	5
M4	9501	103	146.0	12	RR2	3.5	100%	0.5	0.5	3.5	0%	0.0	0	12
M4	9501	104	61.8	9	RR2	11.9	100%	0.5	0.5	11.9	0%	0.0	0	9
M5	9501	105	24.0	4	RR4	2.6	100%	0.3	0.3	2.6	0%	0.0	0	4
M5	9501	106	5.7	4	RR4	2.0	100%	0.3	0.3	2.0	0%	0.0	0	4
M6	9501	121	77.8	22	RR2	55.0	100%	0.5	0.5	44.0	20%	11.0	6	28
M5	9501	131	39.8	3	RR4	8.6	100%	0.3	0.3	8.6	0%	0.0	0	3
M4	9501	133	16.8	9	RR4	12.7	100%	0.3	0.3	12.7	0%	0.0	0	9
R11 M4	9501	143	45.5	26	RR4	37.0	100%	0.3	0.3	37.0	0%	0.0	0	26
R11, M4	9501	144	67.2	15	RR4.	12.0	100%	0.3	0.3	12.0	0%	0.0	0	15
R11	9501	153	16.8	8	RR4	16.8	100%	0.3	0.3	16.8	0%	0.0	0	8
R11	9501	154	65.2	23	RR4	26.5	100%	0.3	0.3	26.5	0%	0.0	0	23
R11 M3	9501	155	133.4	26	RR4	20.7	100%.	0.3	0.3	20.7	0%	0.0	0	26
M3	9501	156	1.7	26	RR4	1.7	100%	0.3	0.3	1.7	0%	0.0	0	26
M3	9501	157	2.0	30	RR4	2.0	100%	0.3	0.3	2.0	0%	0.0	0	30
M3	9501	158	2.7	22	RR4	2.7	100%	0.3	0.3	2.7	0%	0.0	0	22
M3	9501	159	99.3	24	RR4	12.3	100%	0.3	0.3	12.3	0%	0.0	0	24
R11	9501	161	8.4	7	RR4	8.4	100%	0.3	0.3	8.4	0%	0.0	0	7
M4	9501	205	154.4	29	RR2	86.3	100%	0.5	0.5	58.0	33%	28.3	14	43
M4	9501	206	420.8	0	RR2	18.0	100%	0.5	0.5	0.0	100%	18.0	9	9
M4	9501	207	105.5	26	RR2	77.3	100%	0.5	0.5	52.0	33%	25.3	13	39
M4	9501	208	81.0	17	RR2	40.3	100%	0.5	0.5	34.0	16%	6.3	3	20
M3	9501	211	41.8	9	RR4	5.4	100%	0.3	0.3	5.4	0%	0.0	0	9
	9501	212	189.5	42	RR4	17.2	100%	0.3	0.3	17.2	0%	0.0	0	42
R	9501	301	7,851.4	7	FR5	174.6	100%	0.2	0.2	35.0	80%	139.6	28	35
R12	9501	302	11,134.3	49	FR5	284.6	100%	0.2	0.2	245.0	14%	39.6	8	57
	9501	318	2,358.6	4	FR5	28.5	100%	0.2	0.2	20.0	30%	8.5	2	6
R i7	9501	323	70,617.0	108	MUF10	10.2	3%	0.1	0.4	254.2	24%	81.4	35	143
R17					FR5	229.8	68%	0.2						
R15					MR1	95.6	28%	1.0						
R15	9501	388	1,437.6	15	FR5	182.1	100%	0.2	0.2	75.0	59%	107.1	21	36
R10	9503	137	79.8	26	UC	28.9	100%	5.8	5.8	4.5	84%	24.4	142	168
R10	9503	138	2.0	0	UC	2.0	100%	5.8	5.8	0.0	100%	2.0	12	12
R10	9503	139	3.0	4	UC	3.0	100%	5.8	5.8	0.7	77%	2.3	13	17
R10	9503	140	2.5	3	UC	2.5	100%	5.8	5.8	0.5	79%	2.0	12	15
R10	9503	141	619.2	17	UC	1.6	100%	5.8	5.8	1.6	0%	0.0	0	17
R10	9503	148	665.7	23	UC	37.4	100%	5.8	5.8	4.0	89%	33.4	194	217
M11	9504	168	3,068.2	10	RR2	24.7	100%	0.5	0.5	20.0	19%	4.7	2	12
M11	9504	177	898.2	14	RR2	21.6	100%	0.5	0.5	21.6	0%	0.0	0	14
M10	9505	304	4,017.6	35	UC	39.5	100%	5.8	5.8	6.0	85%	33.5	194	229
M10	9505	305	60.8	2	UC	14.7	100%	5.8	5.8	0.3	98%	14.4	83	85
M10	9505	317	1,032.9	23	UC.	27.5	100%	5.8	5.8	4.0	86%	23.5	137	169
R21	9505	353	758.1	5	RR4	37.7	100%	0.3	0.3	16.7	56%	21.0	6	11
M10	9505	396	4.2	11	UC	4.2	100%	5.8	5.8	1.9	55%	2.3	13	24
M10	9505	397	2.0	6	UC	2.0	100%	5.8	5.8	1.0	48%	1.0	6	12.
R19	9505	405B	33.6	0	RR2	23.1	100%	0.5	0.5	0.0	100%	23.1	12	12
R19	9505	406B	8.9	10	RR2	6.3	100%	0.5	0.5	6.3	0%	0.0	0	10
R19	9505	409	12.1	6	RR2	12.1	100%	0.5	0.5	12.0	1%	0.1	0	6
R19	9505	410	1,436.1	17	RR2	136.7	100%	0.5	0.5	34.0	75%	102.7	51	68
R21	9505	413	96.6	1	RR4	5.0	100%	0.3	0.3	3.3	33%	1.7	1	2
R19	9505	415	14.3	7	RR2	14.3	100%	0.5	0.5	14.0	2%	0.3	0	7
R19	9505	416	31.6	4	RR2	31.6	100%	0.5	0.5	8.0	75%	23.6	12	16
R19	9505	417	10.6	3	RR2	10.6	100%	0.5	0.5	6.0	43%	4.6	2	5
R19	9505	418	8.6	0	RR2	8.6	100%	0.5	0.5	0.0	100%	8.6	4	4
R19	9505	419	8.4	1	RR2	8.4	100%	0.5	0.5	2.0	76%	6.4	3	4
R19	9505	420	16.6	2	RR2	16.6	100%	0.5	0.5	4.0	76%	12.6	6	8
R19	9505	421	95.9	11	RR2	88.6	100%	0.5	0.5	22.0	75%	66.6	33	44
R19	9505	422	145.0	20	RR2	21.0	21%	0.5	0.3	58.5	42%	42.3	14	34
R19					RR4	79.8	79%	0.3						
S10	9506	510	3,388.2	6	RR2	29.4	100%	0.5	0.5	12.0	59%	17.4	9	15
R19	9506	513	1,763.1	83	RR2	251.6	100%	0.5	0.5	166.0	34%	85.6	43	126
R19	9506	514	7.4	12	RR2	7.4	100%	0.5	0.5	7.4	0%	0.0	0	12
R	9506	515	17.0	15	RR2	15.0	100%	0.5	0.5	15.0	0%	0.0	0	15
R	9506	517	7.2	16	RR2	7.2	100%	0.5	0.5	7.2	0%	0.0	0	16
R19	9506	518	41.0	3	RR2	3.7	100%	0.5	0.5	3.7	0%	0.0	0	3

ocation: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
R19	9506	519	5.2	6	RR2	5.2	100%	0.5	0.5	5.2	0%	0.0	0	6
R19	9506	520	39.5	19	RR2	9.8	100%	0.5	0.5	9.8	0%	0.0	0	19
R20, R19	9506	603	771.0	5	RR2	23.3	100%	0.5	0.5	10.0	57%	13.3	7	12
M11	9507	1018	62.0	6	RR2	34.4	100%	0.5	0.5	12.0	65%	22.4	11	17
M11	9507	106	42.7	3	RR2	3.2	100%	0.5	0.5	3.2	0%	0.0	0	3
R9	9508	102	86.7	3	RR2	18.0	100%	0.5	0.5	6.0	67%	12.0	6	9
R8	9508	103	834.5	14	RR2	69.3	100%	0.5	0.5	28.0	60%	41.3	21	35
R9	9508	146	1.2	0	RR2	1.2	100%	0.5	0.5	0.0	100%	1.2	1	1
R9	9508	147	0.7	1	RR2	0.7	100%	0.5	0.5	0.7	0%	0.0	0	1
R9	9508	148	13.3	8	RR2	13.3	100%	0.5	0.5	13.3	0%	0.0	0	8
R9	9508	149	3.7	4	RR2	3.7	100%	0.5	0.5	3.7	0%	0.0	0	4
R4	9508	325	95.9	5	RR4	74.5	100%	0.3	0.3	16.7	78%	57.8	17	22
M1	9508	327	50.4	8	RR4	29.0	100%	0.3	0.3	26.7	8%	2.3	1	9
M1	9508	330	2.0	0	RR4	0.7	100%	0.3	0.3	0.0	100%	0.7	0	0
M1	9508	331	7.2	2	RR4	1.8	100%	0.3	0.3	1.8	0%	0.0	0	2
M1	9508	332	6.9	0	RR4	6.9	100%	0.3	0.3	0.0	100%	6.9	2	2
R4	9508	334	107.7	4	RR4	42.2	100%	0.3	0.3	13.3	68%	28.9	9	13
R4	9508	335	38.1	4	RR4	34.2	100%	0.3	0.3	13.3	61%	20.9	6	10
R4	9508	336	119.3	9	RR4	26.6	100%	0.3	0.3	26.6	0%	0.0	0	9
R4	9508	337	53.9	2	RR4	26.5	100%	0.3	0.3	6.7	75%	19.8	6	8
R2	9508	340	129.0	2	RR2	20.9	100%	0.5	0.5	4.0	81%	16.9	8	10
R2	9508	343	30.6	0	RR2	30.6	100%	0.5	0.5	0.0	100%	30.6	15	15
R4	9508	344	44.0	0	RR4	16.5	100%	0.3	0.3	0.0	100%	16.5	5	5
R2	9508	345	41.0	0	RR2	41.0	100%	0.5	0.5	0.0	100%	41.0	21	21
R:	9508	346	80.3	0	RR2	80.3	100%	0.5	0.5	0.0	100%	80.3	40	40
M1	9508	348	134.7	8	RR2	9.1	100%	0.5	0.5	9.1	0%	0.0	0	8
R3	9508	350	63.8	3	RR2	18.1	100%	0.5	0.5	6.0	67%	12.1	6	9
R2	9508	351	45.5	0	RR2	45.5	100%	0.5	0.5	0.0	100%	45.5	23	23
R3	9508	352	29.2	24	RR2	27.5	100%	0.5	0.5	27.5	0%	0.0	0	24
R2	9508	356	89.5	18	RR2	34.3	100%	0.5	0.5	34.3	0%	0.0	0	18
R2	9508	357	30.4	2	RR2	30.4	100%	0.5	0.5	4.0	87%	26.4	13	15
R2	9508	358	124.8	6	RR2	124.8	100%	0.5	0.5	12.0	90%	112.8	56	62
R2	9508	359	1.2	0	RR2	1.2	100%	0.5	0.5	0.0	100%	1.2	1	1
R2	9508	360	10.6	0	RR2	10.6	100%	0.5	0.5	0.0	100%	10.6	5	5
R2	9508	361	88.0	9	RR2	88.0	100%	0.5	0.5	18.0	80%	70.0	35	44
R2	9508	362	87.2	0	RR2	87.2	100%	0.5	0.5	0.0	100%	87.2	44	44
R2	9508	363	2.2	0	RR2	2.2	100%	0.5	0.5	0.0	100%	2.2	1	1
R2	9508	364	430.4	23	RR2	290.4	100%	0.5	0.5	46.0	84%	244.4	122	145
R2	9508	365	65.5	8	RR2	54.8	100%	0.5	0.5	16.0	71%	38.8	19	27
R2	9508	366	13.3	2	RR2	13.3	100%	0.5	0.5	4.0	70%	9.3	5	7
R2	9508	367	36.3	0	RR2	36.3	100%	0.5	0.5	0.0	100%	36.3	18	18
R2	9508	369	60.3	6	RR2	60.3	100%	0.5	0.5	12.0	80%	48.3	24	30
R7	9508	408	70.4	9	RR4	69.5	100%	0.3	0.3	30.0	57%	39.5	12	21
R7	9508	409	36.6	4	RR4	26.6	100%	0.3	0.3	13.3	50%	13.3	4	8
R7	9508	411	302.5	8	RR4	58.2	100%	0.3	0.3	26.7	54%	31.6	9	17
R7	9508	412	161.9	9	RR4	34.9	100%	0.3	0.3	30.0	14%	4.9	1	10
R7	9508	416	318.8	41	RR4	88.9	42%	0.3	0.4	98.5	54%	114.3	48	89
R7					RR2	123.9	58%	0.5					0	6
R7	9508	417	25.9	6	RR4	20.0	100%	0.3	0.3	20.0	0%	0.0	11	15
R7	9508	418	64.7	4	RR4	49.7	100%	0.3	0.3	13.3	73%	36.4	13	19
R7	9508	419	63.8	6	RR4	61.9	100%	0.3	0.3	20.0	68%	41.9	0	1
R7	9508	420	3.7	1	RR4	3.6	100%	0.3	0.3	3.3	7%	0.3	0	3
R7	9508	423	65.7	3	RR4	2.1	100%	0.3	0.3	2.1	0%	0.0	0	5
R7	9508	426	90.7	5	RR4	18.3	100%	0.3	0.3	16.7	9%	1.6	0	18
R7	9508	429	311.3	18	RR4	28.4	100%	0.3	0.3	28.4	0%	0.0	12	22
R7	9508	430	80.8	10	RR4	74.9	100%	0.3	0.3	33.3	55%	41.5	0	8
R7	9508	431	80.6	8	RR4	18.6	100%	0.3	0.3	18.6	0%	0.0	0	4
R7	9508	433	11.9	4	RR4	11.8	100%	0.3	0.3	11.8	0%	0.0	3	23
R7	9508	434	159.1	20	RR4	78.2	100%	0.3	0.3	66.7	15%	11.5	33	44
R7	9508	435	147.5	11	RR4	147.6	100%	0.3	0.3	36.7	75%	110.9	1	1
R7	9508	436	1.7	0	RR4	1.7	100%	0.3	0.3	0.0	100%	1.7	1	1
R7	9508	437	4.4	0	RR4	4.4	100%	0.3	0.3	0.0	100%	4.4	12	50
R7	9508	438	165.8	38	RR4	165.8	100%	0.3	0.3	126.7	24%	39.1	64	100
R7	9508	439	320.2	36	RR4	301.8	94%	0.3	0.3	115.6	64%	204.6		
R7					RR2	18.4	6%	0.5					4	21
R7	9508	440	79.6	17	RR4	59.7	85%	0.3	0.3	56.7	20%	13.9		

ocation: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
R7					RR2	10.9	15%	0.5						
R7	9508	441	80.8	27	RR4	80.8	100%	0.3	0.3	80.8	0%	0.0	0	27
R7	9508	442	161.1	39	RR2	66.9	46%	0.5	0.4	99.6	32%	46.5	18	57
R7					RR4	79.2	54%	0.3						
R7	9508	443	161.6	6	RR4	28.6	100%	0.3	0.3	20.0	30%	8.6	3	9
R7	9508	446	144.6	16	RR4	126.1	100%	0.3	0.3	53.3	58%	72.8	22	38
R7	9508	449	253.8	58	RR2	253.8	100%	0.5	0.5	116.0	54%	137.8	69	127
R7	9508	450	1.5	0	RR2	1.5	100%	0.5	0.5	0.0	100%	1.5	1	1
R7	9508	451	66.0	25	RR2	63.1	100%	0.5	0.5	50.0	21%	13.1	7	32
R7	9508	452	206.1	78	RR2	206.1	100%	0.5	0.5	156.0	24%	50.1	25	103
R7	9508	453	125.3	52	RR2	125.3	100%	0.5	0.5	104.0	17%	21.3	11	63
R7	9508	454	185.1	15	RR2	82.2	100%	0.5	0.5	30.0	64%	52.2	26	41
R7	9508	455	137.4	31	RR2	137.4	100%	0.5	0.5	62.0	55%	75.4	38	69
R7	9508	460	89.7	0	RR2	15.0	100%	0.5	0.5	0.0	100%	15.0	8	8
R7	9508	461	59.3	0	RR2	21.8	100%	0.5	0.5	0.0	100%	21.8	11	11
R7	9508	462	251.5	34	RR2	80.5	100%	0.5	0.5	68.0	16%	12.5	6	40
R3	9509	233	504.1	5	RR4	33.5	100%	0.3	0.3	16.7	50%	16.8	5	10
R3	9509	246	151.0	0	RR4	46.8	100%	0.3	0.3	0.0	100%	46.8	14	14
R3	9509	247	14.6	0	RR4	3.2	100%	0.3	0.3	0.0	100%	3.2	1	1
R3	9509	248	187.3	19	RR4	187.3	100%	0.3	0.3	63.3	66%	124.0	37	56
R3	9509	249	9.6	3	RR4	9.5	100%	0.3	0.3	9.5	0%	0.0	0	3
R3	9509	250	252.3	24	RR2	195.6	100%	0.5	0.5	48.0	75%	147.6	74	98
R3	9509	251B	124.0	15	RR4	44.3	100%	0.3	0.3	44.3	0%	0.0	0	15
R3	9509	253	15.8	1	RR2	15.8	100%	0.5	0.5	2.0	87%	13.8	7	8
R3	9509	254	4.9	2	RR2	4.9	100%	0.5	0.5	4.0	18%	0.9	0	2
R3	9509	256	106.7	2	RR4	84.9	100%	0.3	0.3	6.7	92%	78.2	23	25
R3	9509	270	6.2	0	RR4	6.2	100%	0.3	0.3	0.0	100%	6.2	2	2
F	9509	271	55.6	1	RR4	42.2	100%	0.3	0.3	3.3	92%	38.9	12	13
R	9509	272	43.5	4	RR4	32.7	100%	0.3	0.3	13.3	59%	19.4	6	10
R3	9509	275	9.1	2	RR4	9.1	100%	0.3	0.3	6.7	27%	2.4	1	3
R3	9509	277B	159.1	27	RR2	159.1	100%	0.5	0.5	54.0	66%	105.1	53	80
R3	9509	279	33.1	5	RR2	33.1	100%	0.5	0.5	10.0	70%	23.1	12	17
R3	9509	280	37.8	5	RR2	33.9	100%	0.5	0.5	10.0	71%	23.9	12	17
R1	9509	325C	814.4	0	RR2	33.9	100%	0.5	0.5	0.0	100%	33.9	17	17
R1	9509	327	943.2	3	RR4	54.4	11%	0.3	0.5	6.3	99%	468.8	224	227
R1					RR2	420.7	89%	0.5						
R1	9509	328	400.8	56	RR2	58.4	100%	0.5	0.5	58.4	0%	0.0	0	56
R13	9510	101	575.7	26	RR4	24.2	100%	0.3	0.3	24.2	0%	0.0	0	26
R13	9510	104	521.9	19	RR4	102.9	100%	0.3	0.3	63.3	38%	39.6	12	31
R13	9510	109	42.0	12	RR4	31.2	100%	0.3	0.3	31.2	0%	0.0	0	12
R13	9510	110	494.9	1	RR4	0.4	100%	0.3	0.3	0.4	0%	0.0	0	1
R13	9510	111	85.2	7	RR4	85.2	100%	0.3	0.3	23.3	73%	61.9	19	26
R13	9510	112	71.7	6	RR4	22.8	100%	0.3	0.3	20.0	12%	2.8	1	7
R13	9510	116	57.6	17	RR4	53.6	100%	0.3	0.3	53.6	0%	0.0	0	17
R13	9510	117	12.6	10	RR4	9.5	100%	0.3	0.3	9.5	0%	0.0	0	10
R13	9510	118	160.4	21	RR4	160.4	100%	0.3	0.3	70.0	56%	90.4	27	48
R13	9510	119	224.9	24	RR4	198.1	100%	0.3	0.3	80.0	60%	118.1	35	59
R13	9510	120	42.3	21	RR4	42.3	100%	0.3	0.3	42.3	0%	0.0	0	21
R13	9510	122	197.2	4	RR4	4.1	100%	0.3	0.3	4.1	0%	0.0	0	4
R13	9511	101C	134.9	17	RR4	2.6	100%	0.3	0.3	2.6	0%	0.0	0	17
R13	9511	102	489.5	11	RR4	46.6	100%	0.3	0.3	36.7	21%	9.9	3	14
R13	9511	103	269.8	12	RR4	29.4	100%	0.3	0.3	29.4	0%	0.0	0	12
R13	9511	104	243.1	14	RR4	162.4	100%	0.3	0.3	46.7	71%	115.7	35	49
R13	9511	107	147.0	32	RR4	138.8	100%	0.3	0.3	106.7	23%	32.1	10	42
R13	9511	108	126.0	25	RR4	125.0	100%	0.3	0.3	83.3	33%	41.7	13	38
R13	9511	109	18.5	6	RR4	18.5	100%	0.3	0.3	18.5	0%	0.0	0	6
R13	9511	110	129 0	12	RR4	40.3	100%	0.3	0.3	40.0	1%	0.3	0	12
R13	9511	113	35 6	6	RR4	35 1	100%	0.3	0.3	20 0	43%	15.1	5	11
R13	9511	114	20 8	1	RR4	20 8	100%	0.3	0.3	3.3	84%	17.5	5	6
R13	9511	115	4 4	0	RR4	4 4	100%	0.3	0.3	0.0	100%	4.4	1	1
R13	9511	126	101 1	16	RR4	27.4	100%	0.3	0.3	27.4	0%	0 0	0	15
R13	9511	214	12 6	12	RR4	10 9	100%	0.3	0.3	10.9	0%	0.0	0	12
R13	9511	508	92 9	4	RR4	67 6	100%	0.3	0.3	13.3	80%	54 3	16	20
R1?	9511	510	40 0	2	RR4	38 2	100%	0.3	0 3	6 7	83%	31 5	9	11
R14	9513	142	122 6	17	RR2	122 6	100%	0.5	0 5	34 0	72%	88 6	44	61
R14	9513	143	274 8	21	RR2	27 6	100%	0.5	0 5	27.6	0%	0 0	0	21

ABLE 1: RESIDENTIAL LAND (OUTSIDE URBAN AREAS)

xcation: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Census Block Res. Units (Existing)	Zoning Type	Res. Acres by Zone	Percent of Total Res.	Allowable Density (units/acre)	Average Density (units/acre)	Developed Res. Acres	Percent Vacant	Vacant Res. Acres	Potential Buildable Units	Maximum Allowed Units
R27	9514	105D	144,506.1	104	UC	7,113.4	100%	5.8	5.8	17.9	100%	7,095.5	41,154	41,258
R26	9514	138G	105,053.8	119	MUF10	156.1	100%	0.1	0.1	156.1	0%	0.0	0	119
R22	9514	165B	1,784.3	10	RR2	7.9	100%	0.5	0.5	7.9	0%	0.0	0	10
R22	9514	209	4.4	0	RR4	4.0	100%	0.3	0.3	0.0	100%	4.0	1	1
R22	9514	210	2.7	0	RR4	2.7	100%	0.3	0.3	0.0	100%	2.7	1	1
R22	9514	211	3.2	0	RR4	3.2	100%	0.3	0.3	0.0	100%	3.2	1	1
R22	9514	212	260.2	34	RR4	34.0	100%	0.3	0.3	34.0	0%	0.0	0	34
R23	9514	223B	4,658.1	4	RR2	34.0	100%	0.5	0.5	8.0	76%	26.0	13	17
R24	9514	312B	11,051.5	24	RR2	7.2	100%	0.5	0.5	7.2	0%	0.0	0	24
R25	9514	405B	10,706.3	25	RR4	4.8	5%	0.3	0.5	51.0	48%	46.9	23	48
R24					RR2	93.1	95%	0.5						
R29	9514	481	2,772.2	8	FR5	2.2	100%	0.2	0.2	2.2	0%	0.0	0	8
R29	9514	483	216.7	3	FR5	24.8	100%	0.2	0.2	15.0	40%	9.8	2	5
R29	9514	484	79.3	3	FR5	46.1	100%	0.2	0.2	15.0	67%	31.1	6	9
R28	9514	506D	177,391.6	52	FR5	238.7	100%	0.2	0.2	238.7	0%	0.0	0	52
R29	9514	542	110,603.4	31	FR5	0.9	100%	0.2	0.2	0.9	0%	0.0	0	31
R15	9515	151B	6,309.0	23	FR5	205.8	100%	0.2	0.2	115.0	44%	90.8	18	41
R15	9515	160	518.9	21	FR5	79.2	67%	0.2	0.1	118.6	0%	0.0	0	21
R15					MR	39.4	33%	0						
R15	9515	161	6.4	1	FR5	6.4	100%	0.2	0.2	5.0	22%	1.4	0	1
R15	9515	162	464.5	15	MR1	55.4	67%	1.0	0.7	20.4	75%	62.4	46	61
R15					FR5	27.3	33%	0.2						
R15	9515	162	464.5	15	MR1	0.3	100%	1.0	1.0	0.3	0%	0.0	0	15
R15	9515	207	4,111.7	7	FR5	59.6	86%	0.2	0.2	35.0	50%	34.6	7	14
R1					MR1	10.0	14%	1.0						
R15	9515	210	419.6	6	FR5	79.7	34%	0.2	0.7	8.2	97%	227.8	166	172
R15					MR1	156.3	66%	1.0						
R15	9515	211	7.2	5	MR1	7.2	100%	1.0	1.0	5.0	31%	2.2	2	7
R15	9515	212	56.8	2	MR1	56.8	100%	1.0	1.0	2.0	96%	54.8	55	57
R15	9515	213	2.5	1	MR1	2.5	100%	1.0	1.0	1.0	60%	1.5	2	3
R15	9515	214	31.1	8	MR1	31.1	100%	1.0	1.0	8.0	74%	23.1	23	31
R15	9515	215	31.9	1	FR5	3.0	100%	0.2	0.2	3.0	0%	0.0	0	1
R15	9515	216	81.3	0	FR5	81.3	100%	0.2	0.2	0.0	100%	81.3	16	16
R15	9515	217	1,024.7	9	MR1	63.4	50%	1.0	0.6	16.3	87%	110.0	61	70
R15					MUF10	62.9	50%	0.1						
R15	9515	222	329.4	8	MR1	29.5	100%	1.0	1.0	8.0	73%	21.5	22	30
R15	9515	223	70.7	1	FR5	37.2	100%	0.2	0.2	5.0	87%	32.2	6	7
R15	9515	226	15,804.5	8	MUF10	228.5	54%	0.1	0.1	54.7	87%	369.5	54	62
R15,R17					FR5	195.7	46%	0.2						
R15	9515	230	168.0	0	FR5	28.8	100%	0.2	0.2	0.0	100%	28.8	6	6
R15	9515	231	21.3	3	MR1	21.3	100%	1.0	1.0	3.0	86%	18.3	18	21
R15	9515	232	5.7	1	MR1	5.7	100%	1.0	1.0	1.0	82%	4.7	5	6
R15	9515	233	240.7	1	MR1	53.3	100%	1.0	1.0	1.0	98%	52.3	52	53
R15					FR5	35.8	100%	0.2	0.2	0.0	100%	35.8	7	7
R15	9515	234	3.2	1	FR5	3.2	100%	0.2	0.2	3.2	0%	0.0	0	1
R15	9515	235	46.9	2	FR5	46.9	100%	0.2	0.2	10.0	79%	36.9	7	9
R15	9515	237	105.5	0	FR5	105.5	100%	0.2	0.2	0.0	100%	105.5	21	21
R15	9515	238	45.2	0	FR5	45.2	100%	0.2	0.2	0.0	100%	45.2	9	9
R15	9515	239	1.0	0	FR5	1.0	100%	0.2	0.2	0.0	100%	1.0	0	0
R15	9515	240	4.9	0	FR5	4.9	100%	0.2	0.2	0.0	100%	4.9	1	1
R15	9515	243	610.1	2	MR1	119.9	100%	1.0	1.0	2.0	98%	117.9	118	120
R15	9515	247	203.6	0	FR5	10.8	100%	0.2	0.2	0.0	100%	10.8	2	2
R15	9515	248	415.9	0	FR5	173.2	94%	0.2	0.3	0.0	100%	185.1	47	47
R15					MR1	11.9	6%	1.0						
R15	9515	253	3.0	0	FR5	3.0	100%	0.2	0.2	0.0	100%	3.0	1	1
R15	9515	254	2.2	0	FR5	2.2	100%	0.2	0.2	0.0	100%	2.2	0	0
R17	9515	270	121.1	0	FR5	32.4	88%	0.2	0.3	0.0	100%	36.8	11	11
R18					MR1	4.4	12%	1.0						
TOTAL	N/A	N/A	N/A	2,944	N/A	20,104	N/A	N/A	N/A	5,766	N/A	14,338	44,888	47,832

TABLE 2: COMMERCIAL AND INDUSTRIAL LAND (OUTSIDE URBAN AREAS)

Location: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Zoning Type	Com./Ind. Acres by Zone	Vacant Commercial Acres	Vacant Industrial Acres	Developed Commercial Acres	Leasable Commercial Square Feet	Developed Industrial Acres
M4	9501	101	39.5	I	8.9	—	8.0	—	—	0.9
M4	9501	103	146.0	RSC	13.7	5.1	—	8.6	61,730	--
M4	9501	104	146.0	RSC	13.7	5.1	—	8.6	61,730	—
M5	9501	106	5.7	RSC	1.4	0.0	—	1.4	0	—
M5	9501	107	6.2	RSC	2.1	0.5	—	1.6	6,052	—
M6	9501	110	187.8	I	9.7	—	9.7	—	—	0.0
M3	9501	155	133.4	RSC	13.7	2.6	—	11.1	31,470	—
M3	9501	159	99.3	RSC	2.0	0.0	—	2.0	0	—
M3,M2,C3	9501	176	68.9	RSC	17.2	1.8	—	15.4	21,787	—
M2	9501	183	36.8	RSC	1.4	0.0	—	1.4	0	—
M2	9501	184	36.3	RSC	0.9	0.9	—	0.0	10,894	—
I3	9501	189	36.6	I	11.1	—	1.9	—	—	9.2
M2	9502	201B	64.7	RSC	3.4	3.4	—	0.0	41,154	—
M4	9501	206	38.1	RSC	20.3	12.7	—	7.6	153,721	—
M4	9501	207	105.5	RSC	22.3	14.7	—	7.6	177,929	—
M4				I	14.2	—	9.7	—	—	4.5
M3	9501	208	81.0	RSC	1.9	0.4	—	1.5	4,842	—
M3	9501	210	62.3	RSC	11.9	3.2	—	8.7	38,733	—
M3	9501	211	41.8	RSC	1.0	0.0	—	1.0	0	—
M3,M2,C3	9501	212	189.5	RSC	33.8	9.9	—	23.9	119,588	--
M3,M2				I	4.3	—	0.9	—	—	3.4
I2	9502	120	19.8	I	12.8	—	11.0	—	—	1.8
M2	9502	201B	64.7	RSC	3.4	3.4	—	0.0	41,154	--
I4	9504	254	1,312.3	I	4.5	—	3.4	—	—	1.1
M9	9504	256	4,729.5	I	25.0	—	15.4	—	—	9.6
M9	9505	304	4,017.6	TC	12.8	6.4	—	6.4	40,307	--
I5,M10				I	49.6	—	37.6	—	—	12.0
M9	9505	306	1,692.9	I	32.1	—	10.6	--	—	21.5
I4	9505	308	247.3	I	31.0	—	26.6	--	--	4.4
I6	9505	315	3,149.5	I	55.0	—	55.0	--	--	0.0
M11	9507	106	42.7	RSC	3.5	2.6	—	0.9	31,470	—
I7	9507	403	165.1	I	3.2	—	2.4	--	—	0.8
C1	9508	103	834.5	TC	12.0	0.0	—	12.0	0	—
I1	9508	113	3,179.4	I	931.0	—	605.2	--	—	325.9
M1	9508	321	21.7	I	2.8	—	2.8	--	—	0.0
M1	9508	322	46.9	I	24.3	—	4.9	--	—	19.4
M1	9508	328	14.6	I	12.4	—	8.0	--	—	4.4
M1				RSC	2.2	0.7	—	1.5	8,473	--
M1	9508	329	22.2	I	17.0	--	13.8	--	—	3.2
M1				RSC	5.2	0.5	--	4.7	6,294	—
M1	9508	330	2.0	I	1.3	—	1.3	--	--	0.0
M1	9508	331	7.2	I	5.4	—	5.4	--	--	0.0
M1	9508	348	134.7	I	86.6	—	57.1	--	—	29.5
M1				RSC	24.8	14.8	—	10.0	179,139	—
M1	9508	350	63.8	I	29.2	—	29.2	--	—	0.0
M1				RSC	4.7	4.7	—	0.0	56,889	--
M1	9508	353	9.6	I	8.3	—	7.0	--	--	1.3
M1	9508	354	6.9	I	6.2	—	6.2	--	—	0.0
M1	9508	356	89.5	I	23.0	—	21.1	--	--	1.9
M1				RSC	25.4	11.9	—	13.5	144,038	--
C2	9508	440	79.6	CRC	23.0	9.0	--	14.0	97,389	--
C4	9508	451	66.0	CRC	2.8	2.8	--	0.0	30,299	--
M1	9509	233	504.1	I	11.8	—	11.8	--	--	0.0
M1	9509	241	24.5	I	14.8	--	3.4	--	--	11.4
M1				RSC	2.0	2.0	--	0.0	24,208	--
M1	9509	242	94.9	I	72.3	--	66.0	--	--	6.3
M1				RSC	0.7	0.7	—	0.0	8,473	--
M1	9509	243	3.0	I	3.0	--	3.0	--	--	0.0
M1	9509	244	1.5	I	1.5	--	1.5	--	--	0.0
M1	9509	245	2.5	I	2.5	--	2.5	--	--	0.0
M1	9509	246	151.0	I	118.1	--	118.1	--	--	0.0
M1	9509	247	14.6	I	12.7	--	12.7	--	--	0.0
M1	9509	256	106.7	I	14.6	--	13.7	--	--	0.9
M1	9509	257	2.2	RSC	1.4	0.9	--	0.5	10,894	--
M1	9509	258	91.4	I	83.7	--	60.1	--	--	23.6
M1				RSC	7.7	0.8	--	6.9	9,683	--
M1	9509	259	10.4	I	10.4	--	10.4	--	--	0.0
M1	9509	259	10.4	I	10.4	--	10.4	--	--	0.0
M1	9509	260	13.3	I	13.3	--	13.3	--	--	0.0
M1	9509	261	1.0	I	1.0	--	1.0	--	--	0.0
M1	9509	262	2.0	I	2.0	--	2.0	--	--	0.0

TABLE 2: COMMERCIAL AND INDUSTRIAL LAND (OUTSIDE URBAN AREAS)

Location: Umatilla County

Polygon Descriptor Number	Census Tract	Census Block	Census Block Acres	Zoning Type	Com./Ind. Acres by Zone	Vacant Commercial Acres	Vacant Industrial Acres	Developed Commercial Acres	Leasable Commercial Square Feet	Developed Industrial Acres
M1	9509	263	46.0	RSC	16.8	2.8	–	14.0	33,891	–
M1				I	29.2	--	18.9	–	–	10.3
M1	9509	264	4.7	RSC	1.6	0.4	–	1.2	4,842	--
M1				I	3.1	--	2.5	–	–	0.6
M1	9509	265	1.2	I	1.2	--	1.2	–	–	0.0
M1	9509	266	4.4	I	4.4	–	4.4	–	–	0.0
M1	9509	267	1.5	I	1.5	–	1.5	--	–	0.0
M1	9509	268	8.4	I	8.4	–	7.6	–	–	0.8
M1	9509	269	1.2	I	1.2	–	1.2	–	--	0.0
M1	9509	271	55.6	I	13.4	--	13.4	–	–	0.0
M1	9509	272	43.5	I	13.1	--	4.9	--	–	8.2
M1	9509	273	14.3	I	12.4	–	7.6	–	–	4.8
M1	9509	274	24.5	RSC	21.0	12.6	–	8.4	152,510	–
M1				I	1.0	–	0.5	–	–	0.5
M1	9509	276	56.6	RSC	32.4	6.1	–	26.3	73,834	–
M1				I	19.5	–	17.6	–	–	1.9
M1	9509	278	15.1	I	14.8	–	13.6	–	–	1.2
M1	9510	126	53.1	I	53.1	–	52.0	–	–	1.1
M7	9511	102	489.5	I	8.3	--	8.3	–	–	0.0
M8	9511	116	349.9	I	6.9	–	3.5	--	–	3.4
M7	9511	124	296.5	I	3.6	–	3.6	–	–	0.0
M7	9511	125	105.3	I	95.2	–	47.7	–	–	47.5
M7	9511	127	60.0	I	55.9	--	55.9	–	–	0.0
M7	9511	128	17.0	I	6.6	--	6.6	–	–	0.0
M7	9511	129	17.3	I	17.3	–	17.3	--	–	0.0
M7	9511	130	99.6	I	19.6	–	8.8	--	--	10.8
M7	9511	131	20.0	I	20.0	–	20.0	--	--	0.0
M7	9511	137	3,406.0	TC	19.6	19.6	–	0.0	123,441	--
M7	9511	143	483.6	TC	8.8	0.0	--	8.8	0	--
M7				I	95.5	–	73.6	–	–	21.9
M7	9511	144	11.4	I	11.4	--	0.0	--	–	11.4
M7	9511	146	102.5	I	29.3	–	7.3	--	–	22.0
C3	9511	152	71.9	TC	10.8	5.0	–	5.8	31,490	--
M7	9511	157	246.4	I	83.5	--	56.8	--	–	26.7
M7				TC	33.4	33.4	–	0.0	210,353	–
M7	9511	158	62.5	I	8.7	--	0.0	--	--	8.7
M8	9511	514	39.0	I	27.3	--	13.7	--	–	13.6
M8	9511	515	80.6	I	26.2	--	3.9	--	–	22.3
M8	9511	516	122.8	I	122.8	--	110.5	--	–	12.3
M8	9511	530	22.7	I	22.7	--	17.2	--	--	5.5
M8	9511	531	4.0	I	4.0	--	0.0	--	–	4.0
M8	9511	532	6.9	I	6.9	–	0.0	--	--	6.9
M8	9511	533	54.6	I	54.6	--	54.6	--	--	0.0
M8	9511	535	16.3	I	16.3	--	16.3	--	--	0.0
M8	9511	536	18.0	I	18.0	--	14.4	–	--	3.6
M8	9511	537	1.7	I	1.7	--	1.7	--	--	0.0
M8	9511	538	20.5	I	20.5	--	20.5	--	--	28.2
M8	9511	541	28.2	I	28.2	--	0.0	--	--	0.0
M8	9513	403	225.8	I	225.8	--	225.8	--	--	112.4
M8	9513	404	112.4	I	112.4	--	0.0	--	--	27.7
M8	9513	405	27.7	I	27.7	--	0.0	--	--	131.5
M8	9513	406	131.5	I	131.5	--	0.0	--	--	2.0
M8	9513	407	2.0	I	2.0	--	0.0	--	--	1.0
M8	9513	408	1.0	I	1.0	--	0.0	--	--	1.7
M8	9513	409	1.7	I	1.7	--	0.0	--	--	27.2
M8	9513	410	27.2	I	27.2	--	0.0	--	--	233.2
M8	9513	411	233.2	I	233.2	--	0.0	--	--	0.0
M8	9513	412	13.1	I	13.1	--	13.1	--	--	0.0
M8	9513	413	11.4	I	11.4	--	11.4	--	--	62.5
M8	9513	414	62.5	I	62.5	--	0.0	--	--	14.6
M8	9513	485	14.6	I	14.6	--	0.0	--	--	10.9
M8	9513	486	10.9	I	10.9	--	0.0	--	--	
TOTAL	N/A	N/A	N/A	N/A	4,080	201	2,243	235	2,048,700	1,400

TABLE 3: SUMMARY TABLE - RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LAND OUTSIDE OF URBAN AREAS

Location: Umatilla County

	Total Residential Acres	Vacant Residential Acres	Census Block Res. Units (Existing)	Potential Buildable Units	Maximum Allowed Units	Total Commercial Acres	Vacant Commercial Acres	Leasable Commercial Square Feet	Total Industrial Acres	Vacant Industrial Acres
TOTAL	20,104	14,338	2,944	44,888	47,832	437	201	2,048,700	3,643	2,243