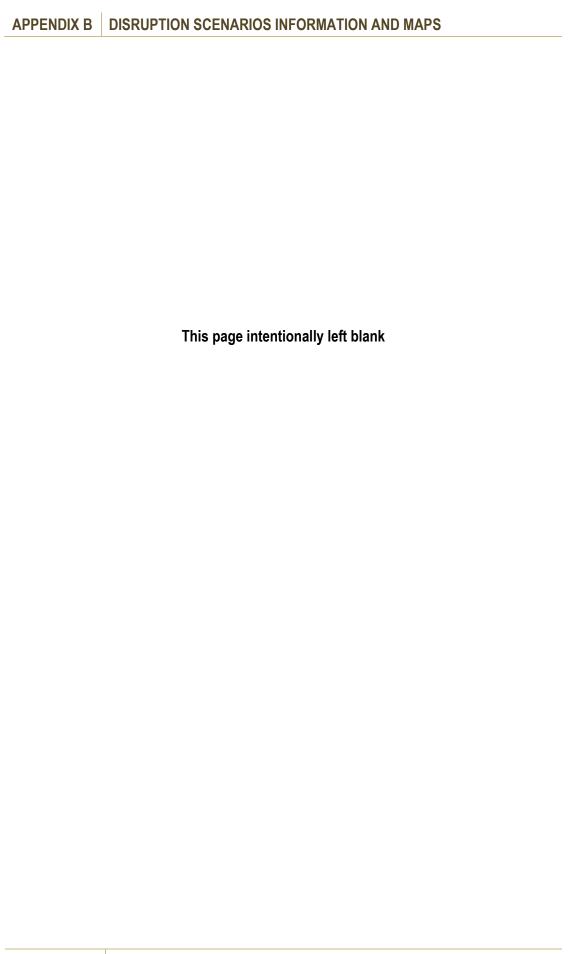
# Pierce County



# Appendix B Scenario #29 – Closure of All Bridges over Puyallup River

#### A. General Information

Both land and marine routes serve as suitable alternatives for this scenario involving the closure of all bridges. The land route (eastern route) alternative entails diverting traffic at I-90, SR 97, I-82, I-84, I-205 to I-5 in Olympia. The maritime routes include a Bremerton/Seattle Ferry alternative as well as a Downtown Tacoma/Des Moines route, a Browns Point/Downtown route and a Point Defiance/Des Moines route. See Maps and Alternate Routing Plan for specific and additional information.

The Puget Sound could be used as an additional transportation corridor for freight and passengeronly ferries.

# 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)

- King County Office of Emergency Management (OEM)
- 2. Kitsap County Department of Emergency Management (DEM)
- 3. Pierce County Department of Emergency Management (DEM)
- 4. 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 though 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. Kitsap County Emergency Operations Center will notify the jurisdictions with which they have inter-local agreements including Bainbridge Island, Port Orchard, Bremerton and Poulsbo as well as the S'Klallam and Suguamish Tribes.
- 3. 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.
- 4. 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

Route 16 to Route 3 to Washington State Ferry Terminals on the Olympic Peninsula can be used for traffic headed north to Seattle. There are other alternatives available 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. 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. Other alternatives include: 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. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

#### 3. Long Term Options

Long Term options include truck restrictions due to unsafe truck routes, truck preferences, changing HOV rules, constructing HOV Bypass to ease bottleneck, convert shoulder to driving lanes, establishing new transit service via ferry connections, establish new ferry service and increase ferry services, freeway ramp metering, freeway ramp closure at interchanges near closure point and incorporating technology in traffic signal interconnects. New 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

**Browns Point Marinas** 



**Des Moines Marina** 



**Point Defiance** 



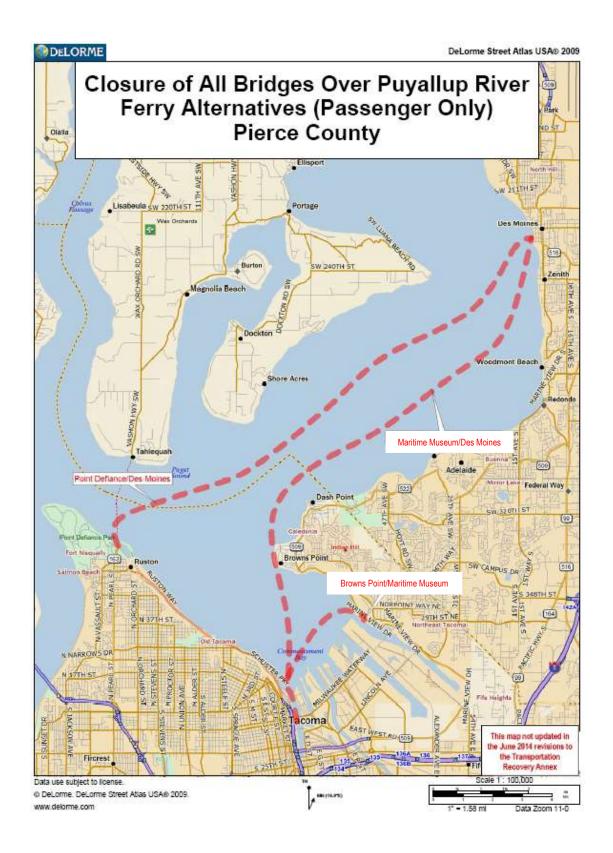
**Downtown Tacoma** 





Note: Coordination required with State of Oregon for I-84 route.

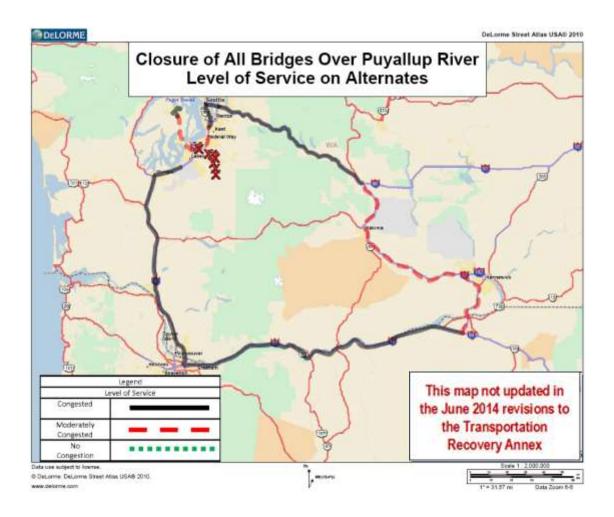
Note: New Maritime Museum on Dock Street in Tacoma is a preferred alternative passenger only ferry service to Tacoma for Transit pick up and drop off.



Puget Sound Regional Transportation R	Recovery Plan – Alternative Routing Plan
	Puyallup River – Pierce County
North to South (Ferry Route)	South to North (Ferry Route)
I-5 Northbound - Tacoma Area	I-5 Northbound – Tacoma Area
I-5 Southbound (Exit 164B) (4th Ave South)	I-5 Northbound Exit 132 – SR 16 Westbound
Ramp to 4th Ave S	Ramp to SR 16 Westbound
4th Ave S Southbound	SR 16 Westbound
SR 519 Northbound (Royal Brougham) (Traffic	SR 16 Westbound Exit for SR 3 North (Gorst)
Sig.)	SR 3 Northbound
SR 519 Northbound (Royal Brougham Way	SR 3 Northbound Exit 36 for SR 304 Eastbound
West)	SR 304 Eastbound (S Charleston Blvd)
SR 519 Northbound (Alaskan Way) (Traffic	Sr 304 Eastbound (Callow Ave N)
Signal)	SR 304 Eastbound (Burwell St) (Traffic Signal)
SR 519 Northbound (Alaskan Way to Ferry	SR 304 Eastbound (Warren Ave N) (Traffic
Term.)	Signal)
Seattle Ferry Terminal	4th St Eastbound (Traffic Signal)
Ferry (Seattle/Bremerton) SR 304 Westbound (Pacific Ave)	SR 304 Eastbound (Pacific Ave) (Traffic Signal) Bremerton Ferry Terminal
SR 304 Westbound (Burwell St)	Ferry (Bremerton/Seattle)
SR 304 Westbound (Callow Ave N) (Traffic	Seattle Ferry Terminal
Signal)	SR 519 Southbound (Alaskan Way)
SR 304 Westbound (S Charleston Ave)	SR 519 Southbound to S Atlantic St Eastbound
SR 304 Westbound (S Charleston) Ramp to SR	S Atlantic St Ramp to I-5 Southbound
3	I-5 Southbound to Tacoma Area
SR 3 Southbound	
SR 3 Southbound Exit for SR 16 Eastbound	
SR 16 Eastbound	
SR 16 Eastbound Exit for I-5 (Tacoma Area)	

Note: Passenger only ferry alternative possible Downtown Tacoma, Point Defiance, Des Moines (see Map).

Puget Sound Regional Transportation F	lecovery Plan – Alternative Routing Plan				
29 - Closure of all Bridges over Puyallup River – Pierce County					
North to South (Secondary I-5 Through Traffic)	South to North (Secondary I-5 Through Traffic)				
I-5 to I-90	I-5 Southbound – Tacoma Area				
I-90 Eastbound Exit 110 (I-82)	I-5 Southbound				
I-82 Eastbound (to Oregon State Line)	I-5 Southbound Exit 7 (I-205 Southbound)				
I-82 Eastbound Exit for I-84 Westbound	I-205 Southbound (to Oregon State Line)				
I-84 Westbound	I-205 Southbound Exit for I-84 Eastbound				
I-84 Westbound Exit for I-205 Northbound	I-84 Eastbound				
I-205 Northbound (to Washington State Line)	I-84 Eastbound Exit for I-82 Westbound				
I-205 Northbound Exit for I-5 Northbound	I-82 Westbound (Washington State Line)				
I-5 Northbound (Interchange 7)	I-82 Westbound to I-90				
I-5 Northbound	I-90 Westbound (Interchange 110)				
I-5 Northbound (to Tacoma area)	I-90 Westbound to Seattle Area				



Puget Sound Regional Transportation Recovery Plan											
29 - Closure of All Bridges over Puyallup River - Pierce County											
Mitigation Strategies											
							Implementation				
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments						
Alternative Routing		$\sqrt{}$	$\sqrt{}$								
Adjust Traffic Signal Timings			$\sqrt{}$								
Contra-flow Lanes New			$\sqrt{}$		I-5						
HOV Lanes – Convert			$\sqrt{}$		I-5						
HOV Lanes – New				$\sqrt{}$							
HOV Rules - Change			$\sqrt{}$		I-5 HOV-3, HOV-4						
Construct HOV Bypass			$\sqrt{}$		Bottleneck Areas						
Ramp Metering			$\sqrt{}$		I-5						
Freeway Ramps - New				$\sqrt{}$							
Freeway Ramps – Closure			V		Interchanges near closure point						
Truck Restrictions		$\sqrt{}$	$\sqrt{}$		Unsafe Truck Routes						
Truck Preferences			$\sqrt{}$		Critical Supplies						
Shoulder - Convert to Driving Lane		$\sqrt{}$	$\sqrt{}$								
Parking Eliminate/Restrict			$\sqrt{}$								
Turn Prohibitions			$\sqrt{}$								
Ferry Service Relocation				$\sqrt{}$							
Ferry Service New			V		Des Moines /Tacoma/Browns Pt./Point Defiance						
Ferry Service Increase Existing			$\sqrt{}$		Bremerton/Seattle						
Congestion Pricing			$\sqrt{}$		Tacoma Narrows						
Vanpool Carpool Incentives	$\sqrt{}$		$\sqrt{}$								
Park – Ride Lots New/Expand		$\sqrt{}$	$\sqrt{}$								
Alternating Driving Days		$\sqrt{}$	$\sqrt{}$								
Bike Lanes			$\sqrt{}$								
Tolling Adjustments			$\sqrt{}$		Tacoma Narrows						
Transit Service New		$\sqrt{}$	$\sqrt{}$		Ferry Connections						
Transit Service Increase		$\sqrt{}$	$\sqrt{}$								
Improved Incident Management (Patrols)	$\checkmark$	<b>V</b>	V								
Technology – Electronic Signing or Surveillance	$\checkmark$	$\sqrt{}$	V								
Technology – Signal Interconnects				$\sqrt{}$							
Convert trails to special motorized use				$\sqrt{}$							
Tele-commuting				V							
Staggered Work Shifts				$\sqrt{}$							
Compressed Work Week				V							
Emergency Responder Routes	V	V	V	V							
Adjust Fleet Size	V	V	٧	$\sqrt{}$							
Aujust i leet olze				V							

Puget Sound Regional Transportation Recovery Plan						
29 - Closure of All Bridges over Puyallup River - Pierce County						
Maritime Elements Implementation						
		impierr	ientation	Not		
Maritime Elements	Short- Term	Mid- Term	Long- Term	Feasible Or N/A	Comments	
Moving freight via military support for maritime assets				V	The State EOC will remain activated if federal assets are being used.	
Determine feasibility of alternative ferry service locations		$\checkmark$	$\sqrt{}$		See attached spreadsheet for determining the feasibility of locations.	
Determine contracting mechanisms for new, relocated, or increased ferry service		√	<b>√</b>		·	
Determine personnel required and availability of alternative maritime transportation		$\checkmark$	$\sqrt{}$			
Meet with stakeholders to discuss options for alternative maritime transportation		$\checkmark$	$\checkmark$			
Determine long-term contracting needs		$\checkmark$	$\checkmark$			
Identify recovery options for alternative maritime transportation		$\checkmark$	$\checkmark$			
Develop long-term contracting procedures		$\checkmark$	$\checkmark$			

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

# **Appendix B Scenario #30 – Closure of the Tacoma Narrows Bridge**

#### A. General Information

For the closure of the Tacoma Narrows Bridge, there is one route presented as alternative for this scenario. The primary route entails diverting traffic from SR 16 onto SR 3 in Gorst to US 101 to I-5. In addition, the Puget Sound (Tacoma Narrows) could be used as an additional transportation corridor for passenger-only ferries. 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)

- WSDOT
- 2. WSP

# C. Supporting and Coordinating Agencies and Jurisdictions

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

- 1. Kitsap County Department of Emergency Management (DEM)
- Mason County Office of Emergency Management (OEM)
- 3. Pierce County Department of Emergency Management (DEM)
- 4. 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 though 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. Kitsap County Emergency Operations Center will notify the jurisdictions with which they have inter-local agreements including Bainbridge Island, Port Orchard, Bremerton and Poulsbo as well as the S'Klallam and Suquamish Tribes.
- 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 Muckleshoot and Snoqualmie Tribes.
- 3. 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.
- 4. 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

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.

The Tacoma Narrows Bridge is located over a navigable waterway. Thus, opening and closing of the bridge is subject to the U.S. Coast Guard approval.

#### 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: Staggered Work Shifts, Compressed work week, Eliminate/Restrict Parking on SR 3, 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. 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 in Shelton depending on time of day; changing HOV rules, establishing new HOV lanes, convert shoulder to driving lanes, establishing new transit service via ferry connections, establishing new ferry service, and freeway ramp metering.

New passenger-only ferry service may be a viable option due to congestion. See Appendix E – Roadways Toolbox for further information. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

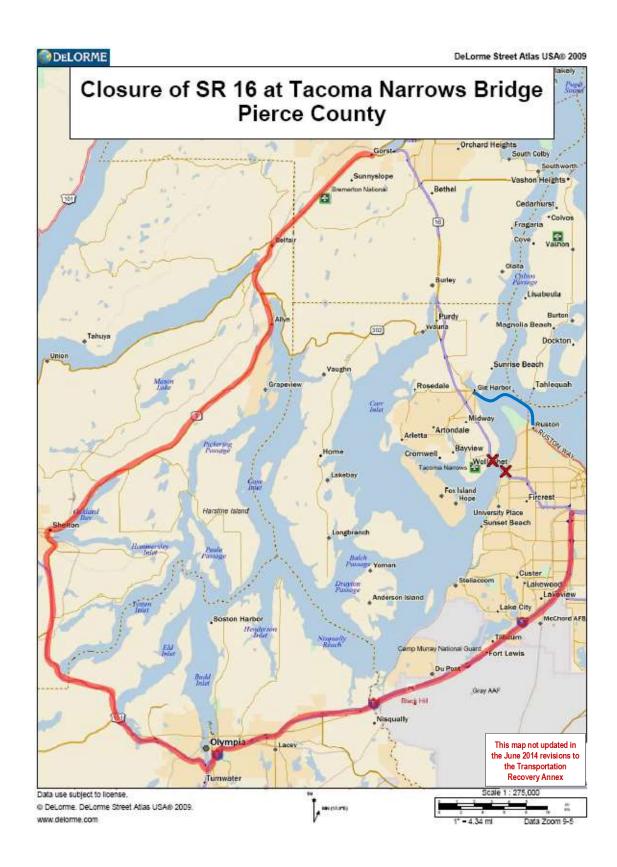
# H. Site Images for Alternative Route Landing Sites

**Point Defiance** 



Gig Harbor





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
30 - Closure of SR 16 Tacoma Narrows Bridge – Pierce County					
North to South Routing	South to North Routing				
SR 3 Southbound in Gorst	SR 16 Southbound				
Note: Local traffic from Gig Harbor must use SR	I-5 Southbound (Interchange132) to Olympia				
16 Northbound to Gorst	I-5 Southbound (Exit 104)				
SR 3 Southbound to Shelton	US 101 Northbound to Shelton				
SR 3 Southbound (E Pine St)	SR 3 Northbound (SE Olympic Hwy S)				
SR 3 Southbound (N Front St)	SR 3 Northbound (Olympic Hwy S)				
SR 3 Southbound (W Railroad Ave)	SR 3 Northbound (N 1st St)				
SR 3 Southbound(N 1st St)	SR 3 Northbound (W Railroad Ave)				
SR 3 Southbound (Olympic Hwy S)	SR 3 Northbound (N Front St)				
SR 3 Southbound (SE Olympic Hwy S)	SR 3 Northbound (E Pine St)				
US 101 Southbound to Olympia	SR 3 Northbound to Gorst				
I-5 Northbound (Interchange 104) to Tacoma	SR 3 Northbound				
I-5 Northbound (Exit 132)	Note: Local traffic to Gig Harbor must use SR 16				
Note: Local traffic to Ruston and University	Southbound at Gorst				
Place uses SR 16 Northbound					

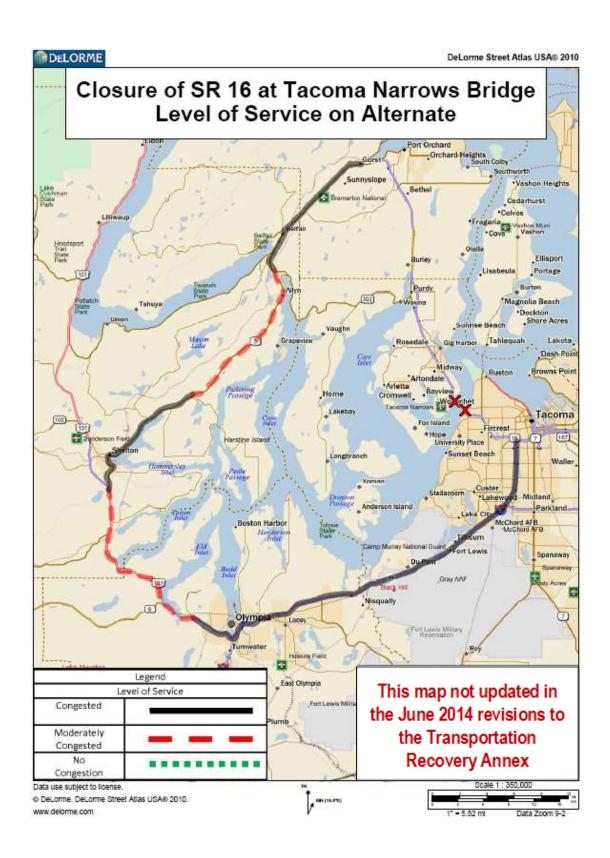
**Note:** Regional through traffic originating or destined for areas south of Olympia must be routed on and off this regional alternative route at I-5 in Olympia.

**Note:** Possible passenger only ferry service from Point Defiance to Gig Harbor.

**Note:** Two Way Traffic is possible on one span of Tacoma Narrows Bridge using crossover roadways.

**Note:** Steilacoom Ferry Dock may be an alternative for a maritime route for south bound bridge traffic.

**Note:** Maritime Pier (N of Tides Tavern) in Gig Harbor and Maritime Museum dock and parking area may be a better option for a Gig Harbor-Tacoma maritime route.



Puget Sound Regional Transportation Recovery Plan							
30 - Closure of SR 16 at Tacoma Narrows Bridge							
Mitigation Strategies							
		Implementation					
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments		
Alternative Routing							
Adjust Traffic Signal Timings	$\sqrt{}$	$\sqrt{}$					
Contra-flow Lanes New				$\sqrt{}$			
HOV Lanes – Convert				$\sqrt{}$			
HOV Lanes – New			$\sqrt{}$		I-5		
HOV Rules - Change					HOV 2, HOV 3, HOV 4		
Construct HOV Bypass				$\sqrt{}$			
Ramp Metering			V		I-5		
Freeway Ramps - New				$\sqrt{}$			
Freeway Ramps - Closure				V			
Truck Restrictions		V	V		Shelton (Time of Day)		
Truck Preferences				$\sqrt{}$	` ',		
Shoulder - Convert to Driving			1		I-5		
Lane			$\sqrt{}$				
Parking Eliminate/Restrict		V	V		SR 3		
Turn Prohibitions				$\sqrt{}$			
Ferry Service Relocation				V			
Ferry Service New			V		Point Defiance/Gig Harbor		
Ferry Service Increase Existing				$\sqrt{}$	J		
Congestion Pricing				V			
Vanpool Carpool Incentives		$\sqrt{}$	V				
Park – Ride Lots New/Expand		V	V				
Alternating Driving Days				$\sqrt{}$			
Bike Lanes				V			
Tolling Adjustments				Ž			
Transit Service New			V	·	Connect to Ferry		
Transit Service Increase				$\sqrt{}$	,		
Improved Incident Management	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				
(Patrols)							
Technology – Electronic Signing	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				
or Surveillance				.1			
Technology – Signal Interconnects				<b>V</b>			
Convert trails to special motorized				$\sqrt{}$			
USE	2	- 1	2				
Tele-commuting	<b>V</b>	V	V				
Staggered Work Shifts	1	1	1				
Compressed Work Week	V	V	1				
Emergency Responder Routes			V	. 1			
Adjust Fleet Size				$\sqrt{}$			

Puget Sound Regional Transportation Recovery Plan						
30 - Closure of SR 16 at Tacoma Narrows Bridge						
Maritime Elements Implementation						
				Not		
Maritime Elements	Short- Term	Mid- Term	Long- Term	Feasible Or N/A	Comments	
Moving freight via military support for maritime assets				V	The State EOC will remain activated if federal assets are being used.	
Determine feasibility of alternative ferry service locations			<b>√</b>		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			$\checkmark$			
Meet with stakeholders to discuss options for alternative maritime transportation			$\checkmark$			
Determine long-term contracting needs			$\sqrt{}$			
Identify recovery options for alternative maritime transportation			$\checkmark$			
Develop long-term contracting procedures			$\sqrt{}$			

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

# Appendix B Scenario #31 – Closure of I-5/SR 16 Interchange

#### A. General Information

Stakeholders presented two routes as suitable alternatives for the closure of I-5 SR 16 Interchange. The primary route entails diverting traffic from the I-5 SR 16 interchange onto SR 512 to SR 167 to I-405 back onto I-5. This is strictly a local alternative and would not be suitable for freight trucks. Passenger only ferry service could be established between Des Moines and Tacoma. 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)

- 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. City of Tacoma

# 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 though 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.

#### 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 establishing or expanding Park and Ride lots. The installation of additional traffic lights and one-way routing for east/west couplets would be suitable. 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 Tacoma Way, Union, and Center. Other alternatives include: 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 preferences such as port access from Diversion Rt., changing HOV rules, convert shoulder to driving lanes at E 26th St Ramp, establishing new transit service via ferry connections, freeway ramp metering, and incorporating technology in traffic

signal interconnects at S 56h St, Tacoma Way, Union. See Appendix E – Roadways Toolbox for further information.

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

# H. Site Images for Alternative Route Landing Sites

**Browns Point Marinas** 



**Des Moines Marina** 



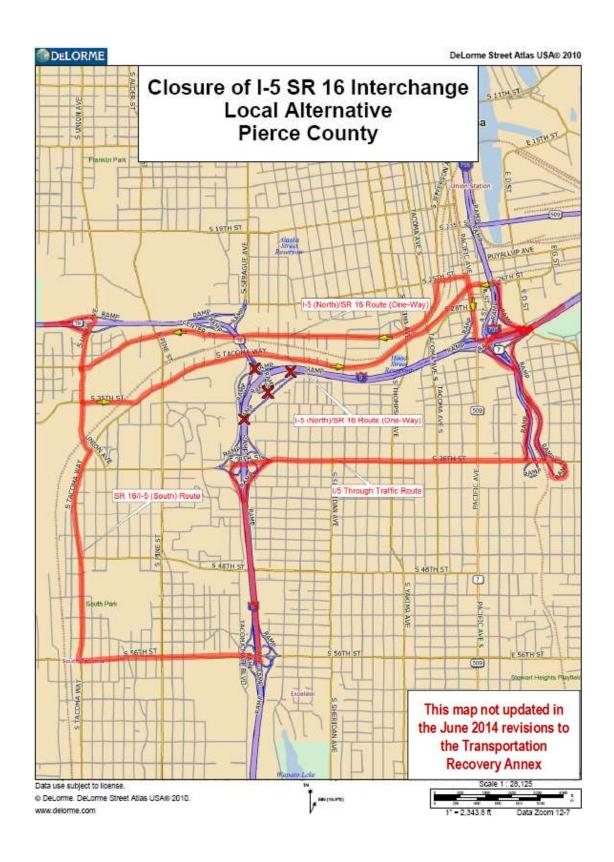
**Point Defiance** 

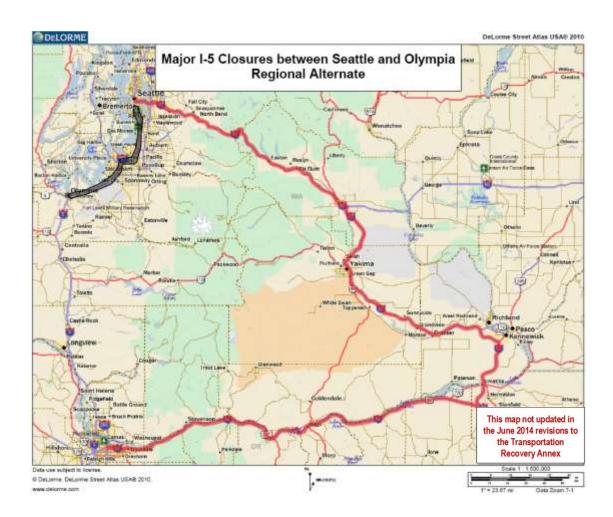


**Downtown Tacoma** 









Puget Sound Regional Transportation R	ecovery Plan – Alternative Routing Plan
	ocal Traffic Alternative) – Pierce County
I-5 Through Traffic	I-5 Through Traffic
North to South	South to North
I-5 Southbound I-5 Southbound Exit 133 (SR 7 Southbound) SR 7 Southbound SR 7 Southbound Exit for SR 7 South (38th St West) S 38th St Westbound S 38th St Westbound Ramp for I-5 Southbound (TS) I-5 Southbound (Interchange 132) I-5 Southbound	I-5 Northbound I-5 Northbound Exit 132 (S 38th St) S 38th St Eastbound SR 7 Northbound (S 38th St) SR 7 Northbound Exit for SR 7 North (to I-5) SR 7 Northbound SR 7 Northbound Exit for I-5 Northbound I-5 Northbound
I-5 (North) Southbound to SR 16 North to West (One-Way Couplet)	SR 16 to I-5 North West to North (One-Way Couplet)
I-5 Southbound I-5 Southbound Exit 133 (I-705Northbound) Ramp to E 26th St (Tacoma Dome) E 26th St Westbound (Traffic Signal) Pacific Ave Northbound S 25th St Westbound Center St Westbound S Union Ave Northbound S Union Ave Northbound S Union Ave Northbound Ramp to SR 16 North SR 16 Northbound	SR 16 Southbound SR 16 Southbound Exit to Union Ave. S Union Ave Southbound S Union Ave Southbound Exit for S Tacoma Way S Tacoma Way Eastbound S 26th St Eastbound (Traffic Signal) A St Southbound A St Southbound Ramp for I-5 Northbound I-5 Northbound
I-5 (North) to SR 16 South to West (One-Way Couplet)	SR 16 to I-5 (North West to South (One-Way Couplet)
I-5 Northbound I-5 Northbound Exit 132 (S 38th St West) S 38th St Westbound S 38th St Westbound to S Union Ave Northbound S Union Ave Northbound S Union Ave Northbound Ramp to -SR 16 Northbound (Traffic Signal) SR 16 Northbound	SR 16 Southbound SR 16 Southbound Exit to Union Ave. S Union Ave Southbound S 38th St Eastbound (Traffic Signal) S 38th St Eastbound S 38th St Eastbound S 38th St Eastbound I-5 Southbound (Interchange 132) I-5 Southbound
I-5 (South) to SR 16 South to West	SR 16 to I-5 (South) West to South
I-5 Northbound I-5 Northbound Exit 130 (S 56th St West) S 56th St Westbound S 56th St Westbound to S Tacoma Wy Northbound S Tacoma Way Northbound to South Union Ave South Union Ave Northbound S Union Ave Northbound Ramp to -SR 16 Northbound (Traffic Signal) SR 16 Northbound	SR 16 Southbound SR 16 Southbound Exit to Union Ave. S Union Ave Southbound to South Tacoma Way South Tacoma Way Southbound S 56th St Eastbound (Traffic Signal) S 56th St Eastbound S 56th St Eastbound Ramp to I-5 Southbound I-5 Southbound (Interchange 130) I-5 Southbound

Note: One Way Couplet using Tacoma Way (Eastbound) and Center St (Westbound).

Note: Routing provides circumferential route. Directional signing should be based on Route and

compass direction (e.g. To SR 16 and Points West).

**Note:** Portland Ave could be used for through traffic.

Note: Local consideration to use 19th St.

**Note:** Temporary signal(s) may be necessary at 36<sup>th</sup> St.

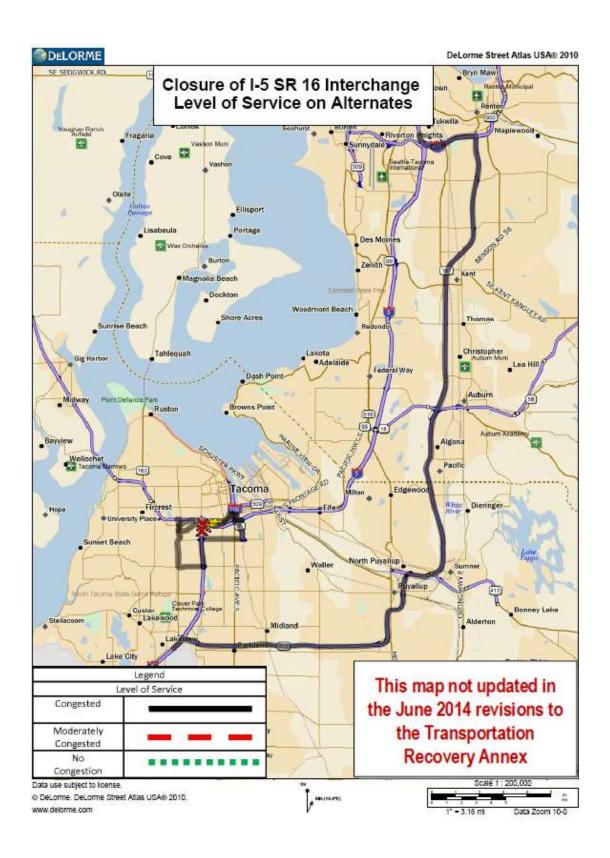
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
31 - Closure of I-5 SR 16 Interchange – Pierce County					
I-5 Through Traffic	I-5 Through Traffic				
North to South	South to North				
I-5 Southbound	I-5 Northbound				
I-5 Southbound Exit 154 (I-405)	I-5 Northbound Exit 127 (SR 512)				
I-405 Northbound	SR 512 Eastbound				
I-405 Northbound Exit 2 (SR 167)	SR 512 Eastbound Exit for SR 167				
SR 167 Southbound	SR 167 Northbound				
SR 167 Southbound Exit for SR 512	SR 167 Exit for I-405				
SR 512 Westbound	I-405 Southbound (Interchange 2)				
SR 512 Westbound Exit for I-5	I-405 Southbound Exit for I-5 Northbound				
I-5 Southbound (Interchange 127)	I-5 Northbound				

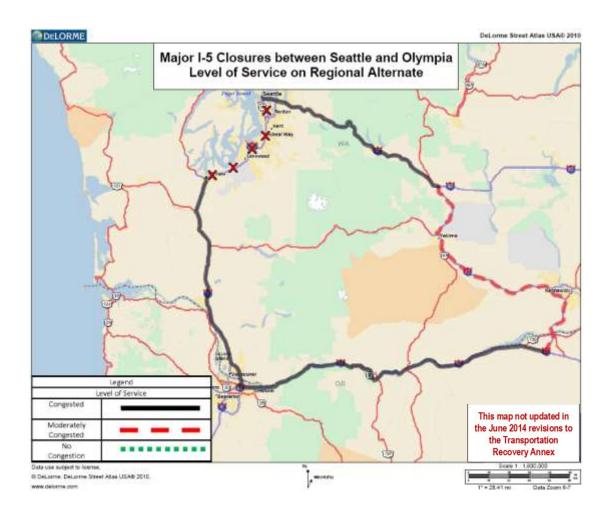
**Note:** Regional I-5 Traffic can access SR 16 via local alternative (see local routing).

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
31 - Closure I-5 SR 16 Interchange – Pierce County					
North to South Regional Routing	South to North Regional Routing				
I-5 to I-84 (in Oregon)	I-5 (Seattle Area) to I-90 Eastbound				
I-84 Eastbound	I-90 Eastbound				
I-84 Eastbound to I-82 Westbound	I-90 Eastbound to I-82 Eastbound				
I-82 Westbound	I-82 Eastbound				
I-82 Westbound to I-90 Westbound	I-82 Eastbound to I-84 Westbound				
I-90 Westbound	I-84 Westbound				
I-90 Westbound to I-5 (Seattle Area)	I-84 Westbound to I-5 (Portland Area)				

**Note:** This is the preferred Regional Diversion Route.

**Note:** Diversion to I-84 in Oregon State to I-82 to I-90 should be considered to bypass entire I-5 Corridor in Pierce County. Coordination required with Oregon. (See Map)





Puget Sound Regional Transportation Recovery Plan										
31-Closure of I-5 SR 16 Interchange – Pierce County										
Mitigation Strategies										
		Imple	mentation							
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments					
Alternative Routing	$\sqrt{}$	$\sqrt{}$			One way couplet					
Adjust Traffic Signal Timings	$\sqrt{}$	$\sqrt{}$	V							
Contra-flow Lanes New				$\sqrt{}$						
HOV Lanes – Convert		$\sqrt{}$								
HOV Lanes – New										
HOV Rules - Change			V		HOV 3, HOV 4					
Construct HOV Bypass				V	·					
Ramp Metering			V							
Freeway Ramps - New				$\sqrt{}$						
Freeway Ramps – Closure				V						
Truck Restrictions				Ż						
Truck Preferences	$\checkmark$	$\sqrt{}$	<b>√</b>		Port Access from Diversion Rt.					
Shoulder - Convert to Driving Lane			√		E 26 <sup>th</sup> St Ramp					
Parking Eliminate/Restrict	$\sqrt{}$	$\sqrt{}$			Tacoma Way, Union, Center					
Turn Prohibitions	Ż	V	Ż		Tacoma Way, Union, Center					
Ferry Service Relocation	•	,	,	$\sqrt{}$	radema rray, emen, center					
Ferry Service New				Ż						
Ferry Service Increase Existing				V						
Congestion Pricing				V						
Vanpool Carpool Incentives	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	•						
Park – Ride Lots New/Expand	•	V	Ż							
Alternating Driving Days		,	,	$\sqrt{}$						
Bike Lanes			V	,						
Tolling Adjustments			·	$\sqrt{}$						
Transit Service New				Ž						
Transit Service Increase			$\sqrt{}$							
Improved Incident Management (Patrols)	$\sqrt{}$	$\sqrt{}$	√							
Technology – Electronic Signing	1	ı	ı							
or Surveillance	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$							
Technology – Signal Interconnects			V		S 56 <sup>h</sup> St, Tacoma Way,					
			V		Union					
Convert trails to special motorized use				$\checkmark$						
Tele-commuting		V								
Staggered Work Shifts	V	√ √	√ √							
Compressed Work Week	2/	V	√ √							
Emergency Responder Routes	V	V	√ √							
Adjust Fleet Size			V	$\sqrt{}$						
Aujust i ieet size				V						

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

## Appendix B Scenario #32 – Closure of I-5 over the Puyallup River

#### A. General Information

Stakeholders identified two routes as suitable alternatives under this scenario involving closure of I-5 over the Puyallup River. The primary route entails diverting traffic from the I-5 onto SR 512 to SR 167 to I-405 back onto I-5. There are also several local and port access alternatives that can accommodate this scenario. Passenger only ferry service may be implemented between Des Moines and Tacoma. 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. City of Tacoma
- 4. Port of Tacoma

## 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 though 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

- Pierce County Emergency Management 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 interlocal 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.
- 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

Shareholders 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 Van/Carpool incentives. Other alternatives include: 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 preferences such as the port access; tolling adjustments on SR 167, changing HOV rules, convert shoulder to driving lanes on SR 512 and

SR 167, establishing new transit services and expanding existing transit services, 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. See Appendix F – Waterways Toolbox for maritime alternatives for restoration of the transportation network.

## H. Site Images for Alternative Route Landing Sites

**Browns Point Marinas** 



**Des Moines Marina** 



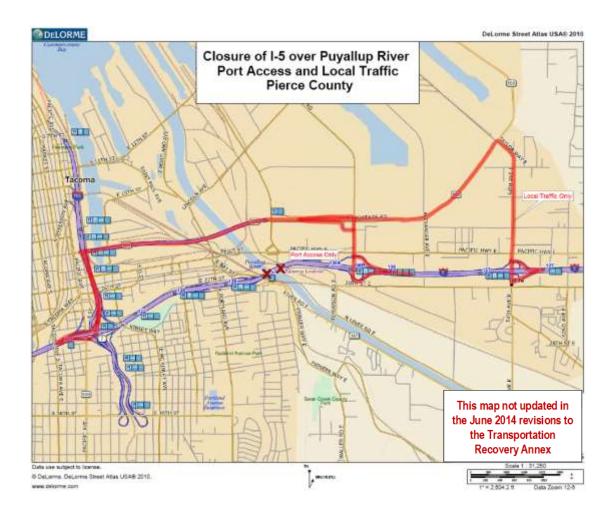
**Point Defiance** 



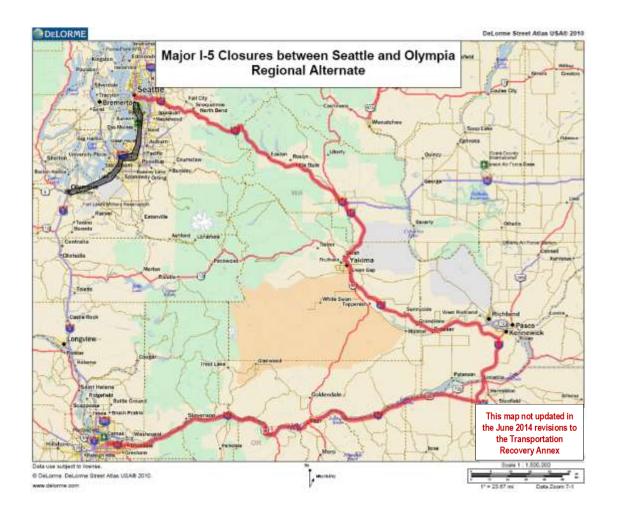
**Downtown Tacoma** 







Notes: Truck traffic will block the intersection at Alexander Avenue and SR 509 which can block alternate route.



Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan				
32 - Closure of I-5 over Puy	/allup River – Pierce County			
North to South Routing	South to North Routing			
I-5 Southbound	I-5 Northbound			
I-5 Southbound Exit 154 (I-405)	I-5 Northbound Exit 127 (SR 512 Eastbound)			
I-405 Northbound	SR 512 Eastbound			
I-405 Northbound Exit 2 to SR 167 Southbound	SR 512 Eastbound Exit to SR 167 Northbound			
SR 167 Southbound (Traffic Signal)	SR 167 Northbound			
SR 167 Southbound	SR 167 Northbound Exit for I-405 Southbound			
SR 167 Southbound Exit to SR 512 Westbound	I-405 Southbound			
SR 512 Westbound	I-405 Southbound Exit for I-5 Northbound			
SR 512 Westbound Exit to I-5 Southbound	I-5 Northbound (Interchange 154)			
I-5 Southbound (Interchange 127)	I-5 Northbound			
I-5 Southbound				

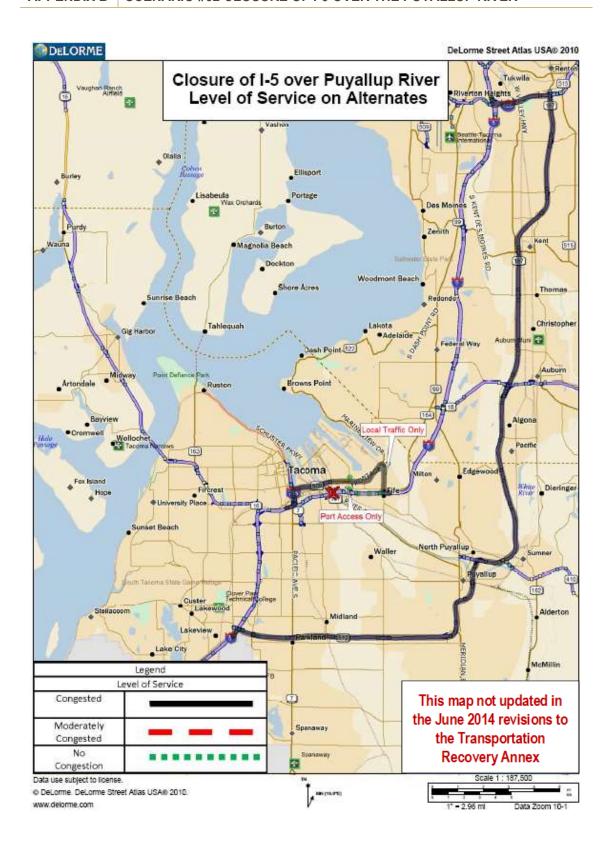
Note: This is the Regional Diversion Route.

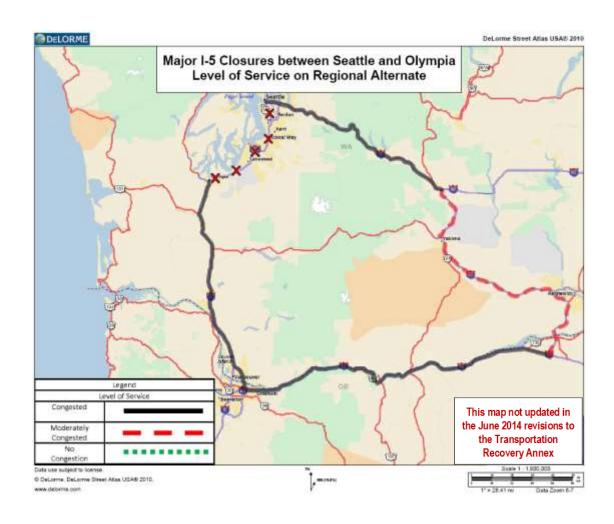
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
32 - Closure of I-5 over Puyallup River – Pierce County					
North to South Routing - Port Access	South to North Routing - Port Access				
I-5 Southbound	I-5 Northbound				
I-5 southbound Exit 136 (Port of Tacoma)	I-5 Northbound Exit for I-705 Northbound				
Ramp to Port of Tacoma Rd Northbound (Traffic	I-705 Northbound				
Signal)	I-705 Northbound Exit for SR 509 Eastbound				
Port of Tacoma Rd Northbound	Ramp to SR 509 Eastbound (Traffic Signal)				
N Frontage Rd Westbound (Traffic Signal)	SR 509 Eastbound				
N Frontage Rd Westbound Ramp to SR 509 West	SR 509 Eastbound Exit for Port of Tacoma Rd.				
SR 509 Westbound	Ramp to Port of Tacoma Rd (Traffic Signal)				
SR 509 Westbound Exit for I-705 South	Port of Tacoma Rd Eastbound				
Ramp to I-705 Southbound (Traffic Signal)	Port of Tacoma Rd Eastbound Ramp for I-5 North				
I-705 Southbound	I-5 Northbound				
I-705 Southbound Exit for I-5 Southbound					
I-5 Southbound					

**Note:** This Alternative is Port Access and Local Access. Port Access is via Interchange 138 as a "Port Access Only" Exit. Local Traffic is via Interchange 137 and Taylor Way. Consideration should be given to splitting car and truck traffic with cars on SR 99.

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan				
32 - Closure I-5 over Puya	allup River – Pierce County			
North to South Regional Routing	South to North Regional Routing			
I-5 to I-84 (in Oregon)	I-5 (Seattle Area) to I-90 Eastbound			
I-84 Eastbound	I-90 Eastbound			
I-84 Eastbound to I-82 Westbound	I-90 Eastbound to I-82 Eastbound			
I-82 Westbound	I-82 Eastbound			
I-82 Westbound to I-90 Westbound	I-82 Eastbound to I-84 Westbound			
I-90 Westbound	I-84 Westbound			
I-90 Westbound to I-5 (Seattle Area)	I-84 Westbound to I-5 (Portland Area)			

**Note:** This is the preferred Regional Diversion Route. Diversion to I-84 in Oregon State to I-82 to I-90 should be considered to bypass entire I-5 Corridor in Pierce County. Coordination required with Oregon. (See Map)





Puget Sound Regional Transportation Recovery Plan					
32 - Closure of I-5 over Puyallup River – Pierce County Mitigation Strategies					
	IVIII	_		<b>n</b>	
		Implementation			
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Alternative Routing			$\sqrt{}$		
Adjust Traffic Signal Timings			$\sqrt{}$		
Contra-flow Lanes New				$\checkmark$	
HOV Lanes – Convert			$\sqrt{}$		
HOV Lanes – New			$\sqrt{}$		
HOV Rules - Change			$\sqrt{}$		HOV 3, HOV 4
Construct HOV Bypass				$\checkmark$	
Ramp Metering			$\sqrt{}$		
Freeway Ramps - New				$\sqrt{}$	
Freeway Ramps – Closure				$\sqrt{}$	
Truck Restrictions				$\sqrt{}$	
Truck Preferences			$\sqrt{}$		Port Access
Shoulder - Convert to Driving			$\sqrt{}$		SR 512, SR 167
Lane			V		
Parking Eliminate/Restrict				$\sqrt{}$	
Turn Prohibitions				$\checkmark$	
Ferry Service Relocation				$\checkmark$	
Ferry Service New				$\sqrt{}$	
Ferry Service Increase Existing				$\sqrt{}$	
Congestion Pricing			$\sqrt{}$		SR 167
Vanpool Carpool Incentives		$\sqrt{}$	$\sqrt{}$		
Park – Ride Lots New/Expand		$\sqrt{}$	$\sqrt{}$		
Alternating Driving Days				$\sqrt{}$	
Bike Lanes				$\sqrt{}$	
Tolling Adjustments			$\sqrt{}$		SR 167
Transit Service New			$\sqrt{}$		
Transit Service Increase			$\sqrt{}$		
Improved Incident Management	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		
(Patrols)		•			
Technology – Electronic Signing		$\sqrt{}$	$\sqrt{}$		
or Surveillance					
Technology – Signal				$\sqrt{}$	
Interconnects					
Convert trails to special motorized				$\sqrt{}$	
USE Tale commuting	2	2/	2		
Tele-commuting	2/	√ √	√ √		
Staggered Work Shifts	2/	2/	√ √		
Compressed Work Week	V	V	√ √		
Emergency Responder Routes			V	2/	
Adjust Fleet Size				$\sqrt{}$	

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

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## Appendix B Scenario #33 – Closure of I-5 from SR 16 to King Co. Line

## A. General Information

Planners presented two routes as suitable alternatives for this scenario involving closure of I-5 from SR 16 to King County Line. The primary route entails diverting traffic from the I-5 onto SR 512 to SR 167 to I-405 back onto I-5. There are also several local and port access alternatives that can accommodate this scenario. 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)

- WSDOT
- 2. WSP

## C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies with coordination responsibilities for routes used as alternatives)

- 1. King County Office of Emergency Management (OEM)
- 2. Pierce County Department of Emergency Management (DEM)
- 3. Cities of Tacoma, Puyallup and Edgewood

## 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 though 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.
- Pierce County Emergency Management 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 interlocal 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

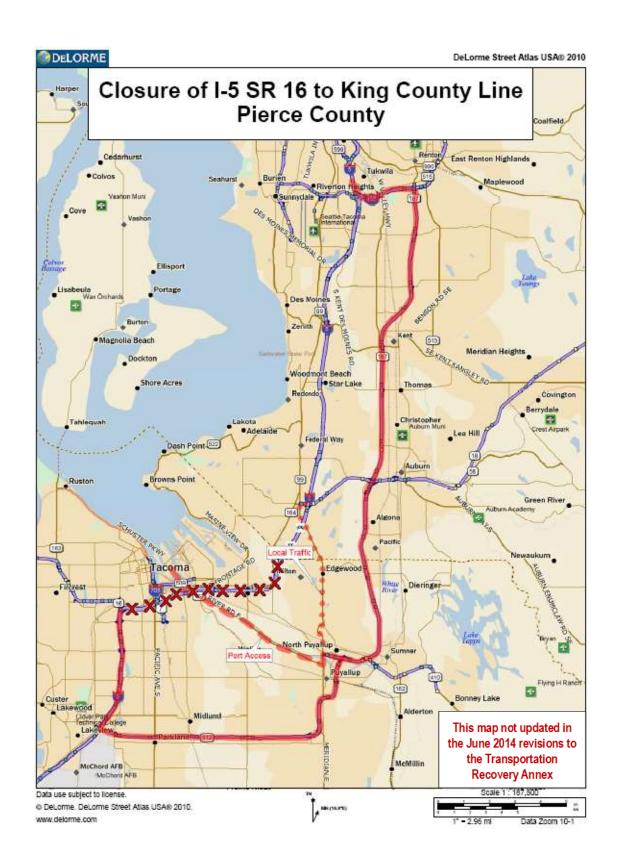
Stakeholders identify several short term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. Set-up highway detours signage for rerouting traffic.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

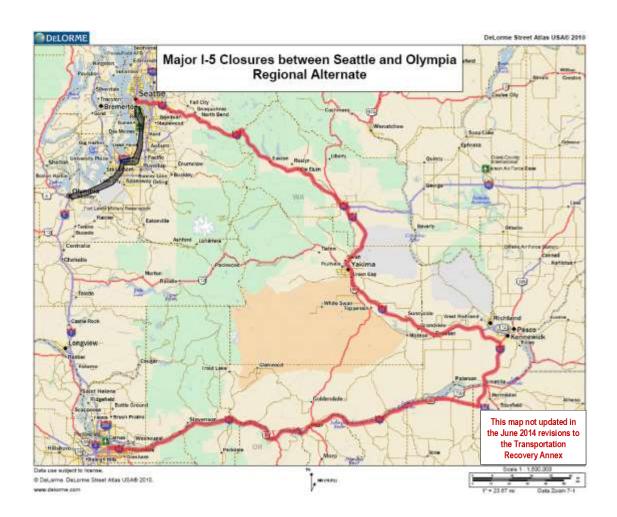
#### 2. Mid-Term Alternatives

The Short-Term solutions can be extended to provide Mid-Term Alternatives, as necessary. Several Mid-Term Alternatives have been identified such as Van/Carpool incentives. Other alternatives include: 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. See

## Long Term Options

Mid-term alternative transportation options can be extended to long term options, as necessary. In addition, Long Term options include truck preferences such as the port access, tolling adjustments on SR 167, changing HOV rules, congestion pricing on SR 167, converting shoulder to driving lanes on SR 512 and SR 167, establishing new transit services and expanding existing transit services, and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
33 - Closure of I-5 from SR 16 to King Co Line – Pierce County					
North to South Routing	South to North Routing				
I-5 Southbound	I-5 Northbound				
I-5 Southbound Exit 154 (I-405)	I-5 Northbound Exit 127 (SR 512 Eastbound)				
I-405 Northbound	SR 512 Eastbound				
I-405 Northbound Exit 2 to SR 167 Southbound	SR 512 Eastbound Exit to SR 167 Northbound				
SR 167 Southbound (Traffic Signal)	SR 167 Northbound				
SR 167 Southbound	SR 167 Northbound Exit for I-405 Southbound				
SR 167 Southbound Exit to SR 512 Westbound	I-405 Southbound				
SR 512 Westbound	I-405 Southbound Exit for I-5 Northbound				
SR 512 Westbound Exit to I-5 Southbound	I-5 Northbound (Interchange 154)				
I-5 Southbound (Interchange 127)	I-5 Northbound				
I-5 Southbound					

**Note:** Local traffic to and from Tacoma can use SR 99 to/from the north.

Note: Local Traffic in Puyallup can use Enchanted Parkway (no trucks).

Note: Through traffic to/from points south of Exit 127 (I-5) must be directed to/from this alternative

at the I-5, 127 Interchange.

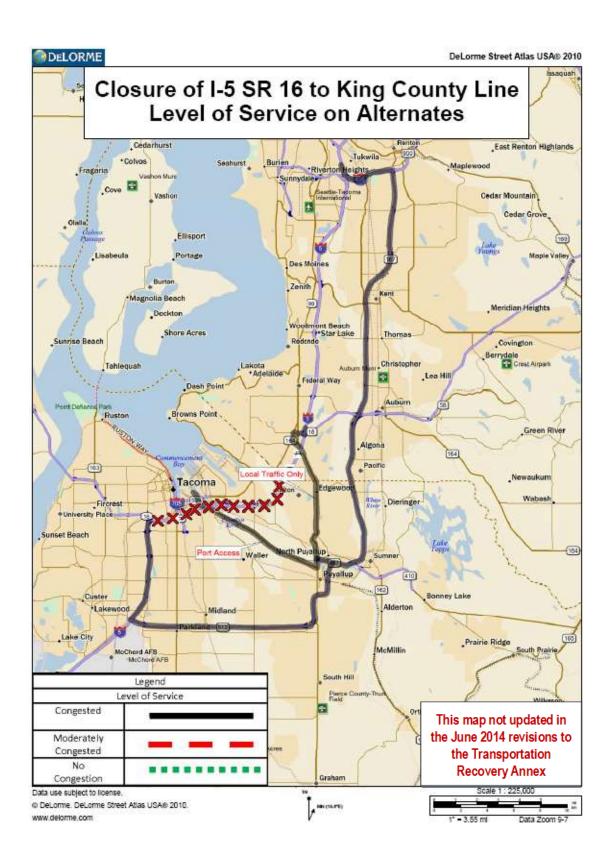
**Note:** Port of Tacoma connection via SR 167 (River Rd).

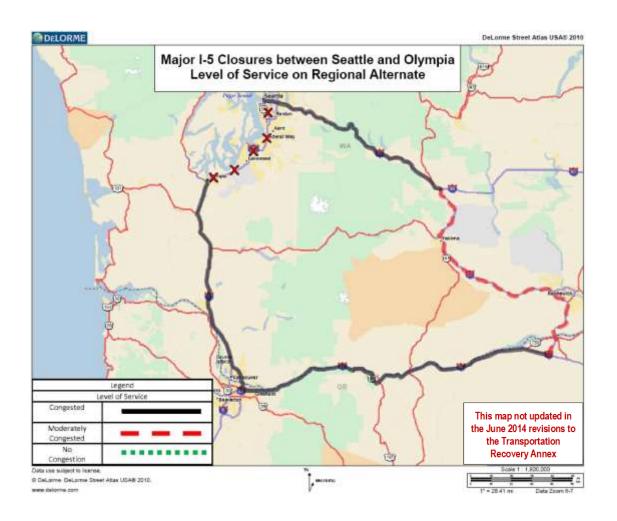
Note: Monitoring needed for overweight vehicles on local roads.

**Note:** 66<sup>th</sup> Avenue Bridge (Milroy) does not have adequate turning radius for an alternate route.

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
33 - Closure of I-5 from SR 16 to King Co Line – Pierce County					
North to South Regional Routing	South to North Regional Routing				
I-5 to I-84 (in Oregon)	I-5 (Seattle Area) to I-90 Eastbound				
I-84 Eastbound	I-90 Eastbound				
I-84 Eastbound to I-82 Westbound	I-90 Eastbound to I-82 Eastbound				
I-82 Westbound	I-82 Eastbound				
I-82 Westbound to I-90 Westbound	I-82 Eastbound to I-84 Westbound				
I-90 Westbound	I-84 Westbound				
I-90 Westbound to I-5 (Seattle Area)	I-84 Westbound to I-5 (Portland Area)				
	I-5 Northbound Exit 127 (SR 512 Eastbound)				

Note: This regional plan requires coordination with Oregon.





Puget Sound Regional Transportation Recovery Plan					
33 - Closure o	of I-5 from				Pierce County
Mitigation Strategies					
	Implementation				
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Alternative Routing	$\sqrt{}$				
Adjust Traffic Signal Timings	$\sqrt{}$				
Contra-flow Lanes New				$\sqrt{}$	
HOV Lanes – Convert					
HOV Lanes – New					
HOV Rules - Change					HOV 2, HOV 3, HOV 4
Construct HOV Bypass					
Ramp Metering			$\sqrt{}$		
Freeway Ramps - New					
Freeway Ramps – Closure				$\sqrt{}$	
Truck Restrictions				$\sqrt{}$	
Truck Preferences					Port Access from Diversion Rt.
Shoulder - Convert to Driving			.1		SR 512, SR 167
Lane			$\sqrt{}$		,
Parking Eliminate/Restrict				$\sqrt{}$	
Turn Prohibitions					
Ferry Service Relocation					
Ferry Service New				V	
Ferry Service Increase Existing				V	
Congestion Pricing			V		SR 167
Vanpool Carpool Incentives	V	V	V		
Park – Ride Lots New/Expand		V	V		
Alternating Driving Days				V	
Bike Lanes				V	
Tolling Adjustments			V		SR 167
Transit Service New			V		
Transit Service Increase			V		
Improved Incident	. 1	. 1	-1		
Management (Patrols)	٧	V	$\sqrt{}$		
Technology – Electronic	-1	V	$\sqrt{}$		
Signing or Surveillance	$\sqrt{}$	·V	V		
Technology – Signal				$\sqrt{}$	
Interconnects				V	
Convert trails to special				$\sqrt{}$	
motorized use				V	
Tele-commuting					
Staggered Work Shifts					
Compressed Work Week	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		
Emergency Responder Routes					
Adjust Fleet Size				$\sqrt{}$	

Puget Sound	l Regional	Transpo	ortation F	Recovery P	lan
•	- Roadway	Reconstru	ction Elem		
		Implem	entation		
Roadway Reconstruction Elements	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Debris removal of damaged roadway and roadway structures	$\sqrt{}$				
Prioritize segment restoration/reconstruction	$\sqrt{}$				
Provide engineering contract mechanisms (assume design- build for roadways and roadway structures of high priority)	V				
Meet with stakeholders to discuss options		<b>V</b>			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		$\checkmark$			
Identify recovery options for the roadway section			$\sqrt{}$		
Coordinate with utility purveyors for utilities in roadway rights-of-way			$\checkmark$		
Develop long-term contracting procedures			$\sqrt{}$		

## Appendix B Scenario #34 – Closure of I-5/SR 512 Interchange

## A. General Information

Planners identified two alternative routes to deal with the closure of I-5 SR 512 Interchange. The primary route entails diverting traffic from the I-5 onto SR 16, or a longer route is from I-5 to SR 7 to SR 507 to SR 510 back onto I-5. Several local directional access alternatives also accommodate this scenario. 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 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)
- 4. Cities of Tacoma, Lakewood and University Place

## 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 though 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 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.
- Pierce County Emergency Management 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 interlocal 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

Short -Term Solutions

Stakeholders have 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. See

## 2. Mid-Term Alternatives

Planners identified several Mid-term alternatives such as Turn Prohibitions at SR 7, Bridgeport, Tacoma Way, and Van/Carpool incentives. Other alternatives include: Restrict/Eliminate parking on SR 7, Bridgeport, Tacoma Way, 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

Long-term options include truck preferences such as the port access from SR 16, tolling adjustments at Tacoma Narrows Bridge, changing HOV rules, converting lanes on I-5 to HOV

lanes, congestion pricing at Tacoma Narrows, converting shoulder to driving lanes on SR 507, establishing new transit services and expanding existing transit services, incorporating technology for signal interconnects at SR 7, Bridgeport, Tacoma Way, SR 510 and freeway ramp closures, establish new freeway ramps and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.



**Note** –This is the Regional Diversion Route.





Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
34 - Closure of I-5 SR 512 Interchange – Pierce County					
South to North Routing (I-5 Through Traffic)					
I-5 Northbound I-5 Northbound Exit 111 (SR 510 Eastbound) SR 510 Eastbound (Marvin Rd SE) SR 510 Eastbound (Pacific Hwy/Marvin Rd Circle) SR 510 Eastbound (Pacific Hwy SE) SR 510 Eastbound (St Clair Cutoff Rd) Traffic from Fort Lewis use to join route: -Mounts Rd to Nisqually Rd to Reservation Rd SR 510 Eastbound (Yelm Hwy SE) SR 510 Eastbound (W Yelm Hwy) SR 507 Northbound (E Yelm Hwy) (Traffic Signal) SR 507 Northbound (E Yelm Hwy) SR 507 Northbound (McKenna Spanaway Hwy) SR 507 Northbound (McNaught Rd S in Roy) SR 507 Northbound (McKenna Spanaway Hwy) SR 507 Northbound (Pacific Ave S) *SR 7 Northbound (Pacific Ave S) *SR 7 Northbound (Pacific Ave) SR 7 Northbound (Pacific Ave) SR 7 Northbound (Ramp for SR 7 Northbound SR 7 Northbound Exit for I-5Northbound I-5 Northbound					

**Note** –Traffic to/from SR 512 join this regional route at SR 512 Interchange (noted with asterisk).

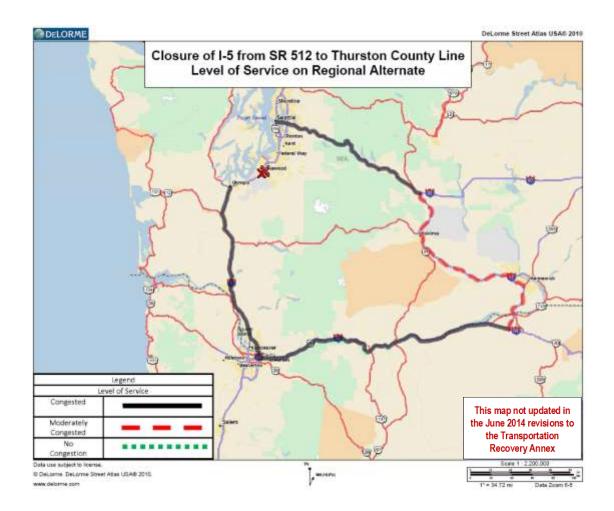
Note – SR 512/SR 16 Traffic uses I-5 and SR 16 to connect to this regional route.

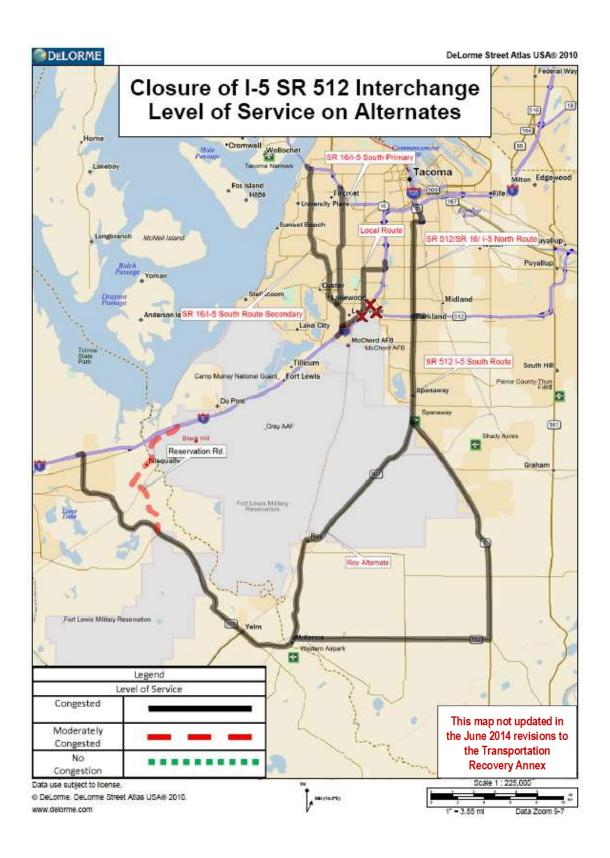
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
34 - Closure of I-5 SR 512 I	nterchange – Pierce County				
North to South Routing – SR 16 to I-5 South (Primary Route)	South to North Routing – I-5 North to SR 16 (Primary Route)				
SR 16 Southbound	I-5 Northbound				
SR 16 Southbound Exit 2 to S Orchard St	I-5 Northbound Exit 125				
SR 16 Southbound Ramp to S Orchard St	Ramp to Bridgeport Way SW (Traffic Signal)				
S Orchard St Southbound	Bridgeport Way SW Northbound				
Lakewood Dr W Southbound	Bridgeport Way SW Northbound (Traffic Signal)				
Bridgeport Way SW Southbound (Traffic Signal)	Lakewood Dr W Northbound				
Bridgeport Way SW Southbound	S Orchard St Northbound				
Bridgeport Way SW Southbound Ramp to I-5 South	S Orchard St Northbound Ramp for SR 16 North				
I-5 Southbound Ramp (Traffic Signal)	SR 16 Northbound Ramp (Traffic Signal)				
I-5 Southbound (Interchange 125)	SR 16 Northbound				
I-5 Southbound					

**Note:** Secondary route for this movement is directly below.

Puget Sound Regional Transportation R	lecovery Plan – Alternative Routing Plan
34 - Closure of I-5 SR 512 I	nterchange – Pierce County
North to South Routing – SR 16 to I-5 South (Secondary Route)	South to North Routing – I-5 North to SR 16 (Secondary Route)
SR 16 Southbound SR 16 Southbound Exit 4 to Jackson Ave SR 16 Southbound Ramp to Jackson Ave (Traf. Sig.) N Jackson Ave Southbound S Jackson Ave Southbound Bridgeport Way W Southbound (Traffic Signal) Bridgeport Way SW Southbound Bridgeport Way SW Southbound Ramp to I-5 South I-5 Southbound Ramp (Traffic Signal) I-5 Southbound (Interchange 125) I-5 Southbound	I-5 Northbound I-5 Northbound Exit 125 Ramp to Bridgeport Way SW (Traffic Signal) Bridgeport Way SW Northbound Bridgeport Way W Northbound S Jackson Ave Northbound N Jackson Ave Northbound N Jackson Ave Northbound Ramp for SR 16 North SR 16 Northbound Ramp (Traffic Signal) SR 16 Northbound

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan							
34 - Closure of I-5 SR 512 Interchange – Pierce County							
North to South Routing Local Route	South to North Routing Local Route						
I-5 Southbound	I-5 Northbound						
I-5 Southbound Exit 129 (So 72 <sup>nd</sup> St)	I-5 Northbound Exit 125						
S 72 <sup>nd</sup> St Westbound (Traffic Signal)	Ramp to Bridgeport Way SW (Traffic Signal)						
S 74th St Westbound	Bridgeport Way SW Northbound						
S Tacoma Way Southbound (Traffic Signal)	Pacific Hwy SW (Traffic Signal)						
S Tacoma Way Southbound	Pacific Hwy SW Northbound						
Pacific Hwy SW Southbound	S Tacoma Way Northbound						
Bridgeport Way W Southbound (Traffic Signal)	S 74th St Eastbound						
Bridgeport Way SW Southbound	S 72 <sup>nd</sup> St Eastbound						
Bridgeport Way SW Southbound Ramp to I-5	S 72th St Ramp to I-5 North (Traffic Signal)						
South	I-5 Northbound (Interchange 129)						
I-5 Southbound Ramp (Traffic Signal)	I-5 Northbound						
I-5 Southbound (Interchange 125)							
I-5 Southbound							





Puget Sound Regional Transportation Recovery Plan							
34 - Closure of I-5 SR 512 Interchange – Pierce County							
Mitigation Strategies							
		Implem	entation				
				Not			
Strategy	Short-	Mid-	Long-	Feasible	Comments		
	Term	Term	Term	Or			
	1	,	1	N/A			
Alternative Routing	V	V	V				
Adjust Traffic Signal Timings	<b>V</b>	$\sqrt{}$	$\sqrt{}$				
Contra-flow Lanes New			1	$\sqrt{}$			
HOV Lanes – Convert			$\sqrt{}$	,	I-5		
HOV Lanes – New			,	$\sqrt{}$			
HOV Rules - Change			V		HOV 3, HOV 4		
Construct HOV Bypass			$\sqrt{}$		Bottleneck Areas		
Ramp Metering		1	$\sqrt{}$				
Freeway Ramps - New		V	$\sqrt{}$		Vicinity of I-5/SR 512		
Freeway Ramps – Closure		$\sqrt{}$	$\sqrt{}$		Vicinity of Closure		
Truck Restrictions		$\sqrt{}$	$\sqrt{}$		Unsafe Routes		
Truck Preferences	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Port Access from SR 16		
Shoulder - Convert to Driving Lane			$\sqrt{}$		SR 507		
Parking Eliminate/Restrict	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		SR 7, Bridgeport,		
	,	,	,		Tacoma Way		
Turn Prohibitions	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		SR 7, Bridgeport,		
	,	,	,	1	Tacoma Way		
Ferry Service Relocation				1			
Ferry Service New				$\sqrt{}$			
Ferry Service Increase Existing			1	$\sqrt{}$			
Congestion Pricing	,	1	V		Tacoma Narrows		
Vanpool Carpool Incentives		<b>V</b>	$\sqrt{}$				
Park – Ride Lots New/Expand		$\sqrt{}$	$\sqrt{}$				
Alternating Driving Days			$\sqrt{}$				
Bike Lanes			1	$\sqrt{}$			
Tolling Adjustments			V		Tacoma Narrows		
Transit Service New			V				
Transit Service Increase			1				
Improved Incident Management	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				
(Patrols)	,	·	,				
Technology – Electronic Signing or	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$				
Surveillance					CD 7 Dwideranast		
Technology – Signal Interconnects			$\sqrt{}$		SR 7, Bridgeport,		
Convert trails to anguist materias					Tacoma Way, SR 510		
Convert trails to special motorized				$\checkmark$			
use Tele-commuting	2	2/	2				
•	√ √	√ √	√ √				
Staggered Work Shifts Compressed Work Week	2/	√ √	√ √				
	V	V	√ √				
Emergency Responder Routes			V	V			
Adjust Fleet Size				V			

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

# Appendix B Scenario #35 – Closure of I-5 from SR 512 to the Thurston Co. Line

## A. General Information

Planners identified two routes as suitable alternatives in dealing with the closure of SR 512 to Thurston County Line,. The primary route entails diverting traffic from I-5 to SR 512 to SR 7, SR 702, and SR 510 back onto I-5. There is also a longer, regional road access route that entails diverting traffic from the I-5 to I-90, I-82, I-84 back onto I-5.

The secondary route diverts traffic at I-5 onto SR 512 to SR 7, SR 507, and SR 510 back onto I-5. There is also a maritime solution alternative that can accommodate this scenario. Local passenger only service could be set-up depending on ridership from Steilacoom to Baird Cove. The Puget Sound could be used as an additional transportation corridor for freight, if needed.

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 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 though 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 Management 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 interlocal 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.
- 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

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 at SR 7, and Van/Carpool incentives. Other alternatives include: Restrict/Eliminate parking on SR 7, 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. Reconstructing the bridges will require construction vehicles to get to the disaster areas. 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 preferences, changing HOV rules, converting lanes on I-5 to HOV lanes, converting shoulder to driving lanes on SR 507, establishing new transit services and expanding existing transit services, incorporating technology for signal interconnects at SR 7 and SR 510 and freeway ramp closures, and freeway ramp metering. In addition, passenger-only ferry service could be provided from Baird Cove to Steilacoom. Transit service will need to be extended to the new ferry service locations. 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

Browns Point Marinas



**Des Moines Marina** 



**Point Defiance** 



**Downtown Tacoma** 







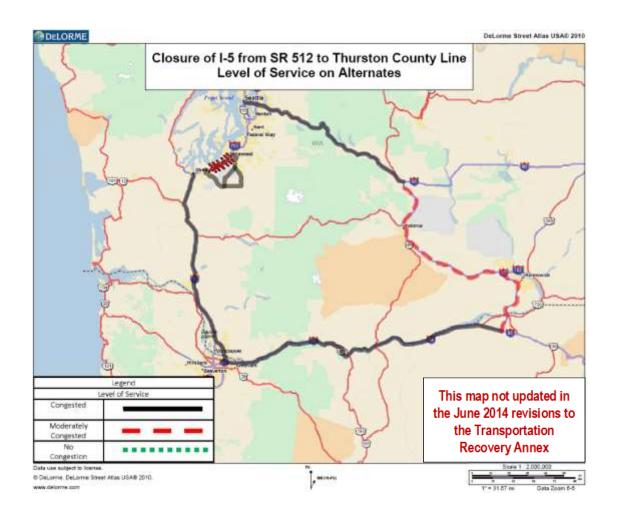
Puget Sound Regional Transportation R	ecovery Plan – Alternative Routing Plan
35 - Closure I-5 from SR 512 to The	urston County Line – Pierce County
North to South	South to North
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit 127 (SR 512 Eastbound)	I-5 Northbound Exit 111 (SR 510 Eastbound)
SR 512 Eastbound	SR 510 Eastbound (Marvin Rd SE)
SR 512 Eastbound Exit for SR 7 Southbound	SR 510 Eastbound (Pacific Hwy/Marvin Rd
(T.S.)	Circle)
SR 7 Southbound	SR 510 Eastbound (Pacific Hwy SE)
SR 7 Southbound (Pacific Ave S)	SR 510 Eastbound (St Clair Cutoff Rd)
SR 7 Southbound (Mountain Hwy E)	SR 510 Eastbound (Yelm Hwy SE)
SR 702 Westbound (352 <sup>nd</sup> St S)	SR 510 Eastbound (W Yelm Hwy)
SR 507 Southbound (in McKenna)	SR 507 Northbound (E Yelm Hwy) (Traffic
SR 507 Southbound (E Yelm Ave)	Signal)
SR 510 Westbound (W Yelm Hwy) Traffic Signal	SR 507 Northbound (E Yelm Hwy)
SR 510 Westbound (Yelm Hwy SE)	SR 507 Northbound
SR 510 Westbound (St Clair Cutoff Rd)	SR 702 Eastbound (352 <sup>nd</sup> St S)
SR 510 Westbound (Pacific Hwy SE)	SR 7 Northbound (Mountain Hwy E)
SR 510 Westbound (Pacific Hwy/Marvin Rd	SR 7 Northbound (Pacific Ave S)
Circle)	SR 7 Northbound (108th St to SR 512
SR 510 Westbound (Marvin Rd SE)	Westbound)
SR 510 Westbound (Marvin Rd SE) Ramp to I-5	108th St S Eastbound
I-5 Southbound (Interchange 111)	108th St Eastbound Ramp to SR 512 Westbound
	SR 512 Westbound
	SR 512 Westbound Exit to I-5 Northbound (Int
	127)
	I-5 Northbound

**Note:** Passenger only ferry alternative possible from Baird Cove to Steilacoom. (Noted on map)

**Note:** Diversion to I-84 in Oregon State to I-82 to I-90 should be considered to bypass entire I-5 Corridor in Pierce County. Coordination required with Oregon. (See Map)

Note: Consider coordinating with JBLM for cross base detour.

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
35 - Closure I-5 from SR 512 to Thurston County Line – Pierce County					
North to South Regional Routing	South to North Regional Routing				
I-5 to I-84 (in Oregon)	I-5 (Seattle Area) to I-90 Eastbound				
I-84 Eastbound	I-90 Eastbound				
I-84 Eastbound to I-82 Westbound	I-90 Eastbound to I-82 Eastbound				
I-82 Westbound	I-82 Eastbound				
I-82 Westbound to I-90 Westbound	I-82 Eastbound to I-84 Westbound				
I-90 Westbound I-84 Westbound					
I-90 Westbound to I-5 (Seattle Area)	I-84 Westbound to I-5 (Portland Area)				



	Puget Sound Regional Transportation Recovery Plan					
35 - Closure of I-5 from SR 512 to Thurston County Line – Pierce County						
Mitigation Strategies						
		Imple	mentation			
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments	
Alternative Routing	V	$\sqrt{}$	$\sqrt{}$			
Adjust Traffic Signal Timings	V	$\sqrt{}$	$\sqrt{}$			
Contra-flow Lanes New				$\sqrt{}$		
HOV Lanes – Convert			$\sqrt{}$		I-5	
HOV Lanes – New			,	$\sqrt{}$		
HOV Rules - Change			$\sqrt{}$		I-5 HOV-3, HOV-4	
Construct HOV Bypass			$\sqrt{}$		Bottleneck Areas	
Ramp Metering			$\sqrt{}$	1	I-5	
Freeway Ramps - New				V		
Freeway Ramps – Closure			<b>V</b>		Interchanges near closure point	
Truck Restrictions	V		$\sqrt{}$		Unsafe Truck Routes	
Truck Preferences		$\sqrt{}$	$\sqrt{}$		Critical Supplies	
Shoulder - Convert to Driving Lane		$\sqrt{}$	$\sqrt{}$		SR 507	
Parking Eliminate/Restrict			$\sqrt{}$		SR 7	
Turn Prohibitions	$\sqrt{}$		$\sqrt{}$		SR 7	
Ferry Service Relocation				$\sqrt{}$		
Ferry Service New			$\sqrt{}$	,	Steilacoom/Baird Cove (pass)	
Ferry Service Increase Existing				V		
Congestion Pricing	,	,	,	$\sqrt{}$		
Vanpool Carpool Incentives	$\sqrt{}$	<b>√</b>	$\sqrt{}$			
Park – Ride Lots New/Expand	V		$\sqrt{}$			
Alternating Driving Days			$\sqrt{}$	1		
Bike Lanes				V		
Tolling Adjustments			. 1	$\sqrt{}$	F	
Transit Service New			<b>V</b>		Ferry Connections	
Transit Service Increase			V			
Improved Incident Management (Patrols)	V	$\sqrt{}$	$\sqrt{}$			
Technology – Electronic Signing or Surveillance	$\sqrt{}$	$\sqrt{}$	$\checkmark$			
Technology – Signal Interconnects			$\sqrt{}$		SR 7, SR 510	
Convert trails to special motorized use				$\checkmark$		
Tele-commuting	$\sqrt{}$		$\sqrt{}$			
Staggered Work Shifts	V	Ż	Ż			
Compressed Work Week	V	V	V			
Emergency Responder Routes	V	Ż	Ż			

Adjust Fleet Size √

Puget Soun	d Regiona	l Transpo	rtation Re	ecovery Plar	1
35 - Closure of All Crossings of Nisqually River - Thurston County					
	Mari	time Elem			
		Implem	nentation		
Maritime Elements	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Moving freight via military support for maritime assets				$\sqrt{}$	The State EOC will remain activated if federal assets are being used.
Determine feasibility of alternative ferry service locations			$\sqrt{}$		See attached spreadsheet for determining the feasibility of locations.
Determine contracting mechanisms for new, relocated, or increased ferry service			$\checkmark$		
Determine personnel required and availability of alternative maritime transportation			$\checkmark$		
Meet with stakeholders to discuss options for alternative maritime transportation			$\checkmark$		
Determine long-term contracting needs			$\checkmark$		
Identify recovery options for alternative maritime transportation			$\checkmark$		
Develop long-term contracting procedures			$\sqrt{}$		

Puget Sour	nd Regiona	l Transpo	rtation Re	ecovery Plan	1
35 - Roadway Reconstruction Elements					
		Implem	entation		
Roadway Reconstruction Elements	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Debris removal of damaged roadway and roadway structures	$\sqrt{}$				
Prioritize segment restoration/reconstruction	$\sqrt{}$				
Provide engineering contract mechanisms (assume design- build for roadways and roadway structures of high priority)	V				
Meet with stakeholders to discuss options		V			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		$\sqrt{}$			
Identify recovery options for the roadway section			$\sqrt{}$		
Coordinate with utility purveyors for utilities in roadway rights-of-way			$\sqrt{}$		
Develop long-term contracting procedures			$\sqrt{}$		

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**APPENDIX B** 

# Appendix B Scenario #36 – Closure of SR 410, SR 167 and SR 512 Interchange

### A. General Information

For the closure of SR 410, SR 167, and SR 512 Interchanges, there are several local directional access alternatives that can accommodate this scenario. See Maps and Alternate Routing Plan for specific and additional information. NOTE: There may be construction on bridges over alternate route.

## **B.** Lead Agency

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

- WSDOT
- WSP

## C. Supporting and Coordinating Agencies and Jurisdictions

(Agencies that have coordination responsibilities for routes that are used as alternatives)

- 1. Pierce County Department of Emergency Management (DEM)
- 2. Cities of Puyallup and Sumner

# 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 though 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

 Pierce County Emergency Management 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 interlocal 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

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 present themselves such as Turn Prohibitions at Meridian, 2<sup>nd</sup> and 3<sup>rd</sup> St, Pioneer Ave, and Van/Carpool incentives. Other alternatives include: Restrict/Eliminate parking on Meridian, 2<sup>nd</sup> and 3<sup>rd</sup> St, Pioneer Ave, 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 preferences such as the warehousing (Sumner), tolling adjustments at SR 167, changing HOV rules, converting lanes on SR 512, and SR 410 to HOV lanes, congestion pricing at SR 167, converting shoulder to driving lanes on SR 512 and SR 167, establishing new transit services and expanding existing transit services, incorporating technology for signal interconnects at Meridian Ave, and Pioneer Ave., establishing new freeway ramps such as 24th St Ramp, to/from SR 167 and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.



Puget Sound Regional Transportation R	Recovery Plan – Alternative Routing Plan
36 - Closure of SR 410 SR 167 SF	R 512 Interchange – Pierce County
North to South (SR 167 to/from SR 512)	South to North Routing (SR 167 to/from SR 512)
SR 167 Southbound SR 167 Southbound Exit to 24th St E (Valley Hwy) Ramp to W Valley Hwy E W Valley Hwy E Southbound to Valley Hwy E Valley Hwy E Westbound Valley Hwy E Westbound to N Meridian Ave N Meridian Ave Southbound (SR 167) SR 167 Southbound (N Meridian Ave) (one way) SR 167 Southbound to E Pioneer Ave E Pioneer Ave Eastbound E Pioneer Ave Eastbound Ramp to SR 512 Westbound (Traffic Signal) SR 512 Westbound	SR 512 Eastbound SR 512 Eastbound Exit to Pioneer Ave Ramp to Pioneer Ave (Traffic Signal) E Pioneer Ave Westbound E Pioneer Ave Westbound to 3rd St SE 3rd St SE Northbound (One –Way Couplet) 2nd St SE Northbound (One-Way) N Meridian Ave Northbound (SR 167) SR 167 Northbound (N Meridian Ave) Valley Hwy E Eastbound (Traffic Signal) Valley Hwy E Eastbound to W Valley Hwy (T. S.) W Valley Hwy Northbound W Valley Hwy E Northbound SR 167 Northbound SR 167 Northbound

Note - Ramp at W Valley Hwy feasible for 2-way on/off.

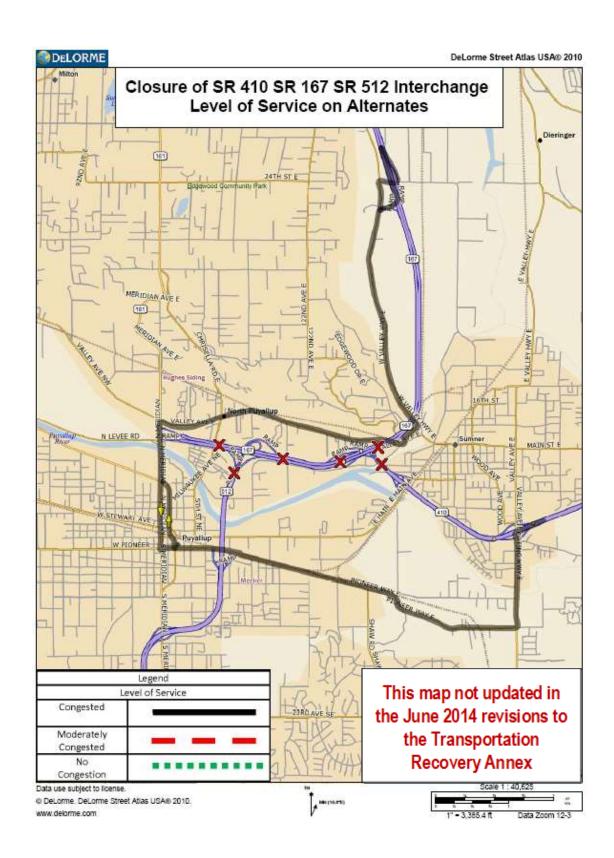
Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan					
36 - Closure of SR 410 SR 167 SR 512 Interchange – Pierce County					
East to West Routing – SR 512 to/from SR 410	West to East Routing – SR 512 to/from SR 410				
SR 410 Westbound	SR 512 Eastbound				
SR 410 Exit to SR 162 Southbound	SR 512 Eastbound Exit to Pioneer Ave				
SR 162 Southbound (Orting Hwy E)	E Pioneer Ave Eastbound				
SR 162 Southbound to Pioneer Way E (Traffic	Pioneer Way E Eastbound				
Sig.)	Pioneer Way E Eastbound to SR 162 (Orting				
Pioneer Way E Westbound	Hwy)				
E Pioneer Ave Westbound	SR 162 Northbound (Orting Hwy) (Traffic Signal)				
E pioneer Ave Westbound Ramp to SR 512 West	SR 162 Northbound Exit to SR 410 Eastbound				
SR 512 Westbound	SR 410 Eastbound				

Note: To/from SR 410 and SR 167- make connection via combination of these two routes (see map).

Note: Consider using E Main Ave Exit from SR 410 since Shaw Rd extension is complete.

Note: If Valley Ave is impassable, consider using SR 167 to SR 18 to I-5 to SR 512 as

alternate.



Puget Sound Regional Transportation Recovery Plan					
36 - Closure of SR				ges – Pierce (	County
	Mitig	ation Strate			
		Implem	nentation		
0, 1	01. 1			Not	
Strategy	Short-	Mid-	Long-	Feasible	Comments
	Term	Term	Term	Or	
Altomotive Deviling	-1	-1	-1	N/A	
Alternative Routing	√ ,	√ ,	√		
Adjust Traffic Signal Timings	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		
Contra-flow Lanes New				$\sqrt{}$	
HOV Lanes – Convert			$\sqrt{}$		SR 512, SR 410
HOV Lanes – New					
HOV Rules - Change					HOV 3, HOV 4
Construct HOV Bypass				$\sqrt{}$	
Ramp Metering			V		
Freeway Ramps - New		V	V		24th St Ramp, to/from
		<b>,</b>	,		SR 167
Freeway Ramps – Closure				<b>√</b>	
Truck Restrictions	1		1		
Truck Preferences	$\sqrt{}$	V	V		Warehousing (Sumner)
Shoulder - Convert to Driving Lane			V		SR 512, SR 167
Parking Eliminate/Restrict	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Meridian, 2 <sup>nd</sup> 3 <sup>rd</sup> St,
Turn Prohibitions					Pioneer Ave Meridian, 2 <sup>nd</sup> 3 <sup>rd</sup> St,
Turn Pronibitions	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		Pioneer Ave
Ferry Service Relocation				$\sqrt{}$	FIUITEEL AVE
Ferry Service New				V	
Ferry Service Increase Existing				į	
Congestion Pricing			V	'	SR 167
Vanpool Carpool Incentives	$\sqrt{}$	V	V		
Park – Ride Lots New/Expand	,	Ž	V		
Alternating Driving Days				V	
Bike Lanes				$\sqrt{}$	
Tolling Adjustments			$\sqrt{}$		SR 167
Transit Service New			$\sqrt{}$		
Transit Service Increase			V		
Improved Incident Management	V	V	V		
(Patrols)	V	V	V		
Technology – Electronic Signing or	$\sqrt{}$	V	V		
Surveillance	•	<b>V</b>	,		
Technology – Signal Interconnects			$\sqrt{}$		Meridian Ave, Pioneer
Convert trails to an asial material					Ave
Convert trails to special motorized use				$\sqrt{}$	
Tele-commuting	V	V	V		
Staggered Work Shifts	1	\ √	V		
Compressed Work Week	V	V	V		
Emergency Responder Routes	•	<b>V</b>	V		
Adjust Fleet Size				V	
judi 1 1001 0120				,	

				ecovery Plar	1
36 - Roadway Reconstruction Elements					
		Implem	entation		
Roadway Reconstruction Elements	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments
Debris removal of damaged roadway and roadway structures	$\sqrt{}$				
Prioritize segment restoration/reconstruction	$\sqrt{}$				
Provide engineering contract mechanisms (assume design- build for roadways and roadway structures of high priority)	V				
Meet with stakeholders to discuss options		V			Pre-planning should identify conceptual level-plans for roadway sections that are susceptible to failure
Determine long-term contracting needs		$\sqrt{}$			
Identify recovery options for the roadway section			$\checkmark$		
Coordinate with utility purveyors for utilities in roadway rights-of-way			V		
Develop long-term contracting procedures			$\sqrt{}$		

# Appendix B Scenario #37 – Closure of I-5 from SR 512 to SR 16

#### A. General Information

For the closure of I-5 from SR 512 to SR 16 Interchange, there is a main alternative route that entails diverting traffic from I-5 to SR 7, SR 702, and SR 510 back onto I-5. Several local directional access alternatives accommodate this scenario. 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 used as alternatives)

- 1. Pierce County Department of Emergency Management (DEM)
- 2. City of Yelm
- 3. City of McKenna

## 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 though 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

- Pierce County Emergency Management 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 interlocal 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.
- 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

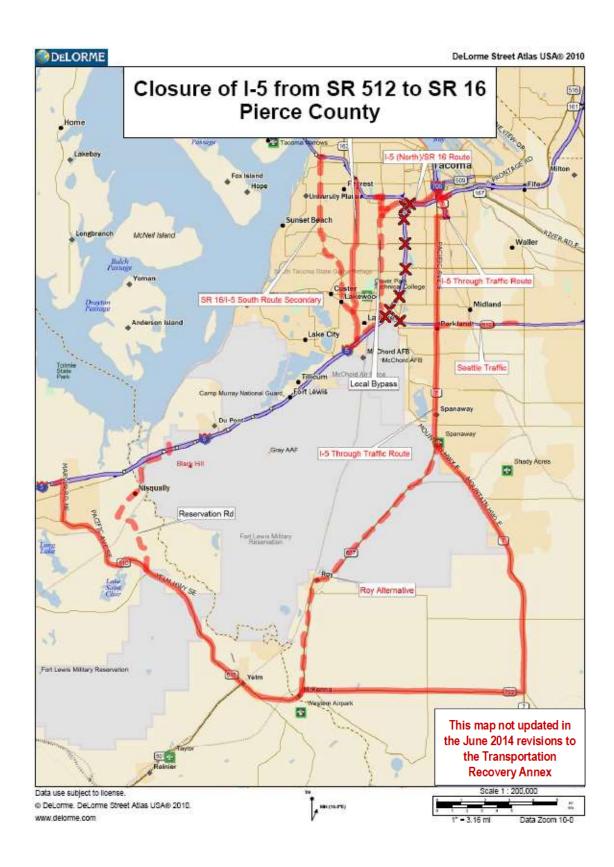
Stakeholders identified several short-term solutions such as providing alternate routing for all vehicle traffic. Solutions include: Tele-commuting, Alternate Routing, Adjusting Traffic Signal Timings, and establishing or expanding Park and Ride lots. Set-up highway detours signage for rerouting traffic.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

## 2. Mid-Term Alternatives

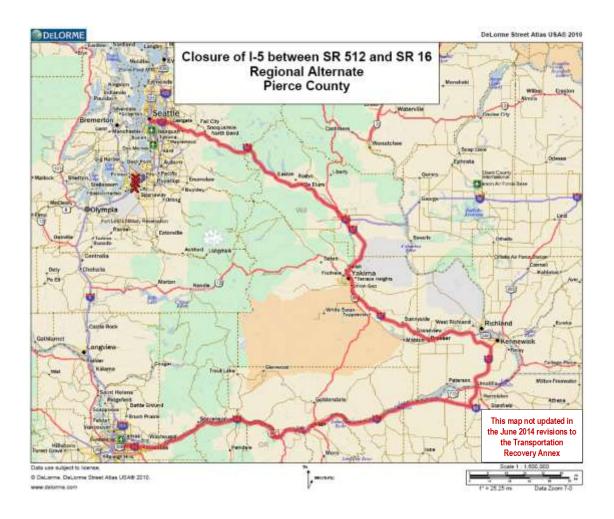
The short-term solutions can be extended to provide mid-term alternatives, as necessary. Several mid-term alternatives present themselves such as Turn Prohibitions at S 38th St, Tacoma Way, and Union and Van/Carpool incentives. Other alternatives include: Restrict/Eliminate parking on S 38th St, Tacoma Way, and Union, 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.

#### Long-Term Options

Mid-term alternative transportation options can be extended to long-term options, as necessary. In addition, long-term options include truck preferences such as port access, changing HOV rules, convert lanes to HOV lanes, bike lanes, expanding existing transit services, incorporating technology for signal interconnects at S 38<sup>th</sup> St, Tacoma Way, Union, establishing new freeway ramps such as the SR 512/I-5 Connection, and freeway ramp metering. See Appendix E – Roadways Toolbox for further information.







Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan				
37 - Closure of I-5 from SR 512 to SR 16 - Pierce County				
North to South (I-5 Through Traffic)	South to North Routing (I-5 Through Traffic)			
I-5 Southbound	I-5 Northbound			
I-5 Southbound Exit 133 (SR 7 Southbound)	I-5 Northbound Exit 111 (SR 510 Eastbound)			
SR 7 Southbound (Freeway)	SR 510 Eastbound (Marvin Rd SE)			
SR 7 Southbound Exit for SR 7 South (38th St	SR 510 Eastbound (Pacific Hwy/Marvin Rd			
West)	Circle)			
SR 7 Southbound (38th St West)	SR 510 Eastbound (Pacific Hwy SE)			
SR 7 Southbound (38th St) to	SR 510 Eastbound (St Clair Cutoff Rd)			
-Pacific Ave Southbound (Continue SR 7) (Traf.	Traffic from Fort Lewis use to join route:			
Sig.)	-Mounts Rd to Nisqually Rd to Reservation Rd			
SR 7 Southbound (Pacific Ave)	SR 510 Eastbound (Yelm Hwy SE)			
SR 7 Southbound (S Pacific Ave S)	SR 510 Eastbound (W Yelm Hwy)			
*SR 7 Southbound (Interchange with SR 512)	SR 507 Northbound (E Yelm Hwy) (Traffic			
SR 7 Southbound (Mountain Hwy E)	Signal)			
SR 7 Southbound to SR 702 Westbound	SR 507 Northbound (E Yelm Hwy)			
SR 702 Westbound (352 <sup>nd</sup> St S)	SR 507 Northbound			
SR 702 Westbound (352nd St S) to SR 507	SR 507 Northbound (McKenna Spanaway Hwy)			
SR 507 Southbound (Spanaway McKenna Hwy)	SR 702 Eastbound (352nd St S) Traffic Signal			
SR 507 Southbound (E Yelm Ave)	SR 702 Eastbound (352 <sup>nd</sup> St S)			
SR 510 Westbound (W Yelm Hwy) Traffic Signal	SR 7 Northbound (Mountain Hwy E)			
SR 510 Westbound (Yelm Hwy SE)	SR 7 Northbound (Pacific Ave S)			
-Traffic to Fort Lewis use Reservation Rd to	*SR 7 Northbound (Interchange with SR 512)			
- Nisqually Rd to Mounts Rd	SR Northbound (Pacific Ave S)			
SR 510 Westbound (St Clair Cutoff Rd)	SR 7 Northbound (Pacific Ave)			
SR 510 Westbound (Pacific Hwy SE)	SR 7 Northbound (38th St Eastbound)			
SR 510 Westbound (Pacific Hwy/Marvin Rd	SR 7 Northbound Ramp for SR 7 Northbound			
Circle)	SR 7 Northbound (Freeway)			
SR 510 Westbound (Marvin Rd SE)	SR 7 Northbound Exit for I-5Northbound			
SR 510 Westbound (Marvin Rd SE) Ramp to I-5	I-5 Northbound			
I-5 Southbound (Interchange 111)				

**Note:** Traffic to/from Seattle join this regional routing at SR 512 Interchange (noted with asterisk) (Seattle Route would use SR 512, SR 167).

**Note:** Possible connection to/from I-5 (South) could be made via two way traffic on Ramp from I-5 Northbound to SR 512 Westbound with some minor roadway modifications.

**Note:** Consider using South Tacoma Way to Bridgeport as alternative, contingent upon duration of closure.

Note: Alternate to SR 702 is to use SR 507 through Roy (Roy Alternate).

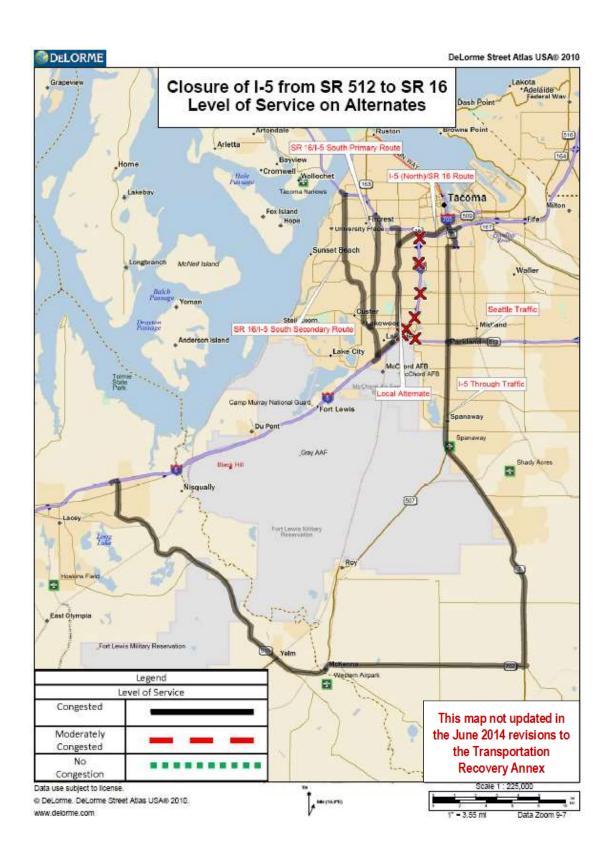
Puget Sound Regional Transportation R	Recovery Plan – Alternative Routing Plan
37 - Closure of I-5 from SR 5	512 to SR 16 – Pierce County
North to South Routing – SR 16 to I-5 South Primary	South to North Routing – I-5 North to SR 16 Primary
SR 16 Southbound SR 16 Southbound Exit 2 to S Orchard SR 16 Southbound Ramp to S Orchard St (Traf. Sig.) S Orchard St Southbound Lakewood Dr W Southbound Bridgeport Way SW Southbound (Traffic Signal) Bridgeport Way SW Southbound Bridgeport Way SW Southbound Bridgeport Way SW Southbound Ramp to I-5 South I-5 Southbound Ramp (Traffic Signal) I-5 Southbound (Interchange 125) I-5 Southbound	I-5 Northbound I-5 Northbound Exit 125 Ramp to Bridgeport Way SW (Traffic Signal) Bridgeport Way SW Northbound Lakewood Dr W Northbound (Traffic Signal) Lakewood Dr W Northbound S Orchard St Northbound N Jackson Ave Northbound S 19th St Eastbound (Traffic Signal) N Orchard St Northbound (Traffic Signal) N Orchard St Northbound Ramp for SR 16 North SR 16 Northbound Ramp (Traffic Signal) SR 16 Northbound
North to South Routing – SR 16 to I-5 South Secondary	South to North Routing – I-5 North to SR 16 Secondary
SR 16 Southbound SR 16 Southbound Exit 4 to Jackson Ave SR 16 Southbound Ramp to Jackson Ave (Traf. Sig.) N Jackson Ave Southbound S Jackson Ave Southbound Bridgeport Way W Southbound (Traffic Signal) Bridgeport Way SW Southbound Bridgeport Way SW Southbound Bridgeport Way SW Southbound Ramp to I-5 South I-5 Southbound Ramp (Traffic Signal) I-5 Southbound (Interchange 125) I-5 Southbound	I-5 Northbound I-5 Northbound Exit 125 Ramp to Bridgeport Way SW (Traffic Signal) Bridgeport Way SW Northbound Bridgeport Way W Northbound S Jackson Ave Northbound N Jackson Ave Northbound N Jackson Ave Northbound Ramp for SR 16 North SR 16 Northbound Ramp (Traffic Signal) SR 16 Northbound

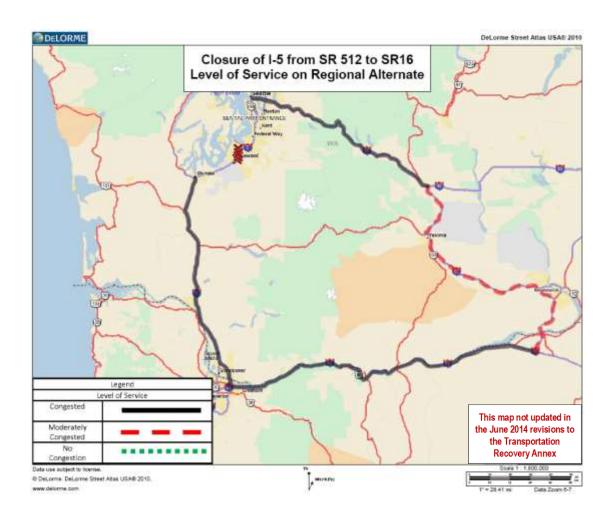
Puget Sound Regional Transportation R	Recovery Plan – Alternative Routing Plan
37 - Closure of I-5 from SR 5	512 to SR 16 – Pierce County
North to South –SR 16 to/from I-5 (North) Route	North to South –SR 16 to/from I-5 (North) Route
I-5 Southbound	I-5 Northbound
I-5 Southbound Exit 129 (So 72 <sup>nd</sup> St)	I-5 Northbound Exit 125
S 72 <sup>nd</sup> St Westbound (Traffic Signal)	Ramp to Bridgeport Way SW (Traffic Signal)
S 74 <sup>th</sup> St Westbound	Bridgeport Way SW Northbound
S Tacoma Way Southbound (Traffic Signal)	Pacific Hwy SW (Traffic Signal)
S Tacoma Way Southbound	Pacific Hwy SW Northbound
Pacific Hwy SW Southbound	S Tacoma Way Northbound
Bridgeport Way W Southbound (Traffic Signal)	S 74th St Eastbound
Bridgeport Way SW Southbound	S 72 <sup>nd</sup> St Eastbound
Bridgeport Way SW Southbound Ramp to I-5	S 72th St Ramp to I-5 North (Traffic Signal)
South	I-5 Northbound (Interchange 129)
I-5 Southbound Ramp (Traffic Signal)	I-5 Northbound
I-5 Southbound (Interchange 125)	

Puget Sound Regional Transportation Recovery Plan – Alternative Routing Plan							
37 - Closure I-5 from SR 512 to Thurston County Line – Pierce County							
North to South Regional Routing	South to North Regional Routing						
I-5 to I-84 (in Oregon)	I-5 (Seattle Area) to I-90 Eastbound						
I-84 Eastbound	I-90 Eastbound						
I-84 Eastbound to I-82 Westbound	I-90 Eastbound to I-82 Eastbound						
I-82 Westbound	I-82 Eastbound						
I-82 Westbound to I-90 Westbound	I-82 Eastbound to I-84 Westbound						
I-90 Westbound	I-84 Westbound						
I-90 Westbound to I-5 (Seattle Area)	I-84 Westbound to I-5 (Portland Area)						
,							

**Note** — Diversion to I-84 in Oregon State to I-82 to I-90 should be considered to bypass entire I-5 Corridor in Pierce County. Coordination required with Oregon. (See Map)

**Note** –This is the Regional Diversion Route.





Puget Sound Regional Transportation Recovery Plan									
37 - Closure of I-5 from SR 512 to SR 16 Interchange – Pierce County									
Mitigation Strategies									
		Impler	mentation						
Strategy	Short- Term	Mid- Term	Long- Term	Not Feasible Or N/A	Comments				
Alternative Routing		$\sqrt{}$							
Adjust Traffic Signal Timings		$\sqrt{}$							
Contra-flow Lanes New				$\sqrt{}$					
HOV Lanes – Convert									
HOV Lanes – New									
HOV Rules - Change					HOV 3, HOV 4				
Construct HOV Bypass				$\sqrt{}$					
Ramp Metering									
Freeway Ramps - New			V		SR 512/I-5 Connection				
Freeway Ramps – Closure									
Truck Restrictions	$\sqrt{}$	$\checkmark$	$\sqrt{}$		Unsafe Truck Routes				
Truck Preferences	į	į	į		Port Access				
Shoulder - Convert to Driving	`	•			E 26th St Ramp				
Lane			$\sqrt{}$		L 20 Ot Kamp				
Parking Eliminate/Restrict	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$		S 38th St, S Tac Way, Union				
Turn Prohibitions	V	V	V		S 38th St, S Tac Way, Union				
Ferry Service Relocation	•	•	•	$\sqrt{}$	o oo ot, o rae way, omon				
Ferry Service New				V					
•				,					
Ferry Service Increase Existing				√ √					
Congestion Pricing		ء ا	ء ا	V					
Vanpool Carpool Incentives	·V	√ √	$\sqrt{}$						
Park – Ride Lots New/Expand		٧	V	1					
Alternating Driving Days			1	$\sqrt{}$					
Bike Lanes			$\sqrt{}$	1					
Tolling Adjustments				<b>√</b>					
Transit Service New			,	$\sqrt{}$					
Transit Service Increase			V						
Improved Incident Management (Patrols)	$\checkmark$	$\checkmark$	$\checkmark$						
Technology – Electronic Signing	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$						
or Surveillance	V	V	V						
Technology – Signal			$\sqrt{}$		S 38 <sup>th</sup> St, Tacoma Way,				
Interconnects			V		Union				
Convert trails to special				$\sqrt{}$					
motorized use				V					
Tele-commuting		$\checkmark$							
Staggered Work Shifts		$\checkmark$							
Compressed Work Week		$\sqrt{}$							
Emergency Responder Routes									
Adjust Fleet Size				$\sqrt{}$					

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