



# Memo

To Emy Carpenter, Moffatt & Nichol

From Alex Dupey, AICP, Dave Rodgers, PE MIG

Re Chehalis LAND - Transportation - Bypass routes vs Evacuation Route Framework

MIG #019281.00

Date May 13, 2025

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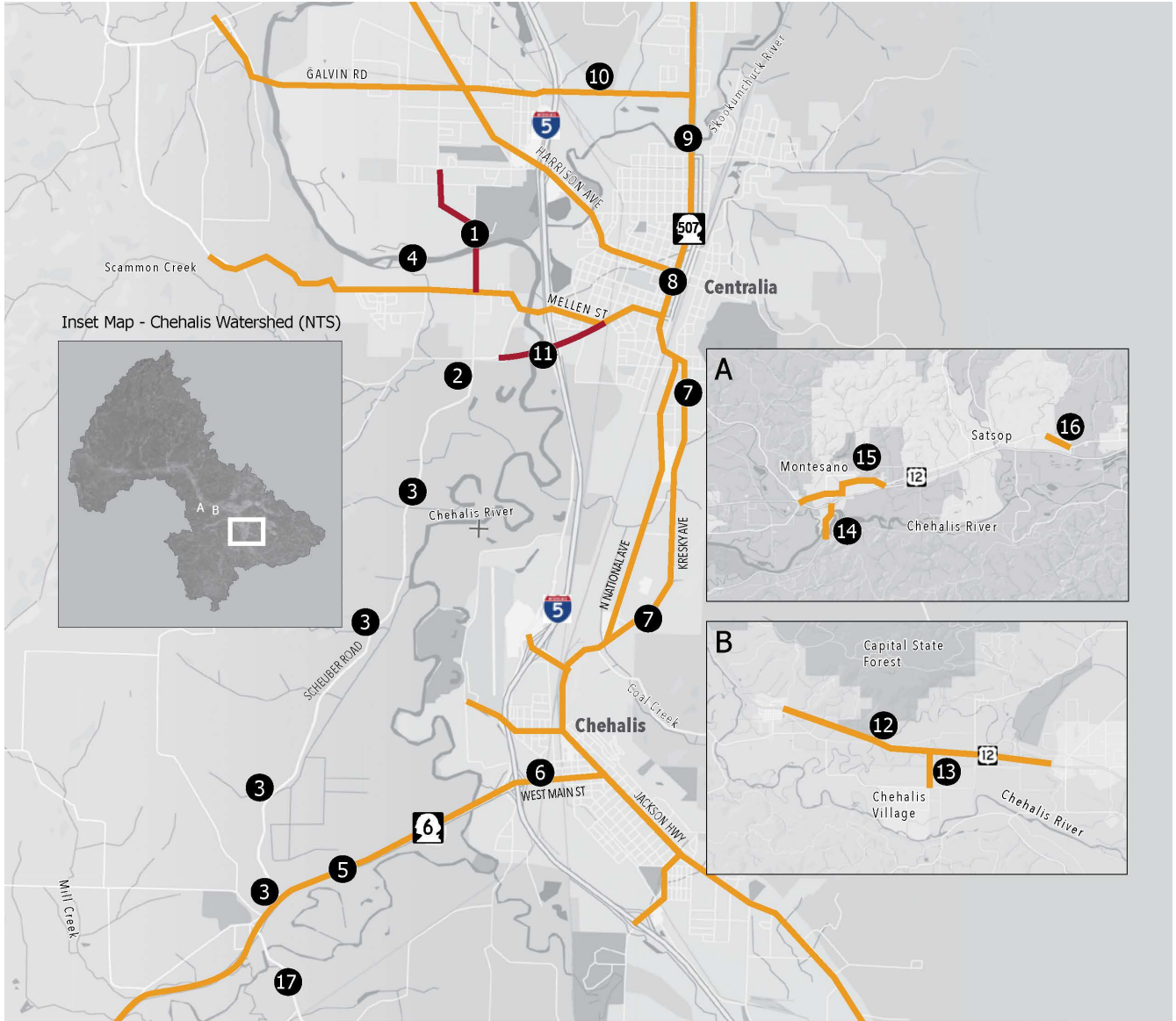
The purpose of this document is to highlight potential bypass routes to I-5 when closed due to flooding as well as solutions to maintain access to designated emergency access routes during a major flooding event. Changes to designated bypass and emergency access routes could include raising road elevations and new bridge structures, floodgates and culverts to accommodate taller levees or flood walls and allow water to pass downstream.

For roads that cross levees but that would close during major storm events, the project team assumes that levees would incorporate flood gates within the levee structure at road crossings with a notification system for the community that provides updates on which routes are passable due to levee gate closures.

The LAND Alternative Project evaluated existing evacuation routes as part of its alternatives analysis (**Figure 1**), providing recommendations for each route to maintain access during the Late Century 100-Year flood, which assumed a 26 percent increase in flood elevation over current 100-year flood assumptions. Project recommendations were developed to maintain the emergency routes identified in the 2016 Lewis County Multi-Jurisdictional Hazard Mitigation Plan. Where appropriate, those recommendations have been included.

The project team coordinated with the Cities of Centralia and Chehalis to discuss the implications for future flooding events for both I-5 and emergency routing. Discussion focused on two routes that should be considered for additional analysis as part of an I-5 bypass and emergency access routes. Additional discussion of other emergency route options is included, pending future analysis.

Figure 1: Existing Evacuation Routes and LAND Alternative Recommendations



**LEGEND**

- Evacuation Routes per 2016 Lewis County Multi-Jurisdictional Hazard Mitigation Plan
- Potential New Bridges
- 1** South Scheuber Road Bridge
- 2** South Scheuber Road —Graf/Military Road
- 3** South Scheuber Road —West Connection
- 4** Cooks Hill Road
- 5** State Route 6 (South Scheuber Road to I-5)
- 6** West Main Street
- 7** National to Kresky
- 8** State Route 507 through Centralia
- 9** Pearl Street and Bridge (SR 507)
- 10** Reynolds Road
- 11** New Mellen Street Bridge
- 12** Raise SR 12
- 13** Raise Anderson Road
- 14** State Route 107
- 15** Montesano Bypass
- 16** Monte Elma Road
- 17** Old Highway 603

## Westside Bypass/Emergency Access Route #1: Scheuber Road/SR-6

The City of Centralia and Lewis County are currently designing a new Chehalis River bridge that will cross the Chehalis River west of Fort Borst Park. This future structure will complete a missing link for emergency access from the northern portion of Centralia to the hospital. The new bridge connection will provide a complete north/south route from Galvin Road to its terminus at SR-6. The LAND Project evaluated this corridor and identified several projects necessary to maintain access during a major flood event. **Figure 2** identifies the proposed routes and general locations of the potential projects. **Figure 3** identifies those projects with the 2080 Flood extent. The projects listed below assume that the proposed levee and floodwall components of LAND have been constructed.

- **LAND Project #1: Construct the Scheuber Road Bridge (West Connector Bridge).** Integrate this current project to ensure the future connection meets both connectivity goals and flood heights. Future bridge heights should consider how to integrate with the proposed Fort Borst Park levee, providing adequate clearance to address Late Century flooding. We understand this road section is under study by the joint Lewis County/Centralia West Connector Project.
- **LAND Project #2: South Scheuber Road/Graf Road Military Road.** Raise South Scheuber Road from near the Graf Road/Military Road intersection to approximately 700 feet north of the intersection to maintain access to the hospital. We understand this road section is under study by the joint Lewis County/Centralia West Connector Project.
- **LAND Project #3: South Scheuber Road Spot Improvements.** Raise sections of South Scheuber Road between State Route 6 and the Graf Road/Military Road intersection. We understand this road section is under study by the joint Lewis County/Centralia West Connector Project.
- **LAND Project #5: State Route 6 (South Scheuber Road To I-5).** Replace the existing bridge over the Chehalis River, constructed in 1939, and elevate sections of SR-6 to improve floodplain connections and minimize upstream raised water surface elevation.

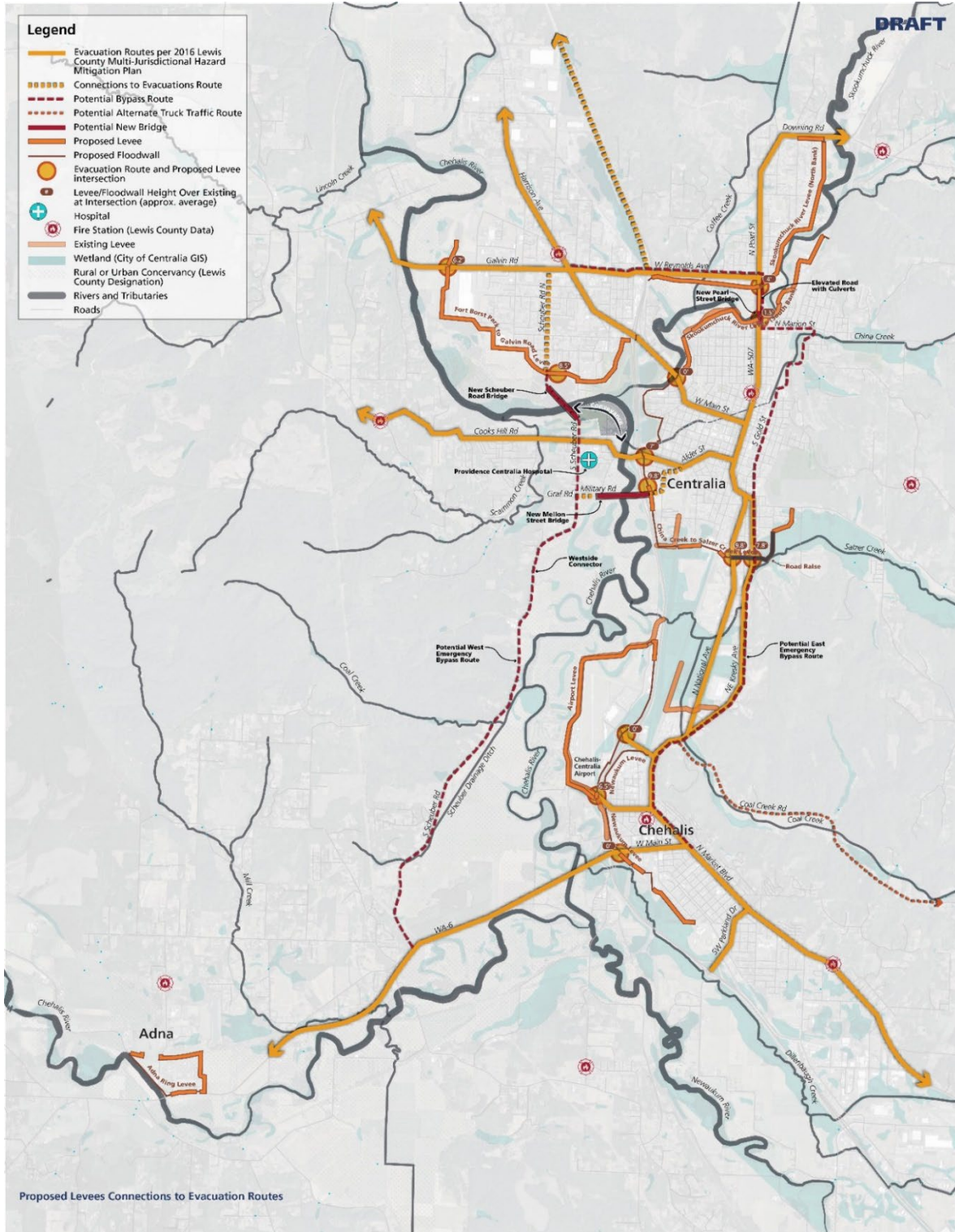
If the levee and floodwall components of LAND are not yet constructed, this additional project would be required to facilitate bypass/emergency access during the design flood event.

- **LAND Project #6: Main Street, Chehalis.** Raise West Main Street or construct a levee system in coordination with BNSF to provide a transportation connection from Chehalis to I-5 during flood events. This would require BNSF to raise its tracks or construct a levee with a floodgate and pump station. In the event of a flood, the flood gates would be closed across the tracks.

These projects, if implemented together with a levee near the SR-6/I-5 interchange, could connect

Chehalis to the hospital and complete an alternative route for I-5. Additional analysis would be required to identify if other improvements would be needed.

Figure 2: Proposed Levees, Floodwalls, Evacuation and I-5 Bypass Routes





## Eastside Bypass/Emergency Access Route #2: Kresky Avenue and SR 507 to Reynolds Road

There is the potential to connect Chehalis and Centralia to the hospital and as well as create a potential bypass route for I-5 during a major flood event on the east side of the Chehalis River. As with the westside bypass described above, there are planned projects along this potential route that, if constructed with the Late Century 2080 flood extent as a design assumption, could provide multiple benefits by aligning flood and levee assumptions with existing and planned transportation projects. **Figure 2** identifies the proposed route. **Figure 1** illustrates the general project locations. The projects listed below assume that the proposed levee & floodwalls components of LAND have been constructed and would be required to facilitate bypass/emergency access.

- **LAND Project # 7: N National to Kresky Avenue.** N National Avenue is a five-lane, two-way street from I-5 to where it divides to become a one-way couplet with NE Kresky Avenue. N National Avenue and NE Kresky are designated as evacuation routes and while the roads are currently one-way, they could accommodate two-way traffic between Chehalis and Centralia during flood events. However, proposed levees near Salzer Creek, with heights of approximately eight to ten feet, would require elevating at least one of the roadways to be at grade or above the levee to maintain access during the flood event. If one or both roads are not elevated above the levee, flood gates would be required to close the at grade road(s) when flooding occurs. If at least one of the roadways are not elevated, this route would not be a feasible bypass.
  - **Additional Study Required:** While not part of the LAND Project's proposed list of projects, the City of Centralia also suggested S Gold Street as a potential alternative to SR 507 through Downtown. The bypass route would turn west on E Marion/6<sup>th</sup> Street and then north again on N Pearl Street to make the connection over a newly constructed Pear Street Bridge across the Skookumchuck River (See LAND Project #9). If this route were selected, floodgates might be installed across NE Kresky (N National becomes S Gold Street) at the Salzer Creek levee location, assuming it is not elevated.
- **LAND Project #9: Pearl Street and Pearl Street Bridge (SR 507).** This section of roadway is in an area that frequently floods. This project would include replacing the existing 1928 bridge and raising the roadway to allow for vehicle passage during a flood event. The benefit of using this route as a bypass is that WSDOT is planning to replace the aging bridge structure over the Skookumchuck River in the next several years. Currently, the estimated height of the expanded levee in the vicinity of the bridge is approximately five feet. Raising the new bridge to accommodate the taller levee should be evaluated as part of the bridge and roadway design project. The northern portion of SR 507 between the Skookumchuck River and Reynolds Road would also require elevation of the roadway by approximately four feet. This section of roadway would also include culverts to allow floodwater to flow in this area.

If the levee and floodwall components of LAND are not yet constructed, this additional project would be required to facilitate bypass/emergency access during the design flood event.

- **LAND Project # 8: State Route 507 Through Centralia.** This project includes a number of elements to protect SR 507 and also provide a connection from the existing (and proposed) Mellen Street Bridge area through Centralia. This corridor is a State highway and with the connection to N National and NE Kresky, could provide a connection to the Pearl Street Bridge over the Skookumchuck River.
- **LAND Project #10: Reynolds Road Improvements (Pearl Street to Scheuber Road).** Reynolds Road provides an important east/west connection across I-5 but regularly floods near the Skookumchuck River. To maintain east/west access and access to the hospital and west side of I-5, Reynolds Road would be raised by approximately four feet (depending on location) to where it transitions to Gavin Road, which may also require some modifications. Raising the roadway would also require utility castings to be raised to the new asphalt road surface finish elevation. Surface utilities (fire hydrants, communication and power cabinets and overhead utilities) would also be raised to the new roadway elevation. Alternatively, a levee could be placed to maintain the current elevation of Reynolds Road. We understand that Reynolds road upgrades are currently being reviewed by joint Lewis County/Centralia project. **Study Needed.** There is interested in assessing the possibility of using Coal Creek Road as a truck traffic route. Coal Creek Road is a narrow two-lane road and should be evaluated to identify whether or not there is the potential to use this as an alternative route if I-5 is closed.

## Impacts On Other Emergency Access Routes

There are a number of other emergency access routes that may be affected by major flooding, the placement of levees and/or floodwalls. Additional analysis will be required to determine whether adjustments should be made to the emergency access route system, particularly any route that is also used as a bypass route in the event I-5 is closed. The following access routes may be impacted by levees and floodwall construction:

- **Raise Gavin Road at the Fort Borst Park Levee.** Gavin Road is an east/west emergency access route that connects the east and west sides of Centralia. In addition to the changes discussed under Bypass Alternative #2 for Reynolds Road, Gavin Road would also cross the Fort Borst Park levee on the far western edge of Centralia. This connection is assumed to remain open during events, but Gavin Road would be required to be elevated approximately six feet to cross the levee. On the west side of the levee, the roadway would likely need to be elevated and with culverts to allow water to pass through prior to connecting to the existing bridge over the Chehalis River.
- **Remove and relocate the Mellon Street Bridge.** The LAND Project recommend relocating and reconstructing this bridge. This modification would change the route on the east side of I-5 by relocating the existing bridge to the south, however the new bridge and

connection to S. Scheuber Road would still provide access to the hospital. New approaches to the new Mellon Street bridge would be required to cross an approximately 10-foot tall levee on the east side of I-5, which may require additional land for the approach footprints. Maintaining this connection during a major event is also important because of the closure with floodgates of Harrison Avenue (see below) during flood events. The new bridge would also meet modern design standards and would provide emergency access needed from other events, such as an earthquake.

- **Closure of Harrison Avenue during flood events.** Floodgates are proposed at the Harrison/I-5 underpass and just east of the Skookumchuck River where new floodwalls would be constructed. Closure of this emergency access connection with floodgates relies on completion of Bypass #1 or #2, or both, providing access to the hospital and points north. However, Harrison Avenue north of Gavin Road would be maintained as it provides an important link to Grand Mound and the next I-5 interchange.
- **Cooks Hill Road.** Cooks Hill Road at Scammon Creek may be inundated during large events. Reviewing elevation of the road and increasing size of culvert. Scammon Creek is incised and could benefit from stream channel restoration.
- **North Market Road.** No changes are expected to this emergency access route.
- **SW Parkland Drive.** No changes are expected to this emergency access route.
- **Main Street in Centralia.** This connection would be coordinated with China Creek improvements. West Main leads to/from Harrison, which will have flood gates as described above.

## Lower Chehalis Basin Emergency Access Roads

Potential impacts to the lower Chehalis Basin road network will be dependent on the location and type of infrastructure constructed upstream to reduce flood damage. Currently the following projects have been identified in the LAND Project to mitigate water levels during major flood events. These projects may be revised as additional analysis and infrastructure design refinements occur. Key projects include the following:

- **LAND Project #12: Raise SR-12, Chehalis Reservation To Rochester.** This project would raise or protect SR-12 between the Chehalis Reservation and Rochester to the west to preserve emergency access routes for the area.
- **LAND Project #13: Raise Anderson Road.** Anderson Road is the primary access road to the Chehalis Reservation and is inundated during flood events, limiting access to key facilities off of the Reservation. This project would raise the roadway to maintain access during a flood event.

- **LAND Project #14: State Route 107.** Evaluate SR 107 between Montesano to the north side of the Chehalis River to address flooding potential and potentially raise this section of the highway while maintaining access to the boat ramp and nearby lumber mill.
- **LAND Project #15: Montesano Bypass.** Analyze bypass to existing ramps or reconfigure ramps to allow access to SR 12 for emergency vehicles.
- **LAND Project #16: Monte/Elma Road.** Evaluate potential for bypass route and associated improvements to Monte/Elma Road to allow freight and emergency vehicles access through that area during flood events.
- **LAND Project #17. Old Highway 603.** Raise road between SR 6 and to the east of Twin Oaks Road to provide an additional connection across the Chehalis River valley.

## Next Steps

The project team is currently updating its modeling to identify whether the roadway projects identified in the LAND Project and refined levee and floodwall locations would require modifications to the recommended projects. If necessary, projects will be revised to reflect new information.