Summary of Mitigation and Conservation Measures

The following mitigation and conservation measures address impacts associated with the project. This section replaces the Summary of Mitigation, Impact Minimization, and Conservation Measures section of the EA (pages 255 to 269).

Right-of-Way

Acquisition and relocation assistance procedures are governed by the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 as amended, Federal Law 91.646, the Code of Federal Regulations (49 C.F.R. Part 24), and ORS 281.045 to 281.105). ODOT policy requires that displaced persons receive fair and humane treatment and not suffer unnecessarily as a result of a highway project.

Owners of properties that are needed to provide right-of-way in order to implement the Preferred Alternative will be entitled to just compensation for land and improvements. Just compensation includes the estimated value of all land and improvements within the area needed for the project. If only a portion of the property is acquired, just compensation will include any legally compensable, measurable, loss in value to the remaining property due to the partial acquisition. In addition, an offer will be made to purchase any remaining property determined to have no remaining economic value to the owner.

Just compensation is based on valuation of the needed property by an experienced and qualified employee of ODOT or by an independent fee appraiser under contract with ODOT. Valuation is determined by comparison of similar properties that have recently sold, by knowledge and consideration of costs and depreciation for any improvements to be acquired, and when applicable, by the properties income potential. Any increase or decrease in the value of needed property brought about by public knowledge of the upcoming highway project is disregarded in the valuation process.

Businesses, Communities, Facilities, Neighborhoods, and Residences

Social

Residential

- Provide compensation to property owners for eligible relocation costs, loss of land, buildings, and improvements at fair market value.
- Provide owner occupants or renters relocation planning, advisory assistance, reimbursement of qualifying moving and related expenses.
- During construction, provide alternate routes and appropriate signs for traffic. Evaluate means to phase and time construction activities at periods least disruptive to local residents.

Effects on General Social Groups

Encourage relocation or establishment of a grocery and convenience store in the Grand Ronde center to enable those groups who cannot or do not drive (low-income, elderly, or disabled) to shop in their community for convenience items, some groceries and other necessities.

Community Cohesion

ODOT will assist in relocating facilities such as the Grand Ronde Post Office, Grand Ronde Substation of the Willamina Fire District, Grand Ronde Sanitary District, Grand Ronde Community Water Association office, and possibly the Sprint telephone switching office to a location central to the Grand Ronde Community. Community cohesiveness and identity will be further advanced if a convenience market and grocery were in the same area.

Community Facilities

In addition to assisting community facilities to relocate to a central community area, ODOT will coordinate with utility companies to assure the lines (water, sewer, electric, telephone, fiber optic, natural gas) are avoided or moved correctly and without damage.

Environmental Justice

Impacts to Native Americans and other minorities will be analyzed for each individual construction phase as it is advanced.

Economic

Highway Related Businesses and Business Areas

- Provide compensation to property owners for eligible relocation costs, loss of land, buildings, and improvements at fair market value.
- Work with ODOT Travel Information Council to potentially provide tourist oriented directional signage to alert traffic to upcoming services and businesses.
- Work with individual businesses to redesign accesses as right-in and right-out.
- Work with Polk County to focus future development for businesses dependent on through traffic at major intersections or on access roads serving interchanges.

Wetlands

Both the Oregon Division of State Lands (ODSL) and the U.S. Army Corps of Engineers (USACE) will regulate most, if not all, of these wetlands. ODOT has consulted informally with ODSL. ODOT will avoid or minimize impacts to wetlands through project design, calculate wetlands impacts, and develop a conceptual wetland mitigation plan. ODOT will coordinate with ODSL and the USACE when projects reach design stage.

The USACE and ODSL will require compensatory mitigation for unavoidable wetland impacts. Replacement of lost wetland functions and values will require the development of wetlands within the project corridor with functional values similar to those wetlands that are impacted. Potential mitigation options include wetland restoration within drained agricultural wetlands and filled lands adjacent to log mill sites primarily located at the

eastern end of the project corridor. Wetland creation opportunities are also present at an old log mill site located in the western half of the project corridor.

In the agricultural lands, restoration of lowered wetland hydrology could be conducted by severing ditch connections or removing drainage tiles. Culverts may be raised to increase the amount of wetland hydrology in a particular area. On the old mill sites, fill material could be removed to pre-fill elevations. This would restore effectively filled areas by intercepting natural occurring high water table levels. Native plant communities will be installed to reestablish historic Oregon ash bottomland, emergent marshes and wet meadows. New wetlands can be created from uplands by lowering surface elevations to expand preexisting wetlands. By developing suitable hydrology sources (such as ditch diversion), new wetlands could also be created. Hydrophytic plants in the pre-existing wetland areas could colonize into the new, created wetlands.

ODOT will complete a detailed compensatory mitigation plan for each project phase at the final plans stage of that project. ODOT will coordinate mitigation concepts with federal, state, and local resource agencies. Prior to commencing with the project, a Section 404/Removal-Fill permit will be obtained from the USACE and ODSL. ODOT will develop compensatory mitigation plans to adequately replace impacted wetlands functions and values, and to ensure that no loss of the wetlands functions and values, or area, will occur as the result of this highway corridor project.

The compensatory mitigation plan will include an annual monitoring program by ODOT for a period of 5 years to document the development of wetland conditions and success of performance standards. The monitoring plan will involve the establishment of sampling plots to track hydrologic development and plant survival, composition and density over time. Photographic monitoring will be conducted to provide a visual record of the mitigation effort. Established photograph points will document plant community type development and coverage. Annual reports detailing monitoring results will be submitted to ODSL and USACE by December of each of the required five-year period. The monitoring report will identify any gains and deficiencies in the progress of the mitigation sites.

As part of the annual monitoring reports, contingency measures will be included to discuss potential corrective actions, if performance goals are not being met. Contingency measures may include corrective grading work to improve hydrologic conditions or replacement plantings to increase low plant survivorship. Modifications to the planting plan may also be made if the monitoring reveals that high plant mortality is due to an inappropriate hydrologic regime.

Wetland mitigation opportunities and concepts have been investigated with appropriate resource and regulatory agencies. Wetland mitigation will be designed after wetlands have been delineated for each construction project within the corridor.

Water Quality

Erosion and sediment control plans and pollution control plans will be developed for the individual construction phases of the project before construction, and will be implemented during construction. This is in accordance with the conditions of the National Pollutant Discharge Elimination System (NPDES) 1200-CA permit and ODOT policy.

The South Yamhill River is included on the Oregon State Department of Environmental Quality 303(d) list for 1998 and 2000 as water quality limited, which requires a total minimum daily load (TMDL) for phosphorus. Because of this listing, treatment of highway runoff for phosphorus removal will be required for the project. Treatment of highway runoff will be incorporated into the design of the project. The primary target of treatment will be phosphorus, but it will also remove other pollutants, including sediment and metals. It will also ensure no net increase in pollutant load. The target removal rate for phosphorus will be based on management plans for the South Yamhill River. Mitigation measures likely to achieve these ends on individual projects could consist of roadside filter strips and/or bioswales designed to treat runoff from 140 percent of the new impervious surface area.

With well-designed, implemented and maintained treatment facilities, the project should have little adverse impact on water quality. Stormwater treatment should be able to prevent any increase in overall pollutant increases as a result of the project. During the design stage of each of the individual construction phases, the designers will work with environmental staff to incorporate avoidance and minimization of impacts to wetlands and riparian areas as much as possible. Unavoidable impacts will result in compensatory mitigation focused on replacing lost functions. Mitigation of wetland and riparian impacts will take time to become fully effective, so there might be some short-term loss of water quality.

Wildlife Habitat

All in-water work will be conducted during agency-prescribed work periods and localized in space and time, thereby reducing the potential for detrimental effects to aquatic species. ODOT has consulted informally with the Department of State Lands and will coordinate with ODSL and USACE when projects reach design stage.

Impacts to riparian habitats will require mitigation consultation with NOAA Fisheries. ODOT initiated formal consultation with USFWS and NOAA Fisheries Service while the EA was being developed.

USFWS provided a BO containing terms and conditions for threatened, endangered, and sensitive plant species. ODOT will continue to work with USFWS as projects are designed to avoid, minimize, or mitigate impacts to freshwater fish and terrestrial wildlife.

In 2000, ODOT prepared a BA assessing the potential impacts of the proposed action on two ESUs of steelhead trout *(Oncorhynchus mykiss)* and chinook salmon *(O. tshawytscha)* that are listed as threatened under the ESA. The finding of effect in the BA for Upper Willamette spring-run salmon and Upper Willamette steelhead was the proposed action may affect, and is likely to adversely affect both ESUs. Because individual construction phases included in the REA have not been designed, NOAA Fisheries advised that ODOT coordinate with them throughout the design stages of the individual construction phases. NOAA Fisheries would provide technical assistance to avoid, minimize, or mitigate impacts to ocean-going fish species in the project area.

In 1999, ODOT prepared a BA analyzing potential impacts of the project on animal species. The report concluded that the proposed action would have no effect on the northern spotted owl, marbled murrulet or the bald eagle. ODOT will continue to work with USFWS as

projects are designed to avoid, minimize, or mitigate impacts to freshwater fish and terrestrial wildlife.

ODOT will follow Best Management Practices (BMPs) during construction to avoid causing impacts to wildlife habitat. BMPs are techniques, procedures, schedules of activities, prohibitions of practices, and other management tools aimed at reducing impacts and protecting and preserving resources.

To minimize impacts on wildlife attempting to cross the highway, ODOT will consider the following actions for incorporation into the final construction plan for each segment of the project to facilitate wildlife movement across or under the highway and to reduce the number of animals killed on the highway:

- When replacing culverts, insure that the culvert is not perched to allow for more effective fish and amphibian access. A large diameter culvert should also be considered to allow for small mammal use.
- Consider building ramps to existing perched culverts to improve access for amphibians. This action will be particularly effective when wetlands or forested areas are present on both sides of the highway.
- Construct a bridge to improve fish passage for Jackass Creek. Consider bridges or other options to improve fish passage for other fish bearing streams where less effective structures currently exist.
- Reduce impacts to raptors by minimizing impacts to existing riparian areas and reestablishing trees outside the project clear zone.

Proposed, Threatened and Endangered Species

Subsequent deviations from the conservation measures will require the approval of the Endangered Species Office of the USFWS.

Mitigation for Proposed, Threatened, and Endangered Fish Species

ODOT has initiated formal consultation with NOAA Fisheries while the EA was being developed. ODOT prepared a BA with a determination that the Build Alternative "May Affect and is Likely to Adversely Affect" steelhead and chinook. Because individual construction phases included in the REA have not been designed, NOAA Fisheries advised that ODOT coordinate with them throughout the design stages of the various construction phases that potentially impact listed anadromous fish species (see Appendix C of the EA, titled Natural Resources Consultations). NOAA Fisheries would provide technical assistance to avoid, minimize, or mitigate impacts to ocean-going fish species in the project area.

Bridge Structure Repair or Replacement

The following avoidance, minimization, and mitigation measures will be applied to all activities involving bridge repair or replacement:

- Institute BMPs. BMPs are techniques, procedures, schedules of activities, prohibitions of practices, and other management tools aimed at reducing impacts and protecting and preserving resources. Examples of these types of BMPs are included in ODOT's Routine Road Maintenance Water Quality and Habitat Guide, Best Management Practices, July 1999.
- Eliminate where feasible the intentional release of untreated drainage to waterways.
- Pursue mitigation at a 1.5:1 ratio for degraded or removed functional riparian vegetation within the affected watershed.
- Maintain channel area and length.
- Minimize rip-rap where appropriate.

Culvert Extension, Replacement, Installation, or Enhancement

- The following avoidance, minimization, and mitigation measures will be applied to all activities involving culvert extension, replacement, installation, or enhancement:
- Maintain fish passage.
- Institute all BMPs.
- Meet the requirements of ORS 509.585 and 509.645 as implemented by OAR 635.412 that "No person shall construct or maintain any artificial obstruction across any waters of this state that are inhabited or were historically inhabited by native migratory fish without providing passage for native migratory fish."
- Incorporate high-flow discharge designs.
- Restore passage where possible.
- Review culverts that are barriers to fish passage and consider solutions.
- Pursue mitigation at a 1.5:1 ratio for degraded or removed functional riparian vegetation within the affected watershed to benefit aquatic systems.
- Maintain channel area and length.

Minor Alignment Changes Within or Adjacent to a Riparian Corridor

The following avoidance, minimization, and mitigation measures will be applied to all activities involving minor alignment changes within or adjacent to a riparian corridor:

- Institute all BMPs.
- Pursue mitigation at a 1.5:1 ratio for degraded or removed functional riparian vegetation within the affected watershed to benefit aquatic systems.

Road Repair or Improvement

The following avoidance, minimization, and mitigation measures will be applied to all activities involving road repair or improvement:

- Institute all BMPs.
- Use all applicable in-water work conservation measures.
- Pursue mitigation at a 1.5:1 ratio for degraded or removed functional riparian vegetation within the affected watershed to benefit aquatic systems.

General Minimization/Avoidance Measures (BMPs)

The following minimization and avoidance measures, or BMPs will be used for the project activities described above as they apply to each specific situation:

- In-Water and Bank Work
  - Ensure passage of fish as per ORS 498.268 and ORS 509.605.
  - Complete all work within the active channel of all anadromous fish-bearing systems within Oregon Department of Fish and Wildlife's (ODFW) in-water work period for the Yamhill River basin, July 1 to October 15. Any extensions will first be approved in writing by and coordinated with ODFW and NOAA Fisheries (and ODSL if a Removal/Fill permit is required).
  - Remove mud from equipment prior to operation in the stream. Do not permit equipment with fluid leaks to operate in or near streams.
  - Minimize the impacts of riprap placement and the amount of riprap used. Use bioengineering in conjunction with riprap.
  - Use larger riprap preferentially in areas with riprap installation within the two-year floodplain where this riprap would come into contact with actively flowing water and where it would not substantially constrict the channel, nor require substantially larger impacts to bank areas. Plant riprap areas with native willow stakes (and other riparian shrubs and trees) to increase shading and cover within the ten-year floodplain, where appropriate.
  - Minimize alteration or disturbance of stream banks and existing riparian vegetation.

Erosion Control

ODOT will prepare an Erosion, Sediment, and Pollution Control Plan (ESPCP) for all construction projects with the potential to contribute sediment to aquatic resources. The ESPCP contains the elements outlined in Sections 280.00 and 290.30 of ODOT's *Standard Specifications for Highway Construction (*2002), and meets requirements of all applicable laws and regulations. The ESPCP will outline how and to what specifications various erosion control devices will be installed and maintained to meet water quality standards, and will provide a specific inspection protocol and time response. The contractor may revise the ESPCP with the approval of the ODOT engineer, providing that the revised ESPCP offers the same or superior protection. For precise specifications, see Specification 280 (ODOT 2002). See also *Biological Assessment, Effects on the upper Willamette River Steelhead and Chinook Salmon ESUs* prepared by Beak Consultants Incorporated (July 2000).

Hazardous Materials (HazMat)

- The contractor (as ODOT's agent) will meet or exceed DEQ requirements for the National Pollution Discharge Elimination System (NPDES) 1200-CA permit.
- The contractor will develop an adequate, site-specific Spill Prevention and Countermeasure or Erosion, Sediment, and Pollution Control Plan (ESPCP) and is responsible for containment and removal of any toxicants released. The ESPCP will specify restrictions on chemical storage, refueling areas and other activities that have the potential to release pollutants.
- No toxicant (including petroleum products) will be stored within 164 feet of any stream.
- Hazardous material booms will be installed in all streams where certain conditions apply or where they could be useful.
- Mobile construction will not be allowed to operate within the five-year floodplain of any anadromous system if the vehicles show signs that they may contribute toxic materials into the waterway.
- No surface application of nitrogen fertilizer will be used within 50 feet of any stream.
- No treated timbers will be used in waterways.

Riparian Impacts

- Boundaries of the clearing limits will be flagged (ODOT project inspector, assisted by an ODOT biologist). Ground beyond the flagged boundary will not be disturbed.
- Minimize alteration of native vegetation. No protection will be made for invasive exotic species (e.g., Himalayan blackberry).
- ODOT will require a contract grow period for all riparian mitigation plantings.

Water Quality Impacts

- Highway runoff will be treated for phosphorus. As management plans are developed for the South Yamhill River, mitigation goals will be better defined. The actual type of treatment will depend on site specific factors as well as pollutant removal goals.
- Remove other pollutants (while not the primary target of treatment).

Mitigation for Proposed, Threatened, and Endangered Wildlife Species

ODOT has initiated formal consultation with USFWS (see Appendix C of the EA, titled Natural Resources Consultations). Specific mitigation measures will be developed as appropriate as individual construction phases included in the REA move into the design stage.

Red-Legged Frogs

Federal Status – Species of Concern
State Status – Sensitive, Undetermined

BMPs will be in place to control erosion, protect aquatic habitats, and maintain water quality in areas impacted by construction. Nevertheless, short-term impacts to red-legged frogs may occur.

Western Pond Turtle

Federal Status – Species of Concern
State Status – Sensitive, Critical

BMPs described above will be in place to control erosion, protect aquatic habitats and maintain water quality. Opportunities exist to incorporate habitat features beneficial to pond turtles.

Fender's Blue Butterfly

Federal Status – Endangered

No occurrences of Fender's blue butterfly or Kincaid's lupine are documented within the project area. Therefore, the project is not expected to impact this butterfly population or habitat and no mitigation measures are proposed.

Mitigation for Proposed, Threatened, and Endangered Plant Species

ODOT has initiated formal consultation with the USFWS (see Appendix C of the EA, titled Natural Resources Consultations). The USFWS provided a biological opinion containing conservation recommendations such as special management areas (SMAs) for sensitive plants.

Nelson's Checker-Mallow

Federal Status – Threatened
State Status – Threatened

Conservation measures to ensure that inadvertent loss of plants or their habitats are avoided will be part of design criteria or contract provisions. Measures include: minimization of impacts by spatial or temporal means; in-situ preservation of the existing populations by vegetative buffers; habitat enhancement by controlling competing non-native species; fencing; monitoring; posting signs to alert maintenance staff; and following Best Management Practices. All conservation measures and BMPs are an integral part of the BA prepared as part of the environmental review process and will prevent additional impacts to Nelson's checker-mallow. Because these measures have influenced the conclusions drawn in this analysis, and because these conclusions are subject to subsequent review by the Endangered Species Office of the USFWS to determine compliance with the Endangered Species Act (ESA), any substantial deviations from the conservation measures contained in the biological assessment will require the approval of that office.

Bradshaw's Lomatium

Federal Status – Endangered
State Status – Endangered

Additional surveys will be conducted along the railroad tracks as projects near implementation. Project specific mitigation measures will be developed if surveys determine that *Bradshaw's Lomatium* is present.

Howellia

Federal Status – Threatened

Another survey will be conducted before project construction begins. Project specific mitigation measures will be developed if surveys determine that *Howellia* is present.

Willamette Valley Daisy

Federal Status – Endangered
State Status – Endangered

The species will be introduced into an enhancement area, perhaps near the historical site of a population near Grand Ronde.

Kincaid's Lupine

Federal Status – Threatened
State Status – Threatened

Another survey will be conducted before project construction begins. Project specific mitigation measures will be developed if surveys determine that Kincaid's Lupine is present.

Archaeological Resources

Additional investigations will be needed to document the physical archaeological remains of the former tribal camps associated with the initial settlement of the reservation near Grand Ronde. Further efforts to document the history and importance of these tribal communities by document research, the collection or oral histories, or other means may be warranted. These investigations would take place during the design stage of each individual project phase.

If archaeological resources are discovered during the construction of the project, appropriate mitigation measures will be followed to ensure their identification, evaluation, and disposition. Section 00170.50 of the Standard Specifications for Highway Construction (ODOT 1991) requires the contractor to cease work immediately at the site of a discovery and to avoid further damages to the resources at the site. ODOT, the Federal Highway Administration (if federal funding is involved), the State Historic Preservation Office, and the Oregon State Museum of Anthropology will work together within a framework of an established procedure to determine what steps to take to recover the data.

Visual Resources

To offset unavoidable substantial visual impacts associated with project construction, designers will consider using the following methods, to the extent feasible, to reduce form, texture, and color contrast in cut and fill slopes:

- Stock and reapply topsoil from fill and cut slopes to reduce color contrast and promote revegetation of native plants.
- Round slopes and plant pockets of varied vegetation to help produce revegetated cut and fill slopes that have visual variety.
- Revegetate slopes with mixtures of native grasses, trees, and plants, considering the size and placement limitations of the clear zone and sight triangle.
- Plant medians with native grasses, trees, and plants (this will necessitate maintenance agreements with local jurisdictions).

Additionally, visual impacts associated with the building of interchange abutments, retaining walls and other structures, could be mitigated, to the extent feasible, by the following:

- Texture or pattern surfaces to incorporate local culture and history in coordination with local cultural leaders.
- Pigment, stain, or paint surfaces to blend with native coloration.
- Use designs that present visually rounded surfaces.
- Plant native vegetation outside the clear zone to add vertical dimension apart from the structures to lessen their dominance in the landscape.

During final design, to the extent feasible, consider the following methods to mitigate the visual impacts associated with building new access roads:

- Combine native vegetative plantings, earth mounding, or fences outside the clear zone, that screen impacts of headlights to residential areas.
- Establish a forest corridor similar in nature to H.B. Van Duzer Forest Corridor along the proposed section between Fire Hall Road and A.R. Ford Road.
- Create wayside pull-off areas to interpret scenic, cultural, and historic resources impacted by the project.
- Use minimum width standards for nonhighway sections to preserve cultural, historic, or scenic view opportunities.
- Sign and make minor operational improvements on South Yamhill River Road so it may serve as a scenic route for travelers seeking river-viewing opportunities.

Removal of vegetation should be limited to the area needed to perform work, with compensation in the form of vegetation buffer plantings to screen residents that lose

vegetation due to the project or are impacted by the proximity of the project to their residence or business.

Work operations impacting the South Yamhill River or its tributaries will consider, to the extent feasible considering safety, lessening impacts by using native riparian plantings.

Historic Resources

If the final design of the Preferred Alternative necessitates the removal of the Grand Ronde Store, the Ronde Diner, the Grand Theater, or the Tipton-Talbot House, these structures will be documented with 4"x 5" archival photographs as a permanent record of their design.

The improvement and extension of South Street as an access road can be constructed without impacting any buildings in the Grand Ronde Historic District. When plans for this phase of the project move into the design stage, the areas will be reexamined and mitigation measures will be designed. Mitigation opportunities could include providing a playground area for children who currently use South Street as an informal play area. During the design stage, ODOT will prepare a determination of eligibility (DOE) and a Finding of Effect (FOE) report and will prepare the appropriate Section 106 documentation in coordination with the Oregon State Historic Preservation Office (SHPO).

Hazardous Materials

Based on the identified hazardous materials sites and the extent of the proposed right-of-way, six of the sites would require additional work. This includes the following:

- Fort Hill Lumber Company—Conduct testing to determine if lumber mill activities have contaminated the soil.
- Littlejohn Logging—Conduct a visual inspection of the property, including structures, to determine if additional investigation of the property is necessary.
- Former Chevron Station at Grand Ronde—Conduct testing to determine if there is residual soil and groundwater contamination from the former gas station.
- Dom's Repair—Conduct a visual inspection of the property, including structures to determine if additional investigation of the property is necessary.
- H. R. Jones Veneer—Conduct testing to determine if lumber mill activities have contaminated the soil.
- Erickson Hardwood Company—Conduct testing to determine if there is soil or groundwater contamination beneath the property to be acquired.

Mitigation for Hazardous Materials Discovered During Project Construction

Owners of properties within the proposed project right-of-way will need to have any substantial hazardous contamination contained or removed according to DEQ regulations before the state acquires the properties. However, materials contaminated with hazardous substances may be encountered during project construction. Both a health and safety plan

and a contingency plan for emergency response and cleanup of hazardous materials are recommended for inclusion in the construction contract. Discovery of improper handling or disposal of hazardous substances will warrant the services of a qualified consultant to perform a site assessment. If hazardous materials are thought to be present, the contractor should stop work and immediately contact the construction project manager.

In addition, hazardous materials may be found during demolition or relocation of other structures in the project. Materials of concern and disposal measures are as follows:

PCBs (polychlorinated biphenyls)

- *Fluorescent light fixtures in old commercial buildings.* Some old commercial buildings may have old fluorescent light fixtures that use ballast containing polychlorinated biphenyl (PCB). Before any renovation or destruction of these structures, the contractor must be informed there is a possibility of encountering PCBs in the light ballast. The removal and disposal of any ballast with PCBs must be according to DEQ regulations (OAR 340-110 and ORS 466).

- *Transformers on utility poles.* A transformer removed from a power pole must be tested for PCBs. If the unit contains 50 ppm or more PCB, it can be placed in a temporary storage that has been designated for disposal. Within one year it must be transferred to a disposal facility. DEQ has specific requirements for the testing, storage, transport and disposal of transformers (40 C.F.R. 761). EPA also has rules for used transformers with 50 ppm or more of PCB. The transformer is designated a PCB contaminated unit (50-499 ppm) or a PCB transformer (500 ppm or more) and must comply with storage and disposal regulations. The rules state that a transformer must be disposed of within one year of disconnection if it is not intended for reuse.

Asbestos

The construction of the project will require the removal of existing buildings within the project area. DEQ should be notified of any facility in the project to be renovated, relocated or demolished, even those buildings not containing asbestos. Prior to the removal of any building in the proposed right-of-way, the structures must be inspected by a DEQ approved person, such as an agency employee trained by DEQ or a consultant in asbestos identification. If asbestos is detected in buildings to be demolished or removed, the contractor and method of removing, handling, and disposing the materials must be approved by DEQ (ORS 468, OAR 340-25 and 340-33, 40 C.F.R. 61.145).

Leaded Paint

Congress passed The Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as Title X, to protect families from exposure to lead paint, dust and soil. According to Title X, it is not necessary to conduct a lead paint survey in structures that would be demolished. This is true as long as the life expectancy of those structures is short, less than three years and no children under six or pregnant women will occupy the dwelling before demolition. Following OSHA guidelines, workers doing the demolition might be required to wear proper dermal and respiratory protection. The demolition contractor should take safety precautions to limit human exposure to lead during demolition activities. Dust should be reduced as much as possible. This could be accomplished by keeping the debris

wet to reduce airborne particulate. In addition, dust masks, gloves, and coveralls should limit exposure to dust.

If a structure such as a house built before 1978 is not demolished but sold to a third party, then a lead paint survey conducted by a state certified inspector is required. Structures that will be remodeled because of the project should also have a lead paint survey done. All leaded paint removed should be collected and properly disposed of per EPA/DEQ requirements.

Materials and Sources

Materials and sources will be proposed, evaluated, and disclosed as designs are completed for each project phase. The appropriate permitting agencies will be consulted.

Borrow and Waste Disposal

Biological and archaeological investigations will be conducted prior to removal (borrow) and disposal (waste) at the future construction sites. Disposal sites will be negotiated closer to the time of construction, during the design stage of the individual construction phases that comprise the Preferred Alternative.

Traffic Noise

Local coordination can help mitigate traffic noise impacts by restricting the issuance of building permits for land use that will be incompatible with traffic noise, requiring developers to consider noise mitigation as part of their development plan. Planning agencies could promote development that is compatible with traffic noise. Copies of the *Noise Study Report* will be sent to Polk County and The Confederated Tribes of the Grand Ronde so those agencies can make use of the information and plan accordingly.

ODOT will conduct additional noise studies and propose appropriate mitigation measures as the projects approach the design stage.

Construction and Staging

Impacts will be further assessed and mitigating measures will be included in the design stages of the various individual construction phases. During construction and construction staging dust control measures, such as watering, will be used as needed. The following mitigation measures will be followed for minimizing construction noise:

- No construction shall be performed within 984 feet of an occupied dwelling unit on Sundays, legal holidays and between the hours of 10:00 p.m. and 6:00 a.m. on other days without the approval of the project manager.
- All equipment used shall have sound control devices no less effective than those provided on the original equipment. No equipment shall have unmuffled exhaust.

- All equipment shall comply with pertinent equipment noise standards of the U. S. Environmental Protection Agency.
- No pile driving or blasting operations shall be performed within 2,952 of an occupied dwelling unit on Sundays, legal holidays and between the hours of 8:00 p.m. and 8:00 a.m. on other days, without the approval of the project manager.
- The noise from rock crushing or screening operations performed within 2,952 feet of an occupied dwelling shall be mitigated by strategic placement of material stockpiles between the operation and the affected dwelling or by other means approved by the project manager.

Should a specific noise impact complaint occur during the construction of the project, the contractor at his or her expense may be required to implement one or more of the following noise reduction measures as directed by the project manager:

- Locate stationary construction equipment as far from nearby noise sensitive properties as possible.
- Shut off idling equipment.
- Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
- Notify nearby residences whenever extremely noisy work will be occurring.
- Install temporary or portable acoustic barriers around stationary construction noise sources.
- Operate electric-powered equipment using line voltage power.

Noxious Weeds and Non-Native Species

To further meet the requirements of Executive Order (EO) 13112, ODOT will require the following activities prior to construction:

- A botanist will conduct a survey of the right-of-way to identify plants listed in the Oregon Noxious Weed Policy and Classification System maintained by the Oregon Department of Agriculture (ODA). Based on the survey, the botanist will prepare a report identifying the species, location, approximate areal distribution, and approximate density of ODA listed weeds.
- Based on the results of the survey, ODOT will write construction contracts requiring the contractor to control identified weeds and to prevent the establishment of other ODA listed weeds. Measures to prevent the introduction of invasive species could include using "seed free" straw or the equivalent for erosion control and replanting disturbed areas with native species.
- A botanist will inspect the right-of-way following construction to assure ODA listed weeds identified during the initial survey have been effectively controlled and that no

new ODA listed weeds have appeared in the areas affected by construction. If necessary, the contractor will be required to take additional steps to control ODA listed weeds.

- Herbicides will be used only when other methods will not be effective. Only herbicides certified for use near water will be used adjacent to wetlands and water. A botanist will survey areas that may contain sensitive species and will identify "no spray" areas before application of herbicides. Applicators will generally use spot application and will avoid applying herbicides on windy days. To the extent possible, applicators will apply herbicides when a weed is most vulnerable.

In conjunction with conservation measures to mitigate the impacts to Nelson's checker-mallow, ODOT recommends selective removal of individual Scotch broom plants where they are competing with Nelson's checker-mallow.