4.5 I-5 Projects

Short-term impacts from construction of the I-5 Projects would include impacts similar to those associated with constriction of the Airport Levee Improvements, except construction would be required within and adjacent to Dillenbaugh and Salzer creeks. This could include dewatering and/or stream diversions for bridge replacements, and construction of levees or floodwalls in and adjacent to each stream.

For a majority of the elements of the environment, the I-5 Projects would result in no long-term adverse impacts. Adverse impacts would primarily be minor in nature, except for the potential loss of less than 5 acres of wetlands (moderate impact) and moderate to significant impacts on cultural resources. Minor to moderate impacts are predicted for water quantity based on the increases in localized flood elevations and depths associated with the I-5 Projects. Groundwater impacts would be minor to moderate based on the potential for localized disruptions in the shallow groundwater flow regime from placement of action elements. I-5 Projects would result in reductions in Chehalis River floodplain extents, resulting in beneficial effects to water resources, land use, transportation, public services and utilities, and environmental health and safety.

4.5.1 Water Resources

4.5.1.1 Short-term Impacts

The potential short-term adverse impacts on water resources are described in Table 4.1-1. Although temporary, adverse impacts would occur due to an increased potential for sedimentation and turbidity, risk of contamination to surface and groundwater, and interruptions to surface water quantity and groundwater (e.g., recharge and discharge and localized hyporheic exchange alterations) in areas of dewatering. With the proposed bridge replacements at Dillenbaugh and Salzer creeks, there is an increased potential for turbidity and pH impacts due to potential work in and adjacent to the channel.

4.5.1.2 Long-term Impacts

4.5.1.2.1 Surface Water Quality

No adverse impacts on water quality are anticipated. Installation of the I-5 Projects would reduce flooding in areas protected by the levees and walls. If these areas are subject to pollutant-generating uses (e.g., vehicular traffic) or include on-site storage of hazardous or toxic materials, surface water quality could improve during and after floods in contrast to previous floods because of reduced pollutant loading to surface water from those areas.

4.5.1.2.2 Surface Water Quantity

The potential impacts of the I-5 Projects on surface water quantity would result in a beneficial effect in some locations due to reductions in flood extents, and minor adverse impacts in other locations due to increases in upstream and downstream flood levels. No adverse impacts on water use and water rights

are anticipated with the I-5 Projects because they would not affect the ability of area water users to divert their water right.

With implementation of I-5 Projects, floodwaters would be shifted away from I-5 and reduced behind the levees, particularly across I-5. Bridge replacements at Salzer and Dillenbaugh creeks would alter flood extents and flood depths (0.4-foot depth decrease) within the Chehalis River floodplain in the immediate vicinity of the bridge crossings, likely as a result of less backwater occurring at and upstream of the bridge during a 100-year flood (WSE 2014a). The decreased acreage subject to flooding and land uses and structures that would no longer be inundated are discussed in combination with the Airport Levee Improvements (Alternative 2) in Chapter 5. The potential for increases in flood extents and floodwater elevations on the riverside of levees and walls, as well as upstream of the levees and walls, would be a minor to moderate adverse impact due to the local increase in floodplain extents or flood elevations.

4.5.1.2.3 Groundwater

Footings for walls and levees placed below ground have the potential to disrupt shallow groundwater flow regimes, resulting in a minor to moderate adverse impact on groundwater, depending on the extent of subsurface excavation for levee toes. Improved surface water quality from reduced flooding of pollutant-generating roadway surfaces could potentially beneficially affect groundwater quality.

4.5.1.3 Mitigation

Potential mitigation measures for short-term impacts on water resources are described in Table 4.1-1. Potential mitigation measures for long-term impacts on water resources are similar to those described for the Airport Levee Improvements (see Section 4.4.1.3).

4.5.2 Geology and Geomorphology

4.5.2.1 Short-term Impacts

The potential short-term impacts on geology and geomorphology are described in Table 4.1-1. The impacts related to excavating and filling are similar to the Airport Levee Improvements. Temporary dewatering and/or stream diversions for bridge replacement would result in loss or modification of stream function during bridge replacement.

4.5.2.2 Long-term Impacts

Adverse impacts on geology are considered minor due to the limited potential for the weight of levees and walls to cause settlement of surrounding land and adjacent buildings, which can be addressed through avoidance and minimization measures.

Potential minor adverse impacts on Basin-wide geomorphology would result from the placement of levees and floodwalls along streams and in floodplains, affecting channel movement and disconnecting streams from floodplains and off-channel areas. With any bank-hardening component, there is the

potential to redirect flows downstream or to an adjacent or opposite bank, causing erosion or damage to aquatic habitats. These impacts would be local to the area of the I-5 Projects and would not have Basin-wide impacts on geomorphic function. The I-5 Projects also have the potential to improve and provide a beneficial effect to localized sediment transport processes due to improved hydraulic conditions under the replaced bridges at Dillenbaugh and Salzer creeks.

4.5.2.3 Mitigation

Potential mitigation measures for short-term impacts on geology and geomorphology are described in Table 4.1-1.

Avoidance and minimization measures for long-term impacts on geology from potential levee settlement could include such measures as staged construction and subdrainage to address potential settlement resulting from added weight (because of added height) of the levees or walls. Long-term mitigation for geomorphology could include monitoring of channel and floodplain conditions at, upstream, and downstream of the I-5 Projects. Monitoring of channel and bank conditions (i.e., areas of deposition, areas of erosion, channel widths and depths, bed substrate size) would identify any geomorphic changes resulting from the implementation of the I-5 Projects.

4.5.3 Wetlands and Vegetation

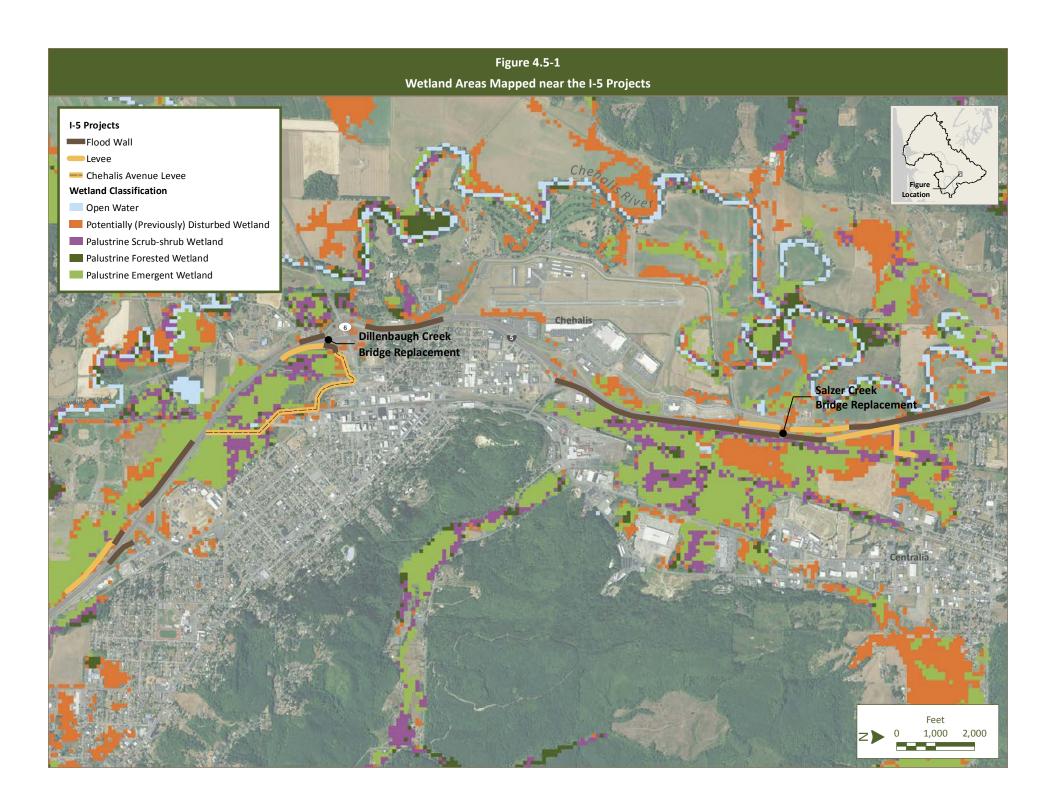
4.5.3.1 Short-term Impacts

In addition to the potential short-term impacts identified for the Airport Levee Improvements, temporary construction-related impacts on wetlands and riparian areas resulting from the construction of the I-5 Projects would occur from construction site dewatering activities. Impacts from such activities could include temporary fill placement in wetlands, removal or disturbance of existing upland and wetland vegetation, removal of bank vegetation, and temporary modification of wetland hydrology. These impacts would be limited in nature and extent, and conditions would be restored to pre-construction status and/or function following completion of the I-5 Projects.

4.5.3.2 Long-term Impacts

The potential adverse impacts on wetlands and vegetation are similar to those described for the Airport Levee Improvements, except that there would be a larger footprint as well as replacement bridges over Dillenbaugh and Salzer creeks (see Figure 4.5-1). Adverse impacts on wetland and upland vegetation communities are considered moderate due to the following:

- Permanent loss of wetlands, assumed to be less than 5 acres
- Permanent loss of upland and wetland vegetation
- Constrained river migration and reduced connection to floodplain and/or riparian habitat
- Modification of wetland hydrology
- Conversion, disturbance, and/or reduction of existing wetland, riparian, and vegetation communities



4.5.3.3 Mitigation

In addition to the long-term mitigation measures identified for the Airport Levee Improvements (avoidance, minimization, and compensatory mitigation), the I-5 Projects would be designed to comply with applicable stormwater manual requirements (i.e., the most recent versions of WSDOT's *Highway Runoff Manual* and Ecology's *Stormwater Management Manual for Western Washington*). Implementation of more stringent stormwater treatment requirements during design could result in improved water quality of stormwater runoff discharged to adjacent wetlands.

4.5.4 Fish and Wildlife

4.5.4.1 Short-term Impacts

4.5.4.1.1 Fish

Potential short-term impacts on fish could occur during construction of new levees along I-5, portions of which will be built immediately adjacent to the Chehalis River channel. Levee construction that occurs adjacent to the Chehalis River and bridge replacements over Dillenbaugh and Salzer creeks will involve in-water work and restructuring of adjacent streambank areas. Construction of bridge abutments would not greatly exceed the footprint of existing infrastructure. Short-term impacts would be localized to the construction footprint, with conditions returning to pre-construction status and/or function following completion of the I-5 Projects. Potential short-term impacts related to construction would primarily be from the following:

- Reduced water quality due to turbidity and pH increases or pollutants entering the water
- Temporarily dewatering of part of the river channels, potentially reducing habitat available to fish in the immediate vicinity of the I-5 Projects
- Construction noise in or near the stream channel and removal of bank vegetation, which would reduce the function of riparian habitat for fish (e.g., shading and input of terrestrial nutrients and food)

These short-term impacts have the potential result in fish injury or mortality during construction. However, they would be limited in nature and extent, and avoidance and minimization measures would be implemented during construction, as outlined below.

4.5.4.1.2 Wildlife

Similar to fish, potential short-term impacts on wildlife could occur during construction of I-5 Projects and would be localized to the construction footprint, with conditions returning to pre-construction status and/or function following completion of the I-5 Projects. Potential short-term impacts related to construction could temporarily disturb habitat used by native wildlife species to breed, forage, rest, and overwinter. These impacts would be limited in magnitude, and avoidance and minimization measures would be implemented during construction, as outlined below.

4.5.4.2 Long-term Impacts

4.5.4.2.1 Fish

No adverse impacts on fish or instream fish habitat are anticipated to occur as a result of implementing the I-5 Projects. Adverse impacts on fish are primarily related to changing flood extents and elevations upstream and downstream of the walls and levees during a 100-year flood (see Section 4.5.1.2.2) from the following:

- Redistribution of fish with the redistribution of floodwaters
- Improved water quality during and after floods if developed areas that are no longer flooded are subject to pollutant-generating uses, such as vehicular traffic, or include on-site storage of hazardous or toxic materials
- Reduced toxicity of runoff to fish with treatment of pollutant-laden stormwater from I-5

Each of these actions could affect fish migrating, rearing, and foraging in river reaches adjacent to the I-5 Projects during floods. Salzer Creek has known spawning habitat for spring-run and fall-run Chinook salmon and winter-run steelhead near the confluence with the Chehalis River and the I-5 crossing; Dillenbaugh Creek has as known spawning habitat for coho salmon near the I-5 crossing. These creeks are migratory pathways for salmon and steelhead, and many low-gradient areas could provide rearing habitat for coho salmon. Other species likely to be present include lamprey, largescale sucker, dace, shiner, Northern pikeminnow, and invasive non-native species. The numbers of fish that occur in the areas affected are unknown, but the scale of the habitat near the I-5 Projects is small relative to the fish habitat available across the entire Chehalis Basin. Adverse impacts that occur from redirection of water around the I-5 Projects during floods would be short in duration (within one season) and infrequent.

4.5.4.2.2 Wildlife

The potential adverse impacts on wildlife species would be minor due to the limited vegetation disturbance and a small change in the extent of flood inundation compared to current conditions. There could be benefits to aquatic wildlife due to improved quality of stormwater runoff discharged to adjacent habitat, which would improve conditions for wildlife species that rely on aquatic habitat for breeding, foraging, and overwintering, such as amphibians.

4.5.4.3 Mitigation

4.5.4.3.1 Fish

Some potential short-term impacts on fish could be addressed through avoidance and minimization measures, including those described in Table 4.1-1, such as avoiding intact riparian vegetation that stabilizes banks and provides cover for fish, reducing high-impact noise in water that could kill or injure fish, constructing outside of salmon migration and incubation seasons, and excluding fish from areas with nets or other temporary exclusion methods.

No long-term adverse impacts on fish would occur through implementation of the I-5 Projects, so no mitigation is proposed.

4.5.4.3.2 Wildlife

Potential mitigation measures to reduce short- and long-term impacts on wildlife would be the same as those described for the Airport Levee Improvements.

4.5.5 Tribal Resources

4.5.5.1 Short- and Long-term Impacts

The potential construction-related impacts on tribal resources are related to reduced access to tribal fish resources and diminished water quality that could affect fish production. These impacts would occur primarily where the Chehalis River is adjacent to I-5, where levee construction activities are immediately adjacent to the main channel of the Chehalis River, Dillenbaugh Creek, and other stream channels, and at bridge replacement locations over Dillenbaugh and Salzer creeks, including both in-water work and restructuring of adjacent riverbank areas.

Construction activities could also result in indirect effects to fish through the temporary degradation of habitat, including water quality through pollutant-laden stormwater runoff, pollutants spilled into the water, or increased turbidity. Areas could be temporarily dewatered, reducing available fish habitat in the immediate vicinity of the I-5 Projects. Construction noise may affect fish behavior in or near the stream channel and removal of bank vegetation would reduce the function of riparian habitat for fish (e.g., shading and input of terrestrial nutrients and food).

These impacts have the potential to increase fish injury or mortality during construction. However, they would be limited in nature and extent, and avoidance and minimization measures would be implemented during construction as described in Section 4.5.4.

The potential long-term impacts on tribal resources would be similar to those discussed for the Airport Levee Improvements.

4.5.5.2 Mitigation

The process to determine mitigation measures to address impacts of the I-5 Projects on tribal resources would be similar to those discussed under the Airport Levee Improvements, although the I-5 Projects involve in-water work, which would likely change the specific mitigation elements.

4.5.6 Air Quality

4.5.6.1 Short-term Impacts

The potential short-term impacts of construction of the I-5 Projects on air quality are similar to those described for construction of the Airport Levee Improvements, but due to the larger scale of

construction activities, there would be a greater increase in vehicle emissions from truck trips and mechanized construction equipment, as well as dust. These impacts would be localized, limited to the construction period, and would not cause an overall decrease in regional air quality.

4.5.6.2 Long-term Impacts

No adverse impacts on air quality are anticipated because the I-5 Projects would not generate emissions or dust.

4.5.6.3 Mitigation

Potential mitigation measures to reduce short-term impacts on air quality would be the same as those described in Table 4.1-1 related to excavating, clearing, filling, and construction staging. No long-term impacts on air quality are anticipated, so no mitigation is proposed.

4.5.7 Climate Change

4.5.7.1 Short-term Impacts

The potential short-term impacts on climate change would be similar to those described for the Airport Levee Improvements. Although construction-related emissions and vegetation removal may be slightly greater than the Airport Levee Improvement, they would still be below the annual threshold for qualitatively disclosing emissions over the construction period. No impacts on construction resulting from climate change would occur due to the near-term, temporary nature of the construction activities.

4.5.7.2 Long-term Impacts

4.5.7.2.1 Effects of the I-5 Projects Contributing to Climate Change

No adverse impacts of the I-5 Projects contributing to climate change are anticipated, because the potential loss of vegetation or additional GHG emissions associated with the operation and maintenance of the I-5 Projects is below the annual threshold for qualitatively disclosing emissions, as described for the Airport Levee Improvements in Section 4.4.7.2.

4.5.7.2.2 Effects of Climate Change on the I-5 Projects

No adverse impacts of climate change on the I-5 Projects are anticipated, and any impacts would be similar to those described for the Airport Levee Improvements. The I-5 Project levees and walls would provide freeboard beyond the 100-year flood level. Pumps used to pump out water trapped behind the levee into the Chehalis River may be used more often as major flooding from the effects of climate change occurs more frequently. These measures would provide additional resiliency to changing climate conditions.

4.5.7.3 Mitigation

4.5.7.3.1 Mitigation to Address Effects of the I-5 Projects Contributing to Climate Change

No adverse impacts of the I-5 Projects contributing to climate change are anticipated, so no mitigation is proposed.

4.5.7.3.2 Mitigation to Address Effects of Climate Change on the I-5 Projects

No adverse impacts of climate change are anticipated, so no mitigation is proposed.

4.5.8 Visual Quality

4.5.8.1 Short-term Impacts

The potential short-term impacts of the I-5 Projects on visual quality would occur during construction activities and include fugitive dust, exposed construction debris, heavy equipment, and erosion control measures. This would temporarily create an unattractive visual setting during the construction period for motorists on I-5, users of the airport and existing airport levee trail, Riverside Golf Course and RV Park patrons, residents of surrounding properties, and passing traffic. Construction equipment and activities, including vegetation removal, would lower visual quality for the duration of construction. These impacts would be localized and limited to the construction period.

4.5.8.2 Long-term Impacts

The new I-5 floodwalls and levees would block some existing views and change views for motorists on I-5 and adjacent roadways, and potentially change the views of adjacent residences and businesses.

Because the additional infrastructure would interrupt existing views, impacts on visual quality would be minor and adverse.

4.5.8.3 Mitigation

Potential mitigation measures for short-term impacts on visual quality could include limiting the area of ground disturbance, locating temporary access roads and staging areas within previously disturbed areas or co-locating them with proposed activities, and revegetating temporarily affected areas with appropriate plantings as soon as possible following construction.

Potential mitigation measures to reduce long-term impacts on visual quality could include vegetating new exposed areas on the levees to the extent possible, and using materials on the levees and floodwalls that would blend with the surroundings.

4.5.9 Noise

4.5.9.1 Short-term Impacts

The potential short-term impacts related to noise would occur during construction and include heavy equipment and construction activities. Construction equipment would primarily consist of

earth-moving, materials-handling, and hauling equipment. Pile driving and impact tools could also be required for bridge replacements. Noise levels for these types of equipment range from 76 to 110 dBA at 50 feet from the source (see Table 4.2-10).

The I-5 Projects are located along the stretch of I-5 that passes through Centralia and Chehalis. Some of the proposed floodwalls, and the Dillenbaugh Creek bridge replacement, are located near residential areas and the Riverside Golf Club and RV Park. Construction noise is likely to disturb residents, golfers, and campers, but noise levels would quickly dissipate below levels that would cause hearing damage, and construction noise would be limited to daytime hours and to the duration of construction.

4.5.9.2 Long-term Impacts

No adverse impacts would occur because the completed I-5 Projects would not generate noise.

4.5.9.3 Mitigation

Potential mitigation measures for short-term impacts on noise would be the same as those described for the Airport Levee Improvements. No long-term noise impacts are anticipated, so no mitigation is proposed.

4.5.10 Land Use

4.5.10.1 Short-term Impacts

No short-term impacts on land use are anticipated.

4.5.10.2 Long-term Impacts

Reducing the length of time that I-5 is closed and the physical damage to I-5 during major floods would result in beneficial effects to land use as a result of fewer or less frequent interruptions to access for commercial or other land uses. However, increases in flood extents and floodwater elevations that would occur upstream and downstream of the levees and walls would result in a minor adverse impact on land use in areas that experience new or higher levels of flooding. The decrease in flood extents and land uses that would no longer be inundated are discussed in combination with the Airport Levee Improvements (Alternative 2) in Chapter 5.

4.5.10.3 Mitigation

Potential mitigation measures for long-term impacts on land use resulting from new or increased flooding could include installing compensatory flood storage upstream to avoid an increase in flood levels caused by the levees and floodwalls, or elevating or floodproofing those structures and uses.

4.5.11 Recreation

4.5.11.1 Short-term Impacts

Potential short-term impacts on recreation from construction of the I-5 Projects are similar to those described for the Airport Levee Improvements, but there could be a slight increase in recreational

disruption (including to the Stan Hedwall Park and Recreation Park) due to the larger scale of construction activities. These impacts would be localized nature and limited to the construction period.

4.5.11.2 Long-term Impacts

The I-5 Projects are predicted to increase flooding on the riverside of the levees, which would in turn increase flood levels at the Riverside Golf Course and RV Park. These potential adverse impacts are considered minor because flood damages to the golf course and RV park would result in a limited increase in depth and duration of flooding.

4.5.11.3 Mitigation

Potential mitigation measures for short- or long-term impacts on recreation are similar to those described for the Airport Levee Improvements (see Section 4.4.11.3).

4.5.12 Historic and Cultural Preservation

4.5.12.1 Short- and Long-term Impacts

Potential impacts on historic and cultural resources associated with the I-5 Projects include the following:

- Destruction, damage to, or alteration of a cultural resource
- Necessary removal of a cultural resource from its original location
- Changes to the use or physical features of a cultural resource
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the significant features of a cultural resource

The extent of impacts would depend on the nature of cultural resources that could be disturbed, which would be determined through coordination with DAHP and affected tribes during project-level environmental review, including continued government-to-government consultations. Potential impacts on tribal cultural resources or graves, Indian human remains, or traditional cultural properties may also occur and would be determined in coordination with tribes, and government-to-government consultations.

The potential impacts on cultural resources that would occur during construction-related ground disturbance are associated with building new levees, structural walls, levee improvements, bridge replacements (over Dillenbaugh and Salzer creeks), and stormwater treatment areas. Several archaeological resources have been identified in the area during studies for other projects.

Some potential impacts on cultural resources from the I-5 Projects could occur following construction. The new levee could confine current transportation routes or river channels, which could expose, damage, destroy, and/or alter cultural resources at or downstream of the new levee through the following:

Additional, increased, or changed vehicular and foot traffic patterns

• Different flood patterns, which would cause flooding and sedimentation of submerged resources in other areas and change the streambank locations and result in bank erosion

Based on WSAPM, this area is considered to have a very high potential for archaeological deposits; therefore, potential adverse impacts are considered moderate to significant.

4.5.12.2 Mitigation

Mitigation measures for potential impacts on cultural resources would be determined during project-specific evaluations of the I-5 Projects, and would include consultation with DAHP, interested and affected tribes, and other consulting parties (see information on addressing potential impacts on cultural resources in Section 4.2.12).

The potential compensatory mitigation measures would be the same as those described for the Flood Retention Facility.

4.5.13 Transportation

4.5.13.1 Short-term Impacts

The potential short-term impacts of construction of the I-5 Projects on transportation include temporary disruptions of traffic, and lane closures on I-5 and local roadways due to construction of floodwalls and levees as well as replacement of the I-5 bridges over Dillenbaugh and Salzer creeks. Construction of stormwater improvements would also require temporary lane closures. Some floodwall construction would occur near the BNSF rail line and would require coordination with BNSF. These impacts would be limited to the duration of the construction period and access would be maintained to the extent possible.

4.5.13.2 Long-term Impacts

The I-5 Projects would reduce the duration of closures of I-5 during major floods, which would be a beneficial effect. However, there could be new or increased flooding of nearby local roadways due to a limited increase in flood extents and floodwater elevation on the river side of levees and walls, as well as upstream of the levees and walls. This would result in a minor adverse impact due to the limited and localized increase in flood elevations.

4.5.13.3 Mitigation

Potential mitigation measures to reduce short-term impacts on transportation would be similar to those described for the Airport Levee Improvements. The construction and design of the I-5 Projects would be coordinated with the Federal Highway Administration and comply with federal, state, and local standards. Construction of the levee near the railroad would be coordinated with BNSF. Potential long-term mitigation measures for increased flooding of local roadways could include installing compensatory flood storage upstream to avoiding an increase in flood levels caused by the levees and floodwalls, or potentially other measures to reduce flooding on these roadways.

4.5.14 Public Services and Utilities

4.5.14.1 Short-term Impacts

The potential short-term impacts on public services and utilities would include the temporary disturbance of utilities near the levee, floodwall, and bridge replacement projects, including power lines and highway lighting during construction. These impacts would be limited to temporary disruptions of service.

4.5.14.2 Long-term Impacts

The I-5 Projects would result in a limited increase in flood extents and floodwater elevations in some locations, and would affect public services and utilities, including the Chehalis Regional Water Reclamation Facility. The I-5 Projects could require localized relocation of utilities. These adverse impacts are considered minor because the increase in flood levels would be limited and localized and utility relocations would be localized.

4.5.14.3 Mitigation

Potential mitigation measures for short-term impacts on public services and utilities would be the same as those described for the Airport Levee Improvements (see Section 4.4.14.3).

Potential impacts from increased flooding caused by the I-5 Projects could be provided through flood storage upstream of the levee, where flood levels are anticipated to increase. Mitigation for utility relocations could include coordination with service providers and property owners.

4.5.15 Environmental Health and Safety

4.5.15.1 Short-term Impacts

The potential short-term impacts on environmental health and safety would include lane closures during construction that could cause delays in emergency response. Construction of the I-5 levees and walls could cause temporary delays to emergency services that use I-5. Bridge replacements on I-5 over Dillenbaugh and Salzer creeks could require bridge closures or detours, and construction of stormwater improvements could require temporary lane closures on I-5, which would potentially delay emergency response. These impacts would be relatively short in duration and would be coordinated with emergency responders.

4.5.15.2 Long-term Impacts

Minor adverse impacts on environmental health and safety are anticipated as a result of implementation of the I-5 Projects. The I-5 levees and floodwalls would slightly increase flood elevations upstream and could cause a slight increase in risk of contamination from the Chehalis Regional Water Reclamation Facility. This risk would be minor because of the limited increase in flooding and the existing level of flood protection at the facility. Construction of the I-5 floodwalls and levees would reduce the duration of I-5 closures during major floods and maintain it as an emergency

response route, which would result in moderate beneficial effects. Overall, the I-5 Projects would cause a reduction in threats to human health and safety.

4.5.15.3 Mitigation

Potential mitigation measures to reduce short-term impacts on environmental health and safety would be the same as those described for the Airport Levee Improvements. Long-term mitigation for increased flooding of the Chehalis Regional Water Reclamation Facility could include compensatory water storage in areas upstream of the levee where flood levels are anticipated to increase, or additional flood protection for the facility.