

King County

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Appendix B

Scenario #3 - Closure of SR 167 – I-405 to the Pierce County Line

A. General Information

For the closure of SR 167 – I-405 to Pierce County Line, stakeholders proposed two alternative routes for this scenario. The primary route entails diverting traffic from SR 167 to I-5. The secondary route involves diverting traffic from SR 167 to I-5 onto SR99. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. Pierce County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency, and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional Emergency Operations Centers/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local government in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
2. Pierce County Emergency Operations Center will notify Buckley Emergency Management, Gig Harbor Emergency Management, Puyallup Emergency Management and Tacoma Emergency Services as well as the jurisdictions and tribes with which they have an inter-local agreement which includes Bonney Lake, Buckley, DuPont, Eatonville, Edgewood, Fife, Fircrest, Lakewood, Milton, Orting, the Puyallup Tribe of Indians, Roy, Ruston, Steilacoom, Sumner, University Place, and Wilkeson.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on Meridian Ave, and Enchanted Parkway. Other alternatives include: Eliminate or restrict parking, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include changing HOV rules, constructing HOV Bypass, convert

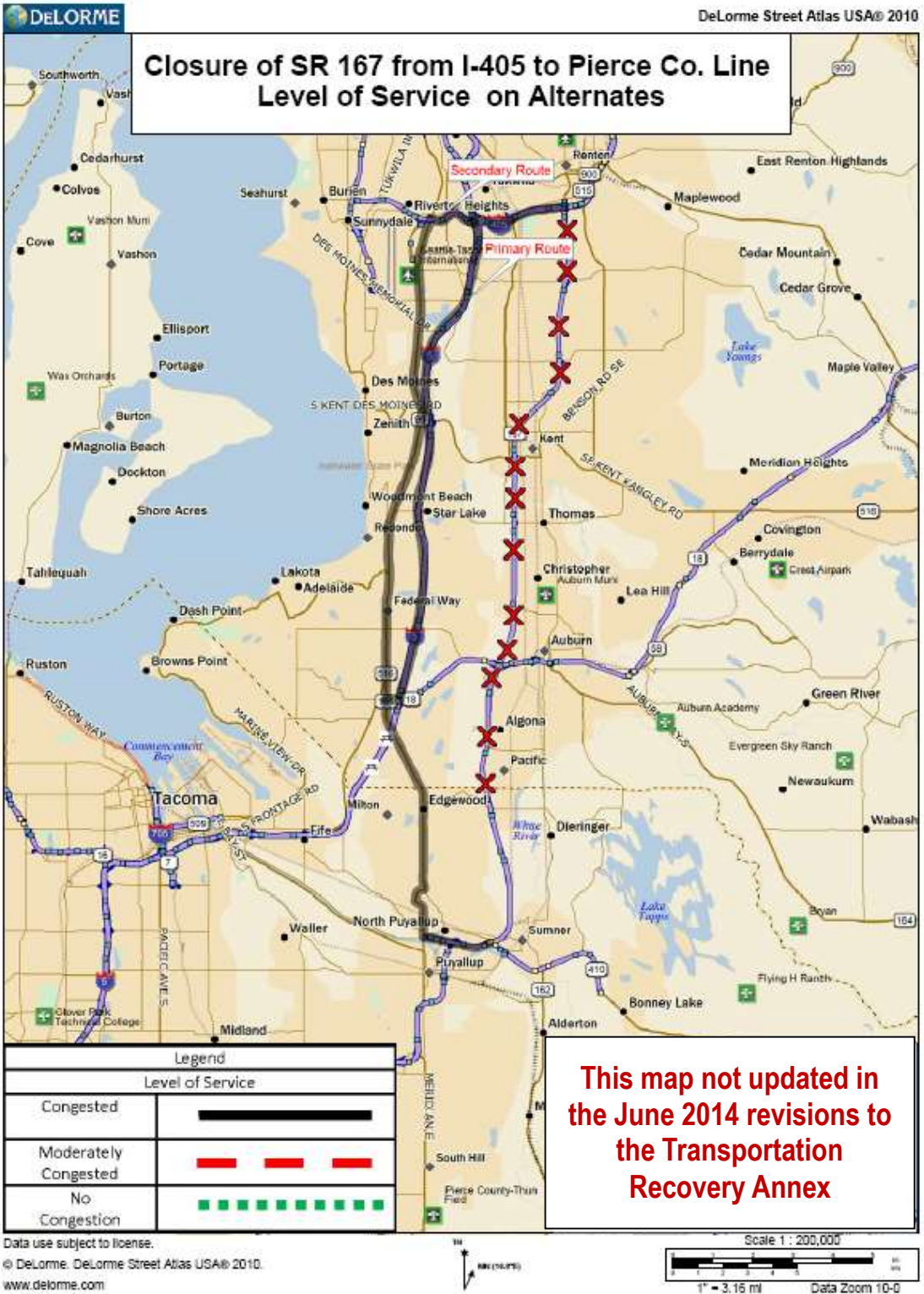
freeway should to driving lane, transit service increase and establish new transit service, freeway ramp metering, and incorporating technology in traffic signal interconnects. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
3 - Closure of SR 167 from I-405 to Pierce County Line – King County	
North to South Routing - Primary	South to North Routing - Primary
I-405 Southbound (Exit to I-5 Southbound)	SR 167 Southbound (Begin at SR 410) (Pierce Co)
I-5 Southbound (Interchange 154)	SR 167 Southbound (Exit at Meridian Ave) (Trf Sig)
I-5 Southbound to Exit 142 (SR 18)	SR 161 Northbound (N Meridian Ave)
SR 18 Westbound (South 348 th Street)	SR 161 Northbound (Meridian Ave. East)
SR 161 Southbound (Enchanted Parkway South)	SR 161 Northbound (Enchanted Parkway South)
-	SR 18 Westbound (South 348 th Street) (Trf Signal)
- Traffic Signal	I-5 Northbound (Interchange 142)
SR 161 Southbound (Meridian Ave. East)	I-5 Northbound (Exit 154)
SR 161 Southbound (N Meridian Ave)	I-405 Northbound (to SR 167)
SR 167 Northbound (Traffic Signal)	
SR 167 to SR 410 (Pierce Co)	

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
3 - Closure of SR 167 from I-405 to Pierce County Line – King County	
North to South Routing - Secondary	South to North Routing - Secondary
I-405 Southbound (Exit to I-5 Southbound)	SR 167 Southbound (Begin at SR 410) (Pierce Co)
SR 518 Westbound	SR 167 Southbound (Exit at Meridian Ave) (Trf Sig)
SR 99 Southbound (International Dr)	SR 161 Northbound (N Meridian Ave)
SR 99 Southbound (Pacific Hwy S)	SR 161 Northbound (Meridian Ave. East)
16 th Ave S Southbound (Traffic Signal)	SR 161 Northbound (Enchanted Parkway South)
SR 161 Southbound (Enchanted Parkway South)	16 th Ave S Northbound (Trf Signal)
-	SR 99 Northbound (Pacific Hwy S) Traffic Signal
- Traffic Signal	SR 99 Northbound (International Drive)
SR 161 Southbound (Meridian Ave. East)	SR 518 Eastbound
SR 161 Southbound (N Meridian Ave)	I-405 Northbound
SR 167 Northbound (Traffic Signal)	I-405 Northbound (to SR 167)
SR 167 to SR 410 (Pierce Co)	

Note: Plans will need to be developed to accommodate local freight and warehouse traffic



Puget Sound Regional Transportation Recovery Plan					
3 - Closure of SR 167 – I-405 to Pierce County Line – King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New				√	
HOV Rules - Change			√		HOV 2 – HOV 3 – HOV 4
Construct HOV Bypass			√		Exit 142
Ramp Metering			√		
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions				√	
Truck Preferences				√	
Shoulder - Convert to Driving Lane			√		I-5, I-405
Parking Eliminate/Restrict			√		Meridian Ave, Enchanted Pky
Turn Prohibitions			√		Meridian Ave, Enchanted Pky
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days				√	
Bike Lanes				√	
Tolling Adjustments				√	
Transit Service New		√	√		
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		SR 161
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes			√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
3 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #4 - Closure of the I-90/I-405 Interchange

A. General Information

The I-90 I-405 Interchange is located southeast of downtown Seattle and provides many different access routes to both downtown Seattle and to I-405 and I-90. It also is a significant freight route for east-west traffic to and from the Seattle-area. The alternative routes for this section of roadway consist of using I-5 for north-south traffic, SR 18 for southerly traffic from I-90, and SR-520 for east-west traffic from I-90 to downtown Seattle. Hwy 148 should be considered a viable option for a local detour. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. City of Bellevue

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction of a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. Set-up highway detours signage for rerouting traffic. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on 148th Street. Other alternatives include: Eliminate or restrict parking, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week.

Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long term options include establishing new contra-flow lanes on SR 520, Truck Restrictions, Truck Preferences, convert lanes on I-5, I-405, SR 520 to HOV lanes, changing HOV rules on I-5, Constructing HOV Bypass to ease bottlenecks, establish new ferry service, increase transit service and establish new transit service, bike lanes, freeway ramp metering, and incorporating technology in traffic signal interconnects. See Appendix E – Roadways Toolbox for further information.

New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
4 - Closure of I-90 I-405 Interchange – King County	
East to South (Snoqualmie to Auburn) Routing I-90 to I-5	South to East (Auburn to Snoqualmie) Routing I-5 to I-90
I-90 Westbound I-90 Westbound Exit 25 (SR 18) (Traffic Signal) SR 18 Westbound SR 18 Westbound Exit for I-5 (interchange 142) I-5 Southbound	I-5 Northbound I-405 Northbound Exit 142 (SR 18) SR 18 Eastbound SR 18 Eastbound Exit for I-90 (Interchange 25) I-90 Eastbound
South to West (Renton to Seattle) Routing I-405 to I-90	West to South (Seattle to Renton) Routing I-90 to I-405
I-405 Southbound I-405 Southbound Exit to I-5 Northbound I-5 Northbound I-5 Northbound to Exit 164A (I-90, Dearborn, James, and Madison St)	I-90 Westbound to I-5 Southbound Exit (local access from S Atlantic St) I-5 Southbound (Interchange 164) I-5 Southbound I-5 Southbound Exit 154 (I-405 Northbound) I-405 Northbound
West to North (Seattle to Kirkland) Routing I-90 to I-405	North to West (Kirkland to Seattle) Routing I-405 to I-90
I-90 Westbound to I-5 Northbound (local access from Dearborn St) I-5 Northbound I-5 Northbound to Exit 168 (SR 520) SR 520 Eastbound SR 520 Eastbound Exit for I-405 I-405 Northbound	I-405 Southbound I-405 Southbound Exit 14 (SR 520 Westbound) SR 520 Westbound SR 520 Westbound Exit for I-5 Southbound I-5 Southbound I-5 Southbound Exit for I-90 (local access via Dearborn St)
North to East (Kirkland to Issaquah) Routing I-405 to I-90	East to North (Issaquah to Kirkland) Routing I-90 to I-405
I-405 Southbound I-405 Southbound Exit for SR 520 Eastbound SR 520 Eastbound Exit for 148 th St NE Southbound 148 th St NE Southbound (Traffic Signal) 148 th St NE Southbound Ramp to I-90 Eastbound I-90 Eastbound	I-90 Westbound I-90 Westbound Exit for 156 th Ave SE SE Eastgate Way Westbound (Traffic Signal) 148 th St NE Northbound (Traffic Signal) 148 th St NE Northbound 148 th St NE Northbound Exit for SR 520 Eastbound SR 520 Eastbound SR 520 Eastbound Exit for I-405 Northbound I-405 Northbound

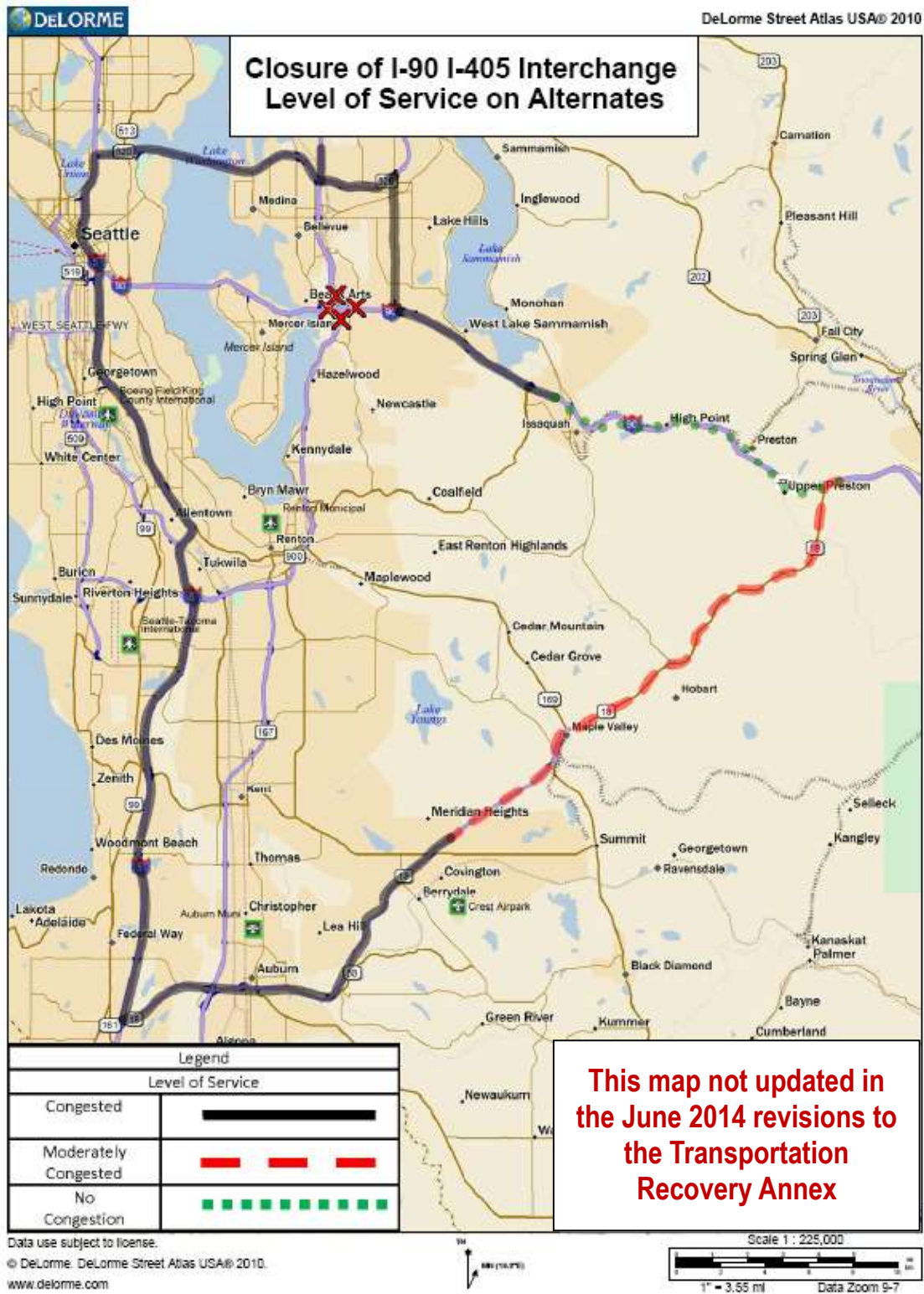
Note: Routing provides circumferential route. Directional signing should be based on locale and compass direction (e.g. Issaquah and Points East).

Note: Local access can be provided from circumferential route inwards. Access to Mercer Island is to/from the west on I-90 and I-90 Exit 9.

Note: I-90 / SR 18 / I-5 can be used as regional connection of I-90 and I-5.

Note: For local trips consider: SE 36th / Eastgate Way as east/west one-way couplet, linking Factoria Blvd (southbound) and Richards Rd. (northbound). Also, consider 118th and 112th as north/south option west of I-405.

Note: For freight on SR 520 that needs to get to the east side of state, continue on SR 520 to SR 202 to Fall City



Puget Sound Regional Transportation Recovery Plan					
4 - Closure of I-90 I-405 Interchange King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New			√		SR 520
HOV Lanes – Convert			√		I-5, I-405, SR 520
HOV Lanes – New				√	
HOV Rules - Change			√		HOV 3, HOV 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering			√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		Interchanges near closure point
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Depot Access, Critical Supplies
Shoulder - Convert to Driving Lane		√	√		Interstates/Freeways HOV
Parking Eliminate/Restrict		√	√		
Turn Prohibitions		√	√		148 th St
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland, Kenmore, Bellevue or Leschi Park/Bellevue (pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New		√	√		
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects		√	√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
4 - Closure of I-90 I-405 Interchange King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
4 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #5 - Closure of I-405 from I-5 to SR 167

A. General Information

For the closure of I-405 from I-5 to SR-167, the one route presented as an alternative for this scenario entails diverting traffic from SR 167 to I-5. Traffic from the south should use SR 516 to SR 167 to I-5. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. Set-up highway detours signage for rerouting traffic See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as convert trails to specialized motorized use. Other alternatives include: Van/Carpool Incentives, Alternate Driving Days, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, long term options include establishing new contra-flow lanes on SR 520, Truck Restrictions, Truck Preferences, convert lanes on I-5, I-90, I-405 to HOV lanes, changing HOV rules on I-5, I-90, I-405, Constructing HOV Bypass to ease bottlenecks, establish new ferry service, increase transit service and establish new transit service, bike lanes, freeway ramp metering, develop new freeway ramps and incorporate technology in traffic signal interconnects. See Appendix E – Roadways Toolbox for further information.

New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternate Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
5 - Closure of I-405 between I-5 and SR 167 – King County	
North to South Routing	South to North Routing
I-405 Southbound	I-5 Northbound
I-405 Southbound Exit 11 (I-90)	I-5 Northbound Exit 164 (I-90 Eastbound)
I-90 Westbound	I-90 Eastbound
I-90 Westbound Exit for I-5 Southbound	I-90 Eastbound Exit 10 (I-405)
I-5 Southbound (Interchange 164)	I-405 Northbound
I-5 Southbound	

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
5 - Closure of I-405 between I-5 and SR 167 – King County	
North to South Routing (Alternate)	South to North Routing (Alternate)
I-405 Southbound	I-5 Northbound
I-405 Southbound Exit 2 (SR 167)	I-5 Northbound Exit 142 (SR 18)
SR 167 Southbound	SR 18 Eastbound
SR 167 Southbound Exit for SR 18	SR 18 Eastbound Exit for SR 167
SR 18 Westbound	SR 167 Northbound
SR 18 Westbound Exit for I-5	SR 167 Northbound Exit for I-405
I-5 Southbound (Interchange 142)	I-405 Northbound (Interchange 2)
I-5 Southbound	

Note: This route could be used in northbound direction only if I-405/SR 167 is not fully operational.

Note: Renton Water Treatment Plan on Oakdale and Grady Way may need access control.

Note: Other local options exist, such as SR 900



Puget Sound Regional Transportation Recovery Plan					
5 - Closure of I-405 from I-5 to SR 167 King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-5, I-90, I-405
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-90, I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New		√	√		
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		
Truck Preferences		√	√		
Shoulder - Convert to Driving Lane			√		
Parking Eliminate/Restrict				√	
Turn Prohibitions				√	
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments			√		SR 167
Transit Service New			√		
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
5 - Closure of I-405 from I-5 to SR 167 King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
5 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #6 - Closure of I-5 Ship Canal Bridge

A. General Information

For the closure of the I-5 Ship Canal Bridge, there are two routes presented as alternative routes for this scenario. One route will entail diverting traffic from I-5 onto SR 520 onto I-405 back onto I-5. As a second alternative, Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. Snohomish County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction of a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an inter-local agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. Set-up highway detours signage for rerouting traffic. The Ship Canal Bridge is located over a navigable waterway. Thus, opening and closing of the bridge is subject to the U.S. Coast Guard approval. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on ramps near closure points. Other alternatives include: Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, long term options include Truck Restrictions and Preferences, contra-flow lanes on SR 520, changing current HOV rules on I-5 and I-405, converting lanes on I-405, I-5 and SR 520 to HOV lanes, constructing HOV Bypass lanes to ease bottlenecks, converting freeway shoulder to driving lane, incorporating new transit service with maritime (ferry connections), incorporating technology in traffic signal interconnects and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.

New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
6 - Closure of I-5 Ship Canal Bridge – King County	
North to South Routing	South to North Routing
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit to I-405	I-5 Northbound Exit 168B (SR 520 Eastbound)
I-405 Southbound	SR 520 Eastbound
I-405 Southbound Exit 14 (SR 520)	SR 520 Eastbound Exit for I-405 Northbound
SR 520 Westbound	I-405 Northbound
SR 520 Westbound Exit for I-5 Southbound	I-405 Northbound Exit for I-5 Northbound
I-5 Southbound	I-5 Northbound

Note: Alternate crossing of Lake Washington is I-90 Floating Bridge.

Note: Tolls can be waived under emergency authority

Note: Traffic South of Tukwila should be diverted to I-405 at Tukwila.

Note: Local Traffic would be signed to SR 99/Aurora Ave.

Note: City of Seattle Recommendations:

- 1- Close I-5 fully at I-5/I-405. Reopen for local traffic Only for downtown destinations.
- 2- Restrict Montlake Bridge to local traffic only.
- 3- Adjustments to Traffic Signal timings required.
- 4- Parking elimination needed.
- 5- Turn Restrictions needed.
- 6- Consider closing crosswalks where left turns are hindered by pedestrian crossings.

Puget Sound Regional Transportation Recovery Plan					
6 - Closure of I-5 Ship Canal Bridge King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New			√		SR 520
HOV Lanes – Convert			√		I-5, I-405, SR 520
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		Freeways/Interstates
Parking Eliminate/Restrict				√	
Turn Prohibitions			√		Ramps near closure point
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
6 - Closure of I-5 Ship Canal Bridge King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets	√	√	√		The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
6 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #7 - Closure of I-90 at Snoqualmie Pass

A. General Information

For the closure of I-90 Snoqualmie Pass, there are two alternatives. The primary route entails diverting traffic from I-705, to I-5, I-84, to I-82 returning to I-90 in Ellensburg. The secondary route entails diverting traffic from I-5 onto SR 12 which should be used as a priority route for passenger only cars and a limited amount of prioritized freight (short term only) to I-82 back to I-90. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. Pierce County Department of Emergency Management (DEM)
3. Thurston County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
2. Pierce County Emergency Operations Center will notify Buckley Emergency Management, Gig Harbor Emergency Management, Puyallup Emergency Management and Tacoma Emergency Services as well as the jurisdictions and tribes with which they have an inter-local agreement which includes Bonney Lake, Buckley, DuPont, Eatonville, Edgewood, Fife, Fircrest, Lakewood, Milton, Orting, the Puyallup Tribe of Indians, Roy, Ruston, Steilacoom, Sumner, University Place, and Wilkeson.
3. Thurston County Emergency Operations Center will notify Lacey Emergency Services, Olympia Emergency Management, Tumwater Emergency Services and Yelm Emergency Services as well as the towns of Tenino and Bucoda and the Nisqually Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, and Adjusting Traffic Signal Timing. See Appendix E – Roadways Toolbox for further information.

1. Mid-Term Alternatives

Several Mid-Term Alternatives have been identified such as truck preferences for critical supplies. Other alternatives include: Electronic Signage and/or Surveillance and truck restrictions. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

2. Long Term Options

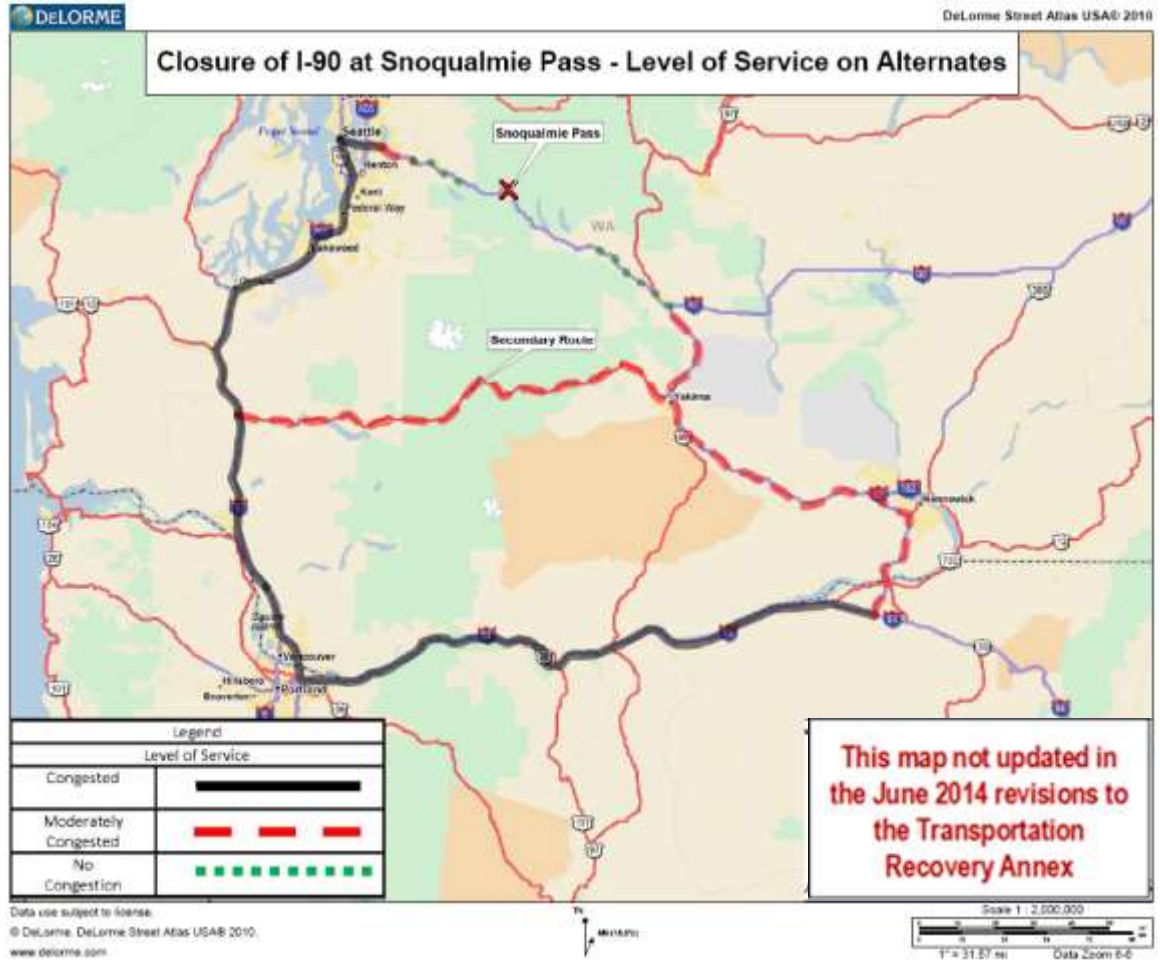
In addition, Long Term options include contra-flow lanes, changing HOV rules, constructing HOV Bypass, convert freeway shoulder to driving lane, transit service increase and establish new transit service, freeway ramp metering, and incorporating technology in traffic signal interconnects See Appendix E – Roadways Toolbox for further information.

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
7 - Closure of I-90 Snoqualmie Pass – King County	
East to West Routing Primary	West to East Routing Primary
I-90 Westbound Exit 110 (I-82)	I-90 (Seattle area)
I-82 Eastbound (to Oregon State Line)	I-90 Exit for I-5 Southbound (Int. 164)
I-82 Eastbound Exit for I-84 Westbound	I-5 Southbound
I-84 Westbound	I-5 Southbound Exit 7 (I-205 Southbound)
I-84 Westbound Exit for I-205 Northbound	I-205 Southbound (to Oregon State Line)
I-205 Northbound (to Washington State Line)	I-205 Southbound Exit for I-84 Eastbound
I-205 Northbound Exit for I-5 Northbound	I-84 Eastbound
I-5 Northbound (Interchange 7)	I-84 Eastbound Exit for I-82 Westbound
I-5 Northbound	I-82 Westbound (Washington State Line)
I-5 Northbound (to Seattle area)	I-82 Westbound to I-90
	I-90 Eastbound (Interchange 110)
East to West Routing Secondary – US 12	West to East Routing Secondary – US 12
I-90 Westbound	I-90 Westbound
I-90 Westbound Exit 110 (I-82)	I-90 Westbound Exit for I-5 Southbound
I-82 Eastbound	I-5 Southbound (Interchange 154)
I-82 Eastbound Exit 31(US 12)	I-5 Southbound Exit 68 (US 12)
US 12 Westbound	US 12 Eastbound
US 12 Westbound Ramp for I-5 Northbound	US 12 Exit for I-82 Westbound
I-5 Northbound (Interchange 68)	I-82 Westbound (Interchange 31)
I-5 Northbound Exit 164A (I-90 Eastbound)	I-82 Westbound
I-90 Eastbound	I-82 Westbound Exit for I-90 Westbound
	I-90 Westbound

Note: Secondary route is two lane mountain pass highways. Secondary route must be confirmed to be passable since there is high probability that these roadways will also be impassable.

Note: Local access can be provided via I-90 from I-82 or from I-405.

Note: Coordination required with State of Oregon for primary route.



Puget Sound Regional Transportation Recovery Plan					
7-Closure of I-90 Snoqualmie Pass King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New			√		I-5
HOV Lanes – Convert			√		I-5
HOV Lanes – New			√		I-5
HOV Rules - Change			√		I-5
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		I-5
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		Interchanges near closure point
Truck Restrictions	√	√	√		Unsafe Truck Routes
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		
Parking Eliminate/Restrict				√	
Turn Prohibitions				√	
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives				√	
Park – Ride Lots New/Expand				√	
Alternating Driving Days				√	
Bike Lanes				√	
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase				√	
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts				√	
Compressed Work Week				√	
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
7 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #8 - Closure of I-405 between Exits 2 and 4

A. General Information

The closure of I-405 between exits 2 and 4 or the section of I-405 between SR 169 and SR 167 is located southeast of downtown Seattle and provides many different access routes. The alternative route for this section of roadway consists of using I-5 to I-90. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. City of Renton
3. City of Tukwila

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes, including but are not limited to SR-900 to SR-405, and I-5 to SR 520 to I-405.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. Set-up highway detours signage for rerouting traffic. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as convert trails to specialized motorized use. Other alternatives include: Van/Carpool Incentives, Alternate Driving Days, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week.

Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions, Truck Preferences, convert lanes on I-405 to HOV lanes, changing HOV rules, constructing HOV Bypass to ease bottlenecks, establish new ferry service, transit service increase and establish new transit service, bike lanes, freeway ramp metering, freeway ramps closure and incorporating technology in traffic signal interconnects. New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternate Routing Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
8 - Closure of I-405 from Exit 2 to Exit 4 – King County	
North to South Routing	South to North Routing
I-405 Southbound	I-405 Southbound
I-405 Southbound Exit 11 to I-90	I-405 Southbound Exit to I-5
I-90 Westbound	I-5 Northbound
I-90 Westbound Exit for I-5	I-5 Northbound Exit 164 for I-90
I-5 Southbound	I-90 Eastbound
I-5 Southbound to I-405	I-90 Eastbound Exit 10 (I-405)
	I-405 Northbound

Puget Sound Regional Transportation Recovery Plan – Local Alternative Routing Plan	
8 - Closure of I-405 from Exit 2 to Exit 4 – King County	
North to South Routing (Local Traffic Only)	South to North Routing (Local Traffic Only)
I-405 Southbound	I-405 Northbound
I-405 Southbound Exit 5 to SR 900 (Park Ave) (TS)	I-405 Northbound Exit 1
Park Ave N Westbound	I-405 North Ramp to Interurban Ave (Traf. Sig)
Park Ave N Westbound to Lake Washington Blvd	Interurban Ave Northbound
Lake Washington Blvd Southbound	Interurban Ave Northbound to SW Grady Rd
Lake Washington Blvd becomes Park Ave N	SW Grady Rd Eastbound
Park Ave N Southbound	S Grady Rd Eastbound
Park Ave N Southbound to (SR 900 (Bronson Way))	S Grady Ave to SR 515 (Main Ave S)
SR 900 Westbound (Bronson Way)	SR 515 Northbound
SR 900 Westbound to SR 515 (Main Ave S)	SR 515 to SR 900
SR 515 Southbound (S Grady Way)	SR 900 Eastbound to SR 900 (Mill Ave S)
S Grady Way Westbound	SR 900 Eastbound (Mill Ave S Northbound)
SW Grady Way Westbound	SR 900 Eastbound (Bronson Way)
SW Grady Way West to SR 181(Interurban Ave)	SR 900 Northbound (Bronson Way) to Park Ave N
SR 181 Northbound Interurban Ave to I-405 Ramp	Park Ave N Northbound
I-405 Southbound (Interchange 1)	Park Ave N becomes Lake Washington Blvd
	Lake Washington Blvd Northbound
	Park Ave N Eastbound
	Ramp to I-405
	I-405 Northbound (Interchange 5)

Note: One Way Couplet Mill Ave N and Main Ave N.

Note: One Way Couplet Interurban (Interchange 1)

Note: Route to Grady Way for Local Traffic Only



Puget Sound Regional Transportation Recovery Plan					
8 - Closure of I-405 from Exit 2 to Exit 4 King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-405
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		
Truck Restrictions	√	√	√		
Truck Preferences		√	√		
Shoulder - Convert to Driving Ln			√		I-405
Parking Eliminate/Restrict	√	√	√		Grady, Bronson, Main, Park
Turn Prohibitions	√	√	√		Grady, Bronson, Main, Park
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue ;Leschi Park/Bellevue (Both Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
8 - Closure of I-405 from Exit 2 to Exit 4 King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
8 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #9 - Closure of I-405 from Exit 18 to Exit 20

A. General Information

Several routes present as suitable alternates in dealing with the closure of I-405 at Exits 18 thru 20. The freeway alternative will entail diverting southbound traffic from I-405 onto SR 522 at Bothell then onto Interstates 5 and 90 back onto I-405. Northbound traffic will be diverted from I-405 to I-90, I-5 and SR 522. The freeway routing is intended for all regional trips on I-405. Northbound I-405 traffic headed for local destinations east of I-405 such as Redmond and Totem Lake will exit eastbound to NE 85th Street at exit 18. Detour routing will lead from eastbound NE 85th Street north to NE 124th Street. Northbound I-405 traffic headed for local destinations west of I-405 such as Kirkland and Kenmore will exit westbound to NE 70th Street at exit 17.

Detour routing will lead from eastbound NE 70th/68th Streets to northbound 6th Street. Southbound I-405 traffic headed for local destinations east of I-405 such as Redmond and Totem Lake will exit eastbound to NE 160th Street at exit 22. Detour routing will lead from eastbound NE 160th Street to 124th Avenue NE. Southbound I-405 traffic headed for local destinations west of I-405 such as Kirkland and Kenmore will exit westbound to NE 124th Street at exit 20. Detour routing will lead from eastbound NE 124th Street to southbound NE 100th Street. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. City of Seattle
4. City of Lake Forest Park
5. City of Kenmore
6. City of Bothell

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on the detour route.

Other alternatives include: Tele-commuting, Staggered Work Shifts, Electronic Signage and/or surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

1. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, long term options include Truck Restrictions, changing current HOV rules, converting lanes on I-405 to HOV lanes, constructing HOV Bypass lanes to ease bottlenecks, incorporating new transit service with maritime (ferry connections), incorporating technology in traffic signal interconnects and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
9-Closure of I-405 from Exit 18 to Exit 20 – King County	
North to South Routing (Local Traffic)	South to North Routing (Local Traffic)
I-405 Southbound Exit 23 (SR 522)	I-405 Northbound
Ramp to SR 522 Westbound	I-405 Northbound Exit 11 for I-90 Westbound
SR 522 Westbound (Woodinville Rd)	I-90 Westbound
SR 522 Westbound (Bothell Way NE)	I-90 Westbound Exit for I-5 Northbound
SR 522 Westbound (NE Bothell Way)	I-5 Northbound
SR 522 Westbound (Bothell Way NE)	I-5 Northbound Exit 171 (SR 522 East)
SR 522 Westbound (Lake City Way NE)	Ramp to SR 522 Eastbound
SR 522 Westbound Exit for I-5	SR 522 Eastbound (Lake City Way NE)
Ramp to I-5 Southbound	SR 522 Eastbound (Bothell Way NE)
I-5 Southbound	SR 522 Eastbound (NE Bothell Way)
I-5 Southbound to I-90 Exit	SR 522 Eastbound (Bothell Way NE)
I-90 Eastbound	SR 522 Eastbound (Woodinville Rd)
I-90 Eastbound Exit 10 for I-405	SR 522 Eastbound Ramp to I-405
I-405 Southbound	Ramp to I-405 Northbound
	I-405 Northbound (Interchange 23)

Note: Local access to Kirkland will be designated by City of Kirkland.

Note: Main route will keep interstate traffic on interstate highways



Puget Sound Regional Transportation Recovery Plan					
9-Closure of I-405 from Exit 18 to Exit 20 King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-405
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		
Truck Restrictions	√	√	√		
Truck Preferences		√	√		
Shoulder - Convert to Driving Lane			√		I-405
Parking Eliminate/Restrict	√	√	√		For Local Kirkland Access
Turn Prohibitions	√	√	√		For Local Kirkland Access
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New		√	√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
9-Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #10 - Closure of I-5 from SR 599 to SR 900

A. General Information

Stakeholders presented two alternative routes for dealing with the closure of I-5 from SR 599 to SR 900 under this scenario. The primary route entails diverting traffic from I-5 to SR 99 to SR 509 to St 518 back onto I-5. The secondary route is only a southbound alternative that entails diverting traffic from I-5 to SR 99 to SR 599 back onto I-5. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. City of Seattle
3. City of SeaTac
4. City of Burien

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on Michigan Street. Other alternatives include: Alternate Driving Days, Bike Lanes, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include changing HOV rules, constructing HOV Bypass to ease bottleneck, convert lanes on I-5, SR 518, SR 509 to HOV lanes, convert freeway shoulder to driving lane on SR 509, SR 518, transit service increase, freeway ramp metering, and incorporating technology in traffic signal interconnects on Michigan Street. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
10 - Closure of I-5 from SR 599 to SR 900 – King County	
North to South Routing	South to North Routing
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit 162 (Michigan St/Corson Ave)	I-5 Northbound Exit 154 A (SR 518)
Ramp to Corson Ave	SR 518 Westbound
Corson Ave S Southbound	SR 518 Westbound Exit for SR 509 North
Corson Ave S to Michigan St (Traffic Signal)	SR 509 Northbound
S Michigan St Westbound	SR 509 Northbound Exit for I-5/Michigan St
S Michigan St Westbound Ramp to SR 509 (Tr. Sig.)	S Michigan St Eastbound
Ramp to SR 509	S Michigan St Eastbound becomes S Bailey St
SR 509 Southbound	S Bailey St Eastbound to I-5 Ramp
SR 509 Southbound Exit to SR 518	I-5 Northbound Ramp
Ramp to SR 518 (Traffic Signal)	I-5 Northbound
SR 518 Eastbound	
SR 518 Eastbound Exit to I-5	
I-5 Southbound	

Note: Potential exists for Ramp from SR 599 Southbound to I-5 Southbound to remain serviceable. If so, southbound route would be relocated to SR 99/SR 599 (see map note).

Note: Traffic Signal retiming required.

Note: Need to coordinate restricted bridge openings with USCG for Duwamish.



Puget Sound Regional Transportation Recovery Plan					
10 - Closure of I-5 from SR 599 to SR 900 King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-5, SR 518, SR 509
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		Unsafe Truck Routes, Turns
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		SR 509, SR 518
Parking Eliminate/Restrict				√	
Turn Prohibitions	√	√	√		Michigan St
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand		√	√		
Alternating Driving Days		√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		Michigan
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
10 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #11- Closure of the I-90 Floating Bridge

A. General Information

The I-90 Floating Bridge (Homer Hadley Floating Bridge) connects downtown Seattle to Mercer Island and is one of the main routes connecting downtown Seattle to other major metropolitan areas along the east side of Lake Washington. It also is a significant freight route for east-west traffic to and from the Seattle-area. The alternative routes for this section of roadway consist of using SR-520 via the "Evergreen Point" floating bridge, or by going around the lake either to the north or to the south. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. Snohomish County Department of Emergency Management (DEM)
4. City of Lake Forest Park
5. City of Kenmore
6. City of Bothell

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to

coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes, including but are not limited to SR 520, SR-522 (north route), and I-5 to I-405 through Renton (south route).

G. Transportation Mitigation Strategies

1. Short Term Solutions

Set-up highway detours signage for rerouting traffic. Other solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. Set-up highway detours signage for rerouting traffic. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

Restoring this section of highway will require freight movement to and from the destroyed area. The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Van/Carpool Incentives, Alternate

Driving Days, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions, Truck Preferences, convert lanes on I-405 to HOV lanes, changing HOV rules, constructing HOV Bypass to ease bottlenecks, establish new ferry service, transit service increase and establish new transit service, bike lanes, freeway ramp metering, freeway ramps closure and incorporating technology in traffic signal interconnects. New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
11 - Closure of I-90 Floating Bridge – King County	
East to West Routing – Alternate Downtown	West to East Routing – Alternate Downtown
I-90 Westbound (Bellevue Area)	I-5 Northbound (Seattle Downtown Area)
I-90 Westbound Exit 10 (I-405 Northbound)	I-5 Northbound Exit 168B (SR 520 Eastbound)
I-405 Northbound	SR 520 Eastbound
I-405 Northbound Exit 14 (SR 520 Westbound)	SR 520 Eastbound (Floating Bridge)
SR 520 Westbound	SR 520 Eastbound Exit for I-405 Southbound
SR 520 Westbound (Floating Bridge)	I-405 Southbound
SR 520 Westbound Exit for I-5 Southbound	I-405 Southbound Exit 11 (I-90 Eastbound)
I-5 Southbound	I-90 Eastbound
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
11 - Closure of I-90 Floating Bridge – King County	
East to West Routing – (South Seattle Route)	West to East Routing – (South Seattle Route)
I-90 Westbound (Bellevue Area)	I-5 Southbound (South Seattle Area)
I-90 Westbound Exit 10 (I-405 Southbound)	I-5 Southbound Exit 154A (I-405 Northbound)
I-405 Southbound	I-405 Northbound
I-405 Southbound Exit for I-5 Northbound	I-405 Northbound Exit 11 (I-90 Eastbound)
I-5 Northbound	I-90 Eastbound (Bellevue Area)
I-5 Northbound (South Seattle Area)	
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
11 - Closure of I-90 Floating Bridge – King County (North Seattle Route)	
East to West Routing – (North Seattle Alternate Route)	West to East Routing – (North Seattle Alternate Route)
I-90 Westbound (Bellevue Area)	I-5 (North Seattle Area)
I-90 Westbound Exit 10 (I-405 Northbound)	I-5 Exit 171 (SR 522 Eastbound)
I-405 Northbound	Ramp to SR 522 East (Lake City Way NE)
I-405 Northbound Exit 23 for SR 522 West	SR 522 Eastbound (Lake City Way NE)
Ramp to SR 522 Westbound	SR 522 Eastbound (NE Bothell Way)
SR 522 Westbound	SR 522 Eastbound (Woodinville Rd)
SR 522 Westbound (Woodinville Rd)	SR 522 Eastbound
SR 522 Westbound (NE Bothell Way)	SR 522 Eastbound Ramp to I-405 Southbound
SR 522 Westbound (Lake City Way NE)	I-405 Southbound (Interchange 23)
SR 522 Westbound to I-5	I-405 Southbound
	I-405 Southbound to Exit 10 (I-90 East)
	I-90 Eastbound
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
11 - Closure of I-90 Floating Bridge – King County (North Seattle Route)	
East to West Routing – (North Seattle Primary Route)	West to East Routing – (North Seattle Primary Route)
I-90 Westbound (Bellevue Area)	I-5 Northbound (North Seattle Area)
I-90 Westbound Exit 10 (I-405 Northbound)	I-5 Northbound Exit 182 (I-405 Southbound)
I-405 Northbound	I-405 Southbound
I-405 Northbound Exit for I-5 Southbound	I-405 Southbound Exit 11 (I-90 Eastbound)
I-5 Southbound	I-90 Eastbound (Bellevue Area)
I-5 Southbound (North Seattle Area)	

Note: Mercer Island access via I-90 to/from the east.

Note: I-405 Interchange Ramps to Mercer Island – Local Traffic Only.

Note: Seattle should monitor 23rd for need of signal control/retiming.

Note: Seattle should consider restricting bridge openings on Montlake Bridge. Coordination with USCG needed.

Note: Consideration should be given for bus priority rerouting from I-90.

Note: Primary alternative keeps interstate traffic on interstate highways



Puget Sound Regional Transportation Recovery Plan					
11 - Closure of I-90 Floating Bridge King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New			√		SR 520
HOV Lanes – Convert			√		I-5, I-405, SR 520
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		Local Access only to Mercer Is.
Truck Restrictions	√	√	√		
Truck Preferences		√	√		
Shoulder - Convert to Driving Lane			√		Freeways/Interstates
Parking Eliminate/Restrict			√		
Turn Prohibitions			√		
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
11 - Closure of I-90 Floating Bridge King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
11 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #12 - Closure of SR 522 from I-5 to I-405

A. General Information

Stakeholders identified two routes as suitable alternatives under this scenario for the closure of SR 522 from I-5 to I-405, dependent on the direction of the traffic flow:

1. A Downtown Seattle/Kirkland Route via SR 520 to I-405; and
2. A North Seattle/Bothell Route via I-5 to I-405.

See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. Snohomish County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on roadways near SR 522. Other alternatives include: Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Also there is potential for a Maritime (Ferry) alternative. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions and Preferences, constructing HOV

Bypass lanes to ease bottlenecks, converting lanes on SR 522 to HOV lanes, changing HOV lane rules on I-5 and I-405, converting trails to special motorized use lanes, increasing transit service, incorporating technology in traffic signal interconnects and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
12 - Closure of SR 522 from I-5 to I-405 – King County	
East to West North Seattle / Bothell Route	West to East Routing North Seattle / Bothell Route
SR 522 Westbound	I-5 Northbound
SR 522 Westbound Exit to I-405 Northbound	I-5 Northbound Exit to I-405 Southbound
Ramp to I-405 Northbound	Ramp to I-405 Southbound
I-405 Northbound (Interchange 23)	I-405 Southbound
I-405 Northbound	I-405 Southbound Exit 23 (SR 522
I-405 Northbound Exit to I-5 Southbound	Eastbound)
Ramp to I-5 Southbound	Ramp to SR 522 Eastbound
I-5 Southbound	SR 522 Eastbound
I-5 Southbound to SR 522 (Interchange 171)	

12-Closure of SR 522 from I-5 to I-405 – King County	
East to West Downtown Seattle / Kirkland Route	West to East Routing Downtown Seattle / Kirkland Route
SR 522 Westbound	I-5 Exit for SR 520 (Exit 168)
SR 522 Westbound Exit to I-405 Southbound	Ramp to SR 520 Eastbound
Ramp to I-405 Southbound	SR 520 Eastbound
I-405 Southbound (Interchange 23)	SR 520 Eastbound Exit for I-405 North
I-405 Southbound	Ramp to I-405 North
I-405 Southbound Exit 14 to SR 520	I-405 Northbound
Westbound	I-405 Northbound Exit 23 (SR 522)
Ramp to SR 520 Westbound	Ramp to SR 522 Eastbound
SR 520 Westbound	SR 522 Eastbound
SR 520 Westbound Exit for I-5	

Note: No overweight/over height loads on 15th St.

Note: Consider changing HOV requirements. Coordination with WSDOT required.



Puget Sound Regional Transportation Recovery Plan						
12 - Closure of SR 522 from I-5 to I-405 – King County						
Mitigation Strategies						
Strategy	Implementation				Not Feasible Or N/A	Comments
	Short-Term	Mid-Term	Long-Term			
Alternative Routing	√	√	√			
Adjust Traffic Signal Timings	√	√	√			
Contra-flow Lanes New				√		
HOV Lanes – Convert				√	SR 520	
HOV Lanes – New				√		
HOV Rules - Change			√		HOV 3, HOV 4 on I-5, I-405	
Construct HOV Bypass			√		Bottlenecks	
Ramp Metering			√			
Freeway Ramps - New				√		
Freeway Ramps – Closure				√		
Truck Restrictions	√	√	√		Unsafe Truck Routes	
Truck Preferences		√	√		Critical Supplies, To SR 522	
Shoulder - Convert to Driving Lane				√		
Parking Eliminate/Restrict				√		
Turn Prohibitions		√	√		Roadways near SR 522	
Ferry Service Relocation				√		
Ferry Service New		√	√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)	
Ferry Service Increase Existing				√		
Congestion Pricing				√		
Vanpool Carpool Incentives		√	√			
Park – Ride Lots New/Expand	√	√	√			
Alternating Driving Days				√		
Bike Lanes		√	√			
Tolling Adjustments				√		
Transit Service New				√		
Transit Service Increase		√	√		To/from SR 522 Corridor	
Improved Incident Management (Patrols)	√	√	√			
Technology – Electronic Signing or Surveillance	√	√	√			
Technology – Signal Interconnects				√		
Convert trails to special motorized use		√	√		Burke- Gilman	
Tele-commuting	√	√	√			
Staggered Work Shifts	√	√	√			
Compressed Work Week	√	√	√			
Emergency Responder Routes	√	√	√			
Adjust Fleet Size				√		

Puget Sound Regional Transportation Recovery Plan					
12 - Roadway Reconstruction Toolbox Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #13 - Closure of the I-405/SR 520 Interchange

A. General Information

The I-405/SR 520 Interchange is a major interchange for north-south traffic on I-405 as well as the east-west traffic on SR 520. The alternative routes for this section of roadway consist of using I-90 via the floating bridge, or by going around the lake either to the north or to the south. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Department of Emergency Management (DEM)
3. Snohomish County Department of Emergency Management (DEM)
4. City of Bellevue
5. City of Redmond
6. City of Lake Forest Park
7. City of Kenmore
8. City of Bothell

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their

Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes, including but are not limited to I-90 and SR-522 for east-west routes, and I-5 for north-south through traffic on I-405.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on roadways near Redmond Way and SR 522. Other alternatives include: Freeway Ramp Closure near the SR 520

interruption, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Also there is potential for a Maritime (Ferry) alternative. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include new passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. Other options include Truck Restrictions and Preferences, constructing HOV Bypass lanes to ease bottlenecks, changing HOV lane rules on I-5, I-90 and I-405, converting trails to special motorized use lanes, increasing transit service, incorporating technology in traffic signal interconnects and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.

New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport





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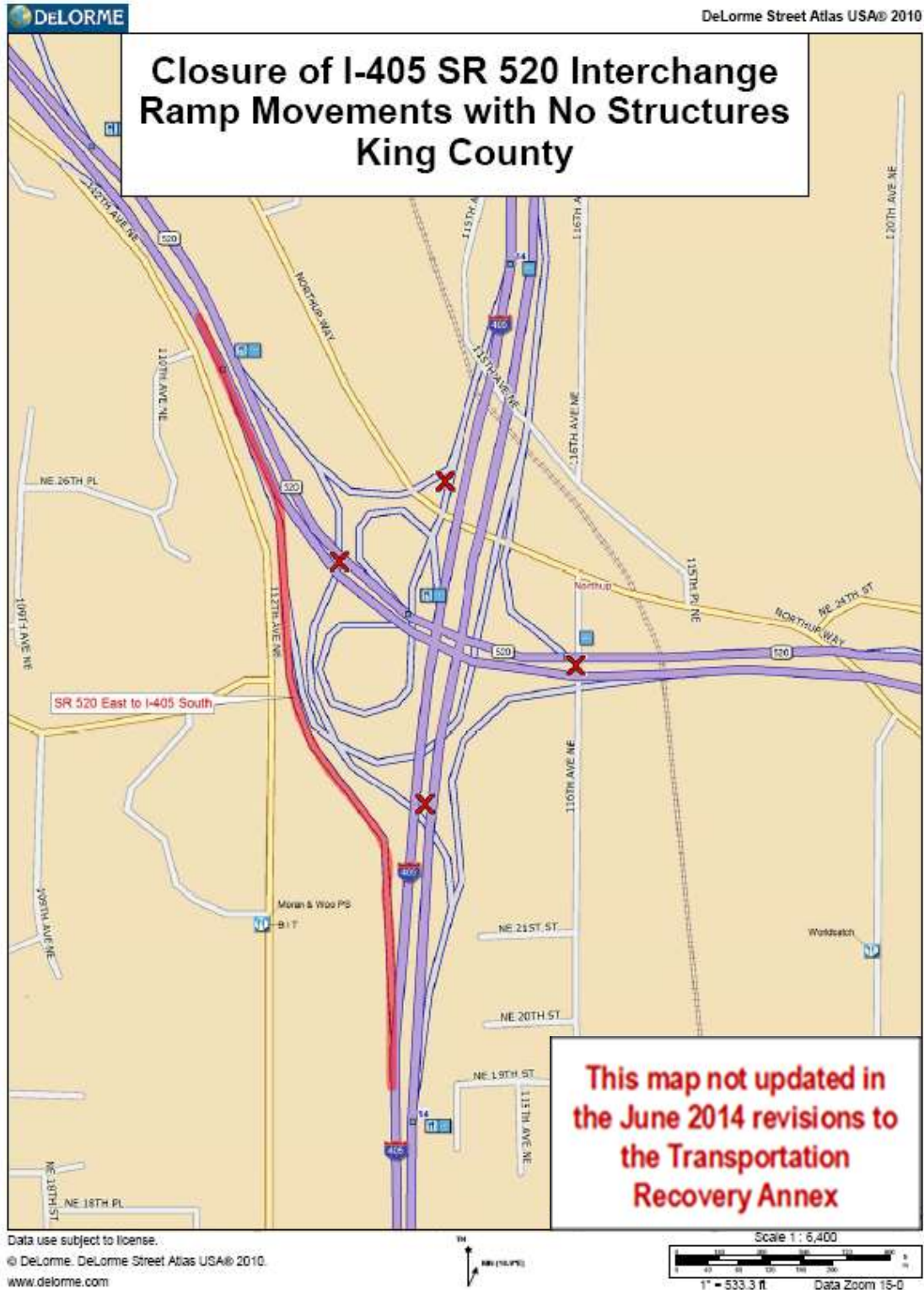
Closure of I-405 SR 520 Interchange (I-405 Through Route)



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Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
13 - Closure of I-405 SR 520 Interchange – King County	
North to South (Regional Through Traffic) Alternate Local Routing	South to North (Regional Through Traffic) Alternate Local Routing
Use I-5 Southbound	Use I-5 Northbound
East to West (SR 520 Through Traffic) Routing	West to East (SR 520 Through Traffic) Routing
SR 520 / SR 202 Interchange (Redmond)	SR 520 to I-5 Northbound (Seattle Area)
SR 202 Westbound (Redmond Way)	I-5 Northbound Exit 171 (SR 522 East)
SR 202/908 Westbound (Redmond Way)	Ramp to SR 522 Eastbound
- One Way Couplet with Cleveland St	SR 522 Eastbound (Lake City Way NE)
SR 908 Westbound (Redmond Way)	SR 522 Eastbound (Bothell Way NE)
SR 908 Westbound (NE 85 th St)	SR 522 Eastbound (NE Bothell Way)
SR 908 Westbound Ramp to I-405	SR 522 Eastbound (Bothell Way NE)
I-405 Northbound	SR 522 Eastbound (Woodinville Rd)
I-405 Northbound Exit 23 (SR 522)	SR 522 Eastbound Ramp to I-405
Ramp to SR 522 Westbound	Ramp to I-405 Southbound
SR 522 Westbound (Woodinville Rd)	I-405 Southbound (Interchange 23)
SR 522 Westbound (Bothell Way NE)	I-405 Southbound
SR 522 Westbound (NE Bothell Way)	I-405 Southbound Exit 18 (SR 908)
SR 522 Westbound (Bothell Way NE)	Ramp to SR 908 Eastbound (NE 85 th St)
SR 522 Westbound (Lake City Way NE)	SR 908 Eastbound (NE 85 th St)
SR 522 Westbound Exit for I-5	SR 908 Eastbound (Redmond Way)
Ramp to I-5 Southbound	SR 908/202 Eastbound (Cleveland St)
I-5 Southbound	- One Way Couplet with Redmond Way
I-5 Southbound to SR 520	SR 202 Eastbound to SR 520 Interchange
North to South (Local I-405 Traffic) Routing	South to North (Local I-405 Traffic) Routing
I-405 Southbound	I-405 Northbound
I-405 Southbound Exit 23 (SR 522)	I-405 Northbound Exit 11 (I-90)
Ramp to SR 522 Westbound	I-90 Westbound
SR 522 Westbound (Woodinville Rd)	I-90 Westbound Exit for I-5 Northbound
SR 522 Westbound (Bothell Way NE)	Ramp to I-5 Northbound
SR 522 Westbound (NE Bothell Way)	I-5 Northbound
SR 522 Westbound (Bothell Way NE)	I-5 Northbound Exit 171 (SR 522 East)
SR 522 Westbound (Lake City Way NE)	Ramp to SR 522 Eastbound
SR 522 Westbound Exit for I-5	SR 522 Eastbound (Lake City Way NE)
Ramp to I-5 Southbound	SR 522 Eastbound (Bothell Way NE)
I-5 Southbound	SR 522 Eastbound (NE Bothell Way)
I-5 Southbound to Exit for I-90 Eastbound	SR 522 Eastbound (Bothell Way NE)
Ramp to I-90 Eastbound	SR 522 Eastbound (Woodinville Rd)
I-90 Eastbound	SR 522 Eastbound Ramp to I-405
I-90 Eastbound Exit for I-405 (Exit 10)	Ramp to I-405 Southbound
I-405 Southbound (Interchange 11)	I-405 Southbound (Interchange 23)
	I-405 Southbound

Note: Ramps with no structures and expected to remain open – SR 520 Eastbound to I-405 Southbound and I-405 Northbound to SR 520 Eastbound (see map).

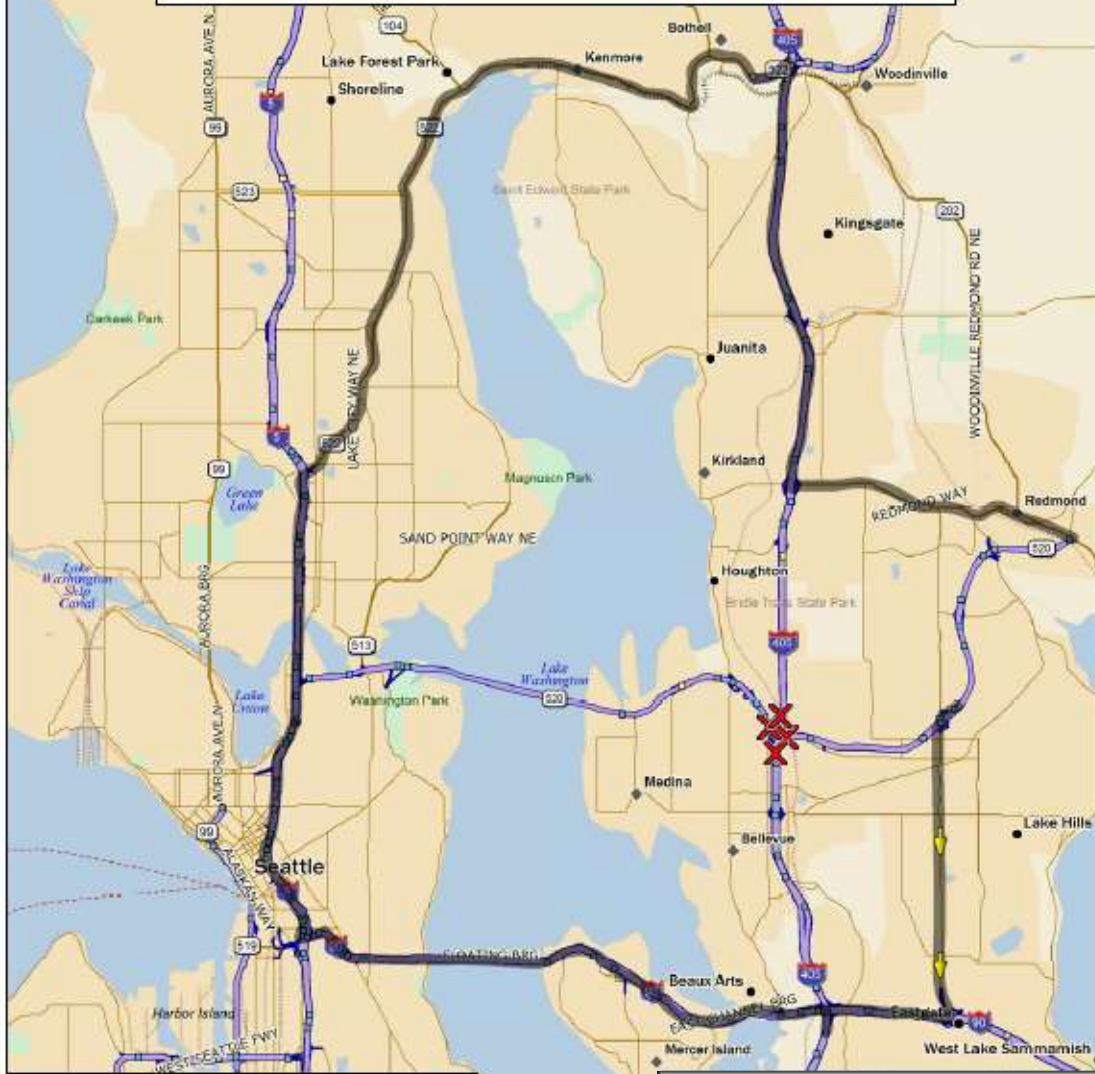
Note: Alternate Route from SR 520 West to I-405 South – Use 148th Ave NE Southbound to I-90 Westbound (see map).

Note: Another alternate to consider is to use SR 18 to get to I-90 heading east.



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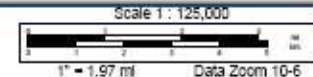
Closure of I-405 SR 520 Interchange Level of Service on Alternatives



Legend	
Level of Service	
Congested	
Moderately Congested	
No Congestion	

This map not updated in the June 2014 revisions to the Transportation Recovery Annex

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Puget Sound Regional Transportation Recovery Plan					
13 - Closure of I-405 SR 520 Interchange King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, I-90 HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure		√	√		Near Closure (SR 520)
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		
Parking Eliminate/Restrict	√	√	√		Redmond Way, SR 522
Turn Prohibitions	√	√	√		Redmond Way, SR 522
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		Redmond Way, SR 522
Convert trails to special motorized use		√	√		Burke-Gilman
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
Closure of I-405 SR 520 Interchange King County					
13 - Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
13 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #14 - Closure of the SR 520 Floating Bridge

A. General Information

The SR-520 Floating Bridge (Governor Albert D. Rosellini Bridge—Evergreen Point) connects downtown Seattle to the east side of Lake Washington. The alternative routes for this section of roadway consist of using I-90 via the floating bridge, or by going around the lake either to the north or to the south. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. City of Lake Forest Park
4. City of Kenmore
5. City of Bothell

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes, including but are not limited to, I-90, SR-522, and I-5 to I-405.

G. Transportation Mitigation Strategies

1. Short Term Solution

Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions. Other alternatives include: Freeway Ramp Closure at interchanges near interruption, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Also there is potential for a Maritime (Ferry) alternative. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include new passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. Other options include Truck Restrictions and Preferences, constructing HOV Bypass lanes to ease bottlenecks, changing HOV lane rules on I-5, I-90 and I-405, converting trails to special motorized use lanes, transit

service increase, incorporating technology in traffic signal interconnects and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.

New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



Renton – Bristol at Southport



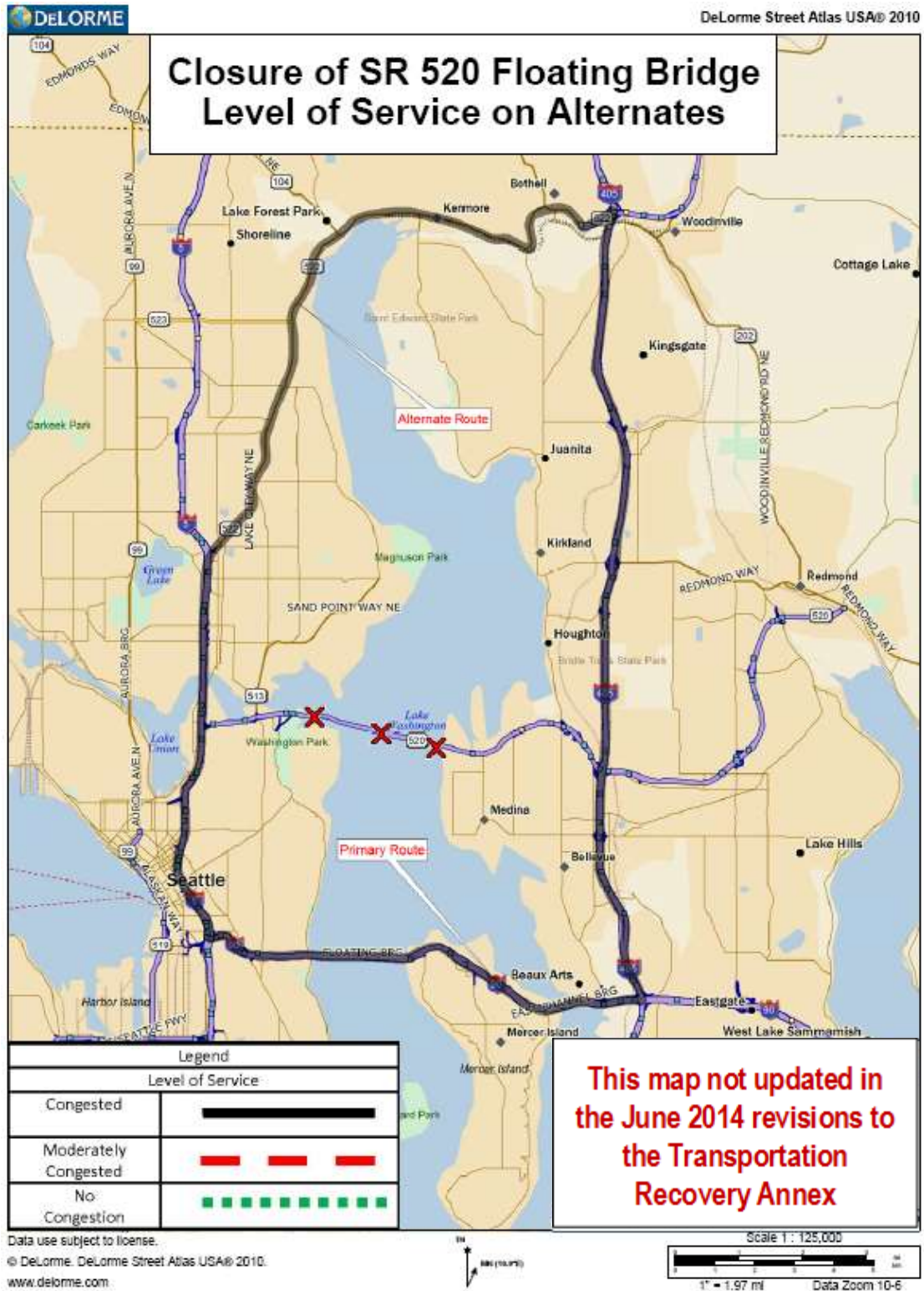


Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
14 - Closure of SR 520 Floating Bridge – King County	
East to West Routing – Primary	West to East Routing – Primary Downtown
SR 520 (Bellevue Area)	I-5 Southbound (Seattle Downtown Area)
SR 520 to Exit for I-405	I-5 Southbound Exit for I-90 Eastbound
I-405 Southbound (Interchange 14)	Ramp to I-90 Eastbound
I-405 Southbound to Exit 11 (I-90)	I-90 Eastbound
Ramp to I-90 Westbound	I-90 Eastbound Exit 10 A (I-405 North)
I-90 Westbound	Ramp to I-405 Northbound
I-90 Westbound Exit 2C (I-5 Northbound)	I-405 Northbound
I-90 Westbound Ramp to I-5 Northbound	I-405 Northbound Exit 14 (SR 520)
I-5 Northbound	SR 520 Eastbound

Note: Local Seattle destination via I-5 Exits.

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
14 - Closure of SR 520 Floating Bridge – King County	
East to West Routing – Alternate Route	West to East Routing – Alternate Route
SR 520 to Exit for I-405 (Bellevue Area)	I-5 Northbound (Seattle Area)
I-405 Northbound	I-5 Northbound Exit 171 (SR 522 East)
I-405 Southbound Exit 23 (SR 522)	Ramp to SR 522 Eastbound
Ramp to SR 522 Westbound	SR 522 Eastbound (Lake City Way NE)
SR 522 Westbound (Woodinville Rd)	SR 522 Eastbound (Bothell Way NE)
SR 522 Westbound (Bothell Way NE)	SR 522 Eastbound (NE Bothell Way)
SR 522 Westbound (NE Bothell Way)	SR 522 Eastbound (Bothell Way NE)
SR 522 Westbound (Bothell Way NE)	SR 522 Eastbound (Woodinville Rd)
SR 522 Westbound (Lake City Way NE)	SR 522 Eastbound Ramp to I-405
SR 522 Westbound Exit for I-5	Ramp to I-405 Southbound
Ramp to I-5 Southbound	I-405 Southbound (Interchange 23)
I-5 Southbound	I-405 Southbound
I-5 Southbound to SR 520	I-405 Southbound to SR 520 (Interchange 14)

Note: Consider I-5 and I-405 to Swamp Creek as an alternate instead of SR 522



Puget Sound Regional Transportation Recovery Plan					
14 - Closure of SR 520 Floating Bridge - King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		SR 522
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-5, I-90, I-405
HOV Lanes – New				√	
HOV Rules - Change		√	√		HOV 3, HOV 4, I-90
Construct HOV Bypass			√		Bottlenecks
Ramp Metering			√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		Interchanges near closure point
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane				√	Interstates/Freeways HOV
Parking Eliminate/Restrict		√	√		
Turn Prohibitions		√	√		
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland, Kenmore, Bellevue Leschi Park/Bellevue (pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New		√	√		
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects		√	√		SR 522
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
14 - Closure of SR 520 Floating Bridge - King County					
14-Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
14 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #15 - Closure of SR 99 from I-90 to the Snohomish Co. Line

A. General Information

For the closure of SR 99 to I-90 to the Snohomish County Line, the alternate route for this scenario will entail diverting traffic from SR 99 to SR 104 to Interstate 5. Northbound traffic will be diverted at Michigan St. to avoid further congestion in downtown Seattle. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. Emergency Services Coordinating Agency (ESCA)
2. King County Office of Emergency Management (OEM)
3. Snohomish County Department of Emergency Management (DEM)
4. City of Seattle
5. City of Edmonds

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes and detours, and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
2. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

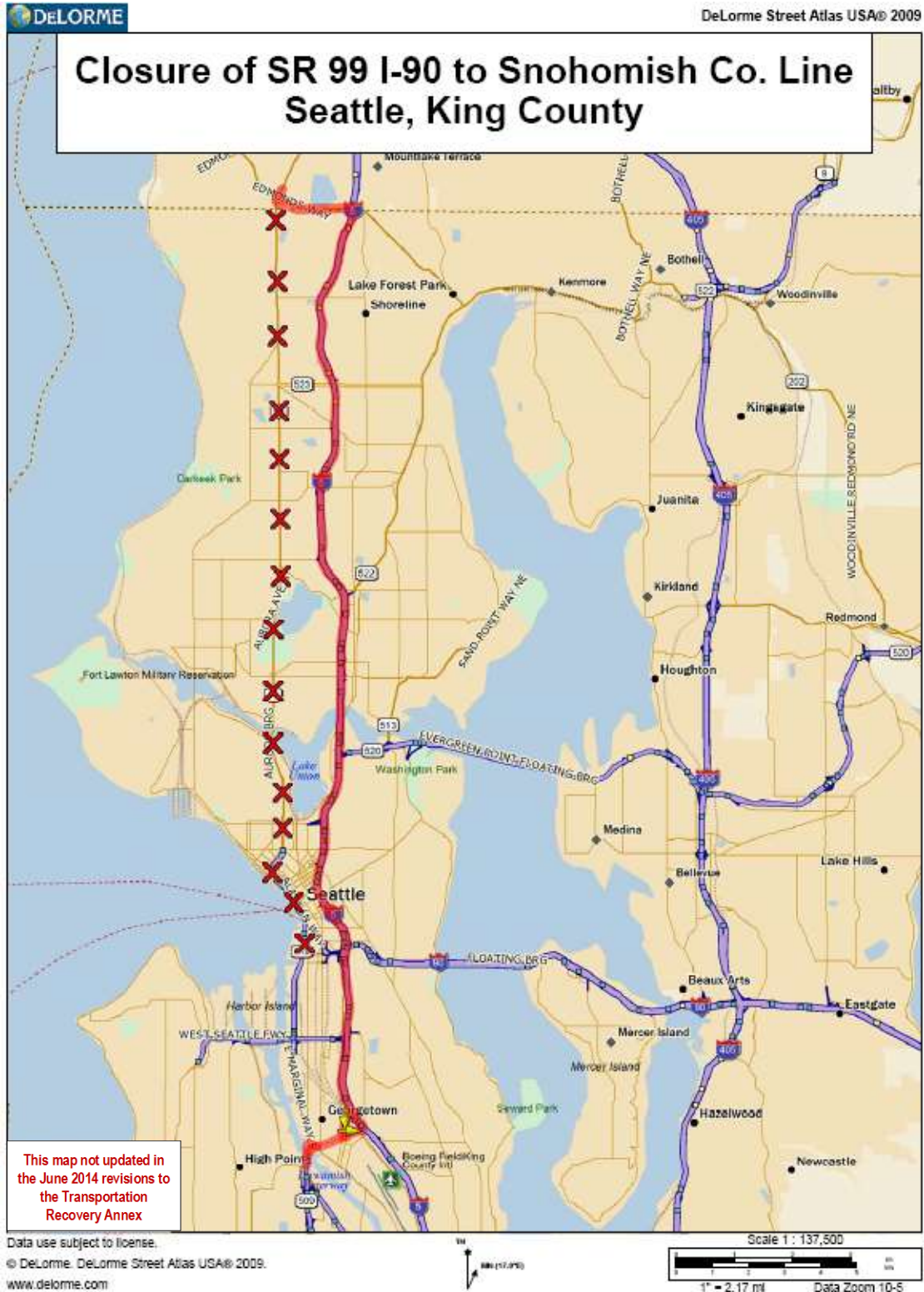
Short term solutions have been identified such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establish or expand Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions near closures. Other alternatives include: Tele-commuting, Van/Carpool Incentives, increase in transit services on SR 99 corridor, Staggered Work Shifts, Freeway Ramp Closures on West Seattle Hwy to SR 99, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions on roadways, opening Bike Lanes, changing current HOV rules, converting lanes on SR 104 to HOV lanes and freeway ramp metering on I-5. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
15 - Closure of SR 99 I-90 to Snohomish County Line – Seattle, King County	
North to South Routing	South to North Routing
SR 99 Southbound	SR 99 Northbound
SR 99 Southbound (Pacific Hwy)	SR 99 Northbound Exit for Michigan St
SR 99 Southbound (Pacific Hwy) Exit for SR 104	S Michigan St Eastbound
SR 104 Eastbound	S Michigan St Eastbound to S Bailey St (Traf. Signal)
SR 104 Eastbound (Edmonds Way)	S Bailey St Eastbound to Ramp to I-5
SR 104 Eastbound (NW 205 th St)	Ramp to I-5 Northbound
SR 104 Eastbound (Lake Ballinger Way)	I-5 Northbound
SR 104 Eastbound Exit to I-5 Southbound	I-5 Northbound Exit 177 (SR 104)
Ramp to I-5 Southbound	Ramp to SR 104 Westbound
I-5 Southbound (Interchange 177)	SR 104 Westbound
I-5 Southbound	SR 104 Westbound (Lake Ballinger Way)
I-5 southbound Exit 162 (Corson Ave)	SR 104 Westbound (NW 205 th St)
I-5 Ramp to Corson Ave	SR 104 Westbound (Edmonds Way)
Corson Ave S Southbound	SR 104 Westbound Exit for SR 99 North
Corson Ave S Southbound to Michigan St (Traf Sig)	SR 99 Northbound (Pacific Hwy)
Michigan St S Westbound	
Michigan St S Westbound to SR 99 Ramp (Traf Sig)	
Ramp to SR 99	
SR 99 Southbound	

Note: One Way Couplet S Bailey St/Corson Ave.

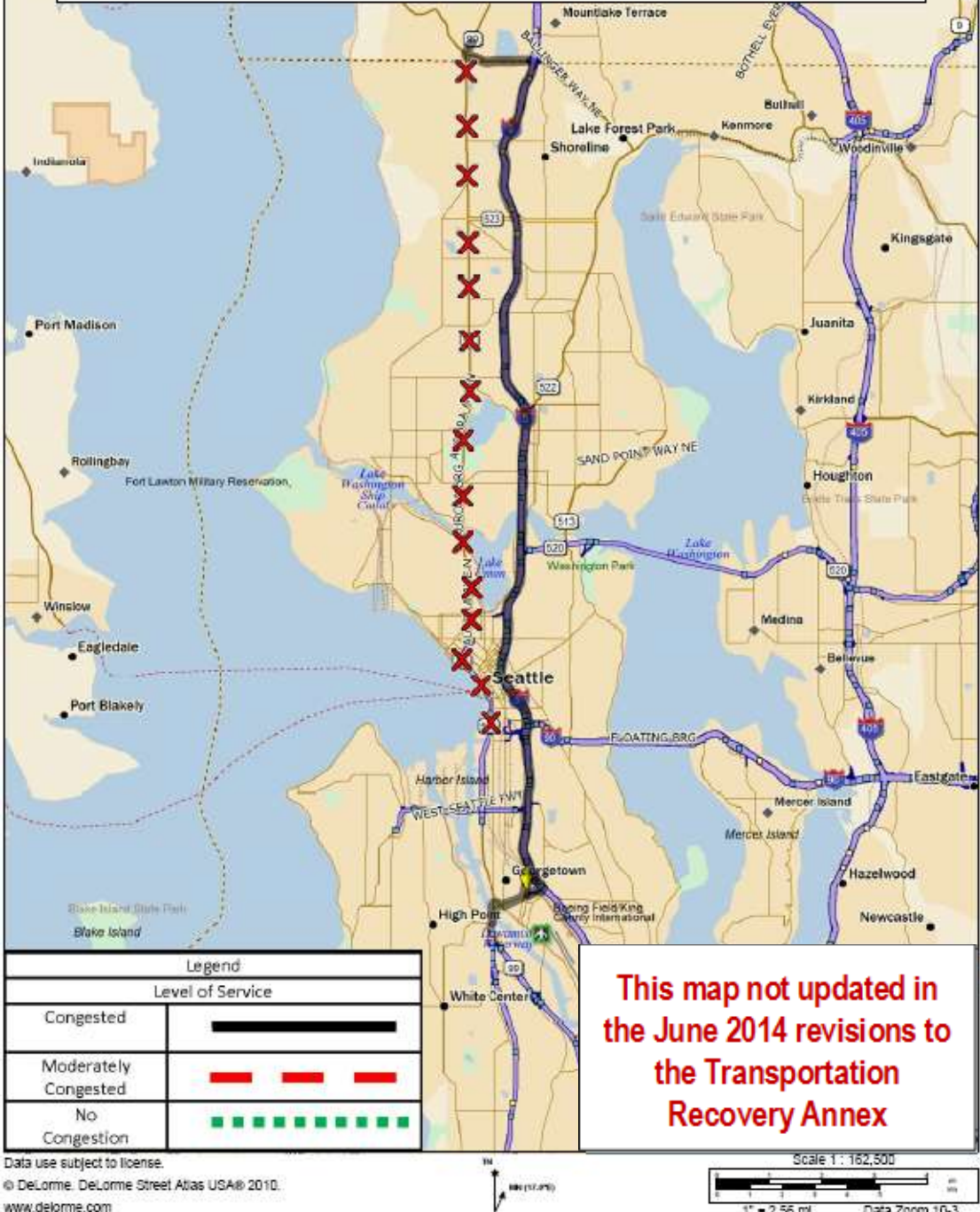
Note: Local access to Seattle destinations from I-5 exits.

Note: Retiming of traffic signals needed on Michigan St.



DeLorme Street Atlas USA® 2010

Closure of SR 99 I-90 to Snohomish Co. Line Level of Service on Alternate



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Puget Sound Regional Transportation Recovery Plan					
15 - Closure of SR 99 from I-90 to Snohomish County Line - Seattle, King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		SR 104
HOV Lanes – New				√	
HOV Rules - Change		√	√		I-5 HOV 3, HOV 4
Construct HOV Bypass				√	
Ramp Metering			√		I-5
Freeway Ramps - New				√	
Freeway Ramps – Closure	√	√	√		West Seattle Hwy to SR 99
Truck Restrictions	√	√	√		Local Roadways
Truck Preferences				√	
Shoulder - Convert to Driving Lane				√	
Parking Eliminate/Restrict				√	
Turn Prohibitions	√	√	√		Near Closures
Ferry Service Relocation	√	√	√		Restricted Access to Terminal?
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days				√	
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase		√	√		SR 99 Corridor
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects				√	
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
15 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #16 - Closure of SR 181 from I-405 to SR 516

A. General Information

Two routes present as suitable alternatives for the scenario dealing with closure of SR 181 from I-405 to SR 516. The primary route entails diverting traffic onto I-405 to I-5 to SR 516. The secondary route entails diverting traffic from I-405 at SR 181 to SR 167. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities FOR routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

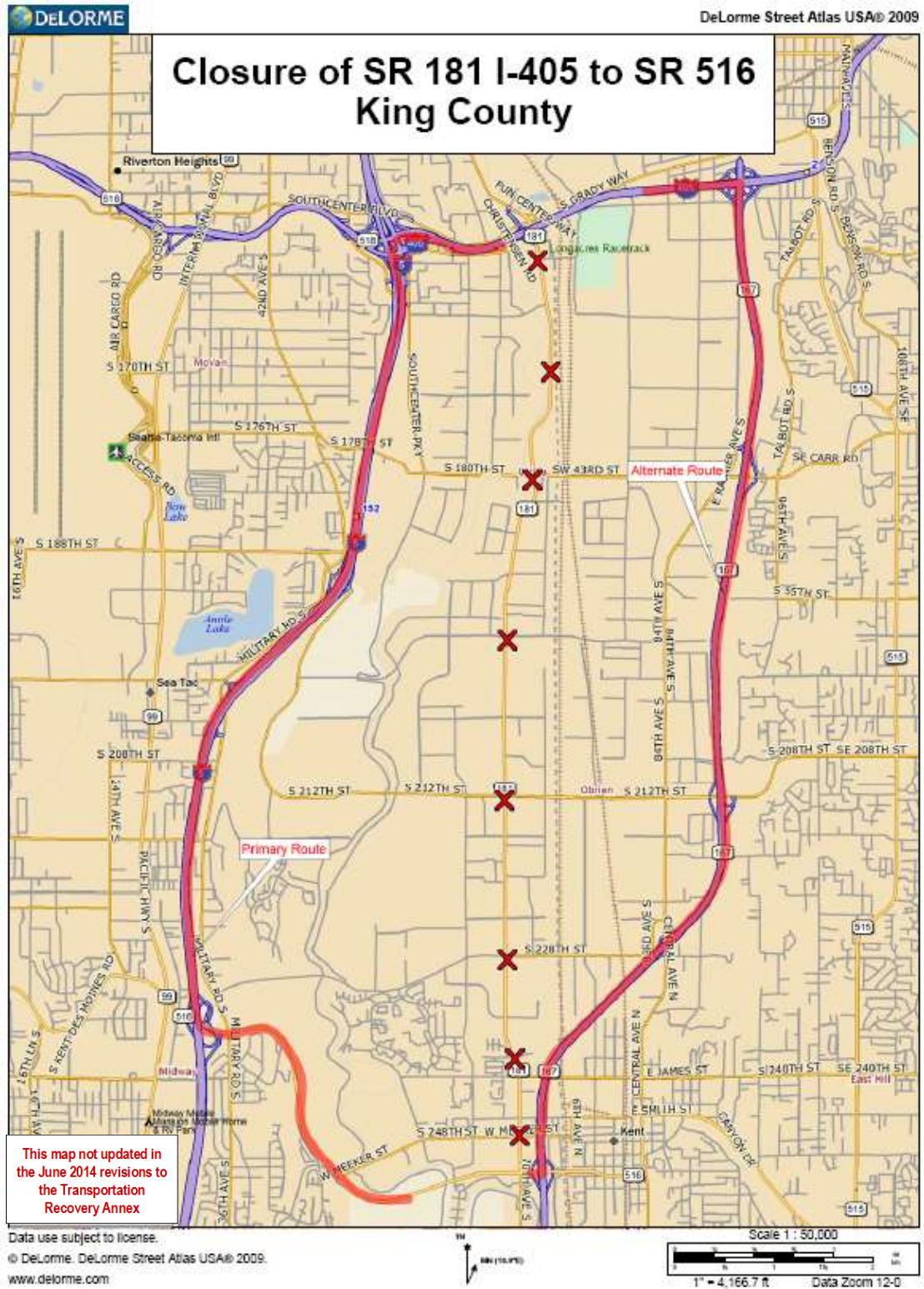
Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on local access roads to SR 181 Corridor. Other alternatives include: Alternate Driving Days, Bike Lanes, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include truck restrictions due to unsafe routes to SR 181, truck preferences at local access roads to SR 181 Corridor, changing HOV rules, constructing HOV Bypass to ease bottleneck, increasing transit service, freeway ramp metering, freeway ramp closure at I-5 Exit 152, SR 167 & 43rd, 122nd, tolling adjustments on SR 167 and incorporating technology in traffic signal interconnects on Kent Des Moines Rd. See Appendix E – Roadways Toolbox for further information.

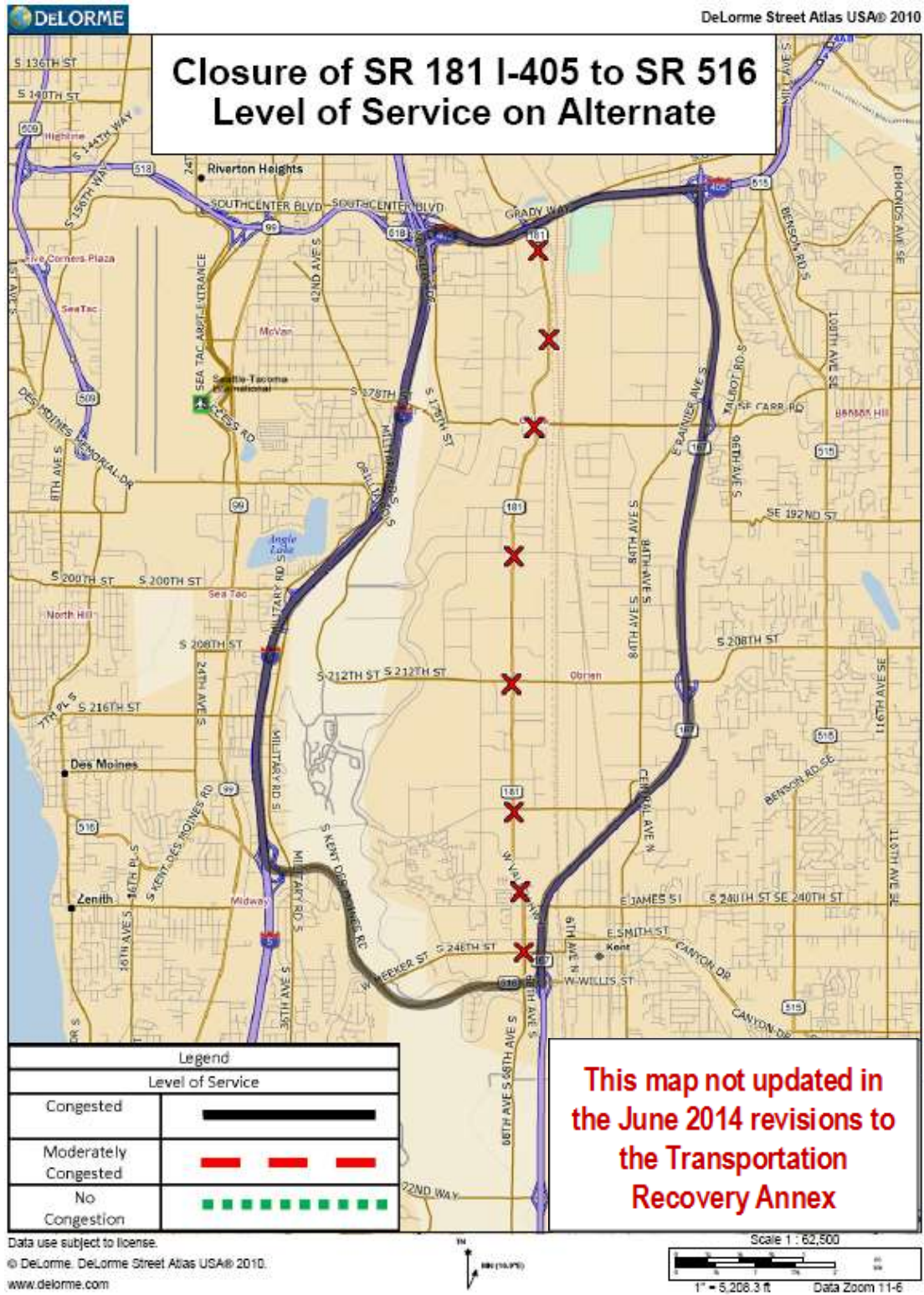


Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
16 - Closure of SR 181 from I-405 to SR 516 – King County	
North to South Routing - Primary	South to North Routing - Primary
I-405 Southbound	West Valley Hwy Northbound
I-405 Southbound Exit to I-5 Southbound	SR 516 Westbound (Kent Des Moines Rd)
I-5 Southbound	(Traf. S)
I-5 Southbound Exit 149 (SR 516)	SR 516 Westbound Ramp to I-5 Northbound
I-5 Ramp to SR 516(Traffic Signal)	Ramp to I-5 Northbound
SR 516 Eastbound (Kent Des Moines Rd)	I-5 Northbound
SR 516 Eastbound to West Valley Hwy	I-5 Northbound Exit 154 B (I-405)
West Valley Hwy Southbound	I-405 Northbound
	I-405 Northbound Exit to SR 181
	SR 181

16 - Closure of SR 181 from I-405 to SR 516 – King County	
North to South Routing - Alternate	South to North Routing - Alternate
I-405 Southbound	W Valley Hwy Northbound
I-405 Southbound Exit 2 to SR 167	SR 516 Eastbound (Kent Des Moines Rd)
SR 167 Southbound	SR 516 Eastbound to SR 167 Northbound
SR 167 Southbound Exit for SR 516	SR 167 Northbound
SR 516 Eastbound (Kent Des Moines Rd)	SR 167 Northbound Exit for I-405
SR 516 Eastbound to W Valley Hwy	Southbound
W Valley Hwy Southbound	I-405 Southbound
	I-405 Southbound Exit for SR 181
	SR 181 Northbound

Note: Primary and Alternate can be used simultaneously to create a one-way couplet (I-5 Southbound and SR 167 Northbound)

Note: Planning will be necessary for accommodating local freight and business access.



Puget Sound Regional Transportation Recovery Plan					
16 - Closure of SR 181 from I-405 to SR 516 King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New				√	
HOV Rules - Change			√		I-5, I-405 HOV 3, HOV 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering			√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		I-5 Exit 152, SR 167 & 43 rd , 122
Truck Restrictions	√	√	√		Unsafe Routes to SR 181
Truck Preferences	√	√	√		Local Access to SR 181 Corridor
Shoulder - Convert to Driving Lane				√	
Parking Eliminate/Restrict				√	
Turn Prohibitions		√	√		Local Access to SR 181 Corridor
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing			√		SR 167
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments			√		SR 167
Transit Service New				√	
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		Kent Des Moines Rd
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
16 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #17 – Closure of the West Seattle High Bridge

A. General Information

The closure of the West Seattle High Bridge may cause closures of the lower bridge and may restrict access to the Duwamish Waterway, which is critical for the maritime industry. The West Seattle High Bridge is located over navigable waterways, which are regulated by the United States Coast Guard; i.e. the USCG determines the opening and closing of the waterway. The King County Water Taxi operates between downtown Seattle and West Seattle. Local private ferry operators may be available to provide increased ferry service. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. Seattle DOT

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. City of Seattle Office of Emergency Management (OEM)
2. King County Office of Emergency Management (OEM)
3. WSDOT
4. WSP

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. Set-up highway detours signage for rerouting traffic. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on Olson, Roxbury, Michigan. Other alternatives include: Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destroyed area. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions, Truck Preferences on Spokane St, W Marginal Way, contra-flow lanes on Spokane Street, converting lanes (Olson and Roxbury) to HOV lanes, constructing HOV Bypass lanes to ease bottlenecks, increase existing ferry services (West Seattle to Seattle), incorporating technology in traffic signal interconnects.

Increasing passenger-only ferry service may be a viable option due to congestion. See the Maritime Toolbox for alternative transportation options. See Appendix E – Roadways Toolbox

for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

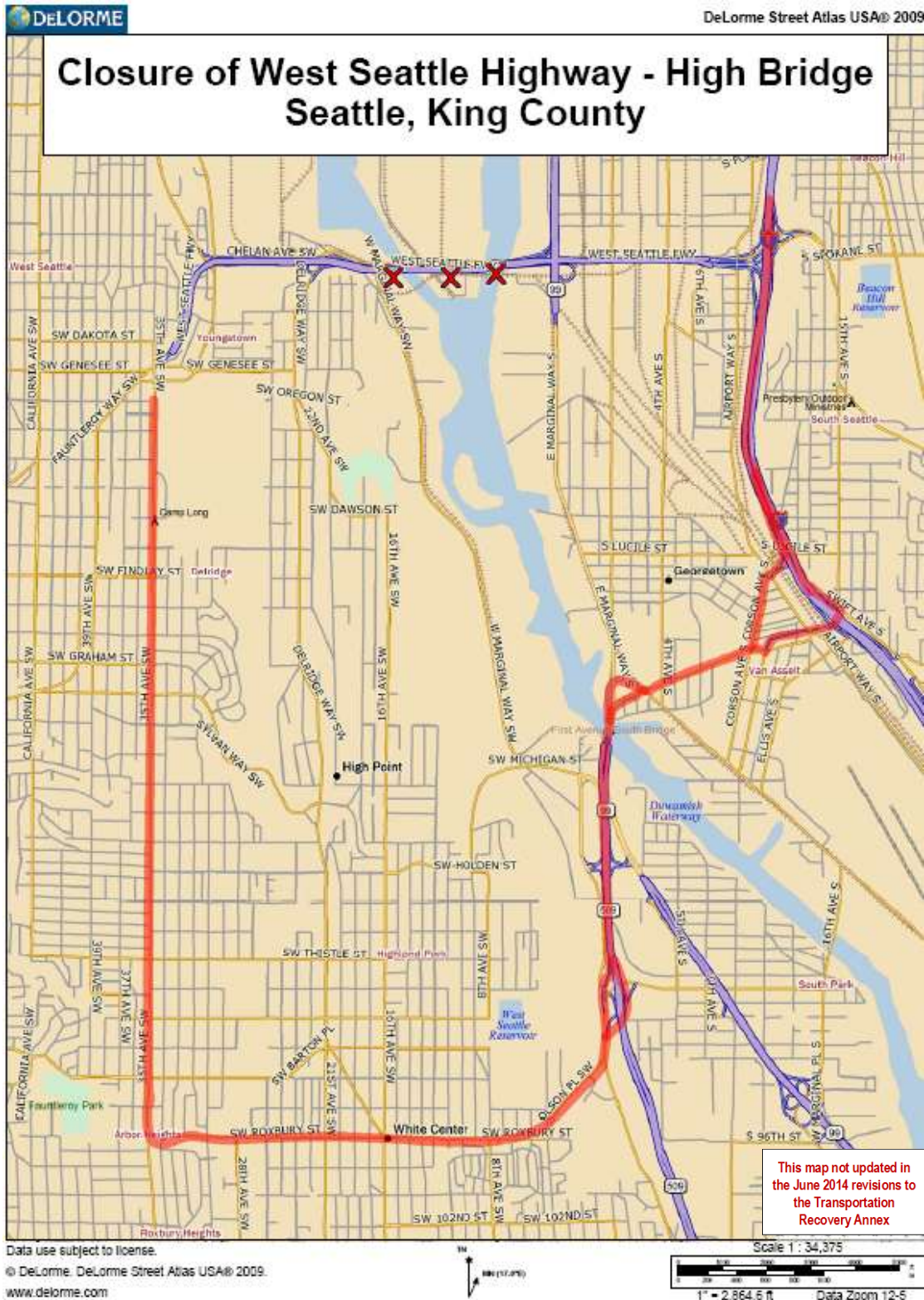
H. Site Images for Alternative Route Landing Sites

West Seattle



Downtown Seattle





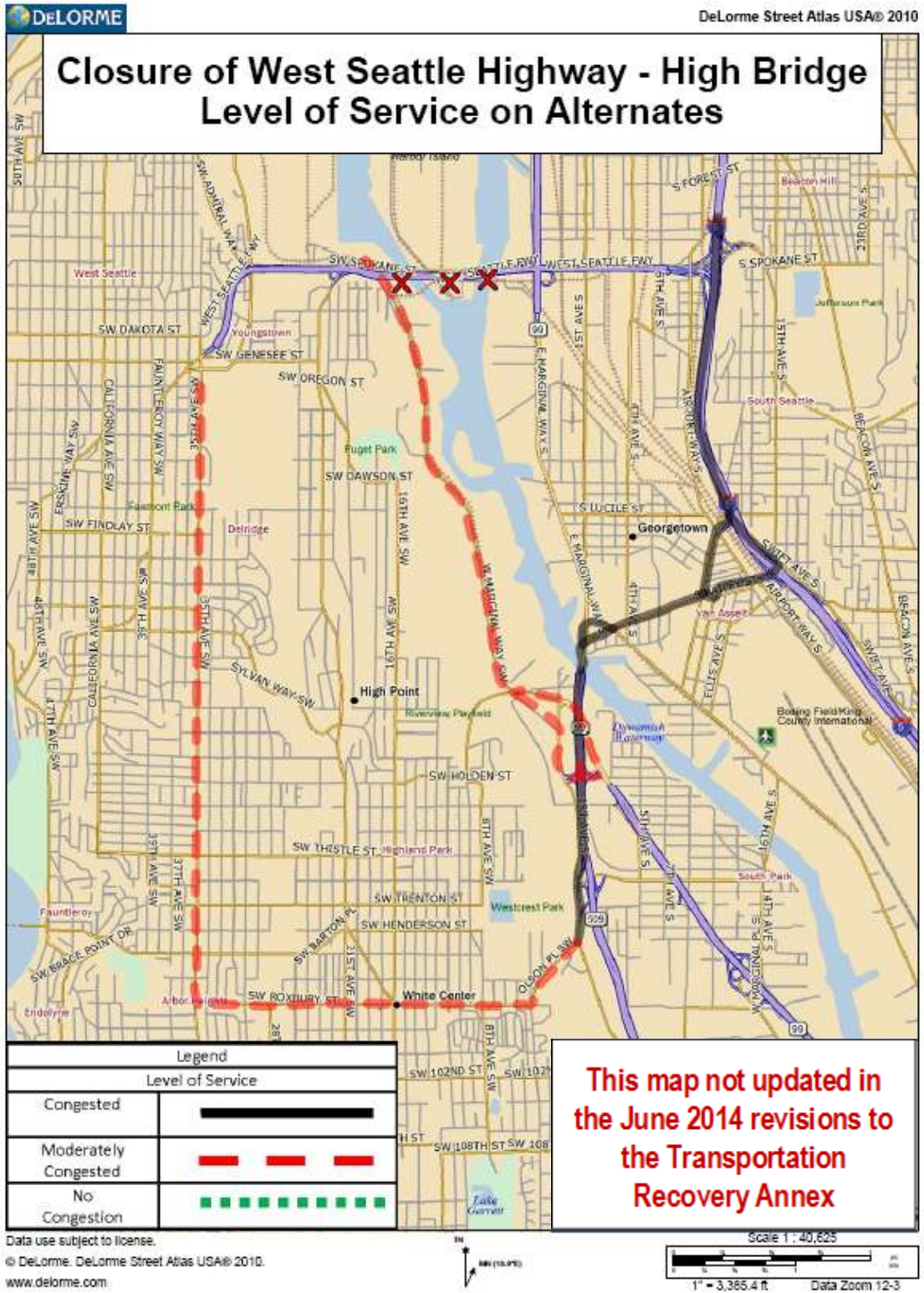
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
17 - Closure of West Seattle Highway (High Bridge) – King County	
East to West Routing	West to East Routing
I-5 North and South Exit at 162	35 th Ave SW Southbound
I-5 Ramp to Michigan St	35 th Ave SW Southbound to SW Roxbury St (T.S.)
Corson Ave S Southbound	SW Roxbury St Eastbound
Corson Ave S Southbound to Michigan St (Traf. Sig)	SW Roxbury St Eastbound to Olson PI SW (T.S.)
S Michigan St	Olson PI SW Northbound
S Michigan St to Ramp to SR 99	Olson PI SW Northbound to 1 st Ave
SR 99 Southbound	1 st Ave Northbound
SR 99 Southbound to SR 509	1 st Ave Northbound to Ramp for SR 99 to I-5
SR 509 Southbound	SR 99 Northbound
SR 509 Exit for Myers Way – White Center	SR 99 Northbound Exit for Michigan St
Ramp to 1 st Ave Southbound	Michigan St Eastbound
1 st Ave Southbound to Olson PI SW (Traf. Sig.)	Bailey St Eastbound
Olson PI SW Southbound	Bailey St Eastbound Ramp to I-5 (North or South)
Olson PI SW Southbound to SW Roxbury St	I-5 (Interchange 162)
SW Roxbury St Westbound	
SW Roxbury St Westbound to 35 th Ave SW (T.S.)	
35 th Ave SW Northbound	

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
17 - Closure of West Seattle Highway (High Bridge) – King County	
East to West Routing - Port Access Primary	West to East Routing - Port Access Primary
I-5 North and South Exit at 163	SW Spokane St Eastbound
I-5 Ramp to Spokane St	SW Spokane St Eastbound to I-5 Ramps
Alternate Ramp from I-5 Exit 163B	I-5 Ramps (Northbound & Southbound)
- S Forest St Westbound to	I-5 (Interchange 163)
- 6 th Ave S Southbound to	
SW Spokane St Westbound	
SW Spokane St Westbound Port Access	

Note: Primary Port Access contingent on access to/from Spokane St and Spokane St Bridge.

Note: If Primary Port Access is blocked in one direction, use Alternate Port Access Route.

Note: Some intersections will need to be shut down for traffic control.



Puget Sound Regional Transportation Recovery Plan					
17 - Closure of West Seattle Highway - High Bridge King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New		√	√		Spokane St (Damaged Section Bypass)
HOV Lanes – Convert			√		Olson, Roxbury
HOV Lanes – New				√	
HOV Rules - Change				√	
Construct HOV Bypass			√		Bottlenecks
Ramp Metering				√	
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		Unsafe Routes
Truck Preferences	√	√	√		Spokane St, W Marginal Way
Shoulder - Convert to Driving Lane				√	
Parking Eliminate/Restrict				√	Olson, Roxbury
Turn Prohibitions			√		Olson, Roxbury, Michigan
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing	√	√	√		West Seattle to Seattle
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		Olson, Roxbury, 35th
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
17 - Closure of West Seattle Highway - High Bridge King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets	√	√	√		The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations	√	√	√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service	√	√	√		
Determine personnel required and availability of alternative maritime transportation	√	√	√		
Meet with stakeholders to discuss options for alternative maritime transportation	√	√	√		
Determine long-term contracting needs	√	√	√		
Identify recovery options for alternative maritime transportation	√	√	√		
Develop long-term contracting procedures	√	√	√		

Puget Sound Regional Transportation Recovery Plan					
17- Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #18 - Closure of I-5, I-405 and SR 518 Interchange

A. General Information

Stakeholders presented two routes as suitable alternatives for this scenario involving closure of the I-5, I-405 and SR 518 Interchange. One route details moving traffic within the mainline of Seattle, and another route details diverting traffic from I-5 onto SR 18 to SR 167 to I-90 back onto I-5. See Maps and Alternate Routing Plan for specific and additional information, including a map included that details traffic movement on and off of the freeway ramps.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. City of Tukwila

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions on Southcenter, Klickitat, and International. Other alternatives include: Converting freeway shoulder to driving lane, Alternate Driving Days, Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions depending on the Time of Day, Truck Preferences (e.g.. Critical supplies or near airport), ramp metering, freeway ramp closure near interchanges, changing current HOV rules on I-5 and I-405, converting lanes on I-405, and I-5 to HOV lanes, constructing HOV Bypass lanes to ease bottlenecks, incorporating tolling adjustments on SR 167, and incorporating technology in traffic signal interconnects on SR 99. See Appendix E – Roadways Toolbox for further information.



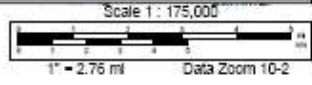


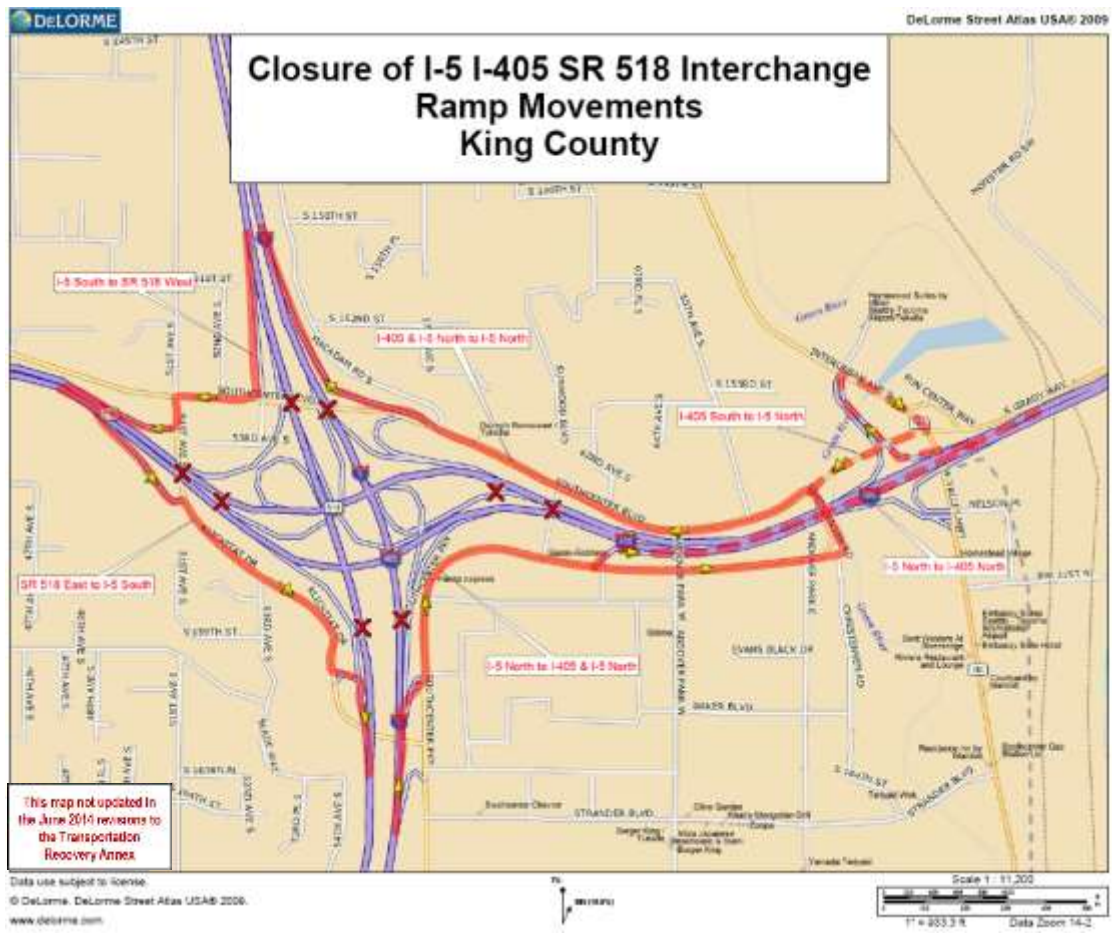
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Closure of I-5 I-405 SR 518 Interchange - Regional Through Traffic Routing - King County



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Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
18 - Closure of I-5 I-405 SR 518 Interchange – King County	
North to South (I-5 Through Traffic)	South to North (I-5 Through Traffic)
I-5 Southbound I-5 Southbound Exit for I-90 Eastbound I-90 Eastbound I-90 Eastbound Exit for I-405 Southbound I-405 Southbound I-405 Southbound Exit 2A (SR 167) SR 167 Southbound SR 167 Southbound Exit for SR 18 Westbound SR 18 Westbound SR 18 Westbound Exit for I-5 Southbound I-5 Southbound (Interchange 142)	I-5 Northbound I-5 Northbound Exit 142A (SR 18) SR 18 Eastbound SR 18 Eastbound Exit for SR 167 Northbound SR 167 Northbound SR 167 Northbound Exit for I-405 Northbound I-405 Northbound I-405 Northbound Exit 11 (I-90) Ramp to I-90 Westbound I-90 Westbound I-90 Westbound Exit for I-5 Ramp to I-5 Northbound I-5 Northbound
West to East (SR 518 to I-405)	East to West (I-405 to SR 518)
SR 518 Eastbound SR 518 Eastbound exit to 51 st Ave S Ramp to 51 st Ave S Klickitat Dr Southbound Klickitat Dr Southbound to Southcenter Prkwy Southcenter Prkwy Northbound to Tukwila Prkwy Tukwila Prkwy Eastbound Tukwila Prkwy Eastbound to I-405 Ramp I-405 Northbound	I-405 Southbound I-405 Southbound Exit 2 (SR 167) SR 167 Southbound SR 167 Southbound Exit for SR 516 SR 516 Westbound (Kent Des Moines Rd) SR 516 Westbound to SR 99 (Pacific Hwy) SR 99 Northbound SR 99 Exit for SeaTac Airport Access Rd SeaTac Airport Access Rd Exit for SR 518 SR 518 Westbound
West to South (SR 518 to I-5 (South))	South to West (I-5 (South) to SR 518)
SR 518 Eastbound SR 518 Eastbound exit to 51 st Ave S Ramp to 51 st Ave S Klickitat Dr Southbound Klickitat Dr Southbound to I-5 Ramp I-5 Southbound	I-5 Northbound I-5 Northbound Exit 149B (SR 516) SR 516 Westbound (Kent Des Moines Rd) SR 516 Westbound to SR 99 (Pacific Hwy) SR 99 Northbound (Pacific Hwy S) SR 99 Exit for SeaTac Airport Access Rd SeaTac Airport Access Rd Exit for SR 518 SR 518 Westbound

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
18 - Closure of I-5 I-405 SR 518 Interchange – King County	
North to South (I-5 (North) to I-405 Routing)	South to North (I-405 to I-5 (North) Routing)
I-5 Southbound I-5 Southbound Exit 158 (S Boeing Access Rd) Ramp to S Boeing Access Rd (Traffic Signal) S Boeing Access Rd Westbound S Boeing Access Rd Westbound to Internatl. Blvd. International Blvd Southbound SR 99 Southbound (International Blvd) SR 99 Southbound to SR 518 Ramp to SR 518 Eastbound (Traffic Signal) SR 518 Eastbound SR 518 Eastbound exit to 51 st Ave S Ramp to 51 st Ave S Klickitat Dr Southbound Klickitat Dr Southbound to Southcenter Prkwy Southcenter Prkwy Northbound to Tukwila Prkwy Tukwila Prkwy Eastbound Tukwila Prkwy Eastbound to I-405 Ramp I-405 Northbound	I-405 Southbound I-405 Southbound Exit 1 (SR 181) I-405 Ramp to Interurban Ave Interurban Ave Southbound Southcenter Blvd Westbound Southcenter Blvd Westbound to I-5 Ramp I-5 Northbound
North to South (Local I-5 Traffic Routing)	South to North (Local I-5 Traffic Routing)
I-5 Southbound I-5 Southbound Exit 158 (S Boeing Access Rd) Ramp to S Boeing Access Rd (Traffic Signal) S Boeing Access Rd Westbound S Boeing Access Rd Westbound to Internatl. Blvd. International Blvd Southbound SR 99 Southbound (International Blvd) SR 99 Southbound to SR 518 Ramp to SR 518 Eastbound (Traffic Signal) SR 518 Eastbound SR 518 Eastbound exit to 51 st Ave S Ramp to 51 st Ave S Klickitat Dr Southbound Klickitat Dr Southbound to I-5 Ramp I-5 Southbound	I-5 Northbound I-5 Northbound Exit 153 (Southcenter Prkwy) Ramp to Southcenter Prkwy (Traffic Signal) Southcenter Parkway Northbound Southcenter Prkwy Northbound to Tukwila Prkwy Tukwila Prkwy Eastbound Tukwila Prkwy Eastbound to Christensen Rd Christensen Rd Northbound Southcenter Blvd Westbound Southcenter Blvd Westbound to I-5 Ramp Ramp to I-5 Northbound I-5 Northbound



Puget Sound Regional Transportation Recovery Plan					
18 - Closure of I-5 I-405 SR 518 Interchange - King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert			√		I-5, I-405
HOV Lanes – New				√	
HOV Rules - Change			√		HOV 3, HOV 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering			√		
Freeway Ramps - New				√	
Freeway Ramps – Closure			√		Interchanges near closure point
Truck Restrictions	√	√	√		Time of Day
Truck Preferences		√	√		Critical Supplies, Airport
Shoulder - Convert to Driving Lane		√	√		Interstates/Freeways HOV
Parking Eliminate/Restrict		√	√		Southcenter, Klickitat, Internatl
Turn Prohibitions		√	√		Southcenter, Klickitat, Internatl
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments			√		SR 167
Transit Service New		√	√		
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		SR 99
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
18 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #19 - Closure of SR 99 – Aurora Bridge

A. General Information

Stakeholders presented two routes as suitable alternatives under this scenario involving closure of SR 99 - Aurora Bridge. One route details diverting traffic from SR 99 to I-5 through local streets back to SR 99 via N 85th St to Aurora Ave. The second route details diverting traffic from SR 99 at Elliott Ave W to 15th Ave W/NW back to SR99 (Aurora Ave). See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. City of Seattle
2. King County Office of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs),

municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

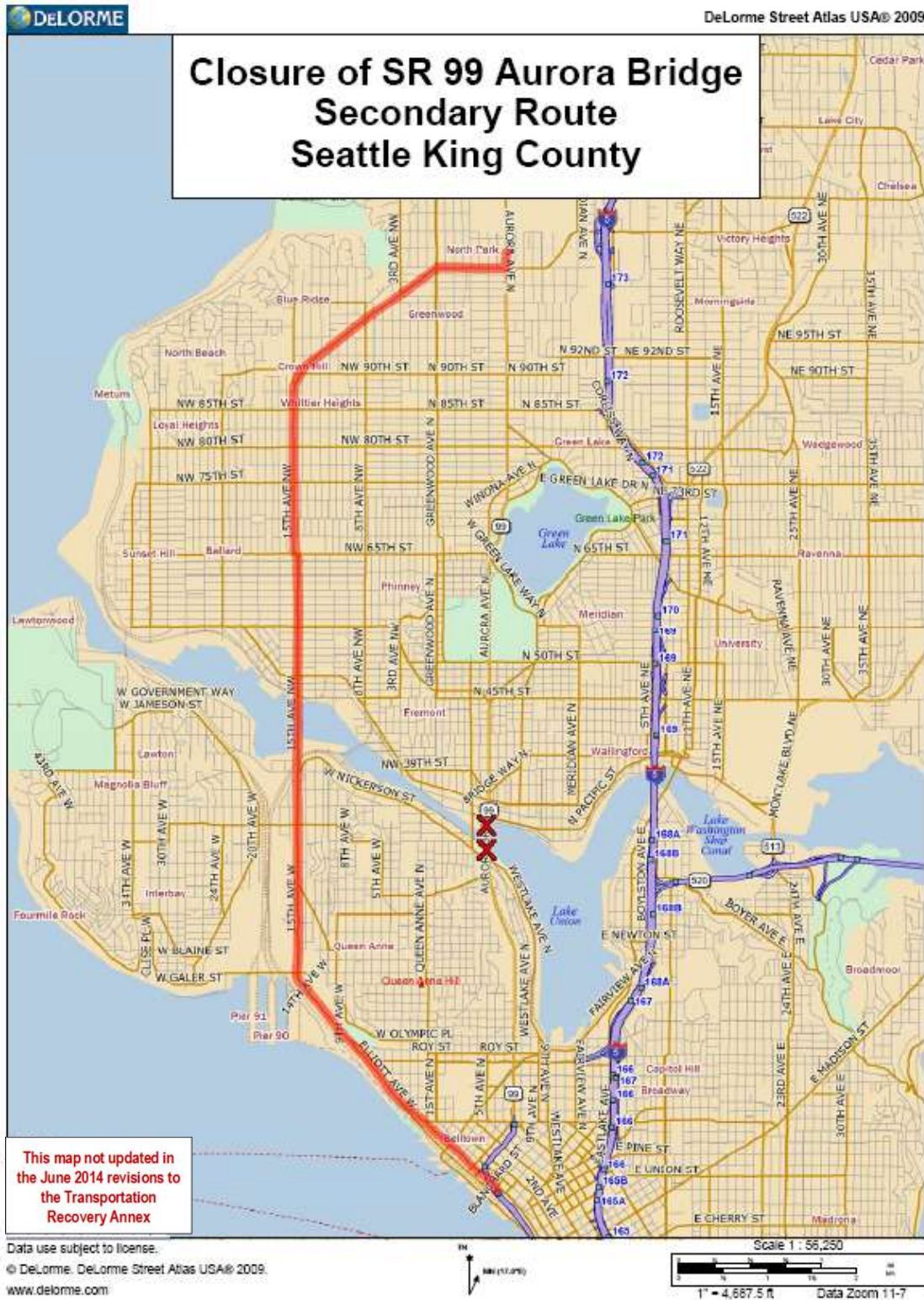
2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions due to One Way Couplets. Other alternatives include: Converting freeway shoulder to driving lane, Telecommuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions due to turning radii, increasing transit service, and incorporating technology in traffic signal interconnects. See Appendix E – Roadways Toolbox for further information.





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
19 - Closure of SR 99 Aurora Bridge (City of Seattle) – King County	
North to South Routing	South to North Routing
SR 99 Aurora Ave N Southbound	SR 99 Northbound
N 85 th St Eastbound	SR 99 Northbound Exit for Michigan St
I-5 Southbound (Interchange 172)	S Michigan St Eastbound
I-5 Southbound	S Michigan St Eastbound to S Bailey St (Traf. Signal)
I-5 southbound Exit 162 (Corson Ave)	S Bailey St Eastbound to Ramp to I-5
I-5 Ramp to Corson Ave	Ramp to I-5 Northbound
Corson Ave S Southbound	I-5 Northbound
Corson Ave S Southbound to Michigan St (Traf Sig)	I-5 Northbound - Exit 172
Michigan St S Westbound	- Exit for N 85 St, Aurora Ave N
Michigan St S Westbound to SR 99 Ramp (Traf Sig)	N 85 th St Westbound
Ramp to SR 99	SR 99 Aurora Ave N Northbound
SR 99 Southbound	

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
19 - Closure of SR 99 Aurora Bridge (City of Seattle) – King County	
North to South Routing - Alternate	South to North Routing - Alternate
SR 99 Aurora Ave N Southbound	SR 99 Alaskan Way Viaduct Northbound
N 105 th St Westbound (Traffic Light)	- Exit for Western Ave
I-5 Southbound (Interchange 172)	Western Ave W Northbound
Holman Rd NW Southbound (Traffic Signal)	Elliott Ave W Northbound
15 th Ave NW Southbound(Traffic Signal)	15 th Ave W Northbound
15 th Ave NW Southbound (Ballard Bidge)	15 th Ave W Northbound (Ballard Bridge)
15 th Ave W Southbound	15 th Ave NW Northbound
Elliot Ave W Southbound	Holman Rd NW Northbound
SR 99 Alaskan Way Viaduct Southbound	N 105 th St Eastbound
	SR 99 Northbound (Aurora Ave) Traffic Light

Note: Using the Mercer Street/I-5 Interchange as an alternative is not desirable.

Note: Consider restricting bridge openings on 15th Ave. Coordination required with USCG.

Note: Potential for developing one-way couplets as alternatives based on extent of damage.



Puget Sound Regional Transportation Recovery Plan					
19 - Closure of SR 99 Aurora Bridge - Seattle, King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		Restrict Bridge Openings
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New				√	
HOV Rules - Change				√	
Construct HOV Bypass				√	
Ramp Metering				√	
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		Turning Radii
Truck Preferences				√	
Shoulder - Convert to Driving Lane		√	√		
Parking Eliminate/Restrict	√	√	√		
Turn Prohibitions	√	√	√		One Way Couplets
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days				√	
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes				√	
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
19 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

Appendix B

Scenario #20 - Closure of US 2 Skykomish to Stevens Pass

A. General Information

For the closure of US 2 from Skykomish to Stevens Pass, the alternate route for this scenario will entail diverting traffic from US 2 to US 97 to I-90 to I-5 back to US 2. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies or jurisdictions with coordination responsibilities over routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. Emergency Services Coordinating Agency (ESCA)
3. Snohomish County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
2. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

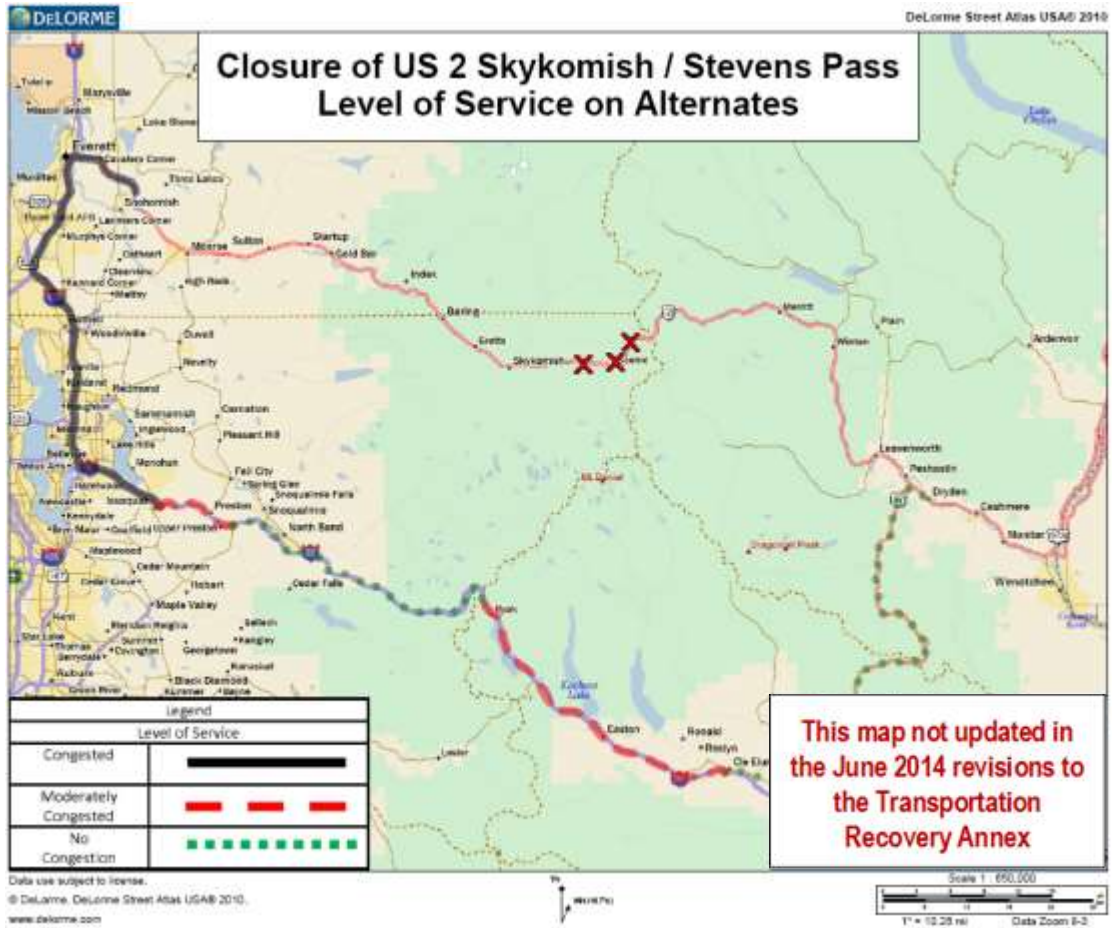
The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Tele-commuting, Van/Carpool Incentives, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include changing current HOV rules, establishing new HOV lanes on I-90 and freeway ramp metering on I-5 and I-405. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
20 - Closure of US 2 Skykomish Stevens Pass - King County	
East to West Routing	West to East Routing
US 2 Eastbound (Dryden) (Coincident w/ US 97)	US 2 Westbound (Stevens Pass Highway)
US 97 Southbound	US 2 Westbound Exit to I-5 Southbound
US 97 Southbound to SR 970	I-5 Southbound (Interchange 194)
SR 970 Westbound (to Cle Elum)	I-5 Southbound to Exit 182 (I-405)
SR 970 Westbound (Sunset Hwy)	I-405 Southbound
SR 970 Westbound (W 1 st St)	I-405 Southbound to Exit 11 (I-90)
SR 970 to I-90 West Interchange 84	I-90 Eastbound
I-90 Westbound (Interchange 84)	I-90 Eastbound to Exit 84 (Cle Elum)
I-90 Westbound to Exit 10 (I-405)	SR 907 Eastbound (W 1 st St)
I-405 Northbound (Interchange 11)	SR 907 Eastbound (Sunset Hwy)
I-405 Northbound to Exit 27 (I-5)	SR 907 Eastbound to US 97
I-5 Northbound	US 97 Northbound
I-5 Northbound to Exit 194 (US 2)	US 2 Westbound (Coincident w/ US 97)
US 2 Eastbound (Stevens Pass Highway)	



Puget Sound Regional Transportation Recovery Plan					
20 - Closure of US 2 Skykomish Stevens Pass - King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New			√		I-90
HOV Rules - Change			√		HOV 2 – HOV 3
Construct HOV Bypass				√	
Ramp Metering			√		I-5, I-405
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions				√	
Truck Preferences				√	
Shoulder - Convert to Driving Lane				√	
Parking Eliminate/Restrict				√	
Turn Prohibitions				√	
Ferry Service Relocation				√	
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days				√	
Bike Lanes				√	
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase				√	
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects				√	
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes			√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
20 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #21 - Closure of I-5/I-90 Interchange

A. General Information

The I-5 I-90 Interchange is located southeast of downtown Seattle and provides many different access routes to both downtown Seattle and to I-5 and I-90. Also, it is located near the main King County metro bus holding area. This interchange is a significant freight route for east-west traffic to and from the Seattle-area. The alternative routes for this section of roadway consist of using I-405 for north-south through traffic, SR 520 to I-405 for local traffic north of the interchange, and SR 99 to SR 519 for access south of the interchange. There is a potential for developing a number of alternative one-way couplets to divert traffic depending on the extent of the damage. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. King County Office of Emergency Management (OEM)
2. Emergency Services Coordinating Agency (ESCA)
3. Snohomish County Department of Emergency Management (DEM)
4. City of Seattle

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1

function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
2. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the Cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an interlocal agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes, including I-405, SR 520 to I-405, and SR-99 to SR-519.

G. Transportation Mitigation Strategies

1. Short Term Solutions

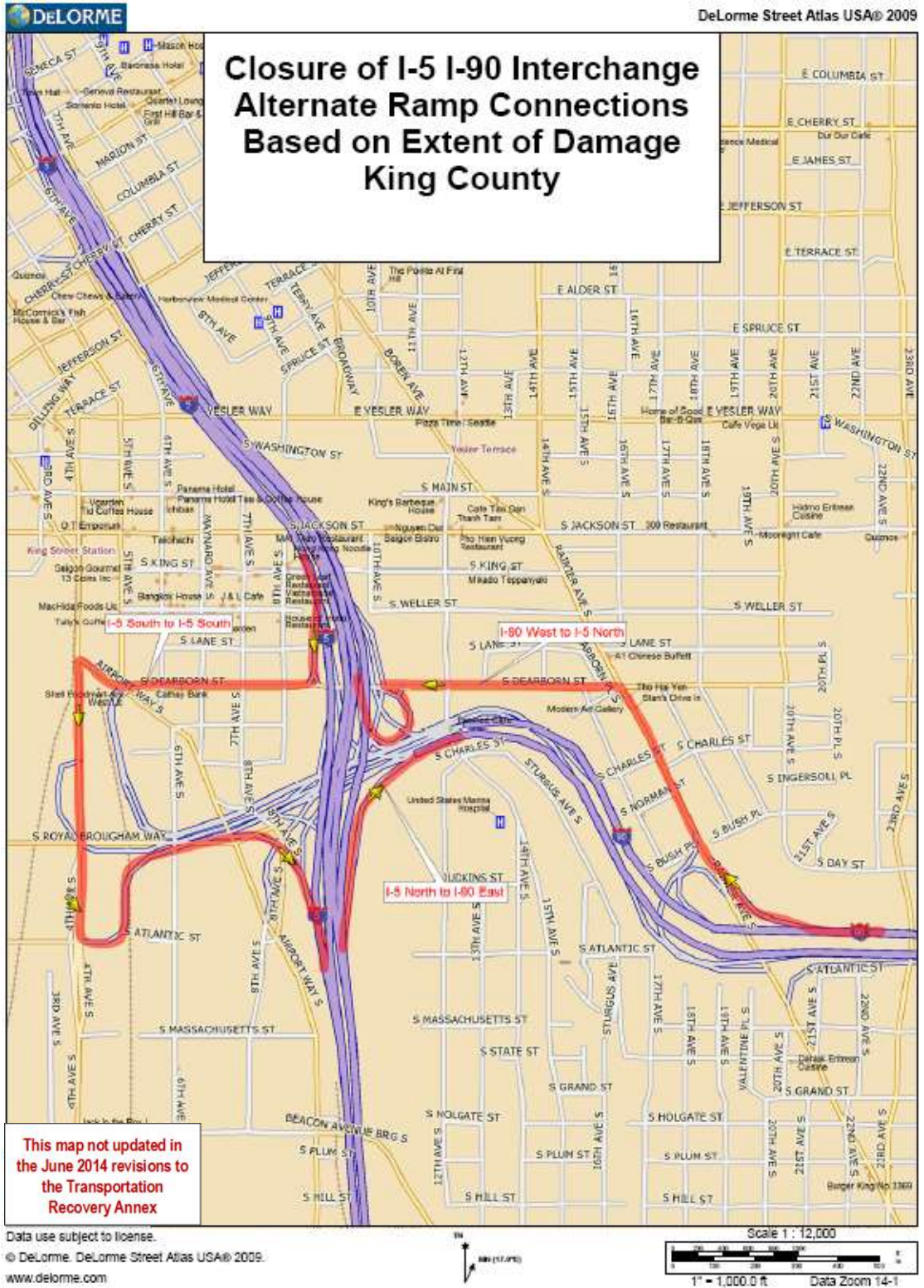
Stakeholders have identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Turn Prohibitions. Other alternatives include: Establishing new ferry service and transit service, Tele-commuting, Van/Carpool Incentives, increase in transit services, Alternate Driving Days, Staggered Work Shifts, Freeway Ramp Closures on I-90 and I-5 near closures, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include Truck Restrictions on roadways, opening Bike Lanes, converting trails for special motorized use, changing current HOV rules, converting lanes on I-5, I-405, I-90, SR 509 and SR 520 to HOV lanes and freeway ramp metering. New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
21 - Closure of I-5 I-90 Interchange – King County	
North to South Routing	South to North Routing
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit to I-405	I-5 Northbound Exit 154 (I-405)
I-405 Southbound	I-405 Northbound
I-405 Southbound Exit 14 to I-5 (Tukwila)	I-405 Northbound Exit for I-5 Northbound
I-5 Southbound (Interchange 154)	I-5 Northbound (Interchange 182)
I-5 Southbound	I-5 Northbound

Note: Most of this interchange is on structure. Depending on extent of damage some ramps may be serviceable and provide a reasonable alternate route (see Alternate Map).

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
21 - Closure of I-5 I-90 Interchange – King County	
Seattle Access from I-90 and Bellevue Area	Seattle Access from I-5 and Tukwila Area
I-90 Westbound	I-5 Northbound
I-90 Westbound Exit for I-405 North	I-5 Northbound Exit 156 (SR 599)
I-405 Northbound	SR 599 Northbound
I-405 Northbound Exit for SR 520	SR 599 Northbound to SR 99 (International Blvd)
SR 520 Westbound	SR 99 Northbound (International Blvd)
SR 520 Westbound Exit to I-5 Southbound	SR 99 Northbound becomes Alaskan Way
I-5 Southbound	Viaduct
Local Exits for Seattle	Local Exits for Seattle
No Through Traffic	

Note: No Trucks on Dearborn Street alternative.

Note: Use Airport Way if roadway is open.

Note: Coordination with Metro Transit required, due to large number of buses impacted. Consider priority treatment of bus traffic.



Puget Sound Regional Transportation Recovery Plan					
21 - Closure of I-5 I-90 Interchange King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert		√	√		I-5, I-405, I-90, SR 509, SR 520
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, I-90 HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure		√	√		Near Closure (I-90 and I-5)
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		
Parking Eliminate/Restrict	√	√	√		
Turn Prohibitions	√	√	√		
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
21 - Closure of I-5 I-90 Interchange King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
21-Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #22 - Closure of SR 99 Alaska Way Viaduct to Battery Street Tunnel

A. General Information

The Seattle Department of Transportation (SDOT) is responsible for closing and inspecting the Alaska Way Viaduct. The closure of SR 99 Alaskan Way Viaduct may also restrict access to piers and terminals along the waterfront in downtown Seattle. Washington State Ferries (WSF) routes from downtown Seattle to Bainbridge Island and Bremerton may need to be rerouted out of Fauntleroy or Edmonds. The Alaskan Way Viaduct Emergency Traffic Management and Closure Plan outlines WSF alternative routes and pre-negotiated agreements with transit authorities.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. Seattle DOT
2. WSDOT
3. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. City of Seattle Office
2. King County Office of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers (EOC)/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1

function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Short term solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. Set-up highway detours signage for rerouting traffic. Relocating passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See also the SDOT Alaskan Way Viaduct Emergency Traffic Management and Closure Plan (July 2005). See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

Several Mid-Term Alternatives have been identified such as Turn Prohibitions on One-Way Couplets. Other alternatives include: Eliminate or restrict parking on Roy St., Tele-commuting, Staggered Work Shifts, Electronic Signage and/or Surveillance, as well as Compressed Work Week. Relocating passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See also the SDOT Alaskan Way Viaduct Emergency Traffic Management and Closure Plan (July 2005). Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Long Term options include Truck Restrictions due to turning radii, changing HOV rules on I-5, transit service increase, bike lanes, freeway ramp metering on I-5, incorporating technology in

traffic signal interconnects. Relocating passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

Bainbridge Island Ferry Terminal



Edmonds Ferry Terminal



Bremerton Ferry Terminal



Fauntleroy Ferry Terminal



Vashon Island Ferry Terminal



Southworth Ferry Terminal





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
22 - Closure of SR 99 Alaskan Way Viaduct to Battery St. Tunnel – Seattle, King County	
North to South Local Routing	South to North Local Routing
SR 99 Southbound	SR 99 Northbound
SR 99 Southbound Exit for Denny Way Ramp to Denny Way (Traffic Signal)	SR 99 Northbound Exit for Michigan St
Denny Way Eastbound	S Michigan St Eastbound
Denny Way Eastbound to Yale Ave	S Michigan St Eastbound to S Bailey St (Traffic Signal)
Yale Ave Southbound	S Bailey St Eastbound to Ramp to I-5
Yale Ave Southbound to I-5 Ramp	Ramp to I-5 Northbound
I-5 Southbound	I-5 Northbound
I-5 southbound Exit 162 (Corson Ave)	I-5 Northbound Exit 167 (Mercer St)
I-5 Ramp to Corson Ave	Ramp to Mercer St
Corson Ave S Southbound	Fairview Ave N Northbound (Traffic Signal)
Corson Ave S Southbound to Michigan St (Traffic Sig)	Valley St Westbound (Traffic Signal)
Michigan St S Westbound	Broad St Westbound
Michigan St S Westbound to SR 99 Ramp (Traffic Sig)	Roy St Westbound
Ramp to SR 99	SR 99 Northbound (Aurora Ave)
SR 99 Southbound	

Note: One Way Couplets - Denny Way/ Valley St-Roy St, and S Bailey St/Corson Ave.

Note: Local access to Seattle destinations from I-5 exits.

Note: Construction planned to relive Mercer congestion by 2016

Note: Northbound I-5 detour should extend to 105th Street. No trucks West to SR 99

Note: Southbound 99 exits to I-5 at 105th Street

Note: Denny Way and Mercer Street are local access only. NO TRUCKS



DeLorme Street Atlas USA® 2010

Closure of SR 99 AW Viaduct to Battery St Tunnel Level of Service on Alternates



Puget Sound Regional Transportation Recovery Plan					
22 - Closure of SR 99 Alaskan Way Viaduct to Battery St Tunnel - Seattle, King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert				√	
HOV Lanes – New				√	
HOV Rules - Change		√	√		I-5 HOV 3, HOV 4
Construct HOV Bypass				√	
Ramp Metering			√		I-5
Freeway Ramps - New				√	
Freeway Ramps – Closure				√	
Truck Restrictions	√	√	√		Turning Radii
Truck Preferences				√	
Shoulder - Convert to Driving Lane		√	√		
Parking Eliminate/Restrict	√	√	√		Roy St
Turn Prohibitions	√	√	√		One Way Couplets
Ferry Service Relocation	√	√	√		Restricted Access to Terminal?
Ferry Service New				√	
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives		√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days				√	
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New				√	
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use				√	
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
22 - Closure of SR 99 Alaskan Way Viaduct to Battery St Tunnel - Seattle, King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets	√	√	√		The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations	√	√	√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service	√	√	√		
Determine personnel required and availability of alternative maritime transportation	√	√	√		
Meet with stakeholders to discuss options for alternative maritime transportation	√	√	√		
Determine long-term contracting needs	√	√	√		
Identify recovery options for alternative maritime transportation	√	√	√		
Develop long-term contracting procedures	√	√	√		

Puget Sound Regional Transportation Recovery Plan					
22 - Roadway Reconstruction Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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Appendix B

Scenario #23 - Closure of I-5/SR 520 Interchange

A. General Information

Stakeholders presented a number of routes as suitable alternatives for this scenario involving closure of the I-5, SR 520 Interchange. The primary route entails diverting traffic from I-5 to I-405, and for downtown Seattle access, traffic will divert from I-405 to I-90 to I-5. North bound local only access lanes can be used to divert traffic from SR 520 to SR 513 to local streets. Lake Washington could be used as an additional transportation corridor for passenger-only ferries at various locations. See Maps and Alternate Routing Plan for specific and additional information.

B. Lead Agency

(Agency or agencies with the primary responsibility to implement alternative routes)

1. WSDOT
2. WSP

C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes to be used as alternatives)

1. City of Seattle
2. Emergency Services Coordinating Agency (ESCA)
3. King County Office of Emergency Management (OEM)
4. Snohomish County Department of Emergency Management (DEM)

D. Transportation Disruption Notification

The State, counties, and other jurisdictions use a number of methods for notifying and coordinating transportation disruptions among state agencies, local jurisdictions and other transportation stakeholders. The agency having jurisdiction over a particular route, bridge, interchange or segment is responsible for notifying appropriate stakeholders in accordance with their respective emergency notification plans and procedures.

When disruptions occur on local routes, and detours and alternatives may impact state routes, WSDOT may be notified if local jurisdictions coordinate through WSDOT Regional Emergency Operations Centers/Traffic Management Centers or through the State Emergency Operations Center. WSDOT may also get this information through WebEOC if EOCs are activated, from staff reports from the field, direct contact with local jurisdictions in the field or through liaisons placed in local EOCs.

If alternatives and detours are established for routes where WSDOT is the lead agency and coordination with local jurisdictions is necessary, WSDOT will provide information through their Regional EOCs/Traffic Management Centers to local jurisdictions and transportation agencies to coordinate detour implementation. The WSDOT EOC will also coordinate through the ESF – 1 function at the State Emergency Operations Center. The State EOC will disseminate the information to local governments in accordance with State notification procedures.

When notified of diversions and detours on state routes that may impact local traffic flow, local jurisdictions will notify their respective departments, Department Operations Centers (DOCs), municipalities, and other transportation stakeholders, such as fire districts, school districts, transit agencies and ports in accordance with local notification procedures.

E. County Emergency Operations Center Notification Concept

1. King County Emergency Coordination Center will notify Auburn Emergency Management, Bellevue Emergency Preparedness, Bothell Emergency Preparedness, Federal Way Emergency Management, Issaquah Emergency Management, Kent Emergency Management, Kirkland Emergency Management, Mercer Island Emergency Services, Redmond Office of Emergency Management, Renton Emergency Management, Seattle Office of Emergency Management, Shoreline Emergency Services, Skykomish Emergency Management, Snoqualmie Emergency Management, Tukwila Emergency Services and Woodinville Emergency Management as well as the Cities of Burien, Normandy Park, SeaTac and Des Moines and the Muckleshoot and Snoqualmie Tribes.
2. Emergency Services Coordinating Agency (ESCA) Emergency Operations Center will notify the cities of Brier, Edmonds, Kenmore, Lake Forest Park, Lynnwood, Mountlake Terrace, Mill Creek and Woodway.
3. Snohomish County Emergency Operations Center will notify Everett Emergency Management and Monroe Emergency Management as well as the jurisdictions and tribes with which they have an inter-local agreement which includes the Tulalip tribe, Marysville, Arlington, Stanwood, Darrington, Granite Falls, Lake Stevens, Index, Gold Bar, Sultan and Snohomish as well as the Stillaguamish Tribe.

F. Current Available Alternatives

Depending on damage and identified impacts, there are other detour alternatives on state and local routes.

G. Transportation Mitigation Strategies

1. Short Term Solutions

Stakeholders identified several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. Set-up highway detours signage for rerouting traffic. See Appendix E – Roadways Toolbox for further information.

2. Mid-Term Alternatives

Several Mid-Term Alternatives have been identified such as Turn Prohibitions on Boylston, Harvard, and Roanoke. Other alternatives include: Staggered Work Shifts, Compressed work week, Eliminate/Restrict Parking on Boylston, Harvard, and Roanoke, Alternate Driving Days, Bike Lanes, and Electronic Signage and/or Surveillance. Restoring this section of highway will require freight movement to and from the destructed area. See Appendix E – Roadways Toolbox for further information.

3. Long Term Options

Long Term options include convert lanes on I-5, I-405, SR 520 to HOV, truck restrictions, changing HOV rules, constructing HOV Bypass lanes to ease bottlenecks, convert shoulder to driving lanes (Boylston Alternative), establishing new transit service via ferry connections, establishing new ferry service, freeway ramp closure, implementing technology for signal interconnects, and freeway ramp metering. New passenger-only ferry service may be a viable option due to congestion on other primary routes to and from Seattle. See Appendix E – Roadways Toolbox for further information. See Appendix F – Toolbox for maritime alternatives for restoration of the transportation network.

H. Site Images for Alternative Route Landing Sites

UW Waterfront Activities Center



Leschi Park



Bellevue Meydenbauer Bay Marina



Kirkland Marina Park



Kenmore Tracy Owen Station Park



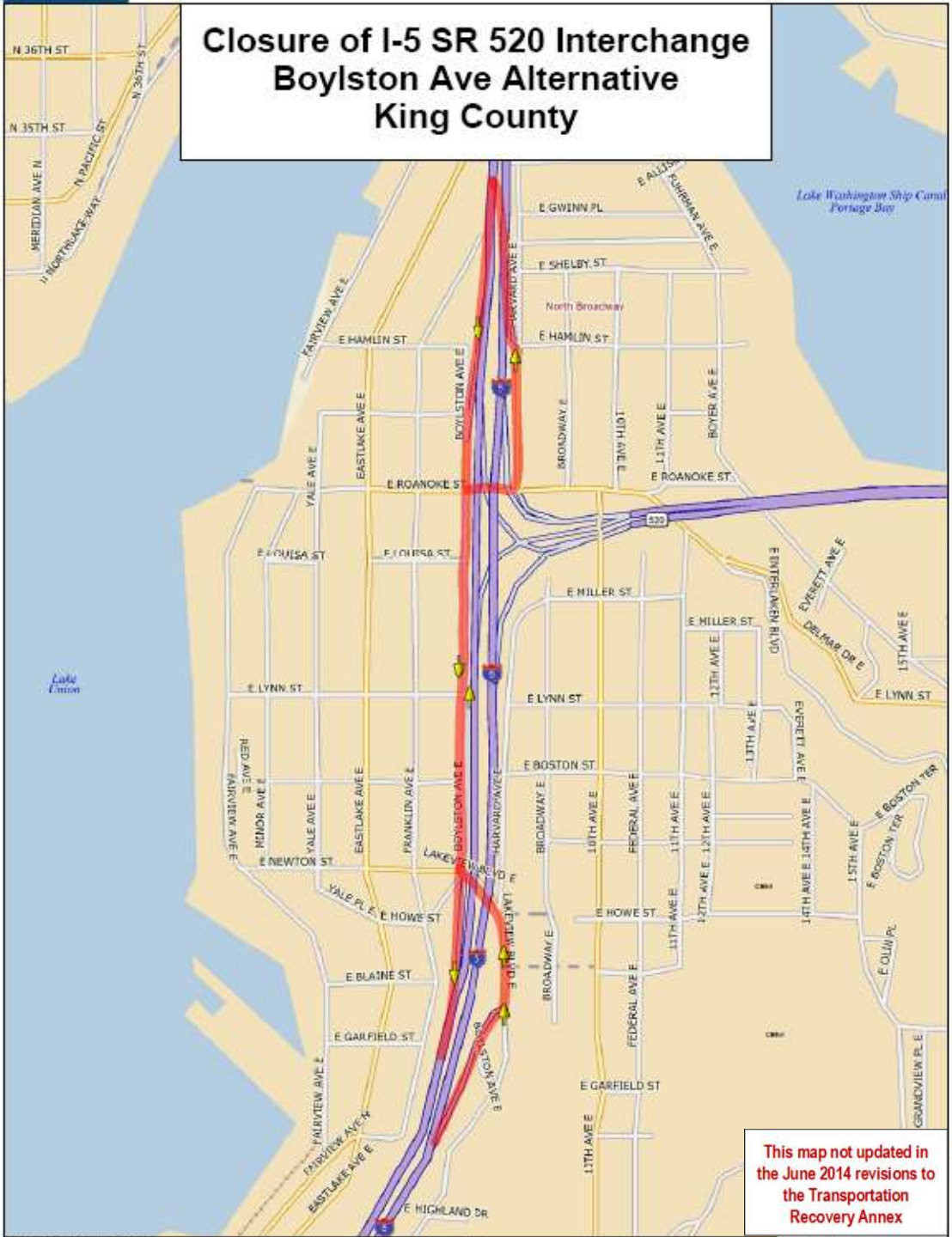
Renton – Bristol at Southport





DeLorme Street Atlas USA® 2009

Closure of I-5 SR 520 Interchange Boylston Ave Alternative King County



This map not updated in the June 2014 revisions to the Transportation Recovery Annex

Data use subject to license.
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www.delorme.com

Scale 1 : 9,600
1" = 800.0 ft Data Zoom 14-4

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
23 - Closure of I-5 SR 520 Interchange – King County	
North to South Routing (I-5 Through Traffic)	South to North Routing (I-5 Through Traffic)
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit 182 to I-405 Southbound	I-5 Northbound Exit 154 to I-405 Northbound
I-405 Southbound	I-405 Northbound
I-405 Southbound Exit to I-5 Southbound	I-405 Northbound Exit to I-5 Northbound.
I-5 Southbound	I-5 Northbound

Note: Local Access to University and North Seattle can be made via SR 520/ Montlake Bridge.

Note: SR 520 Connection to I-5 made via I-405/SR 520 Interchange.

Note: Downtown Seattle access via I-90.

Note: Consideration should be given for I-5 Southbound closure at 45th Ave.

Note: If conditions permit Southbound I-5 Traffic can exit at 168A (Boylston Ave) and use Boylston Ave Service Road Southbound to bypass closure. **Consider this alternative for emergency vehicles only.**

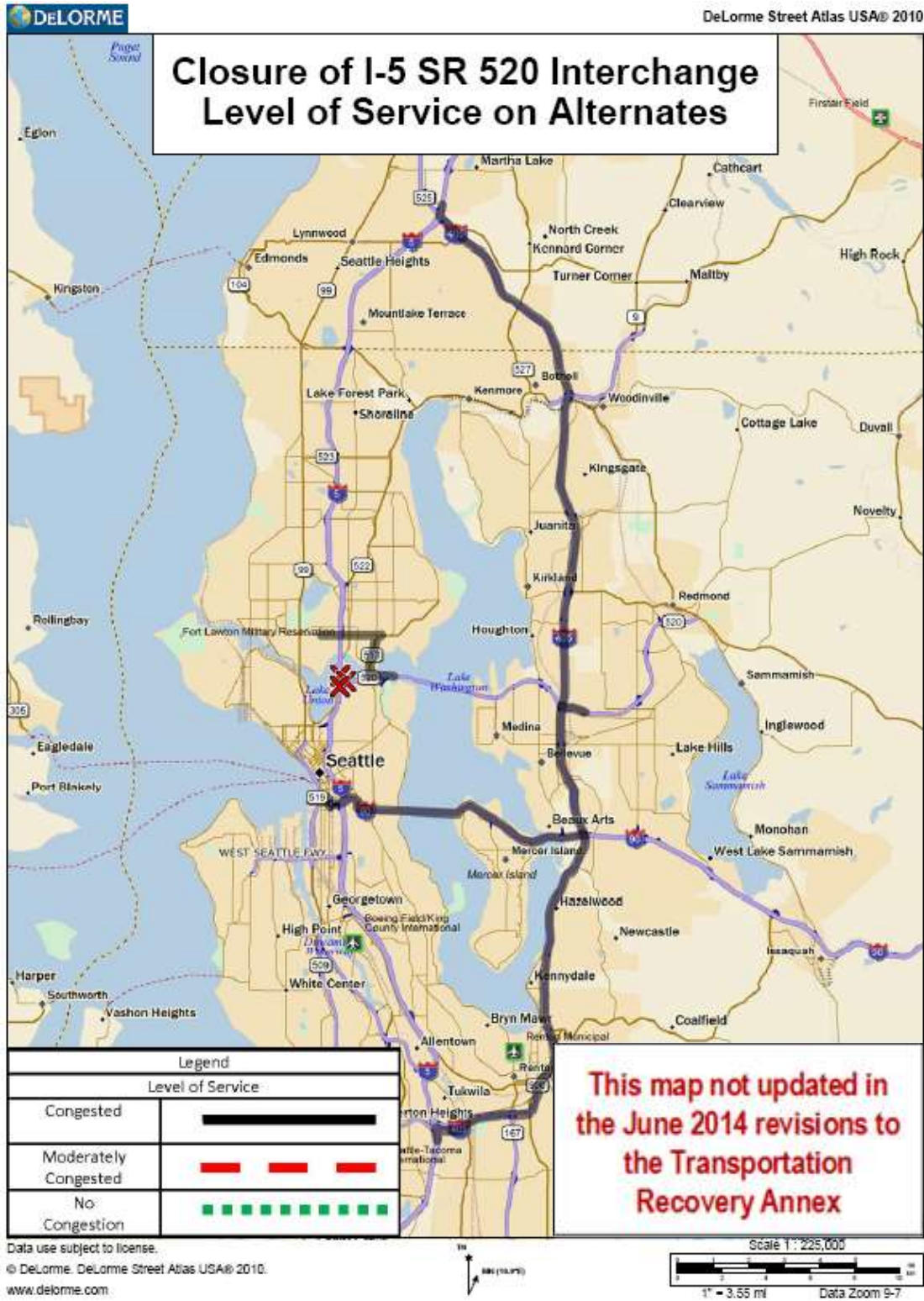
Note: If conditions permit, Northbound I-5 traffic can exit at 168A (Lakeview Blvd) and use Boylston Ave Service Road Northbound and Harvard Ave. (See map and below). **Consider this alternative for emergency vehicles only.**

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan	
23 - Closure of I-5 SR 520 Interchange – King County	
North to South Routing (Boylston Alternative)	South to North Routing (Boylston Alternative)
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit 168 A Boylston Ave	I-5 Northbound Exit 168A Lakeview Blvd
Boylston Ave Southbound	Lakeview Blvd. Northbound
Ramp to I-5 Southbound	Boylston Ave E Northbound
	E Roanoke St Eastbound
	Harvard Ave Northbound
	Ramp to I-5 Northbound

Note: Traffic should be monitored closely and traffic control improved where needed.

Note: Southbound traffic to Montlake from I-5 uses 45th Street

Note: Northbound traffic to I-5 from Montlake uses 50th Street



Puget Sound Regional Transportation Recovery Plan					
23 - Closure of I-5 SR 520 Interchange King County					
Mitigation Strategies					
Strategy	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Alternative Routing	√	√	√		
Adjust Traffic Signal Timings	√	√	√		
Contra-flow Lanes New				√	
HOV Lanes – Convert		√	√		I-5, I-405, SR 520
HOV Lanes – New				√	
HOV Rules - Change	√	√	√		I-5, I-405, HOV 3 or 4
Construct HOV Bypass			√		Bottlenecks
Ramp Metering	√	√	√		
Freeway Ramps - New				√	
Freeway Ramps – Closure		√	√		Near Closure (I-5)
Truck Restrictions	√	√	√		
Truck Preferences		√	√		Critical Supplies
Shoulder - Convert to Driving Lane		√	√		Boylston Alternative
Parking Eliminate/Restrict	√	√	√		Boylston, Harvard, Roanoke
Turn Prohibitions	√	√	√		Boylston, Harvard, Roanoke
Ferry Service Relocation				√	
Ferry Service New			√		UW/Kirkland-Kenmore-Bellevue (Pass. Only) Leschi Park/Bellevue (Pass only)
Ferry Service Increase Existing				√	
Congestion Pricing				√	
Vanpool Carpool Incentives	√	√	√		
Park – Ride Lots New/Expand	√	√	√		
Alternating Driving Days	√	√	√		
Bike Lanes		√	√		
Tolling Adjustments				√	
Transit Service New			√		Ferry Connections
Transit Service Increase		√	√		
Improved Incident Management (Patrols)	√	√	√		
Technology – Electronic Signing or Surveillance	√	√	√		
Technology – Signal Interconnects			√		
Convert trails to special motorized use		√	√		
Tele-commuting	√	√	√		
Staggered Work Shifts	√	√	√		
Compressed Work Week	√	√	√		
Emergency Responder Routes	√	√	√		
Adjust Fleet Size				√	

Puget Sound Regional Transportation Recovery Plan					
23 - Closure of I-5 SR 520 Interchange King County					
Maritime Elements					
Maritime Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Moving freight via military support for maritime assets				√	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			√		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			√		
Determine personnel required and availability of alternative maritime transportation			√		
Meet with stakeholders to discuss options for alternative maritime transportation			√		
Determine long-term contracting needs			√		
Identify recovery options for alternative maritime transportation			√		
Develop long-term contracting procedures			√		

Puget Sound Regional Transportation Recovery Plan					
23 - Roadway Reconstruction Toolbox Elements					
Roadway Reconstruction Elements	Implementation				Comments
	Short-Term	Mid-Term	Long-Term	Not Feasible Or N/A	
Debris removal of damaged roadway and roadway structures	√				
Prioritize segment restoration/reconstruction	√				
Provide engineering contract mechanisms (assume design-build for roadways and roadway structures of high priority)	√				
Meet with stakeholders to discuss options		√			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		√			
Identify recovery options for the roadway section			√		
Coordinate with utility purveyors for utilities in roadway rights-of-way			√		
Develop long-term contracting procedures			√		

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