3.4 SOCIOECONOMICS

3.4.1 Regulatory Setting
The National Environmental Policy Act of 1969 as amended (NEPA), established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 USC 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion and the availability of public facilities and services.

The framework provided by Executive Order 12898 on Environmental Justice and the U.S. Department of Transportation (DOT) Order (5610.2) addresses only minority populations and low-income populations. However, concentrations of the elderly, children, disabled, and other populations protected by Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes will also be discussed.

This Tier 2 FEIS addresses all impacts (to the human and natural environments) and describes any mitigating protections or benefits that will be provided by federal or state law, or as part of the action. In particular, the Age Discrimination Act of 1975, as amended (42 USC 6101 et seq.), prohibits discrimination on the basis of age in programs receiving federal financial assistance, and Section 504 of the Rehabilitation Act of 1973 (29 USC 794 and 49 CFR Part 27.7) protects handicapped persons.

3.4.2 Affected Environment
This section describes existing socioeconomic conditions in the project area, including demographic characteristics, neighborhoods and businesses, community facilities and public services, and economic conditions.

3.4.2.1 Demographic Characteristics
Demographic trends and estimates are useful for understanding the communities in the project area. The demographic information presented in this section includes population and growth, age of population, race and ethnicity, household income, low-income households, housing tenure, and employment/unemployment.

The Tier 2 FEIS includes demographic data from the 2010 U.S. Census and the 2005-2009 American Community Survey (ACS). The Tier 2 DEIS cited 2000 Census data, as that was the most current demographic data available at the level of geography necessary for detailed analysis at that time. The releases of preliminary 2010 Census results in early 2011 and ACS results in late 2010 have allowed the project to utilize data that are more recent for the purposes of assessing project impacts to the socioeconomic environment.

Because the 2010 Census no longer includes questions regarding income, the project team reviewed the ACS data to provide more recent income information than is available from the 2000 Census. The 2005-2009 ACS five-year estimates are the first data release available at the census tract level since the survey’s inception in 2005. The 2005-2009 ACS reports income characteristics based on data collected from January 1, 2005, to December 31, 2009. The ACS is not analogous to a population count like the census; rather, it provides estimates based on survey responses and is meant to replace the census long-form questionnaire. Beginning with the 2010 Census, all census
questionnaires use a short form, only requesting basic demographic information (number, relation, age, sex, and race/ethnicity of residents in each household) and not income information.

While information retrieved from the 2000 Census for the Tier 2 DEIS was reported at the census block group unit of geography, income data are only available at the census tract level, which is one unit of geography larger than the block group—that is, several census block groups make up each census tract. It was decided to use the same geographic unit for income and other demographic data to be consistent (i.e., census tracts). Thus, the following seven census tracts make up the census study area for socioeconomics: 301.01, 302.01, 302.02, 303.01, 309, 321.03, and 322 (see Figure PA 3.4-1). The tables and figures in this section are updated to reflect the latest information currently available.

In addition to census data, ODOT right-of-way staff conducted a survey of residents, potentially displaced and relocated by the Preferred Alternative, during June and July 2007. Staff collected information on home ownership, household size, gender, race, household income, and household special needs.

### 3.4.2.2 Population and Household Trends

In 2010, the population of Yamhill County was 99,193 (see Table PA 3.4-1) with 55,007 people living within the census study area. Approximately one in five county residents lived in Newberg, whose year 2010 population was 22,068, while Dayton and Dundee had populations of 2,534 and 3,162, respectively.

| Table PA 3.4-1. Population and Households (2000-2010) |
|-----------------|-----------|-----------------|-----------------|
| **Population**  | 2000      | 2010            | 2000-2010 Change |
| Census Study Area | N/A<sup>a</sup> | 55,007 | N/A |
| Dayton          | 2,119     | 2,534           | 19.6% |
| Dundee          | 2,598     | 3,162           | 21.7% |
| Newberg         | 18,064    | 22,068          | 22.2% |
| Yamhill County  | 84,992    | 99,193          | 16.7% |
| **State of Oregon** | **3,421,399** | **3,831,074** | **12.0%** |

| **Households**  | 2000      | 2010            | 2000-2010 Change |
| Census Study Area | N/A<sup>a</sup> | 17,344 | N/A |
| Dayton          | 641       | 797            | 24.3% |
| Dundee          | 921       | 1,136          | 23.3% |
| Newberg         | 6,099     | 7,736          | 26.8% |
| Yamhill County  | 28,732    | 34,726         | 20.9% |
| **State of Oregon** | **1,333,723** | **1,518,938** | **13.9%** |


<sup>a</sup> The census study area changed in size due to redrawing of the census tract boundaries for the 2010 census, thus these are not comparable.
Population growth in the study area in the 2000s was more rapid than for Oregon as a whole. From 2000 to 2010, the state grew at an overall rate of 12 percent, while the municipalities in the study area grew at a combined rate of over 21 percent. Newberg's population grew at a slightly faster rate than did the populations of the smaller cities of Dundee and Dayton. Like population growth, household growth in the project area cities outpaced the county and state from 2000 to 2010. The number of households in the cities grew at an overall rate of over 26 percent.

The State of Oregon’s Office of Economic Analysis estimates that population in Oregon will grow to 5,154,793 persons by 2035 (Oregon Office of Economic Analysis, April 2004). The annual state growth rate is anticipated to range from 1.1 to 1.3 percent. Yamhill County is forecast to grow at a slightly faster annual rate than the state, ranging from 1.6 to 1.9 percent. By 2035, Yamhill County is projected to have 153,549 persons. Net migration will account for much of the increase in the county's population (approximately 75 percent). Past trends in growth are expected to remain the same for the three cities, thus the cities will grow at a slightly faster pace than the state.

### 3.4.2.3 Age Distribution

Age distributions in 2010 indicate that Dayton has the most children (18 years and younger) in the project area, with over 35 percent, followed by Dundee (30.4 percent), Newberg (29.7 percent), Yamhill County (28.5 percent), the census study area (27.6 percent) and the state (25.4 percent)(see Table PA 3.4-2).

Newberg and Dayton's median age (32.8) was notably younger than those of Dundee (36.7) and Yamhill County (36.8). The median ages of the county, cities and census study area had a lower median age than the state by at least 1.5 years.

The elderly (those 65 years of age and older) make up a smaller percentage of the population in all three cities and the census study area, compared to the county and statewide average of about 13 to 14 percent. Of the cities in the study area, Newberg has the highest percentage of elderly persons (12 percent). The study area population has a slightly older median age than Dayton or Newberg, since the census tracts include rural areas of Yamhill County, which generally have a higher percentage of elderly people than in those cities.
### Table PA 3.4-2. Age Distribution (2010)

<table>
<thead>
<tr>
<th>Age</th>
<th>Census Study Area</th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 and below</td>
<td>27.6%</td>
<td>35.2%</td>
<td>30.4%</td>
<td>29.7%</td>
<td>28.5%</td>
<td>25.4%</td>
</tr>
<tr>
<td>19–64</td>
<td>61.8%</td>
<td>54.7%</td>
<td>59.4%</td>
<td>58.3%</td>
<td>58.1%</td>
<td>60.7%</td>
</tr>
<tr>
<td>65 and over</td>
<td>10.6%</td>
<td>10.1%</td>
<td>10.2%</td>
<td>12.0%</td>
<td>13.4%</td>
<td>13.9%</td>
</tr>
<tr>
<td>Median Age</td>
<td>34.7</td>
<td>32.8</td>
<td>36.7</td>
<td>32.8</td>
<td>36.8</td>
<td>38.4</td>
</tr>
</tbody>
</table>


### 3.4.2.4 Race and Ethnicity

In 2010, racial minorities accounted for over 20 percent of Dayton’s population, a much larger percentage than found in the other project area cities, Yamhill County, or the state as a whole (see Table PA 3.4-3). The percentage of minorities in all of these other areas was smaller (about 15 percent in the census study area, about 9 percent in Dundee, over 14 percent in Newberg and Yamhill County, and over 16 percent in the state).

Yamhill County, Dundee, Dayton, Newberg and the census study area had lower percentages of African Americans than the statewide average of 1.8 percent, ranging from 0.4 percent in Dundee to 0.9 percent in the census study area. The percentage of American Indians was higher in the county (1.5 percent) as compared to the state (1.4 percent), but the other geographic areas had lower percentages of this population group. The Asian population in the census study area, cities, and county ranged from 0.9 percent in Dayton to 2.4 percent in the census study area. The state had the highest percentage of Asians at 3.7 percent.

In 2010, the percentage of Hispanic or Latinos ranged from 10.4 percent in Dundee to 29.9 percent in Dayton. In the census study area, the percentage of Hispanics or Latinos was 14.3 percent. See the Newberg Dundee Bypass Tier 2 Final Environmental Justice Technical Memorandum, ODOT 2012, for a more detailed analysis of race and ethnicity by census tract.

### Table PA 3.4-3. Race and Ethnicity (2010)

<table>
<thead>
<tr>
<th>Race</th>
<th>Census Study Area</th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>46,893</td>
<td>2,006</td>
<td>2,885</td>
<td>18,966</td>
<td>84,758</td>
<td>3,204,614</td>
</tr>
<tr>
<td>Percentage White</td>
<td>85.2%</td>
<td>79.2%</td>
<td>91.2%</td>
<td>85.9%</td>
<td>85.4%</td>
<td>83.6%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>509</td>
<td>13</td>
<td>12</td>
<td>168</td>
<td>872</td>
<td>69,206</td>
</tr>
<tr>
<td>Percentage Black or African-American</td>
<td>0.9%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.8%</td>
<td>0.9%</td>
<td>1.8%</td>
</tr>
<tr>
<td>American Indian and Alaska Native</td>
<td>428</td>
<td>26</td>
<td>38</td>
<td>172</td>
<td>1,520</td>
<td>53,203</td>
</tr>
<tr>
<td>Percentage American Indian and Alaska Native</td>
<td>0.8%</td>
<td>1.0%</td>
<td>1.2%</td>
<td>0.8%</td>
<td>1.5%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

**Race:** For the purposes of the Census, the Office of Management and Budget has created categories that are used to describe race: groups to which individuals belong, identify with, or belong to in the eyes of the community. They do not denote scientific definitions or anthropological origins.

**Ethnicity:** “Hispanic or Latino” refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.
# Table PA 3.4-3. Race and Ethnicity (2010)

<table>
<thead>
<tr>
<th></th>
<th>Census Study Area</th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1,336</td>
<td>24</td>
<td>43</td>
<td>486</td>
<td>1,474</td>
<td>141,263</td>
</tr>
<tr>
<td>Percentage Asian</td>
<td>2.4%</td>
<td>0.9%</td>
<td>1.4%</td>
<td>2.2%</td>
<td>1.5%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Native Hawaiian and Other Pacific Islander</td>
<td>237</td>
<td>0</td>
<td>5</td>
<td>38</td>
<td>172</td>
<td>13,404</td>
</tr>
<tr>
<td>Percentage Native Hawaiian and Other Pacific Islander</td>
<td>0.4%</td>
<td>0%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Other Race</td>
<td>3,726</td>
<td>372</td>
<td>97</td>
<td>1,553</td>
<td>7,137</td>
<td>204,625</td>
</tr>
<tr>
<td>Percentage Other Race</td>
<td>6.8%</td>
<td>14.7%</td>
<td>3.1%</td>
<td>7.0%</td>
<td>7.2%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1,878</td>
<td>93</td>
<td>82</td>
<td>685</td>
<td>3,260</td>
<td>144,759</td>
</tr>
<tr>
<td>Percentage Two or More Races</td>
<td>3.4%</td>
<td>3.7%</td>
<td>2.6%</td>
<td>3.1%</td>
<td>3.3%</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic/Non-Latino</td>
<td>47,143</td>
<td>1,776</td>
<td>2,833</td>
<td>19,083</td>
<td>84,601</td>
<td>3,381,012</td>
</tr>
<tr>
<td>Percentage Non-Hispanic/Non-Latino</td>
<td>85.7%</td>
<td>70.1%</td>
<td>89.6%</td>
<td>86.5%</td>
<td>85.3%</td>
<td>88.3%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>7,864</td>
<td>758</td>
<td>329</td>
<td>2,985</td>
<td>14,592</td>
<td>450,062</td>
</tr>
<tr>
<td>Percentage Hispanic or Latino</td>
<td>14.3%</td>
<td>29.9%</td>
<td>10.4%</td>
<td>13.5%</td>
<td>14.7%</td>
<td>11.7%</td>
</tr>
</tbody>
</table>


## 3.4.2.5 Household Income

As shown in the graphic to the right and in Table PA 3.4-4, the 2009\(^4\) median household income for Yamhill County was $51,191, with about 67 percent of households earning at least $35,000. Newberg and Dayton were very similar to the county with median incomes of $49,475 and $51,750, respectively. Dundee’s median household income was significantly higher than the other areas with a large percentage (over 40 percent) earning $75,000 or more. In the middle, in terms of income, was the census study area with median incomes of close to $57,000.

\(^4\) The 2005-2009 ACS 5-year estimates (characterized in this section as 2009 data) are based on data collected by the ACS between January 2005 and December 2009. The 5-year estimates are: published for small geographic areas; represent the average characteristics over the 5-year period of time; have larger sample size than the 1-year and 3-year estimates; and are less current than the 1-year and 3-year estimates.
Table PA 3.4-4. Household Income (2009)

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Census Study Area</th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;$15,000</td>
<td>9.1%</td>
<td>5.6%</td>
<td>5.5%</td>
<td>13.3%</td>
<td>12.3%</td>
<td>13.1%</td>
</tr>
<tr>
<td>$15,000 - $24,999</td>
<td>7.8%</td>
<td>13.1%</td>
<td>3.1%</td>
<td>9.9%</td>
<td>10.1%</td>
<td>11.4%</td>
</tr>
<tr>
<td>$25,000 - $34,999</td>
<td>8.1%</td>
<td>10.4%</td>
<td>5.5%</td>
<td>9.0%</td>
<td>10.5%</td>
<td>11.3%</td>
</tr>
<tr>
<td>$35,000 - $49,999</td>
<td>15.0%</td>
<td>19.6%</td>
<td>13.1%</td>
<td>18.7%</td>
<td>16.0%</td>
<td>15.1%</td>
</tr>
<tr>
<td>$50,000 - $74,999</td>
<td>20.7%</td>
<td>22.0%</td>
<td>32.4%</td>
<td>20.9%</td>
<td>20.4%</td>
<td>19.8%</td>
</tr>
<tr>
<td>$75,000 or More</td>
<td>39.3%</td>
<td>29.2%</td>
<td>40.4%</td>
<td>28.0%</td>
<td>30.7%</td>
<td>29.3%</td>
</tr>
</tbody>
</table>

Median Household Income

<table>
<thead>
<tr>
<th></th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>$56,975</td>
<td>$51,750</td>
<td>$65,701</td>
<td>$49,475</td>
<td>$51,191</td>
<td>$49,033</td>
</tr>
</tbody>
</table>


According to the right-of-way survey of 2007, the potentially displaced households had the following income characteristics in 2007: less than $15,000, about 8 percent; $15,000-$24,999, about 12 percent; $25,000-$34,999, about 24 percent; $35,000-$49,999, about 26 percent; $50,000-$74,999, about 21 percent; $75,000 or more, 10 percent.

The income level used to define low income in 2009 was $22,050. In the study area, low-income populations ranged from lows of approximately 3 percent in Dundee to a high of 10 percent in Dayton and 12 percent in Newberg. Low-income households are also addressed in Section 3.5, Environmental Justice, in this chapter.

3.4.2.6 Housing

In 2010, there were 34,726 housing units in Yamhill County (see Table PA 3.4-5). Newberg, Dundee, and Dayton had 7,736, 1,136, and 797 units, respectively. Newberg had the highest percentage of renter-occupied housing units at 37 percent, which was a higher percentage than Yamhill County and close to the state’s rental percentage. This likely reflects the presence of George Fox University students. In Dundee, approximately 19 percent were occupied by renters in 2010. Rental units made up about 22 percent of the total housing units in Dayton. In the census study area, approximately 33 percent of the 19,357 units are rentals.

According to the right-of-way survey of 2007, between about 64 and 68 percent of homes potentially relocated by the project are owner-occupied, and between about 32 and 36 percent are renter-occupied. An analysis of available housing (homes for sale) matching the price range of owner-occupied dwellings potentially relocated by the project was conducted as part of the right-of-way study and is described in Section 3.3, Right-of-Way, in this chapter.

Source: Newberg Dundee Bypass Tier 2 Final Socioeconomics Technical Memorandum, ODOT 2012.
Table PA 3.4-5. Housing Tenure (2010)

<table>
<thead>
<tr>
<th></th>
<th>Census Study Area</th>
<th>Dayton</th>
<th>Dundee</th>
<th>Newberg</th>
<th>Yamhill County</th>
<th>State of Oregon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Housing Units</td>
<td>19,357</td>
<td>797</td>
<td>1,136</td>
<td>7,736</td>
<td>34,726</td>
<td>1,518,938</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>13,008</td>
<td>619</td>
<td>925</td>
<td>4,865</td>
<td>23,533</td>
<td>944,485</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>6,349</td>
<td>178</td>
<td>211</td>
<td>2,871</td>
<td>11,193</td>
<td>574,453</td>
</tr>
<tr>
<td>% Units Renter Occupied</td>
<td>33%</td>
<td>22%</td>
<td>19%</td>
<td>37%</td>
<td>32%</td>
<td>38%</td>
</tr>
</tbody>
</table>


3.4.2.7 Neighborhoods and Businesses

The neighborhoods and businesses located in the project area are discussed below. The businesses were identified through field survey conducted in 2007. The discussion is by segment for easier identification of business locations. Phase 1 of the Preferred Alternative (Phase 1) will be located within Segments 3, 4 and 5 and portions of Segments 2 and 6.

Segments 1 and 2

The commercial uses near the Dayton Interchange include a recreational vehicle (RV) sales business, a farm supply company, a berry market, and a battery vendor. Segment 1 runs parallel to the existing Oregon 99W and the railroad, northeast through an agricultural and large-lot residential neighborhood in unincorporated Yamhill County. There are two large farms in this area (about 550 acres and 850 acres), each employing 5 to 80 employees, depending upon the time of year. One farm includes six residences and some farm worker housing. There are also several other farm operations in this area.

Segment 2 crosses into Dundee between existing Oregon 99W and the Willamette River. This area includes agricultural businesses, a mini-storage business and the Newberg Gun Club.

Segments 3 and 4

Segment 3 crosses the Dundee urban growth boundary (UGB) between Oregon 99W and the Willamette River. The land is currently in agricultural use. Heading northeast, Segment 4 crosses out of Dundee and into unincorporated Yamhill County. This area is sparsely inhabited and consists of large undeveloped tracts and agricultural businesses. The East Dundee Connector Road crosses a large-lot rural neighborhood, and businesses adjacent to Oregon 99W include a nursery and a vineyard office and tasting room.

Segments 5 and 6

Segments 5 and 6 are located in the City of Newberg. In southern Newberg, Segment 5 runs just south of Scott Leavitt Park and north of SP Newsprint. The neighborhood to the north of the project area consists largely of older single-family homes. Census and assessors’ data indicate that this area has a mix of owner- and renter-occupied units, some of which house low-income and minority populations.

A wastewater treatment plant, the Avalon Park manufactured home park, and several businesses are located in Segment 6. The Springbrook Estates Manufactured Home Park, the Nut Tree Ranch and the Mountain View Mobile Home Park are located along Springbrook Road in Segment 6. There are a number of businesses in this area, mostly located near Springbrook Road’s intersection with Oregon 99W and Oregon 219. At the north end of Segment 6 is a Fred Meyer store, a drive-in movie theater and a small mall.
with a restaurant and pub. At the south end are a mirror and glass shop, a paintball games equipment supplier, a vineyard/winery, a trailer service and sales business, a fitness workout gym, and a trailer/truck rental outlet.

**Segment 7**

In Segment 7 the Bypass will pass the eastern side of Springbrook Estates Manufactured Home Park and the Portland Community College (PCC) campus. PCC has built a satellite campus on the parcel of land south of the Oak Meadows neighborhood. Moving north, the segment runs between Providence Newberg Medical Center, the Chehalem Parks and Recreation Department (CPRD) Golf Course, and Arbor Oaks, an assisted living facility.

**Segment 8.1**

Segment 8.1 joins existing Oregon 99W near Rex Hill Vineyards and moves northeast through Newberg and Yamhill County. Businesses include small- to medium-size farms and vineyards.

**Segment 8.1A**

Segment 8.1A is partially in Washington County. Businesses in this segment include small- to medium-size farms and vineyards. There are large-lot residential neighborhoods at the top of Rex Hill on the south side of Oregon 99W.

**3.4.2.8 Community Facilities and Public Services**

Important community facilities and public services support community livability and social and civil infrastructure. Civic features include schools, fire stations, parks, and government institutions such as the post office and city hall. Selected public facilities of Newberg, Dundee, Dayton, and Yamhill County are shown on Figure PA 3.4-2.

Oregon 99W serves as “Main Street” for both Newberg and Dundee. The majority of Newberg’s community facilities are clustered in the city center and along Oregon 99W, including several public schools, George Fox University, City Hall, the post office, a fire station, and Hoover Park. All of these are north of the project area. Closer to the project area, in southern Newberg are Scott Leavitt Park, which serves a lower- to moderate-income residential community, and Edwards Elementary School. In eastern Newberg, Spring Meadow Park is adjacent to the project area.

In Dundee, a fire station is located on Oregon 99W, while the remainder of the city’s community facilities, including Dundee Elementary School, City Hall, and the post office, are located west of Oregon 99W. There are no community facilities located adjacent to the project area.

In Dayton, the City Hall, post office, Dayton High School, and a city park are located within the city’s small downtown, but outside of the project area. Near the project area are Dayton Landing and Alderman Park, which are discussed in Section 3.7, Parks and Recreational Facilities.

There are several Yamhill County community facilities near the project area. Located on the Willamette River, south of Newberg and the project area, is Rogers Landing, a county park, and bordering southwest Newberg is Ewing Young Park. Near the northern end of Springbrook Road is White Oak Park.
3.4.2.9 Economic Conditions

Understanding the economic conditions in the study area provides a foundation for evaluating project impacts on businesses, families, and individuals. This section describes the types of employment and businesses in the study area by industry sector. The section also presents the unemployment rates for residents of the study area.

Yamhill County

Once primarily an agricultural area, Yamhill County has become more economically diverse. As of 2011, the county had approximately 30,534 active jobs covered by unemployment insurance (Oregon Employment Department 2011). This figure does not include jobs for self-employed people or those not covered by unemployment insurance, so the total number of all jobs in Yamhill County and the project area cities is greater than 30,534.

In 2009, 44,430 residents of Yamhill County were employed (American Community Survey 2009). Of these, 11,666 people were Newberg residents, accounting for over 25 percent of the county residents that were employed. County residents were mostly employed in manufacturing, education, health and social services, and retail jobs, which made up almost 50 percent of the employment (see Table PA 3.4-6). There were 1,615 businesses in the county in 2007 with the retail trade and health sectors having the highest number of establishments at 282 and 241 businesses, respectively (see Table PA 3.4-6).

The unemployment rate in Yamhill County as of August 2011 was 9.2 percent, while Oregon’s rate was similar at 9.6 percent (Oregon Employment Department 2011). Since 2009, unemployment rates in Oregon have fluctuated between 9.6 and 11.6 percent, a trend that is likely to continue for the short term (Oregon Employment Department 2011).

With approximately 255 vineyards and approximately 165 wineries in 2010, Yamhill County is Oregon’s premier wine region with the largest concentration of wineries of any county in Oregon, and the county’s economy reflects this. Of the wineries in Yamhill County, approximately 80 are in the Newberg-Dundee-Dayton area. Yamhill County wineries processed about 44 percent of the total state grape harvest in 2007. A July 2011 Oregon Wine Board study estimated that the Oregon wine industry is worth $2.7 billion annually to the state (Full Glass Research 2011). The study also noted that from 2000 to 2010, there was a 58 percent increase in the number of Oregon wineries, with a near doubling of grape acreage and winery sales volume. While there are no such industry estimates specific to Yamhill County, the wine industry is clearly an important part of the local and regional economy. One estimate of total direct spending for tourism in Yamhill County cites an increase from $24.4 million in 1991 to $76.1 million in 2010.5

Table PA 3.4-6. Employed Residents by Industry Sector (2009)

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Dayton</th>
<th>% of Total</th>
<th>Dundee</th>
<th>% of Total</th>
<th>Newberg</th>
<th>% of Total</th>
<th>Yamhill County</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, mining, etc.</td>
<td>78</td>
<td>6.4</td>
<td>18</td>
<td>1.1</td>
<td>210</td>
<td>1.8</td>
<td>2,108</td>
<td>4.7</td>
</tr>
<tr>
<td>Construction</td>
<td>105</td>
<td>8.6</td>
<td>102</td>
<td>6.3</td>
<td>1,307</td>
<td>11.2</td>
<td>3,726</td>
<td>8.4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>305</td>
<td>24.9</td>
<td>282</td>
<td>17.5</td>
<td>1,788</td>
<td>15.3</td>
<td>7,181</td>
<td>16.2</td>
</tr>
</tbody>
</table>

### Table PA 3.4-6. Employed Residents by Industry Sector (2009)

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Dayton % of Total</th>
<th>Dundee % of Total</th>
<th>Newberg % of Total</th>
<th>Yamhill Countya % of Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale trade</td>
<td>56</td>
<td>4.6</td>
<td>60</td>
<td>3.7</td>
<td>471</td>
</tr>
<tr>
<td>Retail trade</td>
<td>138</td>
<td>11.3</td>
<td>217</td>
<td>13.4</td>
<td>1,431</td>
</tr>
<tr>
<td>Transportation, warehousing, utilities</td>
<td>23</td>
<td>1.9</td>
<td>81</td>
<td>5.0</td>
<td>368</td>
</tr>
<tr>
<td>Information</td>
<td>4</td>
<td>0.3</td>
<td>55</td>
<td>3.4</td>
<td>187</td>
</tr>
<tr>
<td>Finance, insurance, real estate</td>
<td>69</td>
<td>5.6</td>
<td>106</td>
<td>6.6</td>
<td>667</td>
</tr>
<tr>
<td>Professional, management, administrative, etc.</td>
<td>109</td>
<td>8.9</td>
<td>141</td>
<td>8.7</td>
<td>787</td>
</tr>
<tr>
<td>Educational, health and social services</td>
<td>186</td>
<td>15.2</td>
<td>304</td>
<td>18.8</td>
<td>2,762</td>
</tr>
<tr>
<td>Arts, entertainment, food services</td>
<td>52</td>
<td>4.2</td>
<td>17</td>
<td>1.1</td>
<td>762</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>52</td>
<td>4.2</td>
<td>142</td>
<td>8.8</td>
<td>495</td>
</tr>
<tr>
<td>Public administration</td>
<td>48</td>
<td>3.9</td>
<td>89</td>
<td>5.5</td>
<td>431</td>
</tr>
<tr>
<td><strong>Total Employed Residents</strong>b</td>
<td>1,225</td>
<td>100</td>
<td>1,614</td>
<td>100</td>
<td>11,666</td>
</tr>
</tbody>
</table>


a Yamhill County includes the incorporated cities of Dayton, Dundee, and Newberg, plus the unincorporated portions of Yamhill County.
b Percent totals may not equal 100.0 percent due to rounding of individual numbers.

While Yamhill County includes a variety of job sources, many people living in the project area commute north to Washington and Multnomah Counties or south to Marion County to their place of work. The 2007 Economic Census includes Yamhill County in the Portland Metropolitan Service Area, because approximately 36 percent of its workforce commutes out of the county, mostly to Washington and Multnomah Counties.

**Newberg**

Newberg serves as the commercial center for the eastern portion of Yamhill County's primarily agricultural economy. In 2009, 11,666 of Newberg’s residents were employed which was about 25 percent of the county’s total employed persons. The largest employers in Newberg are A-Dec Inc., SP Newsprint Co., Current Electronics Inc., EFTC Northwest, Newberg Public Schools, George Fox University, and Providence Newberg Medical Center (Oregon Business Development Department 2010). Most Newberg residents were employed in the manufacturing and education and human health services sectors in 2010, at 15.3 percent (for manufacturing) and 23.7 percent (for education and human health services), respectively (see Table PA 3.4-6).

Newberg has 425 business establishments with the majority of businesses in the health care, retail trade, and accommodation and food services sectors (see Table PA 3.4-7). Newberg’s attraction as a tourist destination is evident in new restaurants, bed and
breakfast establishments, art galleries, and gift shops. While Oregon 99W provides some local retail opportunities, Newberg has noted that residents drive to the Portland-Vancouver metropolitan area for some shopping trips.

### Table PA 3.4-7. Business Establishments by Industry Sector (2007)

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Newberg</th>
<th>% of Total</th>
<th>Yamhill County&lt;sup&gt;a&lt;/sup&gt;</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>49</td>
<td>12</td>
<td>205</td>
<td>13</td>
</tr>
<tr>
<td>Wholesale Trade</td>
<td>22</td>
<td>5</td>
<td>84</td>
<td>5</td>
</tr>
<tr>
<td>Retail trade</td>
<td>66</td>
<td>16</td>
<td>282</td>
<td>17</td>
</tr>
<tr>
<td>Information</td>
<td>9</td>
<td>2</td>
<td>29</td>
<td>2</td>
</tr>
<tr>
<td>Real estate, rentals, leasing</td>
<td>36</td>
<td>8</td>
<td>117</td>
<td>7</td>
</tr>
<tr>
<td>Professional, scientific, and technical services</td>
<td>44</td>
<td>10</td>
<td>208</td>
<td>13</td>
</tr>
<tr>
<td>Administrative support, waste management, remediation service</td>
<td>15</td>
<td>4</td>
<td>100</td>
<td>6</td>
</tr>
<tr>
<td>Educational services</td>
<td>6</td>
<td>1</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Health care and social assistance</td>
<td>82</td>
<td>19</td>
<td>241</td>
<td>15</td>
</tr>
<tr>
<td>Arts, entertainment, recreation</td>
<td>6</td>
<td>1</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Accommodation and food services</td>
<td>55</td>
<td>13</td>
<td>186</td>
<td>12</td>
</tr>
<tr>
<td>Other services (except public administration)</td>
<td>35</td>
<td>8</td>
<td>124</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Establishments&lt;sup&gt;b&lt;/sup&gt;</strong></td>
<td>425</td>
<td>100</td>
<td>1,615</td>
<td>100</td>
</tr>
</tbody>
</table>


Note: The U.S. Economic Census does not include Dayton (because this census only includes the top 25 cities in size in each state).

a Yamhill County includes the incorporated cities of Dayton, Dundee, and Newberg, plus the unincorporated portions of Yamhill County.

b Percent totals may not equal 100 percent due to rounding of individual numbers.

### Dundee

About 1,614 Dundee residents were employed in 2009 (American Community Survey 2009). Dundee’s employment base is smaller and less diverse than that of Newberg. Dundee’s largest employers are Argyle Winery, Ribbonmasters Inc., Duck Pond Cellars, Sokol Blosser Winery, and Westnut (Oregon Business Development Department 2010). These five employers account for about 15 percent of Dundee’s employment, indicating an employment base dominated by small businesses. Dundee caters to wine country tourists, with several tasting rooms, restaurants, and other wine-related businesses. In 2009, most residents of Dundee were employed in the manufacturing and education and human health service sectors, at 17.5 and 18.8 percent, respectively (see Table PA 3.4-6).

### Dayton

There were 1,225 residents of Dayton that were employed in 2009 (American Community Survey 2009). Dayton’s largest employers were Cascade Steel Rolling Mills Inc., Monrovia Nursery, and Skyline Manufacturing, which together accounted for over 75
percent of the city’s employment base. Dayton does not have many tourist-related businesses.

Similar to Newberg and Dundee, manufacturing and education and human health service sectors employed Dayton residents in 2010, at 24.9 and 15.2 percent, respectively (see Table PA 3.4-6). Agricultural areas throughout the project area, particularly in and around Dayton and Dundee, are characterized by a combination of small-scale farms, many of which operate more like hobby farms than commercial farms, and much larger farms that are often owned or leased as part of larger agricultural operations.

3.4.3 Environmental Consequences

This section discusses the direct and indirect impacts of the No Build and Preferred Alternative on population, housing, neighborhoods, public services and community facilities, income, employment, and businesses. It also includes an analysis of residential and business displacements. A door-to-door survey conducted by ODOT in June and July 2007 and the Newberg Dundee Bypass Tier 2 Final Right-of-Way Technical Memorandum, ODOT 2012, provided the data for the residential displacements.

3.4.3.1 No Build Alternative

Direct Impacts

The No Build Alternative would not have had direct social or economic impacts. There would not have been direct impacts to population including children and elderly persons, housing, income, employment, businesses, neighborhoods, public services, or community facilities.

Indirect Impacts

The No Build Alternative could have resulted in indirect adverse impacts to socioeconomic conditions, because of increased congestion on area roads. Increased congestion on Oregon 99W would have resulted in the following:

- More difficult turning and crossing movements and access to business properties.
- Slower travel times along Oregon 99W.
- Increased wait times at intersections.
- Increased through truck traffic resulting in increased noise levels.
- Greater vehicle idling times resulting in greater impacts to air quality.

Combined, these impacts could have adversely affected businesses in downtown Newberg and Dundee by making these areas less desirable places to visit. This in turn could have adversely affected employment and incomes of people who work for these businesses. Congestion and difficulty in traveling to sites could have adversely impacted community facilities located along Oregon 99W in both Dundee and Newberg, including the city halls, the post offices, Hoover Park, fire stations, and part of George Fox University in Newberg.

Increased congestion on Oregon 99W could have led motorists to take alternate routes. Vehicles may have cut through neighborhoods on local collector roads to avoid Oregon 99W. This action could have reduced neighborhood livability in residential areas by decreasing the safety of residents, increasing traffic noise, and making it harder to access properties.

Local emergency responders could have also needed to use alternate routes to avoid increased traffic on Oregon 99W, or could have experienced increases in response times due to traffic congestion.
3.4.3.2 Preferred Alternative

Direct Impacts

The Preferred Alternative will result in the acquisition of farmland and properties that include businesses and residences. Property acquisition will be about 510 acres throughout the project area (see Table PA 3.4-8). There will also be 101 residential relocations and 26 business relocations. According to the right-of-way survey conducted in 2007, about 29 percent of potentially displaced residents are children (18 years and younger), about 58 percent are between 19 and 64, and about 9 percent are elderly (65 or over). About 4 percent of the respondents would not disclose their age. Additional details on displacements, relocations, and mitigation for displacements can be found in Section 3.3, Right-of-Way, of this chapter.

The acquisition of residential properties and construction of the Preferred Alternative will impact social conditions in several ways. The Bypass itself will skirt along the edge of three neighborhoods (Mill, Springbrook, and Avalon neighborhoods), which could create a barrier to free movement around these neighborhoods. The Bypass will also introduce a visual barrier where elevated structures are built, and there will be increased traffic noise and disruptions in local traffic patterns. All of these conditions can adversely affect community livability. Livability is a social concept where high value is placed on neighborhood features such as safety, aesthetics, relative quietness, ease of access to services, as well as perceived intangibles such as friendliness. Loss of neighborhood livability may cause people to move away and local social groups may be disrupted, particularly in older established neighborhoods.

Table PA 3.4-8. Direct Socioeconomics Impacts by Segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Right-of-Way Impact (acres)a</th>
<th>Business Displacements</th>
<th>Current Employees at Displaced Businesses</th>
<th>Residential Displacements</th>
<th>Parks and Recreation Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>55.1</td>
<td>2</td>
<td>10</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>138.5</td>
<td>2</td>
<td>0c</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>30.8</td>
<td>0</td>
<td>N/A</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>79.9</td>
<td>3</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>49.5</td>
<td>7</td>
<td>9</td>
<td>52</td>
<td>Scott Leavitt Park visual impacts and increased noiseb Ewing Young Park increased noise</td>
</tr>
<tr>
<td>6</td>
<td>53.3</td>
<td>6</td>
<td>28</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>64.6</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>Right-of-way acquisition of 5 acres owned by CPRD</td>
</tr>
<tr>
<td>8.1</td>
<td>25.4</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8.1A</td>
<td>13.1</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>510.2</td>
<td>26</td>
<td>65</td>
<td>101</td>
<td></td>
</tr>
</tbody>
</table>


a Includes local circulation right-of-way.

b Impacts prior to proposed noise barrier mitigation.

c One business is all volunteer and the other business is the cell tower, which has no employees.
Residences lost to acquisition will include owner-occupied homes, manufactured homes, and rental units. About 25 rental units will be displaced. An analysis of available replacement housing within Newberg, Dundee, Dayton, and Lafayette indicates that there is an adequate supply of rental housing for relocation purposes. Acquisition and availability of replacement housing is discussed in more detail in Section 3.3, Right-of-Way, in this chapter.

ODOT will acquire farmland for the Preferred Alternative in various places. In all but two instances in Segment 4, farms will continue to operate, although operations may change slightly. Two of the farms in Segment 4 will no longer be viable after construction of the Preferred Alternative. ODOT reviewed all farm parcel acquisitions as part of the right-of-way analysis and concluded that, except for the two displaced farms, even though farm parcels will be reduced in size or split, or local circulation will change, the primary use of the land as farmland will continue. However, the reduction in farm size will reduce potential farm income (depending on the crop), and there could be some loss of farm employment and local income (there are two permanent and five seasonal jobs associated with properties affected by farmland acquisition). The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Farmland Conversion Impact Rating Forms are included in Appendix C.

Business displacements may or may not result in adverse impacts. If businesses can easily relocate in the general area, then there should be no adverse effect on employment and income generated by those businesses (other than a short-term loss during relocation). Businesses that cannot relocate will be permanently displaced, and there will be a resultant loss of employment and income. Approximately 65 employees will lose their jobs if the displaced businesses are unable to relocate.

In 2007 ODOT interviewed a number of owners of businesses that may be displaced to identify the issues that may be encountered due to the Preferred Alternative. Those interviews identified the impact of the Preferred Alternative to be primarily upon small owner-operator businesses working in a variety of business classes with a limited number of employees.

Business impacts from changes in traffic levels will be both positive and negative. The Bypass will improve accessibility by reducing congestion along Oregon 99W, as well as through traffic to destinations beyond Yamhill County. The Bypass will also reduce truck and auto traffic through the downtown areas, making the downtown areas more attractive to non-motorized travel. Fewer vehicles and easier turning movements will make downtown streets safer. These effects may attract more shoppers to the downtown area. Also, community facilities and services will be easier to reach. Conversely, loss of traffic in the downtown areas will likely have a negative impact on businesses that rely on drive-by traffic.

Acquisition of property for the Preferred Alternative will cause a loss in property tax revenues for Yamhill County and Washington County. Table PA 3.4-9 shows the projected loss of property tax revenue by segment for the Preferred Alternative. Total estimated tax revenue loss (in 2005 dollars) will be about $261,300 for Yamhill County and about $900 for Washington County.6

6 An aggregate property tax figure was used in the analysis of property taxes forgone in Yamhill and Washington Counties. The aggregate figure includes all taxing districts within Yamhill and Washington Counties, including municipal, school, and special service districts.
Table PA 3.4-9. Estimated Annual Tax Revenues Lost by Yamhill County by Segment

<table>
<thead>
<tr>
<th>Segment</th>
<th>Lost Tax Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$2,500</td>
</tr>
<tr>
<td>2</td>
<td>$11,900</td>
</tr>
<tr>
<td>3</td>
<td>$200</td>
</tr>
<tr>
<td>4</td>
<td>$14,000</td>
</tr>
<tr>
<td>5</td>
<td>$160,300</td>
</tr>
<tr>
<td>6</td>
<td>$30,800</td>
</tr>
<tr>
<td>7</td>
<td>$29,400</td>
</tr>
<tr>
<td>8.1</td>
<td>$6,700</td>
</tr>
<tr>
<td>8.1A</td>
<td>$5,500</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$261,300</strong></td>
</tr>
</tbody>
</table>


Note: Changes to the Yamhill County Tax Revenue are losses in annual property tax revenue from property acquisitions, and include local circulation.

The current construction cost estimate for the Preferred Alternative is approximately $574 million, including estimated utility relocation costs, but does not include estimated right-of-way costs. Given these costs, it is estimated that construction of the Preferred Alternative could support about 3,812 temporary construction jobs. This includes about 2,342 direct jobs, 689 indirect jobs, and 781 induced jobs. The Preferred Alternative could also provide local residents with employment opportunities resulting from (1) construction companies’ purchases of supplies, materials, and services for the Preferred Alternative (indirect job impacts), and (2) construction workers’ and other employees’ purchases of consumer/household goods and services (induced job impacts). These job impacts could be expected to dissipate relatively quickly following the end of the construction period (Newberg Dundee Bypass Tier 2 Final Socioeconomics Technical Memorandum, ODOT 2012).

**Indirect Impacts**

Much of the land acquired for the Bypass is currently farmland, although some of this land is identified for urban development in local jurisdiction comprehensive plans. This loss of farmland will reduce farm-generated income and could negatively impact farm employment, resulting in loss of jobs (potentially two permanent and five seasonal jobs). Some of these jobs are likely to employ minority workers.

The displacement of 26 businesses could have a slight adverse impact on employment and income in the project area. The businesses being displaced are generally small businesses with a limited number of employees. These types of businesses tend to be flexible in their business site requirements and their ability to adjust their business models to accommodate changes in location. The 26 businesses make up about 0.003 percent of the businesses in the county.

The Bypass and its improved regional traffic flow will make driving to Spirit Mountain Casino and the Oregon Coast easier for motorists coming from the Portland-Vancouver area.

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7 Construction cost is in 2015 dollars.

8 The IMPLAN input-output model was used to determine job impacts from construction.
metropolitan area. This has the potential to increase visits to the casino and coast, which could indirectly boost employment and income in those areas.

**Direct and Indirect Impacts For Specific Locations and for Local Circulation**

The following sections discuss direct and indirect impacts related to specific locations and for local circulation in the Preferred Alternative. The locations are discussed by segment for easier identification. Note that ODOT has started to acquire some property for the Bypass and those acquisitions are included in the impacts discussed below.

**Segment 1**

**Direct Impacts**

In Segment 1, the Preferred Alternative alignment will parallel the south side of Willamette and Pacific Railroad’s (WPRR) corridor and will require acquisition of about 55 acres of right-of-way, most of it farmland. Farms in this area vary in size from 11 acres to 550 acres. The railroad right-of-way generally functions as the boundary separating larger farm operations to the south of the WPRR corridor from smaller farm operations between Oregon 99W and the railroad. Two businesses will be displaced in this area. These businesses are a small retail business and a small industrial business using existing industrial structures.

Response time for emergency responders to the Dayton UGB north of the Yamhill River on the new bridge over the river will be about the same travel time and distance as for the No Build Alternative.

**Indirect Impacts**

The displacement of the two businesses will have an adverse impact on employment and income in the project area if the businesses are not able to relocate in the Dayton area.

**Segment 2**

**Direct Impacts**

In Segment 2, the Preferred Alternative will parallel the south side of the WPRR and will require acquisition of about 138 acres of right-of-way, most of it farmland. The size of farm parcels in this area varies from about 2 acres to over 100 acres. The railroad right-of-way generally functions as the boundary separating larger farm operations to the south of the WPRR corridor from smaller farm operations between Oregon 99W and the railroad. The Bypass will divide four parcels in the northern part of the segment.

There are four owner-occupied residential displacements and two business displacements. The business displacements include a cell phone tower and the Newberg Gun Club. The Bypass was moved to the northwest, outside of the Corridor, to minimize impacts to the Newberg Gun Club building; however, a portion of the existing outdoor shooting range will be acquired for the Bypass. It may be possible for the gun club to change the orientation of the shooting range and purchase adjacent property to maintain their shooting range. However, for the purposes of this Tier 2 FEIS the gun club is considered a total displacement.

The realignment of Fulquartz Landing Road over the Bypass connecting to Oregon 99W will not increase response times for emergency responders coming from Dayton or Dundee to calls on Fulquartz Landing Road east of the Bypass. There will be no impacts to any community facilities in this area.

**Indirect Impacts**

The displacement of the two businesses will have no adverse impact on employment and income in the project area. The cell phone tower will be moved and continue in operation
in the area and will have no effect on employment. The Newberg Gun Club is a volunteer organization and has no employees.

**Segment 3**

**Direct Impacts**

In Segment 3, land that will be acquired for the Preferred Alternative is currently being used as farmland. The size of the three farm parcels varies from about 43 acres to over 76 acres. The Bypass will divide all three parcels; however the properties will still be usable for farming business. Thus, there will be no loss of farm employment. These parcels are inside Dundee’s UGB and planned for future urban development.

The Preferred Alternative will result in the acquisition of about 31 acres. There will be no displacements of any businesses or housing units and no impacts to community facilities.

An overcrossing at 8th Street will provide a route over the Bypass connecting downtown Dundee and areas between the Bypass and the Willamette River.

**Indirect Impacts**

The Bypass will create a barrier between Dundee and vacant land to the southeast (within the UGB). This could make the vacant land between the Bypass and the Willamette River less desirable for development or could impact how new housing develops in these two areas, including housing densities and/or ratios of single-family to multifamily dwelling units.

**Segment 4**

**Direct Impacts**

The Preferred Alternative will result in about 80 acres of property acquisition, including farmland, businesses, and homes. The farms range in size from about 6 acres to 270 acres. Columbia Empire Farms operates the largest farm (Dundee Farm, about 270 acres) within Segment 4.

It is estimated that there will be 13 displacements in Segment 4 due to the Preferred Alternative: seven owner-occupied residences, three renter-occupied residences, and three businesses. This will have a negligible adverse impact on housing and rental units since it will not cause a major change in the number of housing or rental stock units. The business displacements are an agricultural business with a vineyard office and tasting room, a garden supply store, and a business that is part of a farm operation. Two farm operations associated with the agricultural businesses will be displaced because the resulting parcels will be too small to be viable for agricultural use. The Bypass passes between, rather than through, farm fields that are a part of Columbia Empire Farms' 270-acre agricultural operation and includes an overpass to connect Columbia Empire Farms farm parcels located on each side of the Bypass.

Local road changes in Segment 4 under the Preferred Alternative are designed to reestablish some of the local connectivity that will be lost by construction of the East Dundee Connector Road. This could help to maintain the community cohesion in this area. There will be no impacts to community facilities in this segment.

The Dundee Fire Department noted that the neighborhood to the south and east of the connector road intersection with Oregon 99W generates a high number of calls. They expressed concern that traffic signals on Oregon 99W at the East Dundee Connector Road and relocated Fox Farm Road/Dayton Avenue could delay response times, as Dundee Fire vehicles do not have Opticon™ (traffic signal preemption equipment).
**Indirect Impacts**

The displacement of the three businesses will have an adverse impact on employment and income in the project area if they are not able to relocate in the Newberg or Dundee area. The East Dundee Connector Road and its intersection with Oregon 99W could potentially make development around the intersection more appealing, thus shifting development away from downtown Dundee to the northeast. Cluster development of businesses around interchanges typically occurs because they are desirable high-traffic locations. However, access management restrictions, local land use actions, and the Interchange Area Management Plan (IAMP) for the East Dundee Interchange will minimize this impact and help to maintain the integrity of the downtown Dundee business district (see Section 3.2, Land Use, in this chapter for a discussion of IAMPs).

**Segment 5**

**Direct Impacts**

In Segment 5, the Preferred Alternative will result in the acquisition of about 50 acres of property and 7 business and 52 housing displacements: 33 owner-occupied residences, 19 renter-occupied residences. There is one farm parcel in the western part of this segment, which is part of the farm business displaced in Segment 4.

The loss of residential units will be concentrated in the Mill neighborhood located in south Newberg north of SP Newsprint as shown in Figure 3.5-5. The Preferred Alternative will displace residential units on 11th Street between Columbia Street and Wynooski Road, but 11th Street will remain open to traffic. This neighborhood has a low-income population and a minority population that are of greater proportion than for Yamhill County (based on 2010 census tract data). See Section 3.5, Environmental Justice, of this chapter for additional details. The Preferred Alternative will displace some low-income/minority households in Segment 5, and there will be a loss of some low-income housing. There could also be a permanent loss of rental housing if the owners of the displaced rental units decide not to build replacement rental units elsewhere in Newberg. The Preferred Alternative could adversely affect the housing stock available in this neighborhood.

There will be seven businesses displaced in Segment 5 due to the Preferred Alternative. The businesses are all located on one property and provide services such as house painting, plumbing, construction, and auto bodywork.

The Preferred Alternative will also affect the cohesion of the Mill neighborhood and future residential development in the area. The Bypass will alter the residential character of the neighborhood by running along the edge of several neighborhoods. This neighborhood will experience increased sound levels from forecasted future traffic on the Bypass, including noise impacts to Scott Leavitt Park, a community resource. A noise wall will be constructed if, during final design, it continues to be feasible and reasonable and is approved by the majority of the residents. If constructed, the noise wall will form a barrier and may be perceived as isolating the neighborhood from the area to the south or adversely affecting community cohesion. The Bypass and noise wall will slightly affect the connections to properties located on either side of the Bypass by consolidating crossing of the Bypass and noise wall to a few locations: River Street, College Street, 12th Street and around the east end of the noise wall at Wynooski Street (this street would be rerouted). The neighborhoods to the south of the noise wall would be slightly more isolated from Scott Leavitt Park, and neighborhoods to the north of the noise wall would be similarly isolated from Rogers Landing Park, the Willamette River and the SP Newsprint property. The displacement of residents (owners and renters) could disrupt community and social groups. These impacts could adversely affect the livability of the neighborhood and influence some residents to relocate out of the area.
The **Preferred Alternative** will cause the displacement of some SP Newsprint structures and facilities consisting of storage sheds, a training center housed in a manufactured home, and a storage area. Through discussion with SP Newsprint management, ODOT determined that these facilities could be relocated without causing major impacts to operations, as the buildings are relatively inexpensive structures, and there is room on the site for relocation. Thus, there will be a temporary impact on operations during relocation of these facilities that could include some short-term loss of employment and income generation at the plant.

Emergency service providers for the City of Newberg noted that SP Newsprint generates the highest number of calls in the city. However, they also noted that the local circulation changes in the **Preferred Alternative** will not affect emergency response times to SP Newsprint.

**Indirect Impacts**

The displacement of the seven businesses will have an adverse impact on employment and income in the project area if they are not able to relocate in the Newberg area.

**Segment 6**

**Direct Impacts**

Construction of the **Preferred Alternative** will result in the acquisition of about 53 acres and will displace 20 owner-occupied residences, 3 renter-occupied residences and 6 businesses. There are a number of farm operations located in the southern and eastern parts of the Oregon 219 Interchange area. The size of farm parcels varies from about 12 acres to over 80 acres.

This area has a mix of auto-oriented commercial and industrial uses and the Avalon Park and Springbrook Estates manufactured home parks. The manufactured home developments are small, individually cohesive communities. Land acquisitions required for the **Preferred Alternative** will directly impact Avalon Park and Springbrook Estates. Interviews with the Manufactured Home Owners of Oregon (MHOO) suggest that both manufactured home parks include low-income residents.

ODOT estimates that 8 of the 34 residences in Avalon Park and 5 of the 126 residences in Springbrook Estates will be displaced. These displacements will likely have an adverse impact on community cohesion. The impact on community cohesion could be greater at Avalon Park, where a greater percentage of units—24 percent at Avalon Park versus 4 percent at Springbrook Estates—will be lost.

The MHOO representative noted that the Avalon Park units are relatively new, and could likely be moved to other locations without being demolished. Eight manufactured home parks in Newberg, Dayton, Lafayette, and south Sherwood were surveyed to estimate the number of available vacant manufactured home park sites and manufactured homes for sale. The eight manufactured home parks provide 676 spaces. With an average estimated annual turnover rate of about 5 percent, about 34 spaces will become available each year. However, there will be some overall loss of low-income rental or owner-occupied units, and some people might choose to relocate out of the area.

There will be six business displacements resulting from the **Preferred Alternative**. Some of the businesses are located in the industrial park south of the airport. These businesses include a health club and an automotive servicing business. South of Wilsonville Road along Oregon 219, a horse boarding operation, U-Haul outlet, and coffee stand will be displaced.

Avalon Park and Springbrook Estates currently qualify for a noise wall because of potential noise impacts from the Bypass, and if the majority of the residents approve a noise wall it will be constructed. If built, the noise wall will form a barrier and may be
perceived as isolating the neighborhoods. However, the Avalon Park noise wall will be relatively short and would have no effect on existing connections since it would not cut across any access streets. Because of this, the noise wall is not anticipated to negatively affect any neighborhood activities. The Springbrook Estates noise wall will cut off one access point at Wilsonville Road requiring a slight detour to the south to move around the wall. Because only one access point is removed and because it is close to the detour route, it is not anticipated that the noise wall will adversely affect connections to the surrounding neighborhood or any neighborhood activities. The Newberg-Dundee Police Department noted that new local circulation patterns in Segment 6 will likely offset any adverse impacts from out-of-direction trips for emergency responders.

**Indirect Impacts**

The displacement of the six businesses will have an adverse impact on employment and income in the project area if they are not able to relocate in the Newberg area. Changes to the local street system required by the Preferred Alternative in this area will require motorists to make some out-of-direction trips where homes and businesses are located adjacent to the new roadway. This will have an indirect impact, both on residents whose homes were not acquired in construction and on remaining businesses in the immediate area.

**Segment 7**

**Direct Impacts**

The Preferred Alternative will require the acquisition of about 65 acres of property within Segment 7. There will be two owner-occupied residential displacements and one business displacement. There are a number of farm operations within the segment. The sizes of farm parcels vary from about 12 acres to over 25 acres.

The Preferred Alternative will acquire a little over 2 acres of undeveloped land located south of Fernwood Road and 3 acres of land that is part of Hole 2 of the golf course, both owned by CPRD. The Preferred Alternative, which is north of Fernwood Road, limits impacts to the medical center. CPRD and Providence have entered into an agreement and have exchanged two permanent easements. This exchange enables the medical campus to develop medical office buildings immediately adjacent to the hospital, consistent with the master plan, and enables CPRD to reconstruct portions of its golf course to improve overall play. Providence has planned its medical campus with knowledge of the location of the Bypass. The location of roadway and related improvements under the Preferred Alternative is consistent with that planning effort (see Section 3.6, Parks and Recreation, of this chapter for additional information).

Changes to local roads will have a slight effect on emergency response times to properties throughout the segment. Decreased congestion on Oregon 99W will result in better emergency response times for some properties. The reconfiguration of existing roadways will result in slightly increased response times for some properties. The changes in response times are estimated to be less than a minute. The Newberg Police and Newberg Fire Departments noted that emergency response to incidents and crashes on the Bypass will be affected by access to the Bypass only at the East Newberg and Oregon 219 Interchanges. This will create out-of-direction travel and increased response times if emergency vehicles are not allowed to cross the median to travel in the other direction.

**Indirect Impacts**

The Preferred Alternative will have the indirect impact of limiting development in east Newberg on land east of the Bypass and west of the UGB. While these lands will have access to the rest of Newberg via Fernwood Road, the Bypass could act as a barrier to growth. A highway facility can be a barrier to growth because it can disrupt the street
network and typically constrains cross-highway movements to fewer points. This can increase congestion and travel times at these locations, making people more hesitant to travel across the highway. The displacement of the one business could have an adverse impact on employment and income in the project area if it is not able to relocate in the Newberg area.

**Segment 8.1**

**Direct Impacts**

The Preferred Alternative in Segment 8.1 will require the acquisition of about 25 acres and will displace two owner-occupied residences, two renter-occupied residences, and one business. There are a number of farm operations within the segment. The size of farm parcels varies from about 10 acres to over 29 acres. One newspaper distribution business will be displaced.

Local circulation changes are designed to reestablish local connectivity that will be lost by construction of the East Newberg Interchange, which will help to maintain community cohesion in this area.

Changes to local roads will have a similar effect on emergency response times to properties within this segment as in Segment 7, particularly the inability to move from eastbound on the Bypass to westbound Oregon 99W. This could affect emergency services traveling from the Bypass to the Providence Newberg Medical Center on Oregon 99W. Emergency responders traveling eastbound on the Bypass will exit at the Oregon 219 Interchange and use the local street system to get to the medical center. This will not adversely affect emergency response times because the Preferred Alternative will reduce congestion and travel times in the project area.

**Indirect Impacts**

Permanent road closures, rerouted local streets, and new connector streets required by the construction of the Preferred Alternative in this area will require motorists to make some out-of-direction trips where homes and businesses are located adjacent to the new roadway. This will have an indirect impact, both on residents whose homes were not acquired during construction and on remaining businesses in the immediate area. The displacement of the one business could have an adverse impact on employment and income in the project area if it is not able to relocate in the Newberg area.

**Segment 8.1A**

**Direct Impacts**

The Preferred Alternative in this segment will result in about 13 acres of property acquisition in Segment 8.1A, most of it adjacent to Oregon 99W. There will be 10 displacements: 6 owner-occupied residences and 4 businesses. Most of the acquired property will be rural residential, but there are a number of farm operations within the segment. The size of farm parcels varies from about 2 acres to over 39 acres.

There will be four business displacements. The businesses provide services such as real estate sales, music instruction, and carpentry.

Local circulation changes are designed to reestablish local connectivity that will be lost with the widening of Oregon 99W. This will likely provide some benefit in maintaining community cohesion.

Changes to local roads on Oregon 99W will have an effect on emergency response times to properties throughout the segment. Oregon 99W will have a median barrier from the East Dundee Interchange to the Haugen Road intersection. This will eliminate all left turning movements in this section of Oregon 99W. It is estimated that emergency response times to properties on Rex Hill will increase by 2 to 4 minutes depending on...
which side of Oregon 99W the property is located. The Newberg-Dundee Police and Newberg Fire Departments also noted that the median barrier could potentially increase emergency vehicle response times to calls in the area because the median barrier eliminates the possibility of making U turns on Oregon 99W.

**Indirect Impacts**

Permanent road closures, rerouted local streets, and new connector streets required by the Preferred Alternative in this area will require motorists to make some out-of-direction trips where homes and businesses are located adjacent to the new roadway. This will have an indirect impact, both on residents whose homes were not acquired during construction and on remaining businesses in the immediate area. The displacement of the four businesses could have an adverse impact on employment and income in the project area if they are not able to relocate in the Newberg area.

**Impacts to Other Property Types**

This section summarizes right-of-way impacts to railroads, utilities, irrigation facilities, and septic systems.

There will be no impacts to the WPRR or railroad spur tracks that serve industrial sites. In Segment 4, the at-grade crossing at Dayton Avenue will be relocated. The existing at-grade crossing will be moved north approximately 1,000 feet to serve the new Fox Farm/Dayton Avenue intersection with Oregon 99W. During coordination in 2007, ODOT’s Rail Division informed ODOT that a Rail Crossing Order will be needed to relocate the existing at-grade crossing. Application for relocation of the existing at-grade crossing and coordination with WPRR will occur during the final design process, after FHWA issues the Record of Decision. All other Bypass-related crossings will be constructed over the railroad tracks.

The only public utility that will be impacted (land acquisition) is the City of Newberg sewer treatment facility, in Segment 6. A small portion of land along the north side of the facility is needed for right-of-way. The property required is vacant, and the right-of-way acquisition will not impact the operation of the sewer treatment facility. For details on other impacts to utilities, see the Newberg Dundee Bypass Tier 2 Final Utilities Technical Memorandum.

Right-of-way impacts to irrigation and septic systems were also considered; however, the exact locations of some of these are not known at this time. The Preferred Alternative passes through farmland. Irrigation systems are primarily located in the area between the Bypass and the Yamhill and Willamette Rivers and are unlikely to be impacted. There were no identified impacts to residential sewage systems, because either the Bypass will acquire the entire property and the septic system is included in the parcel impact, or because the Bypass is far enough from the septic system to allow the system to remain unchanged.

**Construction Impacts**

Construction impacts of the Preferred Alternative are:

- The temporary disruption to local roads, bicycle and pedestrian facilities, and impacts to school bus routes.
- Potential temporary disruption to businesses due to temporary loss of driveway connections to local roads where road closures are required.
- Temporary disruption of visibility of, and entrances to, affected businesses.
- Reduced movement through the Preferred Alternative construction zone for emergency vehicles.
- Temporary road closures during construction.
- Rerouting of traffic into residential areas during construction.

### 3.4.3.3 Phase 1

#### Direct Impacts

Phase 1 will extend from Oregon 219 in Newberg and connect to Oregon 99W just south of Dundee. It includes new roadway improvements and property impacts in East Newberg, along Springbrook Road, and south of Dundee, adjacent to the UGB; these improvements and impacts were not identified in the Tier 2 DEIS. Approach roads and driveways between Oregon 219, in Newberg, and Oregon 99W, south of Dundee, will be prohibited from direct access to Phase 1.

Phase 1 direct socioeconomic impacts are contained within Segments 2, 3, 4, 5, and 6, and will require acquisition of about 157 acres of land for right-of-way purchase, with 59 residential and 11 business relocations with 27 employees. As is true of the Bypass, Phase 1 will result in increased noise at Scott Leavitt Park and Ewing Young Park, as well as visual impacts to Scott Leavitt Park. Table PA 3.4-10 provides a summary of estimated direct socioeconomic impacts for Phase 1 in each of these segments, including impacts resulting from changes to local circulation.

<table>
<thead>
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<th>Segment</th>
<th>Right-of-Way Impact (acres)(^a)</th>
<th>Business Displacements</th>
<th>Current Employees at Displaced Businesses</th>
<th>Residential Displacements</th>
<th>Parks and Recreation Impacts</th>
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</tr>
<tr>
<td>5</td>
<td>49.5</td>
<td>7</td>
<td>9</td>
<td>52</td>
<td>Scott Leavitt Park visual impacts and increased noise(^b) Ewing Young Park increased noise</td>
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<td>11</td>
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</table>

\(a\) Includes local circulation right-of-way.
\(b\) Impacts prior to proposed noise barrier mitigation.

A discussion of Phase 1’s direct socioeconomic impacts in Segments 2, 4, and 6 are included in the segment impact descriptions below. For Phase 1, socioeconomic impacts in Segments 3 and 5 are the same as for the Preferred Alternative, please see Section 3.4.3.2.

#### Indirect Impacts

Much of the land acquired for Phase 1 is currently farmland, although some of this land is identified for urban development in local jurisdiction comprehensive plans. This loss of farmland will reduce farm-generated income and could negatively impact farm
employment, resulting in loss of jobs. Some of these jobs are likely to employ minority workers.

The displacement of 11 businesses will have a slight adverse impact on employment and income in the project area. The businesses being displaced are generally small businesses with a limited number of employees. These types of businesses tend to be flexible in their business site requirements and their ability to adjust their business models to accommodate changes in location.

Phase 1 and its improved regional traffic flow will make driving to Spirit Mountain Casino and the Oregon Coast easier for motorists coming from the Portland-Vancouver metropolitan area. This has the potential to increase visits to the casino and coast, which could indirectly boost employment and income in those areas.

**Direct and Indirect Impacts For Specific Locations and for Local Circulation**

The following sections discuss direct and indirect impacts related to specific portions of Phase 1. The locations are discussed by segment for easier identification.

**Segment 2**

**Direct Impacts**

In Segment 2, Phase 1 includes an interim Bypass connection to Oregon 99W that was not identified in the Tier 2 DEIS. The interim connection consists of a new roadway alignment from the Bypass, with structures over the railroad and Oregon 99W, connecting to the highway at a signalized intersection south of Dundee. Oregon 99W is also widened to accommodate additional merge and turn lanes at the intersection. Phase 1 requires purchasing about 32 acres of land in Segment 2, including about 23 acres of farmland. The size of farm parcels in this area varies from about 3 acres to about 23 acres. Phase 1 will divide four farm parcels east of the railroad.

Phase 1 will require three owner-occupied residential relocations. No business displacements will be necessary in this segment, but there will be two property access relocations from Oregon 99W to a new local street, one for a mini-storage business and one for a residence on Oregon 99W. The relocation of the mini-storage driveway will cause removal of a number of individual storage units, and it will be necessary to move the mini-storage office adjacent to the new driveway. Individual units displaced could be reconstructed in the old location of the office or could be relocated to vacant units within the facility. In addition, along Oregon 99W some residential properties will experience changes in access to their property.

Phase 1 will not increase response times for emergency responders, and there will be no impacts to any community facilities.

**Indirect Impacts**

There are no indirect socioeconomic impacts in Segment 2 associated with Phase 1 of the Bypass.

**Segment 4**

**Direct Impacts**

Acquisitions in Segment 4 total about 32 acres, mostly farmland, and there are no residential relocations. Direct impacts are limited to the purchase of farmland and to impacts to farm operations, including displacement of a farm business east of Chehalem Creek.

About 19 acres of farmland for Phase 1 will be purchased from Columbia Empire Farm’s Dundee Farm. Purchases for Phase 1 require less right-of-way from the farm than the full
build-out of the Preferred Alternative. Also, the roadway alignment for Phase 1 passes between, rather than through, farm fields and includes an underpass to connect farm parcels located on each side of the Bypass.

**Indirect Impacts**

The displacement of the farm business will have an adverse impact on employment and income in the project area if it is not able to relocate in the Newberg or Dundee area.

**Segment 6**

**Direct Impacts**

Phase 1 will require the purchase of about 12 acres of right-of-way in Segment 6. Phase 1 includes roadway improvements, in East Newberg along Springbrook Road, not identified in the Tier 2 DEIS. Property acquisition will be required along the east side of Springbrook Road to widen the road to three lanes, but this will not result in any residential displacements. The size of some of the property acquisitions alongOregon 219 and west of Oregon 219 are smaller than what is needed for the full build-out of the Preferred Alternative.

Phase 1 will require three business and four owner-occupied residential relocations along Oregon 219. Phase 1 will impact two industrial parcels, south of the airport and inside the Newberg UGB, currently in farm use. One parcel will be purchased for the Phase 1 roadway and to accommodate stormwater treatment facilities. ODOT will purchase only a small portion of the other parcel. As discussed in 3.4.2.2 above, this area includes a mix of auto-oriented commercial and industrial uses and the Avalon Park and Springbrook Estates manufactured home parks. The manufactured home developments are small, individually cohesive communities that likely include low-income residents. Unlike the full build-out of the Preferred Alternative, land acquisitions required for Phase 1 will impact a smaller portion of Avalon Park and will not impact Springbrook Estates on the east side of Oregon 219.

The widening of Springbrook Road and increased traffic use of the road as a connector, between Oregon 99W and the Bypass, will increase traffic noise. In particular, noise levels will increase near two manufactured home neighborhoods, the Nut Tree Ranch and Mountain View Mobile Home Park along Springbrook Road, that likely include low-income residents. ODOT will build a noise wall along the west side of Springbrook Road at these two locations if the majority of residents are in favor of it. It is not anticipated that noise walls built at these sites will adversely affect neighborhood cohesion because the walls will not cut off any of the access roads to the neighborhoods. However, there may be the perception that these neighborhoods are slightly more isolated.

Phase 1 will not increase response times for emergency responders, and there will be no impacts to any community facilities.

**Indirect Impacts**

The displacement of the three businesses will have an adverse impact on employment and income in the project area if they are not able to relocate in the Newberg area.

**Impacts to Other Property Types**

This section summarizes right-of-way impacts to railroads, utilities, irrigation facilities, and septic systems.

There are no impacts to WPRR or railroad spur tracks that serve industrial sites. All Phase 1–related crossings will be constructed over the railroad tracks.

The only public utility that will be impacted (land acquisition) is the City of Newberg sewer treatment facility, in Segment 6. A small portion of land along the north side of the facility
is needed for right-of-way. The property required is vacant, and the right-of-way acquisition will not impact the operation of the sewer treatment facility.

Right-of-way impacts to irrigation and septic systems were also considered; however, the exact locations of these are not known at this time.

**Construction Impacts**

Construction impacts for Phase 1 are similar to those described under the Preferred Alternative, except the level of construction will be less because ODOT is constructing only two lanes under this phase.

### 3.4.4 Cumulative Impacts for the Preferred Alternative

The socioeconomic cumulative impacts analysis starts at the baseline year of 1970 for past actions and extends to 2035 for reasonably foreseeable future actions.

The **Preferred Alternative** in combination with the projects reviewed for cumulative impacts could promote population growth in Newberg and Dundee. Newberg is considering expansion of its Urban Reserve Areas as the need for developable land increases. The potential population growth could increase demand for community facilities and services, as well as create opportunities for businesses.

It is unlikely that the **Preferred Alternative** and area plans and projects will induce unplanned growth in the project area. Oregon’s Statewide Planning Program and statutes will protect rural resource land from UGB expansion and potentially limit induced growth. Newberg, Dundee, and Dayton could increase the density within established UGBs to accommodate any unanticipated growth. With the Bypass and reduced traffic congestion on Oregon 99W, the possible redevelopment of the downtowns of Newberg and Dundee could cause infill development. The county and cities in the project area plan for future growth and provide community facilities and services commensurate with that growth. They also monitor population changes and provide and adjust the level of community services as needed.

With the Bypass, traffic volumes and congestion on Oregon 99W will decrease, making access for additional tourist-related commercial development along Oregon 99W easier, particularly in Dundee. Pedestrian-oriented development could also occur, which is consistent with Dundee’s adopted vision. Freight traffic through both Dundee and Newberg will decrease, and commercial areas will become more tourist and pedestrian friendly, which could lead to more development. These changes could increase business opportunities and improve the existing client base, which could have a beneficial cumulative impact on employment and income.

The Bypass will support the wine and tourism industries by making it easier for destination travelers to get to the project area wineries and to travel to and from the coast. This will likely encourage development of additional facilities to serve tourists, such as restaurants, hotels, and other hospitality services.

### 3.4.5 Mitigation

#### 3.4.5.1 Preferred Alternative

**Operational Mitigation**

Mitigation measures for operational impacts are as follows; ODOT will:

- Place signs at appropriate locations during construction and operation (in conformance with state highway signing policies) to notify drivers of businesses along the route (all ODOT signs will be determined during final design).
- Provide Opticon™ (signal prioritization) to Dundee Fire Department vehicles, currently without this technology, upon completion of Phase 1.

- Provide signs at the entrances to the Bypass to direct motorists toward destination businesses such as wineries and other commercial establishments.

Mitigation measures for residential and business displacements are addressed in Section 3.3, Right-of-Way, of this chapter. See the discussion of the Uniform Relocation Assistance and Real Properties Acquisition Policies Act in that section for additional details.

Mitigation measures, specific to individual segments are as follows.

**Segment 2**
ODOT will add signs on Oregon 99W, to indicate access to the Newberg Gun Club, and near the Fulquartz Landing Road/Crawford Lane bridge to indicate how to cross the Bypass and access Oregon 99W.

**Segment 3**
ODOT will provide signs for routing traffic on the east side of the Bypass.

**Segment 5**
In coordination with the City of Newberg and the impacted neighborhoods in Segment 5, ODOT will:

- Provide Bypass undercrossings at College, River, and Wynooski Streets with lighting, sidewalks, bicycle lane striping, and signs to make these areas feel safer and more appealing.

- Install highway traffic noise abatement measures in the form of a noise wall for the Mill Neighborhood, near Scott Leavitt Park, if during final design it continues to be feasible and reasonable and if a majority of residents vote in favor of it (i.e., at least 50 percent of the residents).

- Provide roadside signs directing motorists to new traffic patterns.

**Segment 6**
In coordination with the City of Newberg and the impacted neighborhoods in Segment 6, ODOT will provide roadside signs informing motorists of new traffic patterns and businesses in the area to mitigate for the loss of public streets and connectivity. In addition, ODOT will install noise walls at the Avalon Park and Springbrook Estates neighborhoods if residents vote in favor of them.

**Segment 7**
ODOT will investigate the feasibility of turnabouts on the Bypass allowing emergency responder vehicles to cross the median.

**Segment 8.1**
In coordination with Newberg and Yamhill County, ODOT will install signs to direct motorists going to and from local destinations such as Providence Newberg Medical Center, downtown Newberg, and Chehalem Vineyards. In addition, noise barriers will be considered in two locations in this segment to reduce traffic noise from the Bypass on surrounding neighborhoods.
Segment 8.1A

In coordination with Newberg and Yamhill County, ODOT will install signs to direct motorists going to and from local destinations, such as Rex Hill Vineyards, August Cellars, downtown Newberg, and Sherwood.

Construction Mitigation

Mitigation measures for construction impacts are as follows. ODOT will:

- Minimize the disruption to local roads, bicycle and pedestrian facilities, and minimize impacts to school bus routes. ODOT will work with the Newberg Citizen’s Public Safety Committee, with Safe Routes to School, and use temporary signage to minimize disruption.
- Coordinate with businesses to maintain or develop driveway connections to local roads where road closures are required.
- Maintain visibility and keep entrances open to affected businesses, without rerouting, to the extent feasible.
- Provide priority movement through the Bypass construction zone at all times for emergency vehicles.
- Give residents and businesses adequate notification of temporary road closures during construction. Minimize the length of disruption to the extent possible.
- Minimize rerouting of traffic into residential areas during construction.

3.4.5.2 Phase 1

Operational mitigation measures for Phase 1 are the same as for the Preferred Alternative, except for mitigation in Segments 1, 7, 8 and 8.1 A, which are not included in Phase 1.

ODOT may build noise walls in two locations along Springbrook Road (Nut Tree Ranch and Mountain View Mobile Home Parks) if during final design they continue to be feasible and reasonable and residents vote in favor of them. If built, they will help to minimize traffic noise from Springbrook Road on these neighborhoods.

Construction mitigation for Phase 1 is similar to what is described under the Preferred Alternative, except the level of construction will be less because ODOT is constructing only two lanes under this phase and therefore mitigation will occur in a smaller geographic area.
3.4.6 Tier 2 DEIS Build Alternative

The following is an exact copy of the Tier 2 DEIS Build Alternative section for socioeconomics. In-text references cite information in the Tier 2 DEIS.

The Tier 2 DEIS Build Alternative, which includes all of the design and local circulation options no longer under consideration, is included here as a comparison to the Tier 2 FEIS Preferred Alternative and for informational purposes only.

Copies of the complete Tier 2 DEIS are available from:

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Oregon Department of Transportation
Mid-Willamette Valley Area
885 Airport Road SE, Building P
Salem, OR 97301-4788
kelly.l.amador@odot.state.or.us

3.4.2.2 Build Alternative

Direct Impacts Common for the Entire Build Alternative (All Design Options)

Construction of the Build Alternative would result in the acquisition of farmland and properties that include businesses and residences. Property acquisition would range from about 449 to 461 acres throughout the project area (see Table 3.4-8). There would also be between 95 and 103 residential relocations and 26 business relocations, depending on the design option selected. Additional details on displacements, relocations, and mitigation for displacements can be found in the Right-of-Way section of this chapter.

The acquisition of residential properties and construction of the Build Alternative would impact social conditions in several ways. The Bypass itself would cut through one to three neighborhoods (Mill, Springbrook, and Avalon neighborhoods), depending on the design option chosen, creating a barrier to free movement between these neighborhoods. The Bypass would also introduce a visual barrier where elevated structures are built, and there would be increased traffic noise and disruptions in local traffic patterns. All of these conditions can adversely affect community livability. Livability is a social concept where high value is placed on neighborhood features such as safety, aesthetics, relative quietness, ease of access to services, as well as perceived intangibles such as friendliness. Loss of neighborhood livability may cause people to move away and local social groups may be disrupted, particularly in older established neighborhoods.

<table>
<thead>
<tr>
<th>Table 3.4-8. Direct Socioeconomics Impacts by Segment or Design Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment or Design Option</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3.A</td>
</tr>
<tr>
<td>3.A2</td>
</tr>
<tr>
<td>3.B</td>
</tr>
<tr>
<td>3.B2</td>
</tr>
</tbody>
</table>
## Table 3.4-8. Direct Socioeconomics Impacts by Segment or Design Option

<table>
<thead>
<tr>
<th>Segment or Design Option</th>
<th>Right-of-Way Impact (acres)a</th>
<th>Business Displacements</th>
<th>Current Employees at Displaced Businesses</th>
<th>Residential Displacements</th>
<th>Parks and Recreation Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>75.3</td>
<td>3</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>77.5</td>
<td>3</td>
<td>12</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5.1C.2/5.1D.2</td>
<td>46.7</td>
<td>7</td>
<td>9</td>
<td>56</td>
<td>Scott Leavitt Park visual impacts and increased noiseb</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ewing Young Park increased noiseb</td>
</tr>
<tr>
<td>5.2D</td>
<td>45.7</td>
<td>7</td>
<td>9</td>
<td>48</td>
<td>Same as Design Option 5.1C.2 / 5.1D.2</td>
</tr>
<tr>
<td>6</td>
<td>43.1</td>
<td>6</td>
<td>28</td>
<td>23</td>
<td></td>
</tr>
<tr>
<td>7.4C</td>
<td>55.8</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2.1 acres undeveloped owned by CPRD</td>
</tr>
<tr>
<td>7.5C</td>
<td>57.6</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>5 acres owned by CPRD</td>
</tr>
<tr>
<td>8.1</td>
<td>29.9</td>
<td>1</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>8.1A</td>
<td>13.1</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>445.6</strong></td>
<td><strong>26</strong></td>
<td><strong>65</strong></td>
<td><strong>95-103</strong></td>
<td></td>
</tr>
</tbody>
</table>


- a Includes local circulation right-of-way.
- b Impacts prior to proposed noise barrier mitigation.
- c One business is all volunteer and the other business is the cell tower, which has no employees.

Residences lost to acquisition include owner-occupied homes, manufactured homes, and rental units. About 25 rental units would be displaced. An analysis of available replacement housing within Newberg, Dundee, Dayton and Lafayette indicates that there is an adequate supply of rental housing for relocation purposes. Acquisition and availability of replacement housing is discussed in more detail in the Right-of-Way section of this chapter.

Farmland would be acquired for the Build Alternative in various places, but there would be no displacements of farms. In all but two instances in Segment 4, farms would be able to continue operating (although operations may change slightly). ODOT reviewed all farm parcel acquisitions as part of the right-of-way analysis and concluded that even though farm parcels would be reduced in size or split, or local circulation would change, the primary use of the land as farmland would continue. However, the reduction in farm size would reduce potential farm income (depending on the crop) and there could be some loss of farm employment and local income (there are two permanent and five seasonal jobs associated with properties affected by farmland acquisition). The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Farmland Conversion Impact Rating Forms are included in Appendix C.

Business displacements may or may not result in adverse impacts. If businesses can easily relocate in the general area, then there should be no adverse effect on
employment and income generated by those businesses (other than a short-term loss during relocation). Businesses that cannot relocate would be permanently displaced and there would be a resultant loss of employment and income. Approximately 65 employees would lose their jobs if the displaced businesses are unable to relocate.

A survey of the availability of commercial, industrial, or farm replacement properties was not conducted for this Tier 2 DEIS, but will be conducted and included in the Tier 2 FEIS. A number of owners of businesses that may be displaced were interviewed to identify the issues that may be encountered due to construction of the Build Alternative. Those interviews identified the impact of the Build Alternative to be primarily upon small owner-operator businesses working in a variety of business classes with a limited number of employees.

Business impacts from changes in traffic levels will be both positive and negative. The Bypass would improve accessibility by reducing congestion along Oregon 99W, as well as through traffic to destinations beyond Yamhill County. Truck and auto traffic through the downtown areas would be reduced, making the downtown areas more attractive to non-motorized travel. Fewer vehicles and easier turning movements would make downtown streets safer. These effects may attract more shoppers to the downtown area. Also, community facilities and services will be easier to reach. Conversely, loss of traffic in the downtown areas would likely have a negative impact on businesses that rely on drive-by traffic.

Acquisition of property for the Build Alternative would cause a loss in property tax revenues for Yamhill County and Washington County. Table 3.4-9 shows the projected loss of property tax revenue by segment for the Build Alternative. Total estimated tax revenue loss (in 2005 dollars) would range from about $244,765 to $270,808 for Yamhill County, depending on the design option, and $915 for Washington County.9

Table 3.4-9. Estimated Annual Tax Revenues Lost by Segment

<table>
<thead>
<tr>
<th>Segments and Design Options</th>
<th>Yamhill County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>$2,495</td>
</tr>
<tr>
<td>Segment 2</td>
<td>$11,885</td>
</tr>
<tr>
<td>Segment 3</td>
<td></td>
</tr>
<tr>
<td>Design Option 3.A</td>
<td>$192</td>
</tr>
<tr>
<td>Design Option 3.A2</td>
<td>$228</td>
</tr>
<tr>
<td>Design Option 3.B</td>
<td>$172</td>
</tr>
<tr>
<td>Design Option 3.B2</td>
<td>$212</td>
</tr>
<tr>
<td>Segment 4</td>
<td></td>
</tr>
<tr>
<td>Design Option 4.1</td>
<td>$14,006</td>
</tr>
<tr>
<td>Design Option 4.2</td>
<td>$14,196</td>
</tr>
<tr>
<td>Segment 5</td>
<td></td>
</tr>
<tr>
<td>Design Option 5.1C.2</td>
<td>$143,729</td>
</tr>
<tr>
<td>Design Option 5.1D.2</td>
<td>$143,729</td>
</tr>
<tr>
<td>Design Option 5.2D</td>
<td>$160,307</td>
</tr>
</tbody>
</table>

9 An aggregate property tax figure was used in the analysis of property taxes forgone in Yamhill and Washington Counties. The aggregate figure includes all taxing districts within Yamhill and Washington Counties, including municipal, school, and special service districts.
Table 3.4-9. Estimated Annual Tax Revenues Lost by Segment

<table>
<thead>
<tr>
<th>Segments and Design Options</th>
<th>Yamhill County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment 6</td>
<td>$30,829</td>
</tr>
<tr>
<td>Segment 7</td>
<td></td>
</tr>
<tr>
<td>Design Option 7.4C</td>
<td>$38,650</td>
</tr>
<tr>
<td>Design Option 7.5C</td>
<td>$29,431</td>
</tr>
<tr>
<td>Segment 8.1</td>
<td>$6,709</td>
</tr>
<tr>
<td>Segment 8.1A</td>
<td>$5,509</td>
</tr>
<tr>
<td>Total</td>
<td>$244,765 - $270,808</td>
</tr>
</tbody>
</table>

Note: Changes to the Yamhill County Tax Revenue are losses in annual property tax revenue from property acquisitions, and include local circulation.

The current construction cost estimate for the Build Alternative ranges from approximately $569 to $687 million, including estimated utility relocation costs, but does not include estimated right-of-way costs. Given these costs, it is estimated that construction of the Build Alternative could support 6,886 to 8,315 temporary construction jobs. This includes construction jobs directly associated with the Build Alternative (direct job impacts), as well as other, spin-off employment. The proposed project could also provide local residents with employment opportunities resulting from: (1) construction companies’ purchases of supplies, materials, and services for the proposed project (indirect job impacts), and (2) construction workers’ and other employees’ purchases of consumer/household goods and services (induced job impacts). These job impacts could be expected to dissipate relatively quickly following the end of the construction period (Newberg Dundee Socioeconomic Technical Memorandum 2009).

**Indirect Impacts Common for the Entire Bypass (All Design Options)**

Much of the land acquired for the Bypass is currently farmland, although some of this land is slated for urban development. This loss of farmland would reduce farm-generated income and could negatively impact farm employment, resulting in loss of jobs (potentially two permanent and five seasonal jobs). Some of these jobs are likely to employ minority workers.

The displacement of 26 businesses would generally have an adverse impact on employment and income in the project area. The businesses being displaced are generally small businesses with a limited number of employees. These types of businesses tend to be flexible in their business site requirements and their ability to adjust their business models to accommodate changing economic conditions.

The Bypass and its improved regional traffic flow would make driving to Spirit Mountain Casino and the Oregon Coast easier for motorists coming from the Portland-Vancouver metropolitan area. This has the potential to increase visits to the casino and coast, which could indirectly boost employment and income in those areas.

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10 ODOT estimates that 14 jobs are supported for every $1 million (in 2008 dollars) of construction-related transportation spending. Based on the Chained Price Index – State and Local Construction Spending from Global Insight, an adjustment percentage of 86.5 percent was used to calculate construction-related jobs per $1 million in 2015.


**Impacts For Specific Locations and for Design / Local Circulation Options**

The following sections discuss direct and indirect impacts related to specific locations and for design and local circulation options in the Build Alternative. The locations are discussed by segment for easier identification.

**Segment 1**

**Direct Impacts**

In Segment 1, the Bypass and interchange alignment parallels the south side of the Willamette and Pacific Railroad’s (WPRR) corridor and would require acquisition of about 58 acres of right-of-way, most of it farmland. Farms in this area vary in size from 11 acres to 550 acres. The railroad right-of-way generally functions as the boundary separating larger farm operations to the south of the WPRR corridor from smaller farm operations between Oregon 99W and the railroad. Two businesses would be displaced in this area. These businesses are a small retail business and a small industrial business using existing industrial structures.

Local Circulation Option A requires about 5 acres of right-of-way, and Option B requires 1.5 acres of right-of-way. Both options would provide a connection to the Dayton UGB north of the Yamhill River and to farm parcels that are split by the Bypass.

Local Circulation Option A would require out-of-direction travel for emergency service providers to travel to the Dayton UGB north of the Yamhill River. It is estimated that out-of-direction travel would increase by about a mile and half and travel time would increase by about 3 minutes compared to the No Build Alternative. Response time for emergency service providers with Local Circulation Option B would be about the same travel time and distance as the No Build Alternative.

Yamhill County\(^{11}\) would lose an estimated $2,495 in annual property tax revenue from property acquisitions in Segment 1 under Local Circulation Option A, and $750 under Local Circulation Option B.

**Indirect Impacts**

The displacement of the two businesses would have an adverse impact on employment and income in the project area if the businesses were not able to relocate in the Dayton area.

**Segment 2**

**Direct Impacts**

In Segment 2, the Bypass parallels the south side of the WPRR and would require acquisition of about 107 acres of right-of-way, most of it farmland. The size of farm parcels in this area varies from about 2 acres to over 100 acres. The railroad right-of-way generally functions as the boundary separating larger farm operations to the south of the WPRR corridor from smaller farm operations between Oregon 99W and the railroad. The Bypass would divide four parcels in the northern part of the segment.

There is one owner-occupied residential displacement and two business displacements. The business displacements include a cell phone tower and the Newberg Gun Club. The Bypass was moved to the northwest, outside of the Corridor, to minimize impacts to the Newberg Gun Club building; however, a portion of the existing outdoor shooting range would be acquired for the Bypass. It may be possible for the gun club to change the

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\(^{11}\) An aggregate property tax figure was used in the analysis of property taxes forgone in Yamhill County. The aggregate figure includes all taxing districts within Yamhill County, including municipal, school, and special service districts.
orientation of the shooting range and purchase adjacent property to maintain their shooting range. However, for the purposes of this Tier 2 DEIS, the gun club is considered a total displacement.

The realignment of Fulquartz Landing Road over Oregon 99W connecting to Trunk Road would increase response times by less than a minute for emergency service providers coming from Dayton or Dundee to calls on Fulquartz Landing Road east of the Bypass. There would be no impacts to any community facilities in this area.

Yamhill County would lose an estimated $11,885 in annual property tax revenue from property acquisitions in Segment 2.

**Indirect Impacts**

The displacement of the two businesses would have no adverse impact on employment and income in the project area. The cell phone tower would be moved and continue in operation in the area and would have no effect on employment. The Newberg Gun Club is a volunteer organization and has no employees.

**Segment 3**

In Segment 3, land acquired for the Build Alternative is currently being used as farmland. The size of the three farm parcels varies from about 43 acres to over 76 acres. The Bypass would divide all three parcels. These parcels are inside Dundee’s UGB and planned for future urban development.

**Design Option 3.A**

**Direct Impacts**

Construction of Design Option 3.A would result in the acquisition of about 24 acres. There would be no displacements of any businesses or housing units and no impacts to community facilities.

Local circulation options for an overcrossing at 6th, 8th, or 10th Streets (one would be selected) would provide connection between the northwest and southeast areas within the Dundee city limits. The Dundee Fire Department expressed a preference for the 8th Street overcrossing option, as it offers the most direct connection to Oregon 99W.

Yamhill County would lose an estimated $192 in annual property tax revenue from property acquisitions under this design option.

**Indirect Impacts**

Constructing Design Option 3.A would create a barrier between Dundee and vacant land to the southeast (within the UGB). This could make the vacant land between the Bypass and the Willamette River less desirable for development or could impact how new housing develops in these two areas, including housing densities and/or ratios of single-family to multifamily dwelling units.

**Design Option 3.A2**

**Direct Impacts**

Construction of Design Option 3.A2 would result in the acquisition of about 29 acres. This design option would have the largest impact on the three farm parcels discussed in Design Option 3.A. There would be no displacements of businesses or housing units and no impacts to community facilities. The local circulation options for the overcrossing would be the same as described for Design Option 3.A.

Yamhill County would lose an estimated $228 in annual property tax revenue from property acquisition under this design option.
**Indirect Impacts**

Indirect impacts would be almost identical to Design Option 3.A. However, since this design option requires slightly more property acquisition, the indirect impacts on farm income and employment could be slightly greater than with the other Segment 3 design options.

**Design Option 3.B**

**Direct Impacts**

Construction of Design Option 3.B would result in the acquisition of about 22 acres. This design option would acquire the least amount of land under the Segment 3 design options and thus would have the smallest impact on the three farm parcels. There would be no displacements of businesses or housing units and no impacts to community facilities. The overcrossing choices would also be the same as described for Design Option 3.A.

Yamhill County would lose an estimated $172 in annual property tax revenue from property acquisitions under this design option.

**Indirect Impacts**

Indirect impacts would be almost identical to Design Option 3.A. However, since Design Option 3.B would require the smallest amount of property acquisition, the indirect impacts could be slightly less than the other Segment 3 design options.

**Design Option 3.B2**

**Direct Impacts**

Construction of Design Option 3.B2 would result in the acquisition of about 26 acres. There would be no displacements of businesses or housing units and no impacts to community facilities. The overcrossing choices would also be the same as described for Design Option 3.A.

Yamhill County would lose an estimated $212 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

Indirect impacts would be almost identical to Design Option 3.A.

**Segment 4**

**Design Option 4.1**

**Direct Impacts**

Construction of Design Option 4.1 would result in about 75 acres of property acquisition, including farmland, businesses, and homes. The farms range in size from about 6 acres to 270 acres. Columbia Empire Farms operates the largest farm (Dundee Farm, about 270 acres) within Segment 4.

It is estimated that there would be 13 displacements under this design option: seven owner-occupied residences, three renter-occupied residences, and three businesses. This would have a negligible adverse impact on housing and rental units since it would not cause a major change in the number of housing or rental stock units. The business displacements are an agricultural business with a vineyard office and tasting room, a garden supply store, and a business that is part of a farm operation. Two farm operations associated with the agricultural businesses would be displaced because the resulting parcels would be too small to be viable for agricultural use. In Design Option 4.1, the
Bypass passes between, rather than through, farm fields that are a part of Columbia Empire Farms’ 270-acre agricultural operation. This design option includes an overpass to connect Columbia Empire Farms farm parcels located on each side of the Bypass.

Local circulation changes are designed to reestablish some of the local connectivity that would be lost by construction of the East Dundee connector road. This could help to maintain the community cohesion in this area. There would be no impacts to community facilities in this segment.

The Dundee Fire Department noted that the neighborhood to the south and east of the connector road intersection with Oregon 99W generates a high number of calls. They expressed concern that traffic signals on Oregon 99W at the East Dundee connector road and relocated Fox Farm Road/Dayton Avenue could delay response times, as Dundee Fire vehicles do not have Opticon™ (traffic signal preemption equipment).

Yamhill County would lose an estimated $14,006 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

The displacement of the three businesses would have an adverse impact on employment and income in the project area if they were not able to relocate in the Newberg or Dundee area. Construction of the East Dundee connector road and its intersection with Oregon 99W could potentially make development around the intersection more appealing, thus shifting development away from downtown Dundee to the northeast. Cluster development of businesses around interchanges typically occurs because they are desirable high-traffic locations. However, access management restrictions, local land use actions, and the Interchange Area Management Plan (IAMP for the East Dundee Interchange would minimize this impact and help to maintain the integrity of the downtown Dundee business district.

**Design Option 4.2**

**Direct Impacts**

Constructing Design Option 4.2 would require the acquisition of about 78 acres of property. This is slightly more than the 75 acres required for Design Option 4.1 due to the interchange design, which has a shorter, wider footprint than the Design Option 4.1 interchange. The same residences, rental units, and businesses would be displaced as in Design Option 4.1. Other socioeconomic impacts except property tax loss would be similar to Design Option 4.1.

Yamhill County would lose an estimated $14,196 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

Indirect impacts would be similar to Design Option 4.1.

**Segment 5**

**Design Option 5.1C.2**

**Direct Impacts**

Constructing Design Option 5.1C.2 would result in the acquisition of about 47 acres of property and 56 housing and 7 business displacements: 35 owner-occupied residences, 21 renter-occupied residences. There is one farm parcel in the western part of this segment, which is part of the farm business displaced in Segment 4.

The loss of residential units would be concentrated in one neighborhood in south Newberg north of SP Newsprint as shown in Figure 3.5-4. Design Option 5.1C.2 would
displace residential units on both sides of 11th Street between Columbia Street and Wynooski Road, due to closing 11th Street. This neighborhood includes an EJ population that is both a low-income and a minority population (see the Environmental Justice section of this chapter for additional details). This design option would displace some EJ households, and there would be a loss of some low-income housing. There could also be a permanent loss of rental housing if the owners of the displaced rental units should decide not to build replacement rental units elsewhere. This design option could adversely affect the housing stock available in this neighborhood.

There would be seven business displacements. The businesses are all located on one property and provide services such as house painting, plumbing, construction, and auto bodywork.

Construction of Design Option 5.1C.2 would also affect the cohesion of this south Newberg neighborhood as shown in Figure 3.5-4. The Bypass would alter the residential character of the neighborhood by bisecting it. This neighborhood would experience increased sound levels from forecast future traffic on the Bypass, including noise impacts to Scott Leavitt Park, a community resource. The displacement of residents (owners and renters) could disrupt community and social groups. These impacts could adversely affect the livability of the neighborhood and influence some residents to relocate out of the area.

Emergency service providers for the City of Newberg noted that SP Newsprint generates the highest number of calls in the city. However, they also noted that the local circulation changes in Design Option 5.1C.2 would not affect emergency response times to SP Newsprint.

Yamhill County would lose an estimated $143,729 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

The displacement of the seven businesses would have an adverse impact on employment and income in the project area if they were not able to relocate in the Newberg area.

**Design Option 5.1D.2**

**Direct Impacts**

Direct impacts would be identical to Design Option 5.1C.2. However, Design Option 5.1D.2 could have greater impacts on community cohesion than Design Option 5.1C.2, because under Design Option 5.1D.2, the Bypass is above-grade between River and College streets, instead of below-grade. This would result in higher sound levels from traffic on the Bypass since the alignment is raised in this area (there are fewer intervening barriers to reduce sound when a road is raised above its surroundings). The Bypass would also present a more pronounced visual barrier between the neighborhood and the Willamette River, because the height of the embankment would block existing views. These impacts would adversely affect the livability of the neighborhood and could influence some residents to relocate out of the area.

Yamhill County would lose an estimated $143,729 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

Indirect impacts would be the same as Design Option 5.1C.2.
Design Option 5.2D

Direct Impacts

Construction of Design Option 5.2D would result in fewer acquisitions than the other design options in this segment. This option would acquire about 46 acres of property and 29 owner-occupied residences, 19 renter-occupied residences, and 7 businesses. Design Option 5.2D would displace residential units on the south side of 11th Street between Columbia Street and Wynooski Road. Eleventh Street would remain open to traffic, and eight housing units on the north side of 11th Street would not be displaced. The seven business displacements are the same as described in 5.1C.2 and would have the same potential impacts. Community cohesion impacts would also be similar to Design Option 5.1D.2.

With this design option, there would be some displacement of SP Newsprint structures and facilities consisting of storage sheds, a training center housed in a manufactured home, and a storage area. It was determined that these facilities could be relocated without causing major impacts to operations, as the subject buildings are relatively inexpensive structures and there is room on the site for relocation. Thus, there would be a temporary impact on operations during relocation of these facilities that would likely include some short-term loss of employment and income generation at the plant.

Yamhill County would lose an estimated $160,307 in annual property tax revenue from property acquisition under this design option. This is about $15,000 more, annually, than with the other Segment 5 design options, due to the acquisition of SP Newsprint property rather than residential property.

Indirect Impacts

Indirect impacts would be the same as Design Option 5.1C.2.

Segment 6

Direct Impacts

Construction of the Build Alternative in this segment would result in the acquisition of about 43 acres and would displace 20 owner-occupied residences, 3 renter-occupied residences and 6 businesses. There are a number of farm operations located in the southern and eastern part of the Oregon 219 Interchange area. The size of farm parcels varies from about 12 acres to over 80 acres.

This area has a mix of auto-oriented commercial and industrial uses and the Avalon Park and Springbrook Estates manufactured home parks. The manufactured home developments are small, individually cohesive communities. Land acquisitions required for the Build Alternative would directly impact Avalon Park and Springbrook Estates. Interviews with the Manufactured Home Owners of Oregon (MHOO) suggest that both manufactured home parks include low-income residents.

It is estimated that 8 of the 34 residences in Avalon Park and 5 of the 126 residences in Springbrook Estates would be displaced. This would likely have an adverse impact on community cohesion. The impact on community cohesion could be greater at Avalon Park, where a greater percentage of units—24 percent at Avalon Park vs. 4 percent at Springbrook Estates—would be lost.

The MHOO representative noted that the Avalon Park units are relatively new, and could likely be moved to other locations without being demolished. Eight manufactured home parks in Newberg, Dayton, Lafayette, and south Sherwood were surveyed to estimate the number of available vacant manufactured home park sites and manufactured homes for sale. The eight manufactured home parks provide a total of 676 spaces. With an average estimated annual turnover rate of about 5 percent, about 34 spaces would become
available each year. However, there would be some overall loss of low-income rental or owner-occupied units, and some people might choose to relocate out of the area.

There would be six business displacements. Some of the businesses are located in the industrial park south of the airport. These businesses include a health club and automotive servicing. South of Wilsonville Road along Oregon 219, a horse boarding operation, U-Haul outlet, and coffee stand would be displaced.

The Newberg-Dundee Police Department noted that new local circulation patterns in Segment 6 would likely offset any adverse impacts from out-of-direction trips for emergency service providers.

The 23 residential and 6 business acquisitions in Segment 6 would remove an estimated $30,829 in annual property tax revenue from Yamhill County.

**Indirect Impacts**

The displacement of the six businesses would have an adverse impact on employment and income in the project area if they were not able to relocate in the Newberg area. Changes to the local street system required by the construction of the Build Alternative in this area would require motorists to make some out-of-direction trips where homes and businesses are located adjacent to the new roadway. This would have an indirect impact, both on residents whose homes were not acquired in construction and on remaining businesses in the immediate area.

**Segment 7**

**Design Option 7.4C**

**Direct Impacts**

Construction of Design Option 7.4C would result in the acquisition of about 56 acres of property. There would be two owner-occupied residential displacements, one renter-occupied residential displacement, and one business displacement. There are a number of farm operations within the segment. The sizes of farm parcels vary from about 12 acres to over 25 acres.

Design Options 7.4C would require a little over 2 acres of undeveloped land located south of Fernwood Road owned by CPRD (see the Parks and Recreation section of this chapter for additional information). Design Option 7.4C would divide the Newberg Providence Hospital medical campus, preventing construction of supporting medical buildings called for in the hospital’s master plan.

Changes to local roads would have a slight effect on emergency response times to properties throughout the segment. Decreased congestion on Oregon 99W would result in decreased emergency response times for some properties, while the reconfiguration of existing roadways would result in slightly increased response times for others. The changes in response times are estimated to be less than a minute. The Newberg Police and Newberg Fire Departments noted that emergency response to incidents and crashes on the Bypass would be affected by access to the Bypass only at the East Newberg and Oregon 219 Interchanges. This would create out-of-direction travel and increased response times if emergency vehicles are not allowed to cross the median to travel in the other direction.

Yamhill County would lose an estimated $38,650 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

Design Option 7.4C could have the indirect impact of inhibiting development in east Newberg on land east of the Bypass and west of the UGB. While these lands would have
access to the rest of Newberg via Fernwood Road, the Bypass could act as a barrier to growth. A highway facility can be a barrier to growth because it disrupts the street network and typically constrains cross-highway movements to fewer points. This can increase congestion and travel times at these locations, making people more hesitant to travel across the highway. The displacement of the one business could have an adverse impact on employment and income in the project area if it was not able to relocate in the Newberg area.

**Design Option 7.5C**

**Direct Impacts**

Design Option 7.5C would require the acquisition of about 58 acres and would displace two owner-occupied residences, one renter-occupied residence, and one business. Impacts to farm parcels and operations, analysis of replacement housing, and emergency services concerns would be the same as for Design Option 7.4C.

Design Option 7.5C would require approximately 3 acres of undeveloped land located south of Fernwood Road owned by CPRD. Design Option 7.5C would also impact about 3 acres of Hole 2 of the Chehalem Glenn Golf Course, but this design option would allow execution of the Newberg Providence Hospital master plan (see the Parks and Recreation section in this chapter for additional information).

Design Option 7.5C would move the Bypass alignment to the east, north of Fernwood Road, limiting impacts to the hospital. CPRD and Newberg Providence Hospital have entered into an agreement and have exchanged two permanent easements. The purpose of this exchange is to enable the hospital medical campus to develop medical office buildings immediately adjacent to the hospital, consistent with the hospital’s master plan, and to enable CPRD to reconstruct portions of its golf course to improve overall play. The hospital has planned its medical campus with knowledge of the location of the Bypass. The location of Design Option 7.5C is consistent with that planning effort (see the Parks and Recreation section of this chapter for additional information).

Yamhill County would lose an estimated $29,431 in annual property tax revenue from property acquisition under this design option.

**Indirect Impacts**

Indirect impacts would be similar to Design Option 7.4C.

**Segment 8.1**

**Direct Impacts**

Construction of Segment 8.1 would require the acquisition of about 30 acres and would displace two owner-occupied residences, two renter-occupied residences, and one business. There are a number of farm operations within the segment. The size of farm parcels varies from about 10 acres to over 29 acres. One newspaper distribution business would be displaced.

Local circulation changes are designed to reestablish local connectivity that would be lost by construction of the East Newberg Interchange, which would help to maintain community cohesion in this area.

Changes to local roads would have a similar effect on emergency response times to properties within this segment as in Segment 7, particularly the inability to move from eastbound on the Bypass to westbound Oregon 99W. This would affect emergency services traveling from the Bypass to the Newberg Providence Hospital on Oregon 99W. Emergency service providers traveling eastbound on the Bypass would exit at the Oregon 219 Interchange and use the local street system to get to the hospital. This would
not adversely affect emergency response times because the Build Alternative reduces congestion and improves travel in the project area over the No Build Alternative.

Yamhill County would lose an estimated $6,709 in annual property tax revenue from property acquisition for this segment.

**Indirect Impacts**

Permanent road closures, rerouted local streets, and new connector streets required by the construction of the Build Alternative in this area would require motorists to make some out-of-direction trips where homes and businesses are located adjacent to the new roadway. This would have an indirect impact, both on residents whose homes were not acquired during construction and on remaining businesses in the immediate area. The displacement of the one business could have an adverse impact on employment and income in the project area if it was not able to relocate in the Newberg area.

**Segment 8.1A**

**Direct Impacts**

This segment would result in about 13 acres of property acquisition, most of it adjacent to Oregon 99W. There would be ten displacements: six owner-occupied residences and four businesses. Most of the acquired property would be rural residential but there are a number of farm operations within the segment. The size of farm parcels varies from about 2 acres to over 39 acres.

There would be four business displacements. The businesses are engaged in providing services such as real estate sales, music instruction, and carpentry.

Local circulation changes are designed to reestablish local connectivity that would be lost with the widening of Oregon 99W. This would likely provide some benefit in maintaining community cohesion.

Changes to local roads on Oregon 99W would have an effect on emergency response times to properties throughout the segment. Oregon 99W would have a median barrier from the East Dundee Interchange to the Haugen Road intersection. This would eliminate all left turning movements in this section of Oregon 99W. It is estimated that emergency response times to properties on Rex Hill would increase by 2-4 minutes depending on which side of Oregon 99W the property is located. The Newberg-Dundee Police and Newberg Fire Departments also noted that the median barrier could potentially increase emergency vehicle response times to calls in the area because the median barrier eliminates the possibility of making U turns on Oregon 99W.

Yamhill County would lose an estimated $5,509 in annual property tax revenue from property acquisition, and Washington County\(^{12}\) would lose about $915 in annual property tax revenue from property acquisition for this segment.

**Indirect Impacts**

Indirect impacts would be similar to Segment 8.1.

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\(^{12}\) An aggregate property tax figure was used in the analysis of property taxes forgone in Washington County. The aggregate figure includes all taxing districts within Washington County, including municipal, school, and special service districts.
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