

CHAPTER 5 FUTURE TRANSPORTATION CONDITIONS

Klamath County’s future transportation facility conditions presented in this chapter are based on several factors: historic and projected population change, historic and projected economic change, and historic and projected traffic growth.

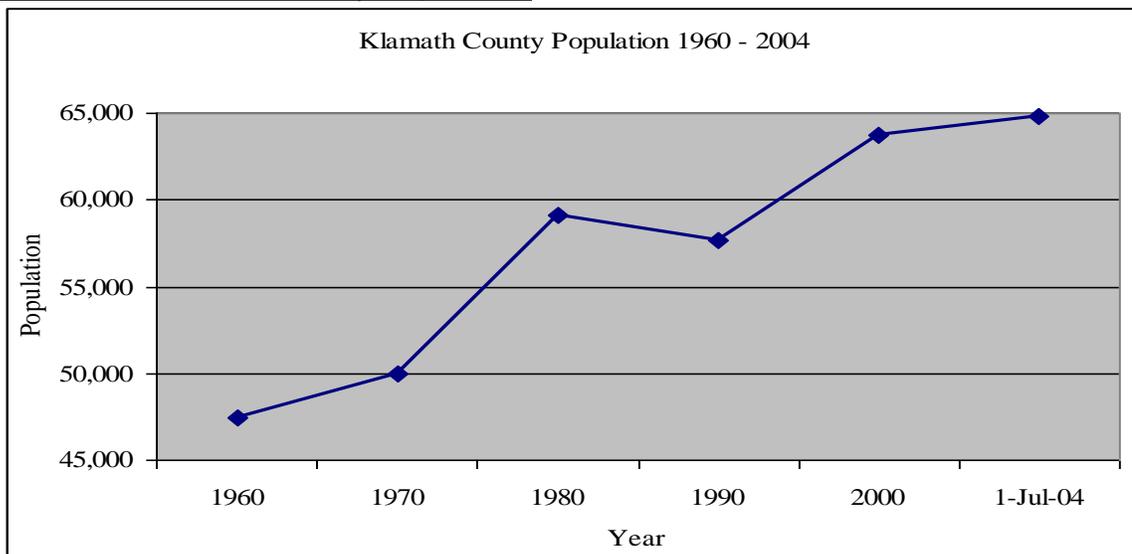
POPULATION

Land use and population change are key factors in projecting the future condition of the existing transportation infrastructure. As Table 5-1 illustrates, Klamath County has experienced relatively minor population shifts over the years. Table 5-1, below, shows the county’s populations from 1960 to 2004, as well as the percent change between 1990 and 2000. As these tables show, after declining by about 2,000 from 1980 to 1990, Klamath County’s population now appears to be on a gradual rise and holding steady.

Table 5-1. Klamath County Population, 1960-2000

| | 1960 | 1970 | 1980 | 1990 | 2000 | July 1, 2004 ¹ | Percent Change 1990-2000 |
|--------|--------|------|--------|--------|--------|---------------------------|--------------------------|
| County | 47,475 | | 59,117 | 57,702 | 63,775 | 64,800 | 10.5% |

Table 5-2. Klamath County Population



¹ Population Research Center, Portland State University.

As Figure 5-1 below shows, the largest age group in Klamath County was 45-64 year olds (2000 Census). However, the three age groups that generally contain the most transportation-disadvantaged individuals (age 65 and over, under 5 years, and 5-19 years) together represented 64 percent of the County population.

Figure 5-1. Distribution of Population - 2000

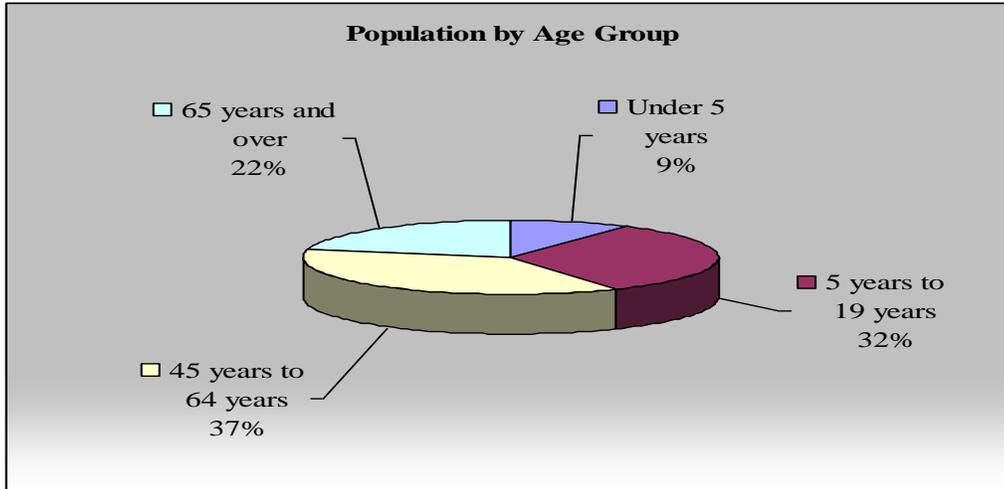


Table 5-3 presents population forecasts by age in Klamath County; workforce-aged people will increase by 1,591 from 2005 to 2025. More notable, however, is that the number of people in Klamath County 65 or older will increase by almost 5,000 from 2005 to 2025.

Table 5-3. Population Forecasts by Age

| Year 2005 | Age Group | | |
|------------------|------------------|--------------|------------------|
| <u>Area</u> | <u>0-14</u> | <u>15-64</u> | <u>65 + Over</u> |
| Oregon Total | 712,727 | 2,451,155 | 454,318 |
| Klamath County | 13,217 | 42,387 | 15,476 |
| | | | |
| Year 2025 | Age Group | | |
| <u>Area</u> | <u>0-14</u> | <u>15-64</u> | <u>65 + Over</u> |
| Oregon Total | 854,369 | 2,917,868 | 853,778 |
| Klamath County | 13,995 | 43,978 | 14,658 |

The State of Oregon’s Office of Economic Analysis develops growth projections for all of the counties; Table 5-4 identifies the 2025 population projection for Klamath County. Intermediate year projections are based on the 1995-2025 average annual growth rate of 0.51 percent (compounded). As this table shows, Klamath County is forecast to grow moderately over the next 20 years to reach a projected population of approximately 72,631.

Land use and population change plays an important role in projecting future traffic volumes. Historic trends and their relationship to historic traffic growth on state highways are the basis of those projections. Population 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.

**Table 5-4. Klamath County Office of Economic Analysis
Forecast, 2000-2025**

| Klamath Co. | Population | | | | | | Average Annual Growth Rate (compounded) |
|-------------|------------|-------------------|--------|--------|--------|--------|---|
| | 2000 | 2005 ² | 2010 | 2015 | 2020 | 2025 | |
| Co. Total | 63,775 | 65,330 | 67,423 | 69,432 | 71,440 | 73,449 | 0.59% |

TRAFFIC VOLUMES

Projected traffic volumes are based on the population factors described above as well as the historic traffic volumes described below. Traffic volumes on Klamath County highways have historically grown very slowly; this trend is expected to continue. The general forecast for continued gradual growth is also reflected by the population projection for Klamath County (Table 5-3). While traffic volume data is not available for local roads, it is likely that traffic volumes on local roads will also follow a similar trend.

Future Traffic Conditions (2025)

This section summarizes the methodology used to determine future travel demand and shows the results of the operational analyses of future conditions for the roadways in the county. The forecasted, no-build, future conditions analyses assume that the existing roadway geometry, traffic controls and lane configurations all remain in place.

² http://www.oea.das.state.or.us/DAS/OEA/docs/demographic/pop_components.xls

The future traffic volume forecasts were based on the population and employment forecasts described by Oregon’s office of Economic Analysis. This technical memorandum was distributed and discussed by the Technical Advisory Committee (TAC) on January 27, 2005.

Seasonal Variations

Time of year may have effects on the amount of traffic on a roadway system; harvest, closure due to snow or flooding, and tourism are all examples of seasonal events. ODOT has permanent Automatic Traffic Recorders (ATR) on US 97 at Modoc Point (Milepost 254.3) and at Midland (Mile point 289.4). It is likely that seasonal impacts are similar to other highways in Klamath County; for example, areas on US Highway 58 are lined with boat trailers in the summer months, causing safety concerns and sight-distance issues. However, overall seasonal variations in the county are on a relatively small-scale level.

Level of Service (LOS) Impacts

As discussed previously, gradual increases in daily traffic are expected through the year 2025 on US 97 and the other major roadways in the county. The V/C ratio on those sections of roadway in the county is expected to remain satisfactory (V/C < 1) through the next 20 years; all other roadways in the study area are expected to maintain acceptable V/C throughout the 20-year horizon as well, as seen in Table 5-5 below.

Table 5-5. Average Annual Daily Traffic (2025)

| Road | Count Location | Two-Way Adjusted Volume (AADT)* | Peak Volume** | Existing V/C Ratio | 2025 Volumes (AADT) | Peak Volume** 2025 | 2025 V/C Ratio |
|--------------------|---------------------------|---------------------------------|---------------|--------------------|---------------------|--------------------|----------------|
| Westside RD | S of Rocky Point RD | 536 | 54 | 0.03 | 590 | 59 | 0.03 |
| Spring Lake RD | S of K Falls | 1,685 | 169 | 0.08 | 1857 | 186 | 0.09 |
| Sprague River RD | Chil.-Sprag. Riv Rd Br #4 | 511 | 50 | 0.03 | 563 | 56 | 0.03 |
| Short RD | Klamath Falls | 2,121 | 210 | 0.11 | 2338 | 234 | 0.12 |
| Reeder RD | K Falls, S of 140 | 368 | 36 | 0.02 | 406 | 41 | 0.02 |
| Pine Grove RD | K Falls, W of Schooler CT | 462 | 46 | 0.03 | 509 | 51 | 0.03 |
| Keno Worden RD | K Falls, E Overland | 466 | 46 | 0.02 | 514 | 51 | 0.03 |
| Homedale RD | K Falls, S of Airway DR | 1,108 | 111 | 0.06 | 1221 | 122 | 0.06 |
| Hill RD | N of Merrill | 590 | 58 | 0.03 | 650 | 65 | 0.04 |
| Crystal Springs RD | K Falls, W of bridge | 434 | 42 | 0.02 | 478 | 48 | 0.03 |

| | | | | | | | |
|--------------------|---------------------------------------|--------|------|------|-------|------|------|
| Chiloquin Ridge RD | Chiloquin | 149 | 15 | 0.01 | 164 | 16 | 0.01 |
| Bly Mnt. Cutoff | Bonanza, S of Teal DR | 1,461 | 145 | 0.09 | 1610 | 161 | 0.09 |
| OR 31 | Klamath/Lake County Line | 910 | 92 | 0.05 | 1003 | 100 | 0.06 |
| US 97 | Crescent Post Office | 6,500 | 656 | 0.33 | 7163 | 716 | 0.36 |
| US 97 | 0.10 mile north of Chiloquin Hwy | 4,100 | 414 | 0.21 | 4518 | 452 | 0.23 |
| US 97 | 0.30 mile north of OR 39/US 97 Bus. | 9,400 | 949 | 0.47 | 10359 | 1036 | 0.52 |
| US 97 | On Klamath River Bridge | 4,900 | 495 | 0.25 | 5400 | 540 | 0.27 |
| OR 58 | 0.01 mile south of Crescent Lake Rd | 4,000 | 404 | 0.20 | 4408 | 441 | 0.22 |
| OR 58 | 0.45 mile northwest of US 97 | 1,900 | 192 | 0.10 | 2094 | 209 | 0.10 |
| OR 138 | 0.10 mile west of US 97 | 1,400 | 141 | 0.07 | 1543 | 154 | 0.08 |
| OR 62 | west boundary of Crate Lake NP | 530 | 53 | 0.03 | 584 | 58 | 0.03 |
| OR 62 | Chiloquin west city limit | 1,000 | 101 | 0.06 | 1102 | 110 | 0.06 |
| OR 140 | 0.01 west of Dead Indian Rd | 2,300 | 232 | 0.12 | 2535 | 253 | 0.13 |
| OR 140 | 0.06 mile east of OR 39 | 7,000 | 706 | 0.35 | 7714 | 771 | 0.39 |
| OR 140 | 0.01 mile west of Bly Mountain Cutoff | 1,500 | 151 | 0.08 | 1653 | 165 | 0.08 |
| OR 66 | 0.01 mile east of Keno-Worden Rd | 2,900 | 293 | 0.17 | 3196 | 320 | 0.19 |
| OR 66 | 0.01 mile west of US 97 | 12,200 | 1231 | 0.72 | 13444 | 1344 | 0.79 |
| OR 39 | 0.01 mile south of OR 140 | 6,900 | 696 | 0.35 | 7604 | 760 | 0.38 |
| OR 39 | Merrill east city limit | 4,300 | 434 | 0.22 | 4739 | 474 | 0.24 |
| OR 50 | Malin west city limit | 1,400 | 141 | 0.08 | 1543 | 154 | 0.09 |
| OR 70 | Bonanza west city limit | 860 | 87 | 0.05 | 948 | 95 | 0.06 |

*0.51% per year growth rate

**30th HV estimated at 10% of the AADT

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