3.5 ENVIRONMENTAL JUSTICE

3.5.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with Title VI of the Civil Rights Act and Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This section provides documentation of the project’s compliance with Title VI of EO 12898 on Environmental Justice, including a description of the regulatory and affected environment and a summary of the project alternative’s impacts on environmental justice (EJ) populations. This section concludes with a finding pursuant to EO 12898 (see Section 3.5.6). Section 5.7 provides a summary of the project’s EJ public outreach efforts. Title VI prohibits discrimination on the basis of race, color, or national origin. EO 12898 directs each federal agency, “[t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, polices, and activities on minority populations and low-income populations...” (EO 12898 Section 1-1). For the purposes of this section, minority and low-income populations are also referred to as protected populations or EJ populations.

The U.S. Department of Transportation (DOT) and FHWA have considered the following documents to ensure compliance with EO 12898:

- DOT’s Final EJ Strategy (Federal Register, Vol. 60 No. 125 - June, 29, 1995);
- DOT’s EJ Order (Federal Register, Vol. 62 No. 72 – April 15 1997);
- FHWA’s EJ Order 6640 (December 2, 1998); and

3.5.2 Affected Environment

This section describes the existing minority and low-income conditions in the project area, including the regulatory setting, data sources, and demographic characteristics related to low-income and minority populations, also known as EJ populations, for the proposed project. ODOT’s efforts to involve low-income and minority populations within the project is described in Chapter 5.

3.5.2.1 Data Sources

Several data sources were used to indicate the potential presence of minority and low-income populations within the project area. Information comes from the Oregon Business Development Department’s (OBDD) list of Distressed Communities, the 2010 U.S. Census, the 2005-2009 American Community Survey (ACS), and interviews with residents potentially displaced and relocated by the project.

Environmental Justice Populations: A collective term for low-income and minority populations. Executive Order 12898 requires federal agencies “...to determine whether their programs, policies, and activities have disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.”

13 The OBDD was formerly named the Oregon Economic and Community Development Department.
proposed project. Interviews with staff from Newberg, Dundee, Dayton, Yamhill County, social service agencies,\textsuperscript{14} and the staffs of schools provided additional information. The various interviews helped identify community resources that serve protected populations throughout Newberg, Dundee, and Dayton. No single data source is definitive, and data have been analyzed collectively.

Newberg and Dayton school district staffs provided information on eligibility guidelines for the U.S. Department of Agriculture’s (USDA) National School Lunch Program. These data provide additional insight on the economics of the project area and the potential for low-income populations, but do not provide information on race or ethnicity.

Interviews with residents potentially displaced and relocated by the project provide the most specific data on minority and income status. Right-of-way agents met with individual households in June and July 2007 to gather information on household size, race and ethnicity, income and special needs. Agents contacted 103 households potentially impacted by the project; 93 households participated in the survey, representing about 236 residents.

This Tier 2 FEIS includes minority and low-income population data from the 2010 U.S. Census and the 2005-2009 ACS. The Tier 2 DEIS cited the 2000 Census, as that was the most current demographic data available at that time at the level of geography necessary for detailed analysis. The release of preliminary 2010 Census results in early 2011 and ACS results in late 2010 have allowed the use of more recent data for the purposes of assessing project impacts to adjacent neighborhoods, as well as to EJ populations.

As of 2010 the U.S. Census no longer includes income questions; therefore, the project team reviewed the ACS data to provide more recent income information than was provided by the 2000 Census. The 2005-2009 ACS estimate is the first data release available at the census tract level since the survey’s inception in 2005. It reports income characteristics based on data collected from January 1, 2005, to December 31, 2009. It is not analogous to a population count such as 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. The short form only requests basic demographic information on the number, relation, age, sex, and race/ethnicity of residents in each household and does not request 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 census unit of geography larger than the block group. ODOT decided that the same geographic unit (i.e., census tract) should be used for both low-income and minority populations. Project staff compared the 2010 data for race at both the census block and census tract levels (as this was available from the census) to see if they would yield similar results. The comparison demonstrated that the total minority population in the study area only varied by 0.001 percent between the two geographic areas. Thus, this Tier 2 FEIS uses census tract level data for both low-income and minority populations. The following seven census tracts make up the Census Study Area: 301.01, 302.01, 302.02, 303.01, 309, 321.03, and 322 (see Figure PA 3.5-1).

\textsuperscript{14} Agencies contacted included the Housing Authority of Yamhill County, Community and Shelter Assistance Corporation (CASA), and Manufactured Housing of Oregon.
3.5.2.2 Environmental Justice Populations

Minority and/or low-income persons make up protected populations. A minority population includes any readily identifiable group of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who might similarly be affected by a proposed FHWA program, policy, or activity. The U.S. Department of Transportation (DOT) Order 5610.2 defines a minority as anyone who is Black/African American, Asian, a Pacific Islander (including Native Hawaiian), American Indian or Alaskan Native, or is of Hispanic/Latino culture or origin, regardless of race.\textsuperscript{15}

FHWA Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (DOT Order 6640.23) defines low-income as "a person whose household income is at or below the Department of Health and Human Services (DHHS) poverty guidelines."\textsuperscript{16} In 2007, the DHHS poverty guideline was $20,650 for a family of four; this number was used to determine the presence of low-income populations, in conjunction with the right-of-way survey conducted in June and July 2007, that could potentially be displaced by the project. For impacts to low-income populations other than displacements, the 2011 DHHS poverty guideline is used, which for a family of four is $22,350. Some of the data sets used in this analysis aggregate individuals into populations, while other data sets report at the household level.

**Distressed Communities**

The OBDD updates its list of distressed communities on an annual basis. To determine whether a city is distressed, four factors are compared to OBDD thresholds:\textsuperscript{17}

- Poverty rate (i.e., percent of the population in poverty)
- Per capita personal income
- Percent of population aged 25 or older with college education
- Unemployment rate

The distressed communities list is used to highlight Oregon communities that may need additional support. The distressed designation may provide a community with an advantage if it applies for funds from state and federal sources. A temporary distressed community methodology is used to determine if a county is a distressed community (all places and cities within a distressed county are considered distressed). The temporary methodology is used when the current unemployment rate for the state exceeds 8 percent. As of October 2011, Oregon's unemployment rate was 9.5 percent.\textsuperscript{18}

Under the temporary methodology used for counties, one factor is examined: the seasonally adjusted unemployment rate for the county (for the period in which the most recent data is available). If a county's unemployment rate exceeds 8 percent in a month in which Oregon's unemployment rate exceeds 8 percent, the county is distressed. As of October 2011, Yamhill County's unemployment rate is 9.4 percent.\textsuperscript{19} As a result, Newberg, Dundee and Dayton are all considered distressed communities.

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\textsuperscript{15} Although Hispanic is a defined minority, it is reported separately from other minorities. This is because the definition of Hispanic is culturally rather than racially defined. Reporting Hispanics separately avoids double counting.

\textsuperscript{16} U.S. Department of Health and Human Services, 2010.

\textsuperscript{17} See OAR 123-024-0031 for the methodology to determine the threshold.


\textsuperscript{19} Oregon Employment Department, 2011.
Minority and Low-Income Populations

To determine the possible presence of minority populations, both 2010 U.S. Census data and door-to-door surveys of potentially displaced and relocated residents (conducted in June and July 2007) were analyzed. Table PA 3.5-1 shows the total population and the population of non-whites and Hispanics in Oregon, Yamhill County, Washington County, the cities of Newberg, Dundee, and Dayton, and the census study area. In 2010, approximately 16 percent of Oregon residents, 15 percent of Yamhill County residents, and 23 percent of Washington County residents were non-white. A smaller percentage of minorities lived in Newberg (14 percent) and in Dundee (9 percent). By contrast, approximately one in five Dayton residents (about 21 percent) were non-white. According to these data, Dayton has the highest potential for minority populations to be present and potentially impacted by the project.

Table PA 3.5-1. Total Population and Minority Population by Area (2010)

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Population</th>
<th>Non-White Residents</th>
<th>% of Total Non-White Residents</th>
<th>Hispanic Residents</th>
<th>% of Total Hispanic Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td>3,831,074</td>
<td>626,460</td>
<td>16.4</td>
<td>450,062</td>
<td>11.7</td>
</tr>
<tr>
<td>Yamhill County</td>
<td>99,193</td>
<td>14,435</td>
<td>14.6</td>
<td>14,592</td>
<td>14.7</td>
</tr>
<tr>
<td>Washington County</td>
<td>529,710</td>
<td>124,068</td>
<td>23.4</td>
<td>83,270</td>
<td>15.7</td>
</tr>
<tr>
<td>Newberg</td>
<td>22,068</td>
<td>3,102</td>
<td>14.1</td>
<td>2,985</td>
<td>13.5</td>
</tr>
<tr>
<td>Dundee</td>
<td>3,162</td>
<td>277</td>
<td>8.8</td>
<td>329</td>
<td>10.4</td>
</tr>
<tr>
<td>Dayton</td>
<td>2,534</td>
<td>528</td>
<td>20.8</td>
<td>758</td>
<td>29.9</td>
</tr>
<tr>
<td>Census Study Area</td>
<td>55,007</td>
<td>8,114</td>
<td>14.8</td>
<td>7,864</td>
<td>14.3</td>
</tr>
</tbody>
</table>

Source: Newberg Dundee Bypass Tier 2 Final Environmental Justice Technical Memorandum, ODOT 2012.

Note: The Census asked separate sets of questions on race and on Hispanic, Spanish, or Latino ethnicity. These two sets of information cannot be combined.

a All census tracts intersecting the Corridor – see Figure PA 3.5-1.

In 2010, the census study area had a lower percentage of non-white population than Washington County and a slightly higher percentage of non-white population as Yamhill County. Within the census study area, the three census tracts with highest percentages of non-white populations were CT 302.01, CT 302.02, and CT 309, with 16.5, 18.6 and 17.8 percent, respectively. Figure PA 3.5-2 shows these census tracts with higher proportions of non-white populations than county averages, which are generally located in the area just south of Newberg and in the area between Dayton and Dundee.

There were higher percentages of Hispanic residents in both counties, with about 15 to 16 percent in Yamhill and Washington Counties, compared to about 12 percent in Oregon. Newberg had a slightly higher rate than the state at about 14 percent. Dayton had the highest rate, with almost 30 percent. The census data show that about 15 percent of census study area residents were non-white and about 14 percent were Hispanic in 2010, indicating the potential presence of protected populations in the census study area.

In 2009, about 14 percent of Oregonians were living beneath the DHHS federal poverty guidelines (see Table PA 3.5-2). In comparison, both Yamhill County (at about 12 percent) and Washington County (at about 10 percent) had fewer low-income persons than the state. An estimated 2,616 residents of Newberg, or about 12 percent of the city’s

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20 Percentages in text have been rounded for readability. Please note that due to rounding, the approximate percentages in the text may not add up to precisely 100 percent.
population, were living in poverty. In Dundee, the rate was much less at about 3 percent, or 79 residents. Approximately 240 residents in Dayton (over 9 percent of its total population) were beneath the federal poverty guidelines.

In the census study area, poverty levels by percentage were less than for the counties; however, there were several census tracts where the percentages of low-income populations were higher than the county averages. Census tracts that had higher percentages of persons living under poverty than the county were CT 302.01 and CT 302.02 at 18.6 and 16.2 percent, respectively. Figure PA 3.5-3 shows the census tracts with higher than county averages for persons living below the poverty threshold.

### Table PA 3.5-2. Low-Income Populations by Area (2009 estimated)

<table>
<thead>
<tr>
<th>Area</th>
<th>Total Population</th>
<th>Population Living Below Poverty Guidelines</th>
<th>% of Total Population Living Below Poverty Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oregon</td>
<td>3,831,074</td>
<td>547,844</td>
<td>14.3</td>
</tr>
<tr>
<td>Yamhill County</td>
<td>99,193</td>
<td>12,200</td>
<td>12.3</td>
</tr>
<tr>
<td>Washington County</td>
<td>529,710</td>
<td>52,971</td>
<td>10.0</td>
</tr>
<tr>
<td>Newberg</td>
<td>22,068</td>
<td>2,616</td>
<td>11.8</td>
</tr>
<tr>
<td>Dundee</td>
<td>3,162</td>
<td>79</td>
<td>2.5</td>
</tr>
<tr>
<td>Dayton</td>
<td>2,534</td>
<td>240</td>
<td>9.5</td>
</tr>
<tr>
<td>Census Study Area</td>
<td>55,007</td>
<td>4,923</td>
<td>8.9</td>
</tr>
</tbody>
</table>

Source: Newberg Dundee Bypass Tier 2 Final Environmental Justice Technical Memorandum, ODOT 2012.

Note: The 2009 federal poverty level guideline for a family of four was $22,050.

a All census tracts intersecting the Corridor – see Figure PA 3.5-1.

### Public and Subsidized Housing

The Housing Authority of Yamhill County (HAYC) provides subsidized housing for low-income persons in Yamhill County. Public housing units are those that are owned by HAYC. As of September 2011, 190 subsidized housing units were located in the census study area. There are 130 units in Newberg, 28 in Dundee and 60 in Dayton. Most of these units are Section 8 subsidized, handicapped-accessible, senior, disabled, or farm worker housing units.

Section 8 Housing: Housing subsidies enacted under the U.S. Housing Act of 1937 and managed by the U.S. Department of Housing and Urban Development for low-income families and individuals.
Figure PA 3.5-2 Non-White / Hispanic Populations

- Census Tract
- Census Tract Where % of Hispanic Population are Above County Average
- Census Tract Where % of Non-White Population are Above County Average

Figure PA 3.5-3 Low Income Households

- Census Tract
- Census Tract Where % Low Income are Above County Average of 12.3%
USDA National School Lunch Program Eligibility

USDA provides funding for children in families below federal poverty guidelines to receive free or reduced-cost school lunches, milk, and/or breakfasts. Figure PA 3.5-4 shows the school boundaries and the percentage of eligible students in each school. Well over half of the students at Edwards Elementary School in South Newberg (70 percent) and Dayton Elementary School (68 percent) are eligible for the USDA program, suggesting that protected populations, based on low-income status, live within the project area.

Bypass Right-of-Way Interviews

Interview information on home ownership, household size, gender, race, ethnicity, household income, and household special needs was gathered in 2007 to identify minority and low-income households that could potentially be displaced and relocated by the proposed project. These are mostly located in the South Newberg area.

Community Resources

The location of community facilities and resources serving EJ populations can indicate the presence of these populations. Interviews with school and community officials and staff identified the community facilities and resources serving the residents, including EJ populations. Figure PA 3.4-2 in Section 3.4, Socioeconomics, shows the location and type of community resources near the project.

Another community resource for EJ populations is the transit service provided by Yamhill Community Action Partnership (YCAP). Because EJ populations include low-income individuals, transit could be their only means of transportation. YCAP serves Newberg, Dundee, and Dayton with fixed-route service to Sherwood, Monday through Saturday. The service utilizes Oregon 99W through Dundee and Newberg to Dayton. YCAP also provides services to Hillsboro and Salem via McMinnville. For information on YCAP services see their Web site at http://www.yamhillcap.org.

Summary of Environmental Justice Populations

The project area was evaluated for the likely presence of EJ populations. Based on the data from the census and ACS, school lunch subsidies, the locations of public and subsidized housing units and interviews with residents who may potentially be displaced and relocated by the project, a few locations within the project area are likely to contain EJ populations.

- EJ populations are likely present within that portion of the project area northeast of Dayton extending to rural land between Dayton and Dundee.
- As the project extends east, the area within the Dundee urban growth boundary (UGB) to the East Dundee Interchange is not likely to contain EJ populations.
- EJ populations are located in the South Newberg area, north of SP Newsprint, in the vicinity of the Bypass intersection with Oregon 219, and along Springbrook Road (Segments 5 and 6). These areas include the Mill neighborhood and the Avalon Park, Springbrook Estates, Nut Tree Ranch, and Mountain View mobile home parks.
Figure PA 3.5-4  School Boundaries

School Boundaries and Percent Free & Reduced Lunch

- **Dayton Elementary:** 68% Free & Reduced Lunch
- **Dundee Elementary:** 30% Free & Reduced Lunch
- **Edwards Elementary:** 70% Free & Reduced Lunch
- **Joan Austin Elementary:** 49% Free & Reduced Lunch
- **Mable Rush Elementary:** 43% Free & Reduced Lunch

Schools:
- **Dayton Elementary**
- **Dundee Elementary**
- **Edwards Elementary**
- **Joan Austin Elementary**
- **Mable Rush Elementary**

Date: 2/26/2012  Path: P:\GIS\Projects\NewbergDundee\FEIS\EJ\ND_FEIS_SchoolBoundaries.mxd
3.5.3 Environmental Consequences

This section discusses the potential impacts of the No Build Alternative, Preferred Alternative and Phase 1 of the Preferred Alternative (Phase 1) on EJ populations within the project area. Impacts to EJ populations are assessed based on EO 12898 and subsequent DOT and FHWA orders that identify disproportionately high and adverse impacts as either:

- An impact that is predominantly borne by minority populations or low-income households.
- An impact that would be suffered by these populations in a way that is appreciably more severe or greater in magnitude than would be suffered by non-minority or non-low-income populations.

When determining whether a program, policy, or activity will have disproportionately high and adverse effects on EJ populations, FHWA considers mitigation and enhancement measures and potential offsetting benefits to the affected minority or low-income populations. Other factors that may be taken into account include design, comparative impacts, and the relevant number of similar existing system elements in non-minority and non-low-income areas.

3.5.3.1 No Build Alternative

Direct Impacts

Under the No Build Alternative, no property acquisitions would have been required, and there would have been no household or business displacements to affect low-income or minority persons. There would not have been direct loss of jobs or potential loss of income to EJ populations. In addition, there would not have been impacts such as reduced aesthetic values, adverse air quality impacts, or reduced public services/facilities for EJ populations.

Traffic volumes will increase over time, which will increase noise levels. It is predicted that 2035 noise levels would have caused 58 properties to approach or exceed ODOT’s Noise Abatement Approach Criteria (NAAC) (noise levels equal to or greater than 65 dBA), as compared to 34 properties currently at those levels (see Section 3.10, Noise and Vibration).

Traffic congestion would have continued to increase on Oregon 99W, which would have adversely affected transit travel time (public transit is often used more extensively by EJ populations). However, these traffic impacts are not disproportionately borne by EJ populations, but rather are experienced by all motorists and public transit system users. Therefore, there would have been no disproportionately high and adverse direct impacts to EJ populations from the No Build Alternative.

Indirect Impacts

The indirect adverse impacts of the No Build Alternative would have stemmed from the increasing traffic congestion on Oregon 99W. In the cities of Newberg and Dundee, this congestion could have had negative impacts on businesses by making these areas less desirable for shopping. In turn, business slowdowns may have affected employment and income. In addition, traffic that cuts through neighborhoods to avoid congestion could have reduced neighborhood livability. However, these effects would have been borne by all, and there is no indication that these would have been disproportionate to minority or low-income populations.
3.5.3.2 Preferred Alternative

Direct Impacts

The Preferred Alternative’s direct impacts to minority or low-income populations will include residential and business displacements, increased noise and vehicle pollutant emissions, traffic pattern changes, connectivity issues, and visual impacts. There will also be beneficial effects, such as the creation of construction-related jobs and improvements in travel times. These are described below.

Residential Displacements

There will be 101 potential residential displacements under the Preferred Alternative (see Table PA 3.5-3). Approximately 15 of these will be low-income or minority residences, based on the residential relocation survey. Most of these relocations will be located generally in the South Newberg area in Segments 5 and 6 (see Figure PA 3.5-5). There will also likely be some displacement of low-income or minority residences in both Segments 4 and 8.1. Residential displacements may cause impacts including breaking up social groups, causing difficulty in finding replacement housing, and separating these populations from community services. However, the residential displacements will not involve an impact that is predominately borne by EJ populations, as there will potentially be 15 minority or low-income residences displaced, compared to 80 non-minority/low-income residences (based on the 2007 survey). Further, 4 percent of the total households potentially relocated by the project are non-white households, and approximately 5 percent are Hispanic households. Approximately 2 percent of the displaced residences are low-income, which is well below the percentages of minority (14.8 percent non-white and 14.3 percent Hispanic) and low-income (8.9 percent) persons located in the census study area. In addition, the impacts from displacement/relocation will be the same for both EJ and non-EJ populations.

During alternative development, ODOT worked to avoid and minimize displacements. For displacements that could not be avoided, ODOT will use mitigation measures to assist displaced residences, which will include financial compensation, help in locating replacement housing and, in the event that comparable housing is not available, ODOT will consider housing of last resort. ODOT has been aggressive in acquiring housing to ensure that replacement housing will be available. ODOT has also been considering purchase of mobile homes that can be transferred to Habitat for Humanity for use as replacement housing. These measures will reduce the impacts of displacement on EJ populations.

Table PA 3.5-3. Potential EJ Residential Impacts for the Preferred Alternative

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Relocations</td>
<td>95</td>
</tr>
<tr>
<td>Estimated Number of Minority Residential Relocations</td>
<td>4</td>
</tr>
<tr>
<td>Minority Relocations as a Percentage of the Total Residential Relocations</td>
<td>4.2%</td>
</tr>
<tr>
<td>Estimated Number of Hispanic Residential Relocations</td>
<td>8</td>
</tr>
<tr>
<td>Hispanic Relocations as a Percentage of the Total Residential Relocations</td>
<td>8.4%</td>
</tr>
<tr>
<td>Estimated Number of Low-Income Residential Relocations</td>
<td>3</td>
</tr>
<tr>
<td>Low-Income Relocations as a Percentage of Total Residential Relocations</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: Newberg Dundee Bypass Tier 2 Final Environmental Justice Technical Memorandum, ODOT 2012.
Note: Not all relocated households were able to be interviewed. A total of 93 were interviewed and 79 chose to share information about income; a large enough sample to represent the overall impacts.
Business Displacements

There will be about 26 potential business displacements under the Preferred Alternative (business displacements by segment are shown in Table PA 3.4-8 in Section 3.4, Socioeconomics). Approximately half of the potential business displacements will take place in Segments 5 and 6 (13 businesses). There is potential for some of the 26 businesses to be owned by minority persons, but no survey was performed to determine if businesses were owned by minority persons. However, the businesses potentially displaced are not examples of businesses that are likely to be a community resource for EJ populations. For example, the potentially displaced businesses in Segments 5 and 6 (the area most likely to contain EJ populations) include businesses such as auto body repair, house painting, plumbing and construction. There is also little likelihood that business displacement will be a more severe impact on EJ populations as compared to non-EJ populations, given that there are programs in place such as the Uniform Relocation Assistance and Real Properties Acquisition Policies Act, to assist displaced minority-owned businesses, as well as non-minority-owned businesses.

Neighborhoods

The Bypass will run along the edge of three neighborhoods in Segments 5 and 6 (Mill, Avalon Park, and Springbrook Estates) which contain EJ populations. The neighborhoods are located near the Oregon 219 interchange and the area north of SP Newsprint (see Figure PA 3.5-5). Neighborhood impacts include increased traffic noise, changes in neighborhood character due to visual and air quality effects, and changes in circulation patterns (see the sections on noise, air and visual quality, and transportation). The Bypass alignment was located along the edge of these neighborhoods to maintain the integrity of the neighborhoods.

Community Facilities and Resources

Community facilities and resources are identified on Figure PA 3.4-2 and are discussed in the Section 3.4, Socioeconomics. Of these community facilities, Chehalem Glenn Golf Course and Providence Newberg Medical Center are directly impacted by the Preferred Alternative. None of these facilities was identified by city/county staff, social service agencies or school staff as a substantial resource to any EJ populations. The other community facilities and resources, such as transit, schools, churches, restaurants and social services will not have any changes affecting their use by minority or low-income populations.

Noise

The Preferred Alternative, specifically the Bypass, will increase the sound levels along its entire length from traffic. Without likely noise abatement measures, there will be the potential for up to 325 properties to experience a noise impact from the Preferred Alternative. A noise impacted property is a property that receives noise that will approach (within 2 dBA) or exceed ODOT’s NAAC (noise levels equal to or greater than 65 dBA), or experience a substantial noise increase (an increase of 10 dBA or more).\(^2\)

In Segment 1, there are few residences in the area and they are not located near the Preferred Alternative, thus there will be no noise impacts in this area. Over half of the potential noise impacts are predicted to occur in Segments 5 and 6 (218 properties) with noise level increases ranging from 10 to 22 dBA (impacts at nine locations would be due to exterior noise levels exceeding 64 dBA). The EJ populations in the Mill, Avalon Park, and Springbrook Estates neighborhoods will be affected (refer to Section 3.5.3.3 for

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\(^2\) Sound level increases will affect more than the 325 properties, but only 325 properties will approach or exceed ODOT’s Noise Abatement Approach Criteria (NAAC) or experience an increase in noise levels of 10 dBA or more.

**Newberg Dundee Bypass**  
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In Segments 3 and 4 (combined) there will be 58 potential noise impacts. In Segments 7 and 8 there will be 22 and 19 potential noise impacts, respectively.

ODOT typically provides noise abatement (mitigation) in the form of noise walls, if the walls are determined to be reasonable and feasible in reducing sound levels, based on ODOT’s criteria. One threshold measure that ODOT uses to determine reasonableness is that owners and residents must be in favor of the noise wall. ODOT has made a preliminary determination of likelihood that noise walls will be feasible and reasonable in Segments 5 and 6. ODOT will continue to update that assessment in greater detail during final design of the project, which will include a survey of potentially benefited property owners and residents. If the noise walls continue to meet ODOT’s feasibility and reasonableness criteria, and if over half of the property owners and residents agree to the noise walls (as per a formula outlined in the ODOT Noise Manual, ODOT, July 2011), ODOT will install noise walls to reduce the noise impacts from the Bypass for the three neighborhoods in Segments 5 and 6 with EJ populations. These neighborhoods are Mill, Avalon Park and Springbrook Estates (also refer to Section 3.5.3.3 for Phase 1). ODOT estimates that 196 properties in these areas will benefit from the likely noise walls (with a 5 dBA or greater reduction). ODOT will make special efforts to contact minority and low-income persons in these neighborhoods so they are included in the decision-making process for the noise walls.

If constructed, the noise walls will range in size from 12 to 14 feet high and will reduce sound levels to or below the regulatory threshold of 65 dBA. ODOT’s goal is to reduce sound levels by at least 7 to 10 dBA. For example, in the Mill neighborhood, 5 properties will exceed the regulatory threshold without mitigation and 33 properties will have increases in sound of over 10 dBA. With the noise wall, this neighborhood, which contains EJ populations, will experience sound reductions of up to 12 dBA. Sound levels will also be reduced below the regulatory threshold, ranging from 49 to 62 dBA. The noise walls will provide sound reduction to EJ populations including 156 properties in the Mill neighborhood, 12 residences in the Avalon Park mobile home park, and 28 residences in Springbrook Estates. All of these areas may contain EJ households or populations.

**Air Quality**

Air quality was modeled for the future condition (2035) and results indicated that regional emissions of nitrogen oxides (NOx) and volatile organic compounds (VOC) will be reduced over 2011 levels. The reductions are estimated to be 104 tons/year of NOx, and 16 tons/year of VOCs. The 2035 PM2.5 and PM10 emissions are estimated to remain about the same as in 2011 at 4 and 8 tons/year, respectively. Emissions of carbon monoxide (CO) are predicted to increase by 603 tons/year over 2011 levels, and would be 118 tons/year greater than the 2035 No Build Alternative. Thus, vehicle emissions will either be reduced or stay approximately the same in 2035 as in 2011, except for CO, even though vehicle miles travelled will increase by 70 percent. Future year vehicle fleets are anticipated to have lower emissions due to improvements in fuels and emission control technology; however, the reduction in CO emissions is not enough to offset the increase in vehicle miles travelled by 2035. On a regional scale the increase in CO is not expected to change the regional air quality status. Therefore, air quality is not anticipated to adversely impact EJ populations.

**Transportation Connectivity**

Traffic patterns and connectivity between neighborhoods and community facilities are expected to change under the Preferred Alternative. For example, local circulation changes in Segment 1 have the potential for additional traffic through a portion of Dayton. Dayton is identified as a distressed community and has a poverty rate of over 9 percent according to the 2009 ACS. Segments 4, 7, 8.1, and 8.1A could experience increased emergency response times due to new local roadway connections.
Local street connectivity will be altered by the Preferred Alternative, particularly in Segments 5 and 6. In both of these segments, the neighborhood connectivity will be interrupted by the Bypass, but no streets or destinations will be unreachable after construction. Because of the maintenance of access and connectivity, there will be no related adverse impact to EJ populations. Additional mitigation for connectivity issues is proposed and described in the mitigation section.

**Visual**

Visual impacts will result from the construction of structures for interchanges, noise walls, and the above-grade portions of the Bypass. These impacts include blocked or altered views and changes in aesthetics, which could affect EJ populations that are located close to the Bypass. In particular, noise walls may be constructed next to the Bypass near three neighborhoods with minority/low-income populations (Mill, Avalon Park and Springbrook Estates), which will result in a visual change (also refer to Section 3.5.2.3 for Phase 1). Thus, EJ populations will be affected by any noise walls that are built in their areas. However, ODOT proposes mitigation to reduce the visual impacts resulting from the Preferred Alternative.

**Automobile Travel Time**

The Preferred Alternative will provide benefits to EJ populations by reducing travel times as compared to the No Build Alternative. Table PA 3.5-4 shows the projected travel time benefits of the Preferred Alternative for EJ populations located in the East Newberg area. As shown in the table, there will be substantial travel time savings ranging from 21 to 74 percent depending on the direction of travel for residents in the East Newberg area, which includes the EJ populations in Segments 5 and 6.

**Table PA 3.5-4. Potential Travel Time Benefits of the Preferred Alternative for EJ Populations in East Newberg**

<table>
<thead>
<tr>
<th></th>
<th>Minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>From 219 to</td>
</tr>
<tr>
<td></td>
<td>East End</td>
</tr>
<tr>
<td>2035 No Build</td>
<td>14</td>
</tr>
<tr>
<td>2035 Preferred Alternative</td>
<td>11</td>
</tr>
<tr>
<td>Travel Time Savings</td>
<td>3 (21%)</td>
</tr>
</tbody>
</table>

Source: Newberg Dundee Bypass Tier 2 Final Environmental Justice Technical Memorandum, ODOT 2012.

**Public Transit**

Low-income populations have less money to spend on automobiles and frequently use public transportation. The Preferred Alternative will reduce congestion on Oregon 99W, allowing more efficient operation of public transit services. In general, transit travel times will be reduced, similar to those for automobiles, and transit reliability will improve due to reduced congestion. The reduction in transit travel time and improvement in transit reliability will benefit EJ populations that use public transportation in the project area.

**Indirect Impacts**

Potential indirect impacts on EJ populations for the Preferred Alternative are related to businesses and farms that may employ minorities or low-income individuals. Up to 26 businesses will potentially be displaced as part of the Preferred Alternative. Overall, approximately 65 employees could lose their jobs because of these displacements (see Section 3.4, Socioeconomics). In the South Newberg area (Segments 5 and 6),
approximately 38 jobs could be lost. This job loss will constitute approximately 0.4 percent of the total jobs (9,079) available in Newberg, which will not constitute a high and adverse effect on EJ populations.

The Preferred Alternative will impact farm operations in Segments 1, 2, 3, 4, 7, and 8.1 in some way. However, acquisition is not expected to change the ability of most farms to function (two farms in Segment 4 will no longer be viable). There is potential for an indirect impact from loss of farm jobs if property acquisition reduces the need for workers (there are two permanent and five seasonal farm jobs associated with properties affected by farmland acquisition). It can be inferred that a proportion of workers in farm operations could consist of minority or low-income persons. However, this job loss will only affect 0.3 percent of the total farm jobs (2,265 farm jobs) or 0.02 percent of the total jobs (30,375 total jobs) in Yamhill County. The loss of farm jobs will be so small that it will not constitute a high and adverse impact.

**Construction Impacts**

Construction will result in short-term impacts associated with increased noise, dust, exhaust emissions, truck traffic, and traffic congestion, as well as visual impacts such as light and glare. The construction impacts are not predominately borne by any one population group as the impacts affect both protected and non-protected populations similarly. There may be slightly higher construction impacts in areas of greater construction such as at overpasses, interchanges or where noise walls will be constructed. Other than the noise wall locations, interchanges and overpasses will be built in areas that have non-protected populations, as well as EJ populations, but will be located based on the transportation need (and not in relation to population groups). In the case of the noise walls, this construction will predominately affect neighborhoods and any EJ populations in Segments 5 and 6 if residents vote for the noise wall. However, the noise walls will provide a benefit to these populations if constructed.

Bypass construction could support an estimated 3,812 temporary construction-related jobs including other spin-off employment. These jobs could potentially benefit EJ populations, as well as the region. However, most of these jobs will likely disappear quickly following the end of construction.

**3.5.3.3 Phase 1**

**Direct Impacts**

Phase 1 will extend from Oregon 219 in Newberg and connect to Oregon 99W just south of Dundee. Phase 1 includes roadway improvements that were not identified in the Tier 2 DEIS and will result in impacts to properties in East Newberg along Springbrook Road, and south of Dundee adjacent to the UGB. Phase 1 direct impacts to EJ populations will be similar to those for the Preferred Alternative in Segment 5. In Segment 6 there will be fewer impacts to EJ populations than with the full build-out of the Preferred Alternative, but there will be noise and visual impact to EJ populations along Springbrook Road.

Even though there are roadway improvements that were not identified in the Tier 2 DEIS in the Phase 1 area south of Dundee, none of these will affect identified EJ populations (thus this area is no longer discussed in this section). There will also be beneficial effects similar to those for the Preferred Alternative, such as the creation of construction-related jobs and improvements in travel times.

**Residential Displacements**

Residential displacements will be similar to those for the Preferred Alternative in South Newberg (Segment 5). However, there will be fewer displacements than described for the full build-out of the Preferred Alternative in Segment 6, since there will be no interchange on Oregon 219 under Phase 1. Instead, there will be an intersection requiring less land
acquisition, which will result in fewer displacements at the Avalon Park mobile home park. In addition, there will be no displacements in the Springbrook Estates mobile home park. There will be some new property acquisition along the east side of Springbrook Road to widen the road to three lanes, but this will not result in any residential displacements.

Business Displacements

In Segment 5, impacts to businesses in the South Newberg neighborhood will be similar to those described under the Preferred Alternative. There will be fewer business displacements in Segment 6, because less land will be needed for the intersection of the Bypass with Oregon 219.

Neighborhoods

Impacts to neighborhoods will be similar but somewhat less than those described under the Preferred Alternative in Segments 5 and 6. There will be less vehicle traffic, traffic noise, and air emissions as compared to the Preferred Alternative, because only two lanes of the Bypass will be constructed under Phase 1. In addition, visual impacts in Segment 6 will be fewer because the interchange will not be constructed. There may be some alteration to the character of the neighborhoods along Springbrook Road due to the potential for noise walls, which will cause a visual change, and the increased levels of traffic, which will increase noise and air emissions on this particular road.

Community Facilities and Resource

Impacts to community facilities and resources will be similar to those described under the Preferred Alternative.

Noise

Noise impacts will be similar but noise levels from the Phase 1 improvements will be fewer than those for the full build-out of the Preferred Alternative, because only two travel lanes will be constructed and traffic volumes will be lower.

The widening of Springbrook Road and increased traffic use of this road as a connector between Oregon 99W and the Phase 1 Oregon 219 intersection will increase traffic noise. In particular, noise levels will increase in two manufactured home neighborhoods along Springbrook Road that contain EJ populations. These are the Nut Tree Ranch and Mountain View manufactured home parks. For this reason, ODOT will build a noise wall at these two locations if the majority of residences are in favor of it. The noise walls will be similar to those described in Section 3.5.3.2 resulting in similar levels of noise reduction.

Air Quality

Impacts to air quality will be similar in Segments 5 and 6, but somewhat less than described under the Preferred Alternative, because only two lanes of the Bypass will be constructed, which will reduce the level of traffic. There will be a slight increase in emissions for residents along Springbrook Road because of the increase in traffic.

Transportation Connectivity

Impacts to transportation connectivity will be similar to those described under the Preferred Alternative.

Visual

Impacts to visual resources will be similar to those described under the Preferred Alternative, in Segment 5, with the roadway, overcrossing structures and the noise wall constructed in the South Newberg neighborhood during Phase 1. In Segment 6 visual
impacts are reduced since there will be no interchange on Oregon 219 with Phase 1. However, two noise walls will be constructed along Springbrook Road at the Nut Tree Ranch and Mountain View manufactured home parks if approved by the residents. If ODOT constructs walls in these locations, the walls will alter visual quality by blocking distant views to the east, and a new structure will dominate the view.

Public Transit
Impacts to public transit are the same as to those described under the Preferred Alternative.

Travel Time
The travel time benefits to EJ populations will be similar to those described under the Preferred Alternative; however, travel times will not be reduced as much because the entire Bypass will not be constructed in Phase 1.

Indirect Impacts
Similar types of indirect impacts will occur with Phase 1, but the indirect impacts will be fewer than for the Preferred Alternative because of fewer business displacements and reduced potential for loss of jobs.

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.

3.5.4 Cumulative Impacts for the Preferred Alternative
The cumulative impacts analysis starts at the baseline year of 1970 for past actions and extends to 2035 for reasonably foreseeable future actions.

Past actions have likely had some adverse effects on EJ populations in the study area. Development and infrastructure projects have occurred near areas with EJ populations such as in South Newberg and Dundee, and these may have resulted in increased sound levels, visual impacts, displacements or other effects. It is not possible to say whether these have had a disproportionately high and adverse impact. However, given the type of development that has occurred since 1970 (i.e., mostly residential and commercial development spreading out into rural areas around the city centers), it seems less likely that these actions specifically targeted or focused on properties that held EJ populations.

Other present and future transportation projects will involve improving traffic signals and building new local roads connecting to Oregon 99W, which will reduce congestion and maintain or enhance connections and safety. Combined with the Preferred Alternative, these actions could have a positive cumulative impact for EJ populations, because access to community services will be enhanced and public transit and private vehicle travel times will be reduced. Downtown areas might also benefit from the reduced congestion by attracting more businesses, which will open employment opportunities to the public including EJ populations.

Other future development projects combined with the Preferred Alternative have the potential to impact EJ populations by displacing residences, changing visual characteristics, or altering neighborhoods. Some of the future projects will be federally funded or permitted, and these actions typically seek to avoid or minimize any impacts on EJ populations. Where this is not possible, mitigation measures are implemented. Cumulative impacts for air quality and noise were considered as part of the direct and indirect impact analysis. The analysis indicated that there are no cumulative air quality and noise impacts and thus no cumulative impacts to EJ populations.
3.5.5 Mitigation

3.5.5.1 Preferred Alternative

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have been included in this project. ODOT’s commitment to uphold the mandates of Title VI is evidenced by its Title VI Policy Statement, signed by the director, which can be found in Appendix P of this document.

Tier 1 DEIS and Tier 2 FEIS analyses included avoiding potentially major impacts to EJ populations by aligning the Bypass Approved Corridor through South Newberg to be as close as possible to the SP Newsprint facility along the edge of the Mill neighborhood. This alignment avoids direct impacts to community resources and minimizes residential relocations.

In the Tier 2 DEIS and FEIS, development of the Preferred Alternative refined engineering designs and continued to emphasize avoiding impacts to minority or low-income populations in the vicinity of SP Newsprint. In Segment 5, the location of the Bypass through South Newberg reduces and minimizes the number of residential relocations for EJ populations and allows 11th Street to remain open. The Oregon 219 Interchange in Segment 6 minimizes impacts on EJ populations by reducing the number of low-income/minority residential acquisitions. The partial cloverleaf interchange design results in the fewest number of displacements of minority or low-income populations as compared to other interchange designs that ODOT could have used.

Mitigation measures for adverse impacts on EJ populations and other impacted residents are described below.

Residential Displacements

All right-of-way acquisitions are subject to federal and state laws that govern property acquisitions and relocations for highway projects; displaced residents and businesses receive relocation assistance as defined in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. In addition, relocation resources will be available to relocated residents and business owners without discrimination as required by Title VI of the Civil Rights Act. The Right-of-Way section in this chapter provides a full description of the Uniform Relocation Assistance and Real Properties Acquisition Policies Act.

At the time of this analysis, an adequate supply of residential dwellings was available in Newberg, Dundee, and Dayton, in the price range of displaced housing, to meet relocation needs of homeowners, house and apartment renters. There was also adequate replacement housing and spaces in the Newberg area for displaced manufactured home owners. The relatively new manufactured homes in Segment 6 could possibly be relocated to available spaces within the same park, or owners could be assisted in moving their homes to mobile home parks in the area depending upon owner preference. Other manufactured homes in Segment 6, that are slightly older, may be unfeasible to move. Correspondingly, existing manufactured homes and spaces routinely become available within the same park. Due to continual changes in the housing and rental markets, the availability of replacement housing will be assessed as part of the project right-of-way acquisition strategy.

Project staff will work with local governmental and nonprofit organizations to assure sufficient replacement housing is available for displaced minority or low-income households. They will also develop a relocation program that addresses displaced...
households’ preference for type and location of replacement housing. The following is a list of housing assistance service providers that serve protected populations:

- **Community and Shelter Assistance Corporation (CASA) of Oregon.** CASA is dedicated to developing affordable housing and improving the quality of life for farm workers and their families.

- **Housing Authority of Yamhill County (HAYC).** HAYC is dedicated to providing affordable housing to very low- and low-income families in Yamhill County.

- **Yamhill County Affordable Housing Corporation (YCAHC).** Like HAYC, YCAHC is dedicated to providing affordable housing to low- and moderate-income families in Yamhill County.

- **Newberg Area Habitat for Humanity.** Habitat for Humanity is a nonprofit ecumenical Christian housing ministry that works to provide safe, decent, responsible, and affordable housing.

- **Yamhill Community Development Corporation (Yamhill CDC).** Yamhill CDC builds affordable housing in Yamhill County.

- **Yamhill County Community Action Partnership (YCAP).** YCAP offers a variety of services to low-income communities, intended to reduce or eliminate the causes and conditions of poverty.

- **Manufactured Home Owners of Oregon (MHOO).** MHOO is a nonprofit organization advocating for the provision and retention of manufactured housing.

If sufficient comparable replacement housing is not available, ODOT will consider housing of last resort as a necessary means to deal with displacements. As mentioned previously, ODOT has been acquiring housing units as they become available and will continue to acquire housing to ensure that replacement housing is available.

**Noise Impacts**

ODOT considered several options for traffic noise abatement for the Bypass including truck and speed restrictions and alignment changes. Truck and speed restrictions were determined to not be feasible because the Bypass will be a major route for freight movement within this region. Similarly, reducing the proposed 55 miles per hour speed limit is unlikely to reduce actual travel speeds and will defeat the goal of efficient traffic movement through the project area. Changes in alignment were analyzed in the Tier 2 DEIS, and many of these changes did have a noticeable effect on locations of traffic noise impacts. Alignment changes were implemented as part of the Preferred Alternative’s alignment and will prevent some noise impacts, most notably in the East Newberg area.

In preparing this Tier 2 FEIS, ODOT considered noise barriers for the abatement of residential noise impacts in locations where substantial noise impacts were identified. As part of the noise analysis, noise specialists analyzed 16 noise barriers. At this time, ODOT considers five noise barriers feasible and reasonable and they will be proposed to property owners and residents in those five areas. ODOT will continue to assess the noise walls’ feasibility and reasonableness during final design. As one of the required reasonableness criteria, the majority of benefitted property owners and residents (as per a calculation prescribed in the ODOT Noise Manual, ODOT, July 2011) must approve the construction of a noise wall before ODOT will commit to its construction (see Section 3.10, Noise and Vibration, for additional information). ODOT will make special efforts to reach low-income and minority persons in these areas so they can participate in the approval process for the noise walls. The noise walls being considered are all expected to benefit EJ populations.
Transportation Connectivity

ODOT is considering the following mitigation measures (see Section 3.1, Transportation, for additional information):

- Improving safety and connections for neighborhoods across the Bypass by providing lighting, sidewalks, bicycle lane striping, and signs on Bypass crossings at College Street, River Street, and Wynooski Road.
- Erecting roadside signs directing motorists to new traffic routes and businesses in the area, and improving sidewalks and landscaping that will improve pedestrian circulation and connectivity in neighborhoods adjacent to the Bypass.

These mitigation measures are expected to maintain or improve connectivity, access, and travel times in the local areas around the Bypass. The beneficiaries of these improvements include the neighborhoods containing EJ populations in Segments 5 and 6.

Visual Impacts

Mitigation for visual impacts include preserving existing vegetation to the extent possible; using vegetation to screen the Bypass; and blending the Bypass features with the surrounding landscape using architectural and aesthetic features. In addition, ODOT will work with the affected residences to construct noise walls that are textured or embedded with graphics to minimize the walls' visual impacts. The noise walls will provide a benefit in reducing the noise levels from the Bypass for EJ populations (see Section 3.11, Visual Resources, for additional information).

3.5.5.2 Phase I

Mitigation for Phase 1 will be similar to or less than the mitigation described under the Preferred Alternative in Segments 2, 3, 4, 5, and 6.

3.5.6 Environmental Justice Finding Pursuant to Executive Order 12898

Based on the prior discussion and analysis (in Sections 3.5.2 to 3.5.5) and on consideration of mitigating measures and offsetting benefits, the Preferred Alternative (including Phase 1) will not cause disproportionate high and adverse effects on any minority or low-income population as per EO 12898 regarding environmental justice (see Chapter 6, Permits and Approvals). No further environmental justice analysis is required.

ODOT and FHWA reached this conclusion based on the following:

- The Preferred Alternative will have adverse impacts that directly affect EJ populations. Noise impacts will be due to the proximity of the Bypass to several neighborhoods that contain low-income and minority populations, including the Mill neighborhood and the Avalon Park, Springbrook Estates, Nut Tree Ranch and Mountain View mobile home parks. The design of the Preferred Alternative was adjusted by ODOT to limit the potential noise that will be received by EJ populations. In addition, ODOT will likely install noise walls in each of these areas, which will reduce the sound levels from the Bypass and related street improvements (e.g., widening Springbrook Road during Phase 1). With the likely noise wall mitigation identified by ODOT as preliminarily feasible and reasonable, most of the adverse noise impacts to EJ populations will be minimized. Further, the design was also adjusted to limit residential displacements within these areas.

22 See Section 3.10.4 for the statement of likelihood for noise abatement measures and the process that ODOT will conduct prior to construction to determine if noise walls are ultimately included with the project.
• If noise walls are constructed, then the walls will constitute a visual impact. However, ODOT will work with residences on the design of the walls, and will potentially provide architectural treatments to soften the views of the walls. Other Bypass-related structures, such as overpasses, retaining walls, etc., will also be designed to minimize their visual impact through a combination of texturing, attached artwork, embedded graphics, and landscaping.

• The project will provide offsetting benefits in access and travel times directly to EJ populations. Substantial automobile travel time savings of up to 74 percent will be possible for the EJ populations in Segments 5 and 6. Transit service through the project area, providing services used by EJ populations, will experience similarly reduced travel times and improved reliability. Another offsetting benefit will be the potential for low-income or minority persons in the area to be employed in construction-related jobs for the Bypass.
3.5.7 Tier 2 DEIS Build Alternative

The following is an exact copy of the Tier 2 DEIS Build Alternative section for environmental justice. 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:

Kelly Amador, Senior Project Leader, Region 2
Oregon Department of Transportation
Mid-Willamette Valley Area
885 Airport Road SE, Building P
Salem, OR 97301-4788
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3.5.2.2 Build Alternative

Direct Impacts

Build Alternative direct impacts to EJ populations would include residential and business displacements, loss of farm employment, increased noise and vehicle pollutant emissions, traffic pattern changes, connectivity issues, and visual impacts. There would also be beneficial effects such as construction-related jobs and improvements in transit travel times. These are described below.

Residential Displacements: There is potential for between 95 and 103 residential displacements under the Build Alternative (see Table 3.5-3). Approximately fifteen of these would be low-income or minority residences, based on the residential relocation survey. Most of these relocations are located generally in the south Newberg area in Segments 5 and 6 (see Figure 3.5-4). There would also be some displacement of low-income or minority residences in both Segments 4 and 8.1. About 4 percent of the total households potentially relocated by the proposed project are minority households, and between 5 and 8 percent are Hispanic, (depending on the combination of design options) and between 2 and 3 percent are low-income. The small number of displaced residences identified as EJ, both in total numbers displaced and percentages of total displaced residences, indicates that the residential displacement impacts to EJ populations are not disproportionately higher than what would be experienced by the general population.

<table>
<thead>
<tr>
<th>Potential Impact</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Displaced Residential Units</td>
<td>95 – 103</td>
</tr>
<tr>
<td>Estimated Number of Minority Residential Relocations</td>
<td>4</td>
</tr>
<tr>
<td>Minority Relocations as a Percentage of the Total Residential Relocation</td>
<td>3.9 - 4.2%</td>
</tr>
<tr>
<td>Estimated Number of Hispanic Residential Relocations</td>
<td>8</td>
</tr>
<tr>
<td>Hispanic Relocations as a Percentage of the Total Residential Relocation</td>
<td>5.0 – 7.8%</td>
</tr>
<tr>
<td>Estimated Number of Low-Income Residential Relocations</td>
<td>3</td>
</tr>
<tr>
<td>Low-Income Residential Relocations as a Percentage of Total Residential Relocations</td>
<td>2.1 – 2.9%</td>
</tr>
</tbody>
</table>


Note: Not all relocated households were able to be interviewed. A total of 93 were interviewed and 79 chose to share information about income; a large enough sample to represent the overall impacts.
Neighborhoods: The Bypass would run along the edge of three neighborhoods in Segments 5 and 6 (See Chapter 2, Figure 2.2-8a and Figure 2.2-8b), which include EJ populations. The neighborhoods affected include the area near the Oregon 219 interchange and the area north of SP Newsprint (see Figure 3.5-4). Potential neighborhood impacts include increased traffic noise (see noise section below), and changes in neighborhood character due to visual, air quality, and noise effects and changes in circulation patterns. Residential displacements may cause impacts to low-income and minority persons including breaking up social groups, causing difficulty in finding replacement housing, and separating these populations from community services. Due to the small number of displaced residences identified as EJ, both in total numbers displaced and percentages of total displaced residences, none of the displacement impacts to EJ populations are disproportionately higher than what would be experienced by the general population.

Business Displacements: There is potential for up to 26 business displacements under the Build Alternative. Half of the business displacements could take place in Segments 5 and 6 (a total of 13). Approximately 65 employees would lose their jobs because of these displacements (see Section 3.4 – Socioeconomics). No survey was completed for displaced employees to determine racial or income status. However, business types were identified and none of the displaced businesses is serving a critical function for EJ populations.

Farming: Segments 1, 2, 3, 4, 7, and 8.1 contain farm operations that are impacted by the Build alternative in some way. Although unlikely because acquisition of farm land would not change the ability for most farms to function (there are two farms in Segment 4 that would no longer be viable), there is potential for loss of jobs if the property acquisition changes farm operations and reduces the need for workers (there are 2 permanent and 5 seasonal farm jobs associated with properties affected by farmland acquisition). It can be inferred that a proportion of workers in farm operations could consist of EJ populations. However, no survey of business employees to determine racial, ethnic or income status was completed and the potential for temporary or permanent losses in employment would be small. As a result, there are no expected disproportionate adverse impacts to EJ populations based on impacts to farm operations or other agricultural businesses. The Bypass would shorten travel times within the project area improving accessibility to farm and other employment opportunities.
Figure 3.5-4  Area Which Include Identified Environmental Justice Populations

- Segment 1
- Segment 2
- Segment 3
- Segment 4
- Segment 5
- Segment 6
- Segment 7
- Segment 8.1
- Segment 8.1A

Design Options:
- Segment 4: 4.1, 4.2
- Segment 6: 6.C
- Segment 8.1: 8.1C, 8.1D

Identified Environmental Justice Populations

MapID: DEIS_FullExtent_EJStudyArea.mxd
Print Date: March 2010
Community Facilities and Resources: Community facilities and resources are identified on Figure 3.4-2 and discussed in the Socioeconomics section of this chapter. Of these community facilities, Chehalem Glen Golf Course, and Newberg Providence Hospital are directly impacted by the Build Alternative. None of these were identified by city/county staff, social service agencies or school staff as a substantial resource to any EJ communities. The other community facilities and resources, such as transit, schools, churches, restaurants and social services would not have any changes affecting their use by EJ populations.

Noise: With the Build Alternative, there is the potential for up to 297 households to be impacted by traffic noise from operation of the Bypass. All areas of the Bypass except Segment 1 would experience noise levels meeting ODOT’s substantial increase noise impact criteria. Almost half of these impacts would occur in Segment 5 (up to 139) with Segments 2, 3, 4, 6, 7, 8.1, and 8.1A also experiencing noise levels meeting the substantial increase criteria. EJ populations would be impacted by the predicted increase in noise levels, particularly in Segments 4, 5, 6 and 8.1. There is no indication that these impacts would be disproportionately higher on EJ populations since increased noise impacts would be felt along the Bypass by non-EJ populations as well. In addition, ODOT is proposing the use of sound walls in areas where there are a large number of residences that would experience increased noise such as in Segments 5 and 6. This would provide mitigation for EJ populations, as well as the general population (see the Noise section of this chapter for additional details). For example, noise walls may be used near certain neighborhoods which include EJ households.

Air Quality: Long-term air quality is modeled on a regional basis and air emissions, particularly from vehicles are expected to decrease over time because of improvements in exhaust emission control. Thus, operation of the Bypass is not expected to result in adverse air quality impacts to EJ populations or the general public.

Transportation Connectivity: Traffic patterns and connectivity between neighborhoods and community facilities are expected to change under the Build Alternative. For example, Local Circulation Option B in Segment 1 has the potential for additional traffic through a portion of Dayton. Dayton is identified as a Distressed Community and has a poverty rate of over 14 percent according to the 2000 U.S. Census. Segments 2, 6, 7, 8.1, and 8.1A could experience increased emergency response times due to new local roadway connections, although these impacts are not anticipated to be disproportionately higher on EJ populations.

Local street connectivity would be impacted by the Build Alternative, particularly in Segments 5 and 6. In both of these segments, the neighborhood connectivity would be interrupted by the Build Alternative, but no streets or destinations would be unreachable after construction.

Visual: Visual impacts would result from structures for interchanges, noise walls, and above grade portions of the Bypass. These impacts include blocked or different views and changes in aesthetics and would affect EJ households/populations that are located close to the Bypass. However, interchange locations, noise walls and other structures would be located based on transportation needs and in consideration of avoiding or minimizing the overall impacts of the project. In addition, measures would be taken to build concrete walls with texture or imbedded with graphics to minimize the walls visual impact. Since visual impacts would occur along the entire Build Alternative, EJ populations would not be disproportionately affected.

Public Transit: Low-income populations have less money to spend on automobiles and frequently use public transportation. The Build Alternative would reduce congestion on Oregon 99W, allowing more efficient operation of public transit services. This would benefit EJ populations using public transportation in the project area.
Indirect Impacts

Potential indirect impacts on EJ populations from the Build Alternative are related to businesses that may employ minorities or low-income individuals. Up to 26 businesses would be displaced as part of the Build Alternative, and some of these businesses may employ minorities or low-income individuals. Three of the businesses are related to agriculture where it is more likely that racial or ethnic minorities may be employed. Any indirect impacts are not anticipated to be disproportionately higher on EJ populations as business impacts occur throughout the Build Alternative, particularly in the urban areas.
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