

Puget Sound

Regional Catastrophic

Preparedness Grant

Program: Supply Chain Project



RCPGP: Supply Chain Project Report

6/30/2014

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Executive Summary

Washington State is one of the most trade dependent states in the United States, with an estimated one in three jobs being dependent on trade. It is projected that the supply chain network in the region and the state would be severely disrupted following a major earthquake on any of a number of the Northwest's major faults. Additionally, a terrorist attack against a single point target or multiple targets of critical infrastructure could cripple the region's ability to conduct commerce. Lessons learned from past events, such as the Kobe and Christchurch earthquake, reinforced the importance of recovery planning for the region.

The Regional Catastrophic Planning Team identified Supply Chain resilience as a priority issue for the region. As part of the work to build a more resilience Regional Supply Chain it was recommended to examine several of the past lessons learned from regional exercises and real world events. This report will highlight initial priorities that the Supply Chain Work Group identified as well as provide recommendations for regional coordination for supply chain resilience. The initial priorities the work group focused on include: designation of points of distribution, identification of alternate means of delivery, and disaster recovery transition planning between the government and private sector.

It is important to note that this work group is committed to meeting beyond the end of the Regional Catastrophic Planning Grant Program. This project will be sustained through ongoing recovery planning activities in further developing comprehensive recovery plans. The PNWER Center for Regional Disaster Resilience in Partnership with the Washington State Homeland Security Region 6 Critical Infrastructure Work Group will manage any follow-on efforts after the time of the grant.

Scope

The main objectives of the project were to develop a supply chain resilience working group consisting of transportation and supply chain stakeholders across the 8 county RCPGP. A series of workshops conducted by the working group researched the designation of community points of distribution (CPODs), identification of alternate means of delivery, and transition plan from government to private sector.

Final Products/Deliverables

Task 1. Create a working group to focus on supply chain resilience. This group will include key transportation and supply chain stakeholders, and additional state and local agencies, infrastructures, industry, businesses, and community organizations essential to sustaining the regional economy.

Task 2. Develop a memorandum of understanding for Puget Sound ports for post-disaster mutual aid to assist in keeping maritime business in the region.

Task 3. Identify best practices and develop a transportation strategy for community points of distribution for government provided commodities post disaster, track supply chain routes and alternate means of delivery.

Task 4. Develop a strategy for coordination between government and the private sector after the government's role in disaster response and short-term recovery are reduced and to more rapidly restore commerce and the economy.

Task 5. Develop a Critical Infrastructure Protection Action Strategy in response to the transportation impacts identified during the Evergreen Earthquake, Blue Cascades, Maritime Projects, and other CIP related exercises.

Task 6. Develop tools and pre-messages for sharing important transportation information between jurisdictions and transportation stakeholders, including promotion of the FirstToSee social media management system to the eight counties and all cities over 50,000 in the Regional Catastrophic Preparedness Grant Program planning area

This report is a compilation of the tasks conducted for this grant project. Work already completed for the RCPGP should integrate the findings for this report.

Port Mutual Aid Agreement Strategy

Introduction

Washington State has been identified as the most trade dependent state in the United States. The maritime ports in Washington State are a major component in the movement of goods as export commodities and for the importation of other equipment and material goods that support the functioning of the state and in many cases the nation.

When you combine the container volumes of just the two ports of Tacoma and Seattle, these ports would be the third largest port area in the United States, behind Los Angeles and Long Beach, and New York and New Jersey respectively.

Issue and Current Capability

Washington State is a high hazard environment with a wide variety of natural and technological hazards that threaten the functioning of the transportation system. Maritime ports are highly vulnerable due to their location near the water and extensive interdependencies with other infrastructures and services. Two key infrastructures are the transportation system in the form of rail and road and the electrical grid. Operations will come to a halt when any of the above, or other essential services are disrupted.

Physical damages to ports during an earthquake are highly likely due to their location in areas of high liquefaction. History has shown us that when ports are damaged their trade diminishes rapidly and may not return. The best case study for this is the Port of Kobe that had extensive damage from a 1995 earthquake. Even after all the repairs were completed they are still 17% down from their pre-earthquake business levels.

Through the effort of other regional projects like the Regional Maritime Transportation Recovery Exercise Series it was identified that none of the four major ports in the Central Puget Sound had robust business continuity plans in place. This further accents the need to have mechanisms in place for ports to work together during times of disasters.

It was determined that one mechanism to increase the disaster resilience of Washington State's ports was to provide a port mutual aid agreement that would allow ports to voluntarily provide assistance to one another during disasters. No such agreement is currently in place today.

Discussion Outcomes

In order to meet this need for a mutual aid agreement a Maritime Omnibus Mutual Aid Agreement was drafted. See attached copy for the final DRAFT of the document. The process followed is provided later in this document. The key features of the agreement are listed below:

- Is designed for Port Authorities in or contiguous with Washington State.

- Provides for the lending of supplies, equipment and/or services to other members.
- Participation is voluntary and does not become legally binding until a member agrees to become a lender or borrower under the terms of this agreement.
- No liability or breach occurs because a member delays or fails to provide assistance. There is no duty to respond.
- If a member lends assets to another member those assets may be withdrawn at any time without incurring any liability.
- Washington State Public Ports Association (WPPA) is identified as the Lead Coordinating Agency and is designated to manage signed/terminated agreements and emergency member contact information.
- Withdrawal from the agreement only requires written notification to the Lead Coordinating Agency.
- Unless otherwise mutually agreed upon, the first eight-hours of mutual aid are provided at no cost. Thereafter, costs are based upon actual costs or a current equipment rate.
- The lender may require that equipment be loaned with a trained operator.
- The agreement spells out the borrower's responsibilities for the care, return and/or replacement of equipment.
- The loaning of personnel is also addressed with specific provisions for unsafe conditions, consequences of a response operation, the scope and duties of supervisory personnel, required training/certification.
- Costs for safety, housing, meals and transportation of loaned personnel are the responsibility of the borrower.
- Additional articles address indemnification, limitation of liability; subrogation; and workers compensation/claims.

Process followed

Emergency management staff in the region from the Ports of Tacoma, Seattle and Bellingham had identified this lack of a mutual aid agreement between ports as a shortfall in the readiness of the region. Initial work on a draft document modeled after other mutual aid agreements that had been formulated in accordance with Washington State laws was accomplished.

The Regional Catastrophic Planning Team (RCPT) identified a larger regional supply chain project to be accomplished. It was decided in formulating that project to include the establishment of a port mutual aid agreement which would be an element of that project.

The Port of Bellingham provided leadership in finalizing a DRAFT agreement and having their attorney conduct a legal review of the document. Initial coordination with United States Coast Guard (USCG) Sector Puget Sound staff determined that they could not be the Lead Coordinating Agency. The Area Maritime Security Committee (AMSC) a component of the maritime coordination mechanism facilitated by the USCG was briefed on this project at one of their 2013 quarterly meetings.

The Regional Maritime Recovery Exercise project and after action report funded by the Port Security Grant Program (PSGP) identified in several places the need for a mechanism for ports to share personnel and equipment during emergencies and disasters.

Additional coordination with Tom Albro, Port of Seattle Commissioner, incoming President of the Washington Public Port Association (WPPA) provided an avenue for WPPA to become a coordinating body for the adoption of the mutual aid agreement and also a possible mechanism for them to become the Lead Coordinating Agency required as language in the draft agreement.

Further coordination with the WPPA garnered a commitment from them to provide a briefing to their membership on the agreement and to also serve as the Lead Coordinating Agency to hold the signed agreements and monitor which ports are voluntarily participating. The briefing to WPPA members was held on May 14, 2014.

What outcomes came from the process?

The agreement becomes effective when two ports sign the agreement. There are verbal commitments from two ports, Port of Seattle and Port of Bellingham, for them to pursue adoption of the mutual aid agreement. Additional ports can be added at any time.

Recommendations

Additional work is required to keep the knowledge of the mutual aid agreement before people and organizations. Such activities might include:

- Seeking additional ports to become signatories
- Ports need to amend any disaster response plans they have in place today to include wording that recognizes the existence of the mutual aid agreement and establish procedures for executing the borrower and lender process during emergencies.
- Future maritime exercises of any size should practice the processes established for ports to borrow or lend personnel or equipment.

What are the Future Actions?

- WPPA will provide the forum for the mutual aid agreement to be housed and coordinated with other ports becoming participants when they are ready.
- Individual ports should also look to establish business continuity plans that address their known vulnerabilities.
- Potentially, the existing port mutual aid agreement could be expanded to include ports along the West Coast in the states of Oregon and California.

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Government and Private Sector Strategy

Introduction

Public and private sector partnerships are an essential element for building disaster resilience for a community or a region. The intersection between government and business is coming much closer as the world becomes much more interdependent. Supply chains are now international and the services that support governments and businesses are extremely diversified. Individual organizations have much less control over systems that are needed to function.

Issue and Current Capability

The Puget Sound region is known for a higher level of collaboration between public agencies and other partners like the private and nonprofit sectors. While the history of cooperation has been good, improvements and renewal is needed.

There are existing business oriented associations and groups. Two prominent ones are the Contingency Planners and Recovery Managers (CPARM) and the Association of Contingency Planners (ACP). The latter is part of a larger national association and the CPARM group is more homegrown. These informal groups provide forums for business professionals to interact with one another. Generally there is not a significant interface between the public and private sectors that occurs at meetings that these two groups host. Neither do they host projects that promote public-private partnerships.

Another positive element in the interaction between the public and private sectors is the Partners in Preparedness Conference that is held every year. Now entering its 18th year of holding conferences this annual event brings together professionals from both the public and private sectors. However, the public sector clearly dominates this event with some limited participation by business.

We are in the midst of a significant transition in public and private sector emergency management and business continuity leadership. Many senior leaders who have held positions of authority have retired or will retire soon. The individual relationships that have been established over the years are rapidly diminishing as individuals move on and are replaced with new personnel who do not have the same institutional knowledge or lack appreciation for the need to establish and maintain public-private sector partnerships.

As noted above, the interdependencies between organizations are becoming more pronounced and instead of building resilience, they are becoming a force that separates and diminishes regional capabilities and resilience.

"Improve Private Sector Coordination" was identified through the Transportation Recovery Annex Planning. It was noted that formal agreements between public transportation agencies and private sector stakeholders could be improved to better integrate the private sector into ongoing emergency management planning, training and exercise programs.

Private businesses play a significant role in protecting the community during disasters. Businesses also play a vital role in working with government to facilitate and provide emergency recovery from all types of disasters -- from small-scale to catastrophic. Each mode of transportation (roadway, waterways, airways and railways) has many private sector transportation stakeholders.

Like the public sector, the private sector can support emergency recovery efforts consistent with the National Incident Management System. Private sector facilities, primarily intended to provide a locally-based function, could integrate with transportation recovery efforts at local government levels as appropriate. Private sector facilities intended to provide a regional or multi-county function could integrate with transportation recovery efforts at the state level.

Formalizing public-private partnerships would also enhance coordination amongst participants. In addition, some private sector organizations may be able to bring in resources (volunteers, equipment, supplies) from other locations.

The following recommendations and timeline was listed in the Transportation Annex; Emergency management and transportation agencies should expand coordination with private sector providers to involve them more in ongoing regional transportation planning and coordination.

- **Year 1**
 - Expand communication and coordination channels with private sector transportation providers across all modes of transportation. In 2013, the RCPT developed a Supply Chain Resilience working group to coordinate public/private supply chain stakeholders across the region.
- **Year 2**
 - Customize MOUs and obtain signatures among targeted private and public sector participants.
- **Year 3 +**
 - Continually ensure that roles and responsibilities, coordination, protection and administration clauses are still valid and update if necessary.

Discussion Outcomes

The Regional Catastrophic Planning Team (RCPT) established a goal to form an ongoing public-private sector partnership that would address supply chain issues and provide a forum for a continuing dialog and successive projects of mutual interest.

An initial Kickoff Meeting was held for the Supply Chain Project at which participation in this new endeavor was sought. At successive workshops on Supply Chain projects one of the elements that was gathered from participants via the event evaluation survey was their interest in continuing to participate after the completion of the formal Supply Chain Project.

The list of individuals and organizations who have committed to participating in an ongoing effort are attached. In addition to the general membership, public and private chairs have been recruited. Walt Hubbard, Director, King County Office of Emergency Management has committed to being the Public Sector Chair. Mark Wesolowski, Business Continuity Manager, Puget Sound Energy has agreed to be the Private Sector Chair.

The Regional Catastrophic Planning Grants (RCPG) will be ending in July 2014. The intent is to continue the work of the grant programs by having a specific effort on building and maintaining public-private partnerships.

Another organization that can be capitalized on is the Washington State Homeland Security Region 6 Critical Infrastructure Protection (CIP) Workgroup. It is another supporting organization that can assist in the coordination between public and private sectors. While these efforts are distinct and the WA HLS Region 6 CIP Workgroup has a much narrower geographic focus, there are opportunities for the two efforts to work collaboratively.

Recommendations

While the federal grant funding that has supported the work of the last seven years is ending, the task of keeping the public and private sectors engaged can be continued by looking for opportunities to continue the dialog and relationships. Examples for future joint collaboration include:

- Cascadia Subduction Zone Exercise 2016
- Future climate adaptation and resilience work in the Puget Sound
- Future cybersecurity events in the region, e.g. Emerald Down events
- Future grant projects that have an element of public-private partnership participation
- Participation in the Partners in Preparedness Conference by hosting sessions on the topic of public-private partnerships
- Continue to expand the voluntary membership in the group by addition additional lifeline and infrastructure providers.
- Be open to participation from a wide variety of public and private organizations.

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Community Points of Distribution Transportation Strategy

Introduction

Community Points of Distribution (CPOD) sites are important for maintaining the ability of citizens to stay in the region by providing life-sustaining emergency relief supplies following a disaster. CPOD sites are needed when retail establishments are closed and the public does not have access to basic commodities. CPOD sites typically remain open until retail sites reopen or sufficient mass care operations are in place. It is important to coordinate when and where retail sites are open or can be reopened. Coordination is important for a successful CPOD site to be resourced and identified. The Regional Catastrophic Planning Grant Program identified the need for best practices for coordination of CPOD sites.

There has been much work and time devoted to the development of best practices for CPOD sites. The Community Points of Distribution Planning Guide from January 2013 and the Resource Management Logistic Toolkit provide important guidance on the development and coordination of CPOD sites. This strategy will highlight the coordination needed between government agencies as well as including the private sector. The strategy will also highlight a technological solution for better coordination.

Issue and Current Capability

Washington State is a high hazard environment with a wide variety of natural and technological hazards that threaten the functioning of the transportation system. The region is vulnerable to many types of disasters. The most catastrophic disasters will occur with little or no notice and will have a major impact on infrastructure systems. The ability to pre-stage resources for community points of distribution will be very limited and supplying resources after a disaster will be highly challenging, because of damage to the supply chain network.

Just-in-time inventory systems have become the norm for most major suppliers in the region. These systems allow for about one to three days of supply on hand on average. Following a major disaster, commodities and resources may be cutoff or difficult to get to; many organizations rely on warehouses and distribution centers located in high risk areas, such as liquefaction zones. Also, transportation systems used to access goods could be damaged such as airports, ports, roadways, waterways and railways. This would further hinder the ability of the region to recover.

Coordination between stakeholders has been identified as a major planning gap in the region. This further accents the need to have mechanisms in place for jurisdictions and the private and public to work together during times of disasters. During a disaster it is difficult to establish trusted relationships and two way information flow. It was determined that one mechanism to increase the disaster resilience of the region is to develop a shared situational map that will provide data on one website from multiple data sources. This tool could help emergency managers, transportation planners and CPOD coordinators identify routes and site locations after a catastrophic event by providing a regional view of impacted infrastructure. No such tool is currently in place today.

Discussion Outcomes

Local Emergency Management Agencies can activate the most effective distribution sites to handle the situation, but coordination is necessary to ensure resources are available and the feasibility of the site. When a CPOD is designated it is the responsibility of the local emergency managers to understand the requirements for staffing and running the logistics for the CPOD site. It is also the responsibility of local emergency managers to identify the site's location. This process can be streamlined with the inclusion of transportation subject matter experts and sharing data between jurisdictions. One tool that can be used to share information is a situational map that can visually display the impacted routes and assist subject matter experts identify site locations for CPODs.

Stakeholders identified key components for a shared situational map during workshop discussions. The goal of the map is to provide a single spatial (map) view of incidents that are occurring in the Puget Sound Region, giving public agencies, businesses, nonprofits and the general populace a single location for information during an emergency or disaster. This tool will be an amalgamation of system disruptions, route considerations, public safety instructions, forecasts and service closures that are occurring in real time. The map will be populated by pre-identified public and private organizations that provide facilities and services. Each organization will be issued a unique log-in through which it can manage postings. Where possible, the map should be able to be populated via existing RSS feeds from organizations that already maintain established data streams. Other organizations will post information, e.g. road closures, power outages, service disruptions, on a case by case basis by entering posting necessary information directly onto the map. See attached copy for the final DRAFT of the document. The process followed is provided later in this document. The key features of the agreement are listed below:

- The map will have a limited number of identifiable icons designating the type of service disruption, hazard or event.
- The map must be intuitive to use with conventional tools and processes that are familiar to the typical individual consumer/user of digital map technology.
- There must be a web-based Intel version and built without limiting the future development of a companion product configured for users of both Android and Apple mobile devices.
- The counties to be covered include: Island, Skagit, Snohomish, King, Kitsap, Pierce, Thurston and Mason (RCPT).
- The development of a separate mobile app is not part of this limited project.
- Operational Procedures: Each organization is responsible for posting their data to the map and each will have an individual password. The user will select an icon from a short list, click and drag that icon to a map. A text box will automatically open and details about that incident can be entered in the text box.
- Users can zoom in or out. They can turn layers on or off, e.g. WSDOT transportation traffic information. Incidents can be sorted by range of dates.

Process followed

Stakeholders involved with the Regional Catastrophic Planning Grant Program identified CPOD management and coordination as a gap in planning. In the planning process a key finding from the CPOD planning guide and resource management plan was that coordination and information sharing between the local emergency management agencies and transportation subject matter experts across multiple jurisdictions was not formalized when planning CPOD sites. Working Group members were provided an opportunity to participate in a demo of the map and learn about the collaborative capabilities it can provide for the region.

What outcomes came from the process?

PNWER held workshops with stakeholders to share the findings as well as develop the structure for a draft situation map for regional coordination. Training on CPOD deployment has not been a priority for all local emergency managers, because of the infrequent use of CPOD sites and other training priorities with higher precedence. The RCPGP has been instrumental in the development of planning guides and educating regional stakeholders on the importance of understanding CPOD deployment.

Recommendations

A key recommendation from the process is to gain commitment from regional stakeholders to share critical transportation information for CPOD deployment that is open to the public.

These stakeholders should commit to participate in the situation map with the option to continue using the platform after one year.

What are the Future Actions?

Secure funding for the sustainment of the situation map either through private sector sponsorship or government funding.

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Puget Sound Critical Infrastructure Regional Integrated Action Strategy

Overview

The following *Regional Integrated Action Strategy* is a compilation of action items, improvements and recommendations developed from several regional initiatives focused on transportation disruptions and other impacts to regional critical infrastructure that could affect regional supply chains. Workshops and exercises focused on regional manmade and natural disasters and included hundreds of representatives from public and private sector organizations over the past several years. These actions were developed with the assistance of local stakeholders and individual event planning teams, with coordination between the public and private sectors. Below is a brief summary of each exercise.

Regional Exercise/Workshop Summary

The Puget Sound Maritime Regional Transportation Recovery Initiative, FEMA Port Security Grant, 2013-14

The Puget Sound Regional Maritime Transportation Disaster Recovery Initiative Regional Tabletop Exercise was designed to establish a learning environment to enable the maritime transportation community to review and understand the diverse requirements and issues to reinstate their respective operations quickly after a natural disaster. The exercise examined the recovery capability of Puget Sound region, incorporating a financial and economic simulation model to aid participants in identifying potential interdependencies between elements of critical infrastructure and allow clear communication of projected impacts of decision-making during the exercise.

Evergreen Quake Exercise, 2012

The Evergreen Quake 2012 Exercise Series included three exercises that tested the ability of local, state, federal, and tribal governments, and select private sector entities located within the Puget Sound area to collaboratively respond to and recover from large-magnitude earthquakes. Each of the exercises shared a common scenario but was designed independently, using information based on the scenario and overarching themes. The ultimate goal of the exercise series was to improve the collective operational readiness of exercise participants.

US-Canada Maritime Commerce Resilience Initiative, USCG & Transport Canada, 2012

The United States Coast Guard, Transport Canada and PNWER partnered in the development of a framework for swiftly managing traffic in the event of an emergency, with the goal of expediting maritime commerce recovery through regional collaboration between Canada and the United States. The pilot project included the planning and execution of several cross border, multi-sector workshops and a tabletop exercise which led to the development of a protocol framework for regional maritime commerce recovery.

Regional Recovery Interdependencies Workshop, WA Homeland Security Region 6, 2012

This large scale regional workshop hosted by Microsoft, focused on business recovery and business resumption for the Puget Sound region following a major earthquake. The workshop explored the issues of infrastructure, government, physical security, employees/customers and suppliers. It was designed in three

phased breakouts exploring: A) What would keep business from reopening; B) What could be done ahead of time to reduce the impact and to speed business resumption; and C) What should be included in government recovery plans to facilitate business resumption? As part of this effort, PNWER hosted King County, Pierce County, Snohomish County and city of Seattle leadership in meetings to encourage more regional collaboration and information sharing on disaster recovery planning

Comprehensive Community Bio Event Resilience Initiative, DHS Office of Health Affairs, 2010-2011

The purpose of the exercise was to examine current health-related preparedness and management capabilities with a focus on communications; planning and management of resources, including staff; supply chains and logistics; public health/economic impacts; the executive decision making process; and to identify areas for improvement that can strengthen community resilience. The exercise was developed by local, state government and other stakeholders, and covered the greater Seattle area, cross-jurisdiction/state and cross-national border.

Blue Cascades Exercise Series, PNWER, 2002-2010

The Blue Cascades tabletop exercises are scenario-based discussion events developed by and for key stakeholder organizations that have roles and responsibilities or significant interests in assuring the security and resilience of the Puget Sound Region and the critical infrastructures and essential service organizations that underpin citizens' health, safety and economic well-being. Developed and facilitated by the stakeholders themselves, the Blue Cascades exercises focus on all-hazards. The chief goal of these tabletop exercises is not to test plans and procedures, but rather to raise awareness of infrastructure interdependencies and associated vulnerabilities, impacts, and preparedness gaps, identifying potential solutions to make needed improvements. The After Action Reports of the Blue Cascades Exercises are used to develop Action Plans of stakeholder recommended and prioritized activities. These activities may be short-term (one year or less), medium term (eighteen months to two years) or long-term (multi-year). All require cross-sector, multi-jurisdiction, and, in most cases, multi-discipline collaboration and expertise to implement.

Participants in the *Blue Cascades* exercises represent all levels of government, utilities, businesses, and other private sector organizations, non-profits, academic and community institutions. *Blue Cascades I* (2002) focused on a physical attack scenario; *Blue Cascades II* (2004) on cyber attacks and disruptions; *Blue Cascades III* (2006) on a major subduction zone earthquake; *Blue Cascades IV* (2007) on pandemic preparedness; and *Blue Cascades V* (2008) on disaster logistics and supply chains (food, water and fuel). *Blue Cascades VI* (2010) focused on a major flood of the Green River Valley combined with an associated resurgence of the H1N1 pandemic.

2010 Dam Sector Exercise Series – Green River Valley, U.S. Army Corps of Engineers

The U.S. Department of Homeland Security (DHS), U.S. Army Corps of Engineers (USACE), Federal Emergency Management Agency (FEMA), and public and private stakeholders from the Green River Valley in the State of Washington collaborated in conducting the 2010 Dams Sector Exercise Series – Green River Valley (DSES-10) as a means to address regional disaster resilience issues. The DSES-10 effort focused on the analysis of short- and long-term regional impacts resulting from a flood scenario affecting the King County communities of Auburn, Kent, Renton, and Tukwila. This flood scenario served as the triggering event to analyze impacts and interdependencies.

Supply Chain Resilience Workshop, WA Homeland Security Region 6, November 2010,

The Workshop agenda was designed by regional stakeholders and addressed issues that have surfaced during previous events. A number of prior workshops and exercises have pointed to the need to identify and share best practices between public and private sector organizations. The workshop focused on the importance of supply chain resilience to manufacturing and the broader business community. Business leaders discussed supply chain and related continuity challenges and needs regarding business impacts, restoration decision-making, and potential areas of improvement.

Green River Infrastructure Interdependencies Workshop, Center for Regional Disaster Resilience, 2009

Local government agencies, private stakeholders and other key organizations convened on November 12, 2009 in Seattle, WA to discuss potential impacts from a major flood in the Green River Valley and identify ways to mitigate consequences for public health and safety and the region's economy. The workshop was a collaborative initiative by the Center for Regional Disaster Resilience, the Washington Homeland Security Region 6 Critical Infrastructure Protection Working Group, in cooperation with the City of Tukwila and King County Office of Emergency Management. The workshop included discussions of infrastructure impacts and cascading failure caused by a potential flood. It also examined additional short-term mitigation measures that could be undertaken and development of a longer-term regional mitigation strategy to deal with potential flood impacts.

Energy Assurance Workshop, US Dept. of Energy, 2009

The overall goal of the Workshop was to provide information and increase the awareness of local governments of regional energy infrastructure systems and services; energy infrastructure dependencies and interdependencies; to enhance capabilities to prepare, respond, and recover from all-hazards energy emergencies; and to improve coordination and cooperation among all levels of government and regional energy providers. The Workshop was sponsored by the U.S. Department of Energy's Office of Electricity Delivery and Energy Reliability.

SR 520 Bridges Catastrophic Failure Exercise, WSDOT, 2006-2007

The Washington State Department of Transportation (WSDOT) hosted a tabletop exercise with Seattle area local jurisdictions, businesses and other key stakeholder organizations on November 29, 2006 to examine preparedness, response, and longer-term recovery issues associated with a catastrophic failure of the SR 520 Bridge. A follow on Action Planning conference took place in 2007 to identify and prioritize specific actions to address the recommendations from the exercise.

Regional Integrated Action Strategy

The *Regional Integrated Action Strategy* specifies activities that have been recommended by stakeholders to address specific recommendations from workshops and exercises. The implementation level of each recommendation is listed along with the referenced initiative.

Significantly, the *Regional Integrated Action Strategy* is a flexible tool designed to be a “living document” and revised and updated as new needs arise and understanding of infrastructure interdependencies and disaster resilience requirements evolve. Availability of resources and changing stakeholder priorities based on perceived needs have been major determinants of activities undertaken.

Categories

The following activities are organized by five specific categories. The top stakeholder identified action items are listed.

- **Communications & Information Sharing**
 - Emergency Backup Communications Systems Inventory and Assessment and Gaps.
 - Studies should be done to understand the impacts of decreased bandwidth and possibly compromised IT infrastructure on communications during an event and solutions identified, researched and tested with exercises. Internet Service Providers can become overwhelmed and the access/last mile can become extremely congested, impeding communications and remote operations during events. This activity will identify these shortfalls, recommend ways to expand coverage, and provide for redundancies to support disaster communications requirements.
 - Leverage work to date and additional capabilities to develop an operational regional all-hazards two-way information-sharing capability among government agencies and the broader stakeholder community. As part of this effort, delineate the role of local resources in information sharing, along with the roles of other key contributors to an information sharing system.
 - Collaborate with city, county, and state officials to combine efforts to create and maintain a regional transportation system website or map with a list and the status of all roads (state and local)
- **Transportation & Supply Chain Resilience**
 - Develop a comprehensive list of commercial port and maritime transportation key facilities and assets by pooling knowledge of government and commercial stakeholders.
 - **Develop a Regional Disaster Supply Chain Risk Assessment and Resilience Strategy** that covers:
 - Earthquake -related interdependencies impacts on disaster supply chains and potential mitigation measures, including alternative energy and communications means;
 - Roles and responsibilities and incident management and recovery processes;
 - Decision-making process, including procedures for prioritization of food, water and fuel allocations to infrastructures
 - This strategy will result in the development of pre-established recovery priorities, resource requirements, and restoration timelines for the sector, facilitating a unified, efficient recovery for the sector following a disaster event.

- **Supply Chain Study.** This activity will identify and assess critical supply chain dependencies and interdependencies for area businesses and those entities that are dependent upon them. Disasters can have cascading consequences that are felt far from their source. This activity will identify and map critical inter- and intraregional supply chain dependencies /interdependencies as well as recommend redundancies to mitigate potential service interruption. The focus of this activity will be to further refine regional infrastructure dependencies and interdependencies analysis, with particular focus on energy, water, wastewater, transportation systems, business continuity, and continuity of operations.
- **Port Capabilities, Impacts, and Restoration Study.** In a significant flood (or other hazard) event, restoration of the Ports of Seattle and Tacoma is of the highest priority as numerous local, regional, and national supply chains depend upon them. Regional commercial throughput of manufactured goods and produce is a paramount economic factor for regional recovery, and restoration of these supply chains is a critical step in bringing businesses back online and reestablishing jobs and the flow of goods and services. The focus of this activity will be to perform a targeted study of the potential loss of port capabilities and associated impacts on regional supply chains as they pertain to economic recovery. The analysis will not only highlight the crucial position of the ports themselves, but will provide valuable insights into the priority of restoration of supporting infrastructure such as roads, bridges, communications, and other priorities.
- **Lifeline Infrastructure Systems**
 - With technical assistance from relevant federal agencies and leveraging existing capabilities, undertake an assessment of local and regional interdependencies, effects and consequences associated with impacts of large-scale events that diminish the workforce on critical infrastructure and essential service providers under different scenarios, including pandemic.
- **Community and Economic Resilience**
 - Create a regional inventory of normally available private sector, non-profit including philanthropic and other key stakeholder resources and supplies that could be readily mobilized after a major disaster.
 - Local government should continue to conduct outreach to area businesses and other organizations, provide forums to share continuity of operations planning best practices and approaches and assist small enterprises and other organizations that lack resources and expertise.
 - Examine policies to ensure that hospitals in collaboration with other healthcare providers and supply chain organizations develop and exercise business continuity plans.
 - Identify incentives to keep small businesses operating after a regional incident or disaster, and to return to the region if they have left, as well as what legal or policy provisions many need to be developed or changed. Explore ways to expand FEMA, Small Business Administration and other government disaster assistance programs and to appropriately provide assistance to the private sector.
 - **Develop a strategy to address ethnic, cultural, and faith-based groups that:**
 - Identifies these groups and points of contact within them;
 - Builds on current public health and non-profit outreach activities to these groups;
 - Lays out a process of optimal ways to disseminate information based on an awareness of what types of communications and communication channels are most effective for particular groups;
 - Integrates these groups into preparedness activities and exercises.

- **Governance and Policy Coordination**

- Create a long-term recovery advisory council made up of public and private stakeholders prior to an event and begin to talk through scenarios and priorities of the region. This activity will further develop, validate, and exercise a regional coordination structure for long-term recovery/restoration, with emphasis on a multi-agency, public-private construct capable of prioritizing and overseeing long-term recovery functions. This will include regional priorities agreed to in advance for emergency restoration of utilities and resources and emergency housing and business resumption options.
- Regional Disaster Recovery Plan. The focus of this activity will be to develop and implement an overarching region-wide plan for long-term recovery and economic resilience, including recovery of critical infrastructures and business assets, consistent with National Recovery Framework. This plan will designate decision-making structures and authority for regional recovery and enable the prioritization of recovery activities.
- Undertake a pilot project to identify legal and policy barriers, as well as requirements for effective cross border, cross-jurisdictional command and control.
- Region-wide Inventory and Assessment of Existing Physical and Cyber Disaster/Attack Preparedness Capabilities (e.g., mechanisms, plans, procedures, methodologies, approaches, communications systems, sensors, and tools. Will provide a baseline of what has been done to avoid “recreating the wheel.”)
- Develop and conduct an exercise and training program for stakeholders on emergency management plans and incident and recovery chain-of-command procedures.

Puget Sound Critical Infrastructure Integrated Action Strategy
(The highlighted recommended actions are the stakeholder identified priorities)

Section A – Communications & Information Sharing

Communications & Information Sharing			
#	Recommended Action	Implementation Level	Exercise Reference
A1	Inclusion of media infrastructure representatives in NWWARN, workshops, seminars and training events	Local, State	Blue Cascades II
A2	Undertake a Virtual EOC Project that can link first responders and local and private sector Emergency Operations Centers to local radio stations to provide notification of outages, threat information, and general information when phone lines, common networks, and email are not available	Local	Blue Cascades III
A3	Create and conduct targeted workshops and exercises that focus on communication, information sharing, and on pandemic roles and responsibilities within each level of government, within sectors and on a regional basis	Local, State	Blue Cascades IV
A4	Undertake a Critical IT Resilience Assessment that includes Emergency Communications Contingency Plans to address warning and information sharing needs	Local	Blue Cascades II
A5	Create and undertake a Regional Media Disaster Resilience Strategy to involve broadcast and other appropriate media in emergency communications and overall role of media in disaster preparedness and management	Local, State	Blue Cascades III
A6	Create a working group to develop a regional pandemic public information and communication plan that includes: <ul style="list-style-type: none"> • The types of information provided, • Target audiences, including multi-cultural groups • Types of media used • What messages should be conveyed • Key communicators • What vulnerabilities exist of communications systems that could impede information dissemination Types of educational tools required	Local	Blue Cascades IV
A7	Develop a system for sharing pandemic-related information and resources that can be used for	Local, State	Blue Cascades IV

	planning and pandemic management purposes. This system would be incorporated into regional emergency management planning and the Washington Information Fusion Center (WSFC), and also be part of a broader statewide response and restoration disaster resource management system that focused on all-hazards disasters		
A8	<p>Develop a public information plan on disaster supply chains that includes:</p> <ul style="list-style-type: none"> • The media ; • An event to educate elected officials; • Information on earthquake impacts and what the public can expect regarding food, water, fuel, and other critical supplies; • What services the government can and cannot provide ; • Provisions for public message coordination among local government with food, water, and fuel and other essential service providers to deal with public and media inquiries • Cross-sector exercises and workshops; • An experts group to provide information in coordination with emergency management before, during and after a disaster; <p>A “crisis information” mechanism to put out and collect information via email, Twitter, or other social media/technology means</p>	State	Blue Cascades V
A9	Working with state and local government, build upon existing radiological response guidelines to develop a public education initiative. Create a central clearing house for radiological preparedness, response, recovery information for the general public, media, and government and business/infrastructure organizations. Explore needs for additional study on radiological contamination issues (e.g., of water sources and water treatment plants)	Local, State	Blue Cascades I
A10	Emergency Backup Communications Systems Inventory and Assessment and Gaps.	Local	Blue Cascades II
A11	Develop and conduct an Emergency Communications and IT Risk Assessment and Mitigation Workshop to enable participants to go back to their enterprises and apply the lessons learned.	Local	Blue Cascades II
A12	Develop a Key Stakeholder “Orange Pages” of point-of-contact information that leverages existing networks like HSIN, NWWARN, e.g., phone numbers, radio frequencies and other contact alternatives, within sectors and cross-	Local	Blue Cascades II

	sector with critical customers, service providers, contractors, and others deemed necessary to meet contingency planning requirements. Develop procedures for keeping this resource up-to-date.		
A13	Develop a Disaster Supply Chain Public Outreach and Information Initiative with a cross-sector work group and undertake phased implementation of Regional Disaster Supply Chain Risk Assessment and Mitigation Strategy (activities to develop procedures, tools, systems for prevention, mitigation needs as outlined in the Strategy).	Local, State	Blue Cascades V
A14	Local, state and regional stakeholders need to develop a strategy for improved alert and warning, communications and two-way information sharing on health security and resilience that identifies what information needs to be conveyed, to what organizations and individuals, and how it will be coordinated and disseminated, ideally from a central focal point. The role of the Washington State Fusion Center in information sharing should be clearly defined, along with the roles of other key contributors to any information sharing system.	Local, State	Blue Cascades VI
A15	<p>Studies should be done to understand the impacts of decreased bandwidth and possibly compromised IT infrastructure on communications during an event and solutions identified, researched and tested with exercises.</p> <p>Internet Communication Systems Mitigation Actions. Internet Service Providers can become overwhelmed and the access/last mile can become extremely congested, impeding communications and remote operations during events. This activity will identify these shortfalls, recommend ways to expand coverage, and provide for redundancies to support disaster communications requirements.</p>	Local, State, and utilities	<p>Blue Cascades VI</p> <p>DSES-10 Green River Regional Resiliency Strategy</p>
A16	Utilize an existing work group of appropriate local government and key stakeholders to discuss and determine realistic triggers for emergency alerts and activities for different scenarios.	Local	Blue Cascades VI
A17	Produce a survey of regional alert capabilities that assesses the effectiveness of systems and procedures and identifies ways to improve alert information coordination and dissemination.	Local	Blue Cascades VI

A18	<p>Leverage work to date and additional capabilities to develop an operational regional all-hazards two-way information-sharing capability among government agencies and the broader stakeholder community. As part of this effort, delineate the role of local resources in information sharing, along with the roles of other key contributors to an information sharing system.</p> <p>Collaborate with city, county, and state officials to combine efforts to create and maintain a regional transportation system website or map with a list and the status of all roads (state and local)</p>	Local, State	<p>Blue Cascades VI</p> <p>Puget Sound Maritime Transportation System Recovery Exercise</p>
A20	<p>Develop a Regional Bi-National Disaster Alerting Protocol and/or agreement. This protocol and/or agreement should provide Alerting Levels to trigger associated pre-determined measures and mechanisms, at each level, to guide a progressive and timely increase in communication and information sharing among stakeholders. It can also provide triggers signaling regions, organizations and their supply chains to take pre-determined action to carryout and coordinate recovery activities</p>	State, Federal	US-Canada Maritime Commerce Resilience Initiative
A21	Creation of a single source of information for business to keep aware of the situation and allow two-way communication (business emergency operations center and recovery center concept).	State, local	Regional Recovery Interdependencies Workshop
A22	Development of a long-term recovery communications strategy. Include infrastructure restoration priorities for roads, power, water/sewer, fuel, communications and transportation systems.	State, local	Regional Recovery Interdependencies Workshop
A23	Waterproof Buried Optical Communications Lines. The ingress of water into data cabling systems can have detrimental effects on fiber optic cables' ability to support high bit rate data transfer applications such as Ethernet.	State, local and utilities	DSES-10 Green River Regional Resiliency Strategy
A24	Regional Data Centers Assessment for Recovery Planning. Prevention, mitigation, and resiliency strategies focused on regional data centers should be undertaken based on assessments of the facilities.	State, local and utilities	DSES-10 Green River Regional Resiliency Strategy
A25	Regional Information Sharing Plan. The focus of this activity will be to develop an overarching, all-hazards information sharing plan for the region that complies with the National Emergency Communications Plan (NECP), Washington State Interoperable Communications Plan, and NIMS. Integrating such standards, this plan will lay	State, local	DSES-10 Green River Regional Resiliency Strategy

	out an information sharing framework, as well as data standards, procedures, and practices for regional stakeholders that will support all phases of the disaster lifecycle. This plan is intended to foster and expedite horizontal communication and information sharing between regional partners (from government to government, from private sector to private sector, and from government to private sector). Is intended to also assist in delineating stakeholder roles and responsibilities.		
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Section B Transportation & Supply Chain Resilience

Transportation & Supply Chain Resilience			
#	Recommended Action	Implementation Level	Exercise Reference
B1	Establish a working group to develop systems and tools with which to quickly consolidate multi-modal transportation infrastructure status reports in support of resource routing decisions	Local, State	Evergreen Quake
B2	Develop 'low-tech' tools for transportation stakeholders to share multi-agency and multi-modal transportation status reports within the first days after a catastrophic event	Local, State	Evergreen Quake
B3	Develop and train to protocols for bringing a group together when alternate routing is required throughout the region	Local, State	Evergreen Quake
B4	Recommended a process for regionally collecting, analyzing and disseminating alternate route information to the public be reviewed, amended or developed. This should include multiple methods (GIS, websites, press releases, etc.) of delivery.	Local, State	Evergreen Quake
B5	Develop a comprehensive list of commercial port and maritime transportation key facilities and assets by pooling knowledge of government and commercial stakeholders	Local	Blue Cascades I
B6	Hold a Seminar/Workshop on Regional Challenges of Just-in-Time Delivery starting with one or a few sectors, e.g., food distribution and developing contingency plans for possible disasters to help assure understanding of interdependencies and their role during a disaster and useful mitigation measures	Local, State	Blue Cascades III
B7	Analysis of the use of Waterways for Disaster Response and Recovery <i>focusing on the transport of goods and people after a major disaster.</i>	Local	Blue Cascades III

B8	Undertake a Maritime Regional Transportation Contingency Planning Initiative . Joint initiative with the Coast Guard and the Puget Sound stakeholders on use of waterways for the transport of goods and people after a major disaster crippling the region's roadways and bridges; would include a seminar focusing on engaging all critical infrastructure owners and managers dependent upon north/south transportation for service delivery.	State, Federal	Blue Cascades II, III
B9	Work with local and State of Washington officials to develop a Resource Staging Needs Inventory and Resource Database of critical goods that may be needed during and after a disaster, e.g., medical supplies, food, water, tires; create a "wish list" of resources that organizations may need	Local, State	Blue Cascades III
B10	Work with the State of Washington and the U.S. Army Corps of Engineers to develop a Regional Transportation Resilience Assessment that assesses the extent of limitations and economic impacts in a major disaster associated with interstate dependencies (e.g. Alaska's need for food or Oregon's for oil), addressing logistic choke points and co-located critical infrastructures, including alternative transportation modes and paths that could be reconfigured or laced together to support recovery of a region	State, Federal	Blue Cascades III
B11	Create a Regional Cross Sector Transportation Work Group of key stakeholders	State	Blue Cascades V
B12	Work with the U.S. Coast Guard to develop and conduct a targeted conference-style Workshop on Roles and Responsibilities focused on incident management issues related to maritime security. Create an Incident Management Issues Workgroup as a follow-up to the Workshop on Roles and Responsibilities to begin to delineate roles and missions, thereby leveraging existing federal, state, and local response plans and knowledge of response, recovery, and restoration needs from lessons learned.	Federal	Blue Cascades III
B13	Develop a Regional Disaster Supply Chain Risk Assessment and Resilience Strategy that covers: <ul style="list-style-type: none"> • Earthquake -related interdependencies impacts on disaster supply chains and potential mitigation measures, including alternative energy and communications means; • Roles and responsibilities and incident management and recovery processes; • Decision-making process, including 	Local, State	Blue Cascades V DSES-10 Green River Regional Resiliency Strategy

	<p>procedures for prioritization of food, water and fuel allocations to infrastructures</p> <p>Transportation Sector Recovery Analysis. The focus of this activity will be to conduct an in-depth analysis of the restoration and recovery issues facing the transportation sector, taking into account redundant resources for the recovery of assets. This analysis will result in the development of pre-established recovery priorities, resource requirements, and restoration timelines for the sector, facilitating a unified, efficient recovery for the sector following a disaster event.</p>		
B14	Designate practical and feasible pre-event points of distribution with alternate locations, and stockpiles of essential supplies	Local	Blue Cascades V
B15	Identify federal government, including defense assets and capabilities that could be used for disaster supply distribution	Local, State, Federal	Blue Cascades V
B16	In conjunction with the Regional Transportation Recovery Planning efforts, build upon existing capabilities to develop a regional transportation management system in close coordination with relevant state agencies to address re-routing of shipments of essential supplies and other emergency transportation issues associated with food, fuel, water delivery, and other essential needs.	Local, State	Blue Cascades V
B17	Investigate military and commercial maritime, air transportation and other assets to assist in supply chain resilience.	Local, State, Federal	Blue Cascades V
B18	Through a cross-sector Disaster Supply Chain Coordination and Resource Management Work Group incorporate the private sector and other key stakeholders into a Regional Resource Management System Development Initiative.	Local, State	Blue Cascades V
B19	Recovery planning should be viewed as a shared responsibility involving emergency management, finance, information technology, external affairs, and business Personnel. Educate all port departments on recovery planning. Review gaps in skills and knowledge that emergency management and security reductions caused. Identify solutions to cover the gaps.	Local	Puget Sound Maritime Transportation System Recovery Exercise
B20	Ensure ports have disaster policies and include pay practice policies related to disasters and disaster recovery activities. Update leave policies to include procedures for disasters and payment of employees in case of a disaster.	Local, State	Puget Sound Maritime Transportation System Recovery Exercise

B21	Integrate the maritime community and interests in local, regional and cross-border emergency management, and region-wide business continuity planning.		US Canada Maritime Commerce Resilience Initiative
B22	Creation of a Regional Transportation Resilience Working Group with an Emergency Communications Subgroup and an Emergency Transportation Management Subgroup	Local	SR 520 Bridge Catastrophic Failure Exercise
B23	Stage Flood Response Resources. Currently, assets used to mitigate and respond to flood events are not dispersed in accordance with a comprehensive regional plan and are maintained by a variety of different individual entities.	Local	DSES-10 Green River Regional Resiliency Strategy
B24	<p>Supply Chain Study. This activity will identify and assess critical supply chain dependencies and interdependencies for area businesses and those entities that are dependent upon them. Disasters can have cascading consequences that are felt far from their source. This activity will identify and map critical inter- and intraregional supply chain dependencies /interdependencies as well as recommend redundancies to mitigate potential service interruption.</p> <p>The focus of this activity will be to further refine regional infrastructure dependencies and interdependencies analysis, with particular focus on energy, water, wastewater, transportation systems, business continuity, and continuity of operations.</p>	Local, State, Federal	DSES-10 Green River Regional Resiliency Strategy
B25	Regional Traffic Diversion Plan. The focus of this activity will be to create an overall, integrated traffic diversion plan and corresponding public notification protocols for the region.	Local, State	DSES-10 Green River Regional Resiliency Strategy
B27	Port Capabilities, Impacts, and Restoration Study. In a significant flood (or other hazard) event, restoration of the Ports of Seattle and Tacoma is of the highest priority as numerous local, regional, and national supply chains depend upon them. Regional commercial throughput of manufactured goods and produce is a paramount economic factor for regional recovery, and restoration of these supply chains is a critical step in bringing businesses back online and reestablishing jobs and the flow of goods and services. The focus of this activity will be to perform a targeted study of the potential loss of port capabilities and associated impacts on regional supply chains as they pertain to economic recovery. The analysis will not only highlight the crucial position of the	Local, State	DSES-10 Green River Regional Resiliency Strategy

	ports themselves, but will provide valuable insights into the priority of restoration of supporting infrastructure such as roads, bridges, communications, and other priorities.		
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Section C, Lifeline Infrastructure Systems

Lifeline Infrastructure Systems			
#	Recommended Action	Implementation Level	Exercise Reference
C1	Identify potential resource shortfalls, both manpower and equipment, in regional, cross-border emergencies and develop plans for resource sharing and other contingency plans, including coordinated stockpiling of equipment	State, Federal	Blue Cascades I
C2	Hold additional SCADA and Process Controls Security Workshops for Utilities	Local, State	Blue Cascades II
C3	Undertake an assessment of the existing regional capacity for telecommuting and remote access	Local	Blue Cascades IV
C4	Develop modeling capabilities to better understand the impact of a pandemic and the critical infrastructure interdependencies associated with an outbreak	Local, State	Blue Cascades IV
C5	With technical assistance from relevant federal agencies and leveraging existing capabilities, undertake an assessment of local and regional interdependencies, effects and consequences associated with impacts of large-scale events that diminish the workforce on critical infrastructure and essential service providers under different scenarios, including pandemic.	Local, State	Blue Cascades IV
C6	Work with the State of Washington to develop a Regional Risk Assessment System and Regional Plan for Telecommunications/Critical IT Infrastructure Resiliency along with criticality criteria to prioritize telecom and IT infrastructure assets. Should include a vulnerability assessment of regional telecommunications from a disaster resilience perspective and should take into account probability of certain scenarios to ascertain shortfalls.	State	Blue Cascades II
C7	Undertake an assessment of the existing regional capacity for telecommuting and remote access in the event of a pandemic or other regional disaster.	Local, State	Blue Cascades IV

C8	<p>Washington State and Puget Sound Region local jurisdictions should work with energy service providers to:</p> <ul style="list-style-type: none"> ○ Explore mechanisms for improved regional coordination and information sharing <ul style="list-style-type: none"> — Among energy service providers and between energy service providers and local government. ○ Develop a process to provide and update energy infrastructure point-of-contact information for energy emergencies. ○ Share detailed information on energy assurance plans and energy emergency management/continuity of operations plans, including priorities for service resumption in the Puget Sound Region. ○ Assess the state of current communications among city, county, State and power providers' emergency operations/coordination centers and identify areas for improvement. 	State, local	Energy Assurance Workshop
C9	<p>Long-Term Sewer Service Loss Study. The focus of this activity will be to assess the potential for long-term sewer and water service disruption to large number of businesses and residents following a flood event. This activity will assess potential impacts, identify capabilities gaps, and suggest mitigation strategies to offset extended disruptions. In addition, it will identify restoration priorities and strategies and address issues involving fresh water, sewage and wastewater</p>	local	DSES-10 Green River Regional Resiliency Strategy
C10	<p>Environmental Recovery Knowledge Accumulation. The focus of this activity will be to create a knowledge base using a structured template to gain a better understanding of environmental recovery issues faced by the region. Environmental issues may involve hazardous materials, debris cleanup and disposal, and soil/water contamination.</p>	local	DSES-10 Green River Regional Resiliency Strategy

Section D, Community and Economic Resilience

Community and Economic Resilience			
#	Recommended Action	Implementation Level	Exercise Reference
D1	Hold a workshop that brings together private sector organizations with other interested organizations and local, state, and FEMA officials to discuss development of an emergency “business support team” modeled on ICS that a broad range of private sector organizations can adopt.	Local, State, Federal	Blue Cascades IV
D2	Undertake a study to help assess organizations’ pandemic business and operational continuity plans and develop plan templates to assist smaller organizations to develop their pandemic plans.	Local, State	Blue Cascades IV
D3	Build on efforts to develop a Public-Private Business Continuity Outreach and Assistance Program to provide public education outreach, help small and medium businesses understand the process	Local	Blue Cascades II
D4	Develop and conduct a tabletop exercise focused on special needs populations with non-profits and community groups	Local	Blue Cascades IV
D5	Create a regional inventory of normally available private sector, non-profit including philanthropic and other key stakeholder resources and supplies that could be readily mobilized after a major disaster	Local, State	Blue Cascades V
D6	A workshop to examine how food from disaster impacted stores could be used to feed displaced or special needs populations;	Local	Blue Cascades V
D7	Local government should continue to conduct outreach to area businesses and other organizations, provide forums to share continuity of operations planning best practices and approaches and assist small enterprises and other organizations that lack resources and expertise.	Local	Blue Cascades VI
D8	Survey hospitals and other large medical facilities on their security needs under various scenarios and build on existing arrangements with local law enforcement and security firms to assess available resources to determine requirements and alternative means to assure adequate security personnel.	Local	Blue Cascades VI
D9	Examine policies to ensure that hospitals in collaboration with other healthcare providers and supply chain organizations develop and exercise business continuity plans. Identify incentives to keep small businesses	Local, State, Federal	Blue Cascades VI

	<p>operating after a regional incident or disaster, and to return to the region if they have left, as well as what legal or policy provisions many need to be developed or changed.</p> <p>Explore ways to expand FEMA, Small Business Administration and other government disaster assistance programs and to appropriately provide assistance to the private sector.</p>		
D10	Develop and implement with business stakeholders a regional economic bio-event resilience risk mitigation strategy of targeted actions to address business continuity challenges and identify ways to make and incentivize improvements.	Local	Blue Cascades VI
D11	Undertake an assessment of regional psychological and economic factors that can affect post-event business retention and sustainability.	Local	Blue Cascades VI
D12	<p>Develop a strategy to address ethnic, cultural, and faith-based groups that:</p> <ul style="list-style-type: none"> Identifies these groups and points of contact within them; Builds on current public health and non-profit outreach activities to these groups; Lays out a process of optimal ways to disseminate information based on an awareness of what types of communications and communication channels are most effective for particular groups; <p>Integrates these groups into preparedness activities and exercises.</p>	Local	Blue Cascades VI
D13	<p>Barging would be the most effective way to bring supplies in from the south into the</p> <ul style="list-style-type: none"> North Puget Sound; however there is limited barging capacity in the region. Obtain access to or develop a list for the Washington public ports that lists all of the barge owners on the west coast that different shippers could access. 	State Federal	<p>Puget Sound Maritime Transportation System</p> <p>Recovery Exercise Blue Cascades VI</p>
D14	<p>Promote the development of pre-incident agreements, accreditation equivalencies and mechanisms to share skilled labor personnel across the border and between trade unions and organizations. Governments, bi-national organizations, and Barging would be the most effective way to bring supplies in from the south into the</p>	State, Federal State	<p>US-Canada Maritime Commerce Resilience Initiative</p> <p>Puget Sound Maritime Transportation System Recovery Exercise</p>

	North Puget Sound; however there is limited barging capacity in the region. Obtain access to or develop a list for the Washington public ports that lists all of the barge owners on the west coast that different shippers could access.		
D15	Create employee availability, service needed and service available hubs to facilitate business resumption and share resources. Promote the development of pre-incident agreements, accreditation equivalencies and mechanisms to share skilled labor personnel across the border and between trade unions and organizations. Governments, bi-national organizations, and	State, local, and Federal	Regional Recovery Interdependencies Workshop US-Canada Maritime Commerce Resilience Initiative
D16	Identify incentives to keep small businesses operating after a regional incident or disaster , and to return to the region if they have left and explore What legal or policy provisions many need to be developed or changed Create employee availability, service needed and service available hubs to facilitate business resumption and share resources.	State, local	Comprehensive Community Bio Event Resilience Initiative Regional Recovery Interdependencies Workshop
D17	Local and state governments should consider providing tax incentives to small businesses that can demonstrate they have emergency response and business continuity plans. Identify incentives to keep small businesses operating after a regional incident or disaster , and to return to the region if they have left and explore What legal or policy provisions many need to be developed or changed	State, local	SR 520 Bridge Catastrophic Failure Exercise DSES-10 Green River Regional Resiliency Strategy Comprehensive Community Bio Event Resilience Initiative
D18	EOC Business Liaison Function. Implement a business liaison desk/function in regional Emergency Operations Centers (EOCs) at the municipal and county levels. Local and state governments should consider providing tax incentives to small businesses that can demonstrate they have emergency response and business continuity plans.	Local, State	DSES-10 Green River Regional Resiliency StrategySR 520 Bridge Catastrophic Failure Exercise DSES-10 Green River Regional Resiliency Strategy
D19	Business Resource Team. The focus of this activity will be to devise and implement a regional business resource team to assist in keeping local businesses running (permit, inspection, transportation, etc.) and return them to full operation following an event. EOC Business Liaison Function. Implement a business liaison desk/function in regional Emergency Operations	Local, State	DSES-10 Green River Regional Resiliency StrategyDSES-10 Green River Regional Resiliency Strategy

	Centers (EOCs) at the municipal and county levels.		
D20	<p>Business and Resident Attrition Avoidance Activities. The prevailing view among regional stakeholders is that businesses and individuals will leave the region following a catastrophic event. This will result in overall negative impacts to the region in terms of loss of population, small businesses, and critical industries, as well as slowed recovery. The focus of this activity will be to conduct a study to identify best practices; propose policies and incentives to keep businesses operating following a disaster event and return them to operational capacity as quickly as possible (through cleanup, inspections, permits, etc.); and institute and promote loan programs for residents and businesses, including appropriate training and guidance.</p> <p>Business Resource Team. The focus of this activity will be to devise and implement a regional business resource team to assist in keeping local businesses running (permit, inspection, transportation, etc.) and return them to full operation following an event.</p>	Local, State	DSES-10 Green River Regional Resiliency Strategy DSES-10 Green River Regional Resiliency Strategy
D21	<p>Private Sector Economic Development and Long-Term Recovery Engagement. The focus of this activity will be to engage private sector companies and public sector planners in the establishment of a Regional Recovery Authority, Regional Planning Task Force, or other organizational entity whose mission will be to develop a regional strategy that recognizes the economic values and priorities of restoration from the private sector perspective.</p> <p>Business and Resident Attrition Avoidance Activities. The prevailing view among regional stakeholders is that businesses and individuals will leave the region following a catastrophic event. This will result in overall negative impacts to the region in terms of loss of population, small businesses, and critical industries, as well as slowed recovery. The focus of this activity will be to conduct a study to identify best practices; propose policies and incentives to keep businesses operating following a disaster event and return them to operational capacity as quickly as possible (through cleanup, inspections, permits, etc.); and institute and promote loan programs for residents and businesses, including appropriate training and guidance.</p>	Local, State	DSES-10 Green River Regional Resiliency Strategy DSES-10 Green River Regional Resiliency Strategy
D22	<p>Private Sector Economic Development and Long-Term Recovery Engagement. The focus of this activity will be to engage private sector companies and public sector planners in the establishment of a Regional</p>	Local, State	DSES-10 Green River Regional Resiliency Strategy

	Recovery Authority, Regional Planning Task Force, or other organizational entity whose mission will be to develop a regional strategy that recognizes the economic values and priorities of restoration from the private sector perspective.		
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Section E, Governance and Policy Coordination

Governance and Policy Coordination			
#	Recommended Action	Implementation Level	Exercise Reference
E1	Identify existing mutual aid agreements and other shared arrangements; explore improving them and creating new arrangements, if necessary	Local, State	Blue Cascades II
E2	Leverage existing or emerging processes of other states and regions for a cost-effective Credentialing System for essential personnel necessary for response and recovery/restoration activities.	State	Blue Cascades III
E3	Pursue grants/undertake a Subduction Zone Earthquake Infrastructure Interdependencies/Tsunami Impacts Study.	State, Federal	Blue Cascades III
E4	Work with the State of Washington on Staging for Disaster Response and Recovery to determine what is being planned in other jurisdictions and make recommendations on possible improvements. Construction trade representatives should be included	State	Blue Cascades III
E5	Establish a Disaster Restoration Work Group to work with the State of Washington to determine roles and responsibilities and a process to prioritize restoration of infrastructure, how resources would be identified, and how they would be brought to bear on the rebuilding of the region.	State	Blue Cascades III
E6	Create a Work Group to work with Local and State of Washington agencies to examine Interdependencies Impacts of Evacuations and Sheltering in Place Plans under certain scenarios	Local, State	Blue Cascades III
E7	Examine state laws related to social distancing and other preventative measures during a pandemic	State	Blue Cascades IV
E8	Provide an inventory of federal agency services that could be provided in major emergency situations.	Federal	Blue Cascades I

E9	<p>Undertake a pilot project to identify legal and policy barriers, as well as requirements for effective cross border, cross-jurisdictional command and control.</p> <p>Region-wide Inventory and Assessment of Existing Physical and Cyber Disaster/Attack Preparedness Capabilities (e.g., mechanisms, plans, procedures, methodologies, approaches, communications systems, sensors, and tools. Will provide a baseline of what has been done to avoid “recreating the wheel.”)</p> <p>Develop and conduct an exercise and training program for stakeholders on emergency management plans and incident and recovery chain-of-command procedures.</p>	Local, State	<p>Blue Cascades I</p> <p>Blue Cascades II</p> <p>Blue Cascades V</p>
E10	Develop pre-disaster agreements among government and organizations to deal with legal and liability issues and potential environmental or regulatory constraints	Local, State	Blue Cascades V
E11	Develop procedures to enable expeditious removal of spoiled food and other hazardous waste and address public sanitation needs after a disaster.	Local	Blue Cascades V
E12	Best practices to address all-hazards, including health work place-related policy issues should be identified and incorporated into a single information resource that can be shared among regional stakeholders and incorporated in emergency and continuity of operations plans and procedures. Legal issues and policy gaps that impact preparedness should be addressed and avenues for changing them identified where possible.	Local	Blue Cascades VI
E13	Develop procedures, including a coordination process, for public guidance on vaccine availability and distribution for pandemics	Local	Blue Cascades VI
E14	Develop a hardcopy and on-line brochure of examples of legal and liability issues associated with disaster preparedness, response, recovery, or mitigation for private sector and government organizations . The brochure should also identify best practices to deal with work place-related policy and liability issues.	Local	Blue Cascades VI
E15	Develop a brochure (hardcopy and electronic)	Local	Blue Cascades VI

	outlining disaster assistance available from various federal sources with criteria and guidelines for applying.		
E16	Identify areas where mutual aid agreements could assist with port recovery planning and operations. Establish mutual aid agreements between ports, agencies, and the private sector, as identified above	State, local	Puget Sound Regional Maritime Transportation System Recovery Exercise
E17	Ports should ensure disaster recovery concerns are addressed in all of their business dealings with labor unions. Ports should encourage labor unions to consider developing mutual aid agreements with the other labor and trade unions to ensure there is flexibility and disaster related clauses in the agreements.	State, local	Puget Sound Maritime Transportation System Recovery Exercise
E18	Assign a port position to act as a recovery coordinator or hire a recovery coordinator to work with port departments and terminal tenants	Local	Puget Sound Maritime Transportation System Recovery Exercise
E19	The port would benefit by increasing their participation (i.e. more departments and executive leadership) in trainings and drills. This training should include additional functional drills with follow up evaluations and recommendations for improvement	Local	Puget Sound Maritime Transportation System Recovery Exercise
E20	Develop a bi-national accord that references existing frameworks, protocols, agreements, plans, procedures, communication and information-sharing mechanisms, and other tools that can be used or leveraged to build cross-border maritime commerce resilience and expedite recovery	State, Federal	US-Canada Maritime Commerce Resilience Initiative
E21	Create a long-term recovery advisory council made up of public and private stakeholders prior to an event and begin to talk through scenarios and priorities of the region. Development of a multi-agency/multi-jurisdiction coordination and decision-make structure is necessary to address regional preparedness, response and particularly long-term recovery Regional Disaster Management Structure for Long-Term Recovery. This activity will further develop, validate, and exercise a regional coordination structure for long-term recovery/restoration, with emphasis on a multi-agency, public-private construct capable of prioritizing and overseeing long-term recovery functions. This will include regional priorities agreed to in advance for emergency restoration of utilities and	State, Local	Regional Recovery Interdependencies Workshop Green River Infrastructure Interdependencies Workshop DSES-10 Green River Regional Resiliency Strategy

	resources and emergency housing and business resumption options. Regional Disaster Recovery Plan. The focus of this activity will be to develop and implement an overarching region-wide plan for long-term recovery and economic resilience, including recovery of critical infrastructures and business assets, consistent with National Recovery Framework. This plan will designate decision-making structures and authority for regional recovery and enable the prioritization of recovery activities.		
E22	Common Operational Maps. The focus of this activity will be to develop and disseminate up-to-date maps displaying a common operational picture to use for communication with the public and private industry prior to, during, and in the wake of events. In order to effectively respond and coordinate appropriately during disaster events, it is necessary for all parties to be able to understand one another and speak in a common operating language based on a shared situational awareness and operating picture.	Local, State	DSES-10 Green River Regional Resiliency Strategy
E23	Essential Personnel Presence, Credentialing, and Certification. Utilities, service providers, and government agencies generally lack sufficient numbers of personnel to provide coverage for extended periods of emergency response activities. Enhancing CI/KR worker credentialing and access to a disaster area during a national crisis or event.	Local, State	DSES-10 Green River Regional Resiliency Strategy
E24	Inspectors/Inspections Coordination. An essential feature of facilitating a rapid recovery and restoration of operations in the wake of a disaster event, especially for critical facilities and utilities, is prompt inspection and certification. The focus of this activity will be to facilitate inspections /inspector interoperability and cross-jurisdictional participation. This will involve the compilation and regular update of a database of potential inspectors including contact information, the development of preexisting relationships and agreements with inspectors, the coordination of inspections among multiple stakeholders, and the development of policies and procedures that allow for out-of-region inspectors to serve the region.	Local, State	DSES-10 Green River Regional Resiliency Strategy DSES-10 Green River Regional Resiliency Strategy
E25	Mutual Aid and Cooperative Agreements Assessment, Update, and Expansion. The focus of this activity will be to take stock of and compile a directory of all of the mutual aid, cooperative	Local, State	DSES-10 Green River Regional Resiliency Strategy

	agreements, and Memorandums of Understanding (MOUs) existing among regional partners.		
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Coordination Tools

Local and regional public and private sector stakeholders currently utilize a number of information sharing processes, tools, and collaborative capabilities within the Green River Valley which may be leveraged to support the desired in-state information sharing capability for flood event management. There are a number of communications tools that push information out to the public but coordination requires two-way information sharing. These tools include:

- Northwest Warning, Alert & Response Network (NW WARN)
- Public Information Emergency Response (PIER)
- Washington State Fusion Center (WSFC) products and alerts
- First to See (FTS)
- Homeland Security Information Network (HSIN)
- Situational Awareness Map (SitMap)

Currently available tools that are used for information sharing in the region are an important part of disaster resilience. The speed of response and recovery in the region will depend heavily on the ability to share information between multiple organizations and jurisdictions that do not always communicate on a daily basis.

First to See

In recent years, social media have played an increasing role in emergencies and disasters. Popular social media sites such as Facebook, Twitter, and YouTube now rank as the fourth most popular source for accessing emergency information. The use of social media during emergencies can be conceptualized as two broad categories. First, social media can be used by first responders to broadcast information on their organizational social media sites. This is how most emergency management organizations, including the Federal Emergency Management Agency (FEMA), currently use social media. A second approach involves the systematic use of social media as an emergency management tool. There is a unique opportunity for regional emergency responders to improve disaster resilience by engaging the public through social media applications. The key to success will be creating an emergency management tool that integrates existing response systems and social media into a common framework.

The First to See system provides a management system for gathering information from the public. One form is through the use of an app that is now available to the public on Apple and Android systems. This easy to use app allows citizens and others to document what is happening via still photos and text and provide that information to agencies who are part of the First to See network. Agencies and other organizations can use the “back end” of the system to monitor social media posts from Twitter. This monitoring is not limited to the app postings coming from the First to See App, but also from general Twitter postings.

Using these tools allows organizations to monitor what the public is seeing and are saying about an incident. The geocoding of tweets provides a geo-location for what is being reported. The information collected assists in garnering situational awareness and can also be useful for rumor control.

Lastly, the tool while configured and envisioned for emergencies and disasters can also be useful for monitoring social media for organizational awareness of what the public is saying on social media about their organization and senior leadership.

Northwest Warning Response and Alert Network

NWWARN is a collaborative effort between government and private sector partners within our region's states, provinces, and territories which aims to maximize real-time, two-way sharing of situational information without delay and provide immediate distribution of critical information to those members who need to act on it. NWWARN uses readily available communication methods to rapidly disseminate information. NWWARN connects critical infrastructures from the public and private sectors, providing rapid two-way information sharing through multiple, interoperable communications methods. Rapid information sharing can prevent incidents/harm and speed post-disaster service restoration and economic recovery. Organizations have access to points of contact through the database and can share information to provide situational awareness. The system allows members in law enforcement, public safety, security, and infrastructure protection across all sectors to rapidly share information. Both the public and members-only websites are available for information sharing, and system wide notification takes only one step.

Public Information Emergency Response (PIER)

PIER is a comprehensive, web-based communications platform that serves as a virtual Crisis Communications Center or Joint Information Center. PIER provides solutions for handling internal and external communications, streamlines communications processes, automates tasks and prevents misinformation during crises.

Washington State Fusion Center (WSFC)

The WSFC is a unified counterterrorism, "all crimes," fusion center, incorporating agencies with intelligence, critical infrastructure, public safety and preparedness, resiliency, response and recovery missions. The WSFC is Washington State's single fusion center and concurrently supports federal, state, and tribal agencies, regional and local law enforcement, public safety and homeland security by providing timely, relevant and high quality information and intelligence services.

Technology will be used as an efficiency enabler of the WSFC's work processes to provide services quickly, effectively and efficiently, to protect privacy and civil liberties, ensure information and operational security, and to support communications and collaboration. WSFC is operated by state and local entities with support from federal partners in the form of deployed personnel, training, technical assistance, exercise support, security clearances, and connectivity to federal systems. WSFC provides the federal government with critical state and local information and subject-matter expertise that it did not receive in the past – enabling the effective communication of locally generated threat-related information to the federal government. WSFC receives information from a variety of sources, including suspicious activity reporting (SAR) information from stakeholders within their jurisdictions, as well as federal information and intelligence. They analyze the information and develop relevant products to disseminate

to their customers. These products assist homeland security partners at all levels of government to identify and address immediate and emerging threats.

Homeland Security Information Network (HSIN)

The Homeland Security Information Network (HSIN) is the trusted network for homeland security mission operations to share Sensitive But Unclassified (SBU) information. Federal, state, local, tribal, territorial, international and private sector homeland security partners use HSIN to manage operations, analyze data, send alerts and notices, and in general, share the information they need to do their jobs.

Situation Map (SitMap)

An outcome from the Supply Chain Project that focused on the need for a shared mapping tool in the region is the Situation Map. The goal of the project is to provide a single spatial (map) view of incidents that are occurring in the Puget Sound Region that provides public agencies, businesses, nonprofits and the general public with a single location to go to get information during an emergency or disaster. This map (called SitMap) will be an amalgamation of system disruptions, route considerations, public safety instructions, forecasts and service closures that are occurring in real time. The map will be populated via a protected log-in by pre-identified public and private organizations that provide facilities and services. Where possible, the map should be able to be populated via an RSS feed from organizations that already maintain an established data stream. Other organizations will post information, e.g. road closures, power outages, service disruptions, on a case by case basis by entering their information through an interface that will plot the information on the map.

All of these tools provide two-way communications and could be utilized during a disaster for the public and private sector to share critical information about hazards or threats in the region.

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Acronyms

ACP - Association of Contingency Planners

AMSC - Area Maritime Security Committee

CIP - Critical Infrastructure Committee

CI/KR – Critical Infrastructure/Key Resource

CPARM - Contingency Planners and Recovery Managers

CPOD - Community points of distribution

DSES-10 - 2010 Dam Sector Exercise Series – Green River Valley

DHS – Department of Homeland Security

EOC – Emergency Operation Center

FEMA – Federal Emergency Management Agency

FTS - FirstToSee

GIS - Geographic Information System

HSIN – Homeland Security Information Network

ICS – Incident Command System

IT – Information Technology

MOU – Memorandum of Understanding

NECP - National Emergency Communications Plan

NIMS – National Incident Management System

NWWARN – Northwest Warning Alert Response Network

PIER - Public Information Emergency Response

PNWER - Pacific NorthWest Economic Region

PSGP - Port Security Grant Program

RCPT - Regional Catastrophic Planning Team

RCPGP - Regional Catastrophic Preparedness Grant Program

RSS - Really Simple Syndication

SAR - Suspicious Activity Report

SCADA - Supervisory Control and Data Acquisition

SBU - Sensitive But Unclassified

USACE - U.S. Army Corps of Engineers

USCG - United States Coast Guard

WPPA - Washington Public Port Association

WSFC - Washington Information Fusion Center

WSDOT – Washington State Department of Transportation

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Appendices

Washington Ports Omnibus Mutual Aid Agreement

This OMNIBUS MUTUAL AID AGREEMENT (the “Agreement”) is made and entered into by the undersigned port authorities located in the Washington State (hereafter referred to as “Members”) to enable them to provide assistance to each other during an emergency as requested.

WHEREAS, the Members have expressed a mutual interest in the establishment of an Omnibus Agreement to facilitate and encourage assistance among Members to this Agreement; and

WHEREAS, in the event of an emergency as defined herein, any Member to this Agreement may need assistance in the form of supplemental personnel, equipment, materials or other support; and

WHEREAS, each Member may own and maintain equipment, stock materials and employ trained personnel for a variety of public services and shall, under certain conditions, lend its supplies, equipment and services to other Members in the event of an emergency; and

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, each undersigned Member agrees as follows:

Article I – APPLICABILITY AND PURPOSE

This Omnibus Agreement is available for execution by all port authorities located in Washington. Execution of this Omnibus Agreement shall occur when the Member signs an identical version of this Omnibus Agreement.

The purpose of this Agreement is for each Member to this Agreement to obtain assistance by the other Members or to provide assistance to another Member in the event of an emergency as provided herein.

Article II - DEFINITIONS

- A. Asset means anything that has value to the organization. Assets include, but are not limited to, any function, department or individual resources, including, but not limited to Emergency Management, Security, Fire Services, Public Works, Information Technology, Marine Services, Maintenance, Engineers, and Craft or Tradesmen.
- B. Assistance means the provision of Assets, employees, services, equipment, materials, or supplies offered during incidents, emergencies or disasters by the Lender and accepted by the Borrower to assist in maintaining or restoring normal services when such service has been disrupted by acts of the elements, equipment malfunctions, accidents, terrorism/sabotage and other occurrences where

assistance from other Members is necessary or advisable, as mutually determined by the Lender and Borrower. Assistance may also be offered to support training, drills and exercises.

- C. Assistance Costs means any expenses that extend beyond the first eight (8) hours (usual and customary costs) incurred by the Lender in providing any asset requested. After eight (8) hours, the Borrower incurs all costs associated with the borrowed asset(s), employees, services, equipment, materials or supplies. For this Agreement, the computation of time begins when the lending agency agrees to provide resources by mobilizing the same. Further agreements regarding costs are addressed herein in Article XII, "Loans of Personnel".
- D. Borrower means a member that has adopted, signed and subscribes to this Omnibus Agreement and has made a request for Emergency Assistance and has received commitment(s) to deliver Emergency Assistance pursuant to the terms of this Omnibus Agreement.
- E. Contact Person(s) means the person or persons designated by each Member to request Emergency Assistance from or grant Emergency Assistance to another Member pursuant to the terms of this Omnibus Agreement.
- F. Counterparts This Agreement may be executed in counterparts and by facsimile signature with the same force and effect as if all original signatures were set forth in a single document. The Lead Coordinating Agency shall maintain an original and/or a copy of each signature sheet for each participant.
- G. Designated representative shall be identified and designated by each Member to serve as the representative of their respective Member in any meeting to work out the language or implementation issues of this Omnibus Agreement.
- H. Emergency includes, but is not limited to, any human-caused or natural event or circumstance within the area of operation of any participating Member which requires immediate action to preserve public health, protect life, protect public property, and which circumstance is causing or threatening loss of life, damage to the environment, injury to person or property, human suffering or financial loss, such as: fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of hazardous materials, contamination, utility or transportation emergencies, disease, infestation, civil disturbance, riots, act of terrorism or sabotage; said event being or is likely to be beyond the capacity of any affected Member or Members, in terms of personnel, equipment and facilities, thereby requiring assistance.
- I. Emergency Contact Information Form is the form to be submitted to the Lead Coordinating Agency and Designated Representative by each Member listing names, addresses, and 24 hour phone numbers of the Contact Person(s) of each Member.

- J. Event refers to an incident, emergency, disaster, training, drill or exercise which causes a Borrower to request assistance from a Lender under this Omnibus Agreement.
- K. Execution means an action, whereupon the occurrence of which comes after a Member has followed an approved legal process which authorizes its entry into this Agreement.
- L. Lender means a Member who has subscribed to this Omnibus Agreement and has agreed to deliver assistance to another Member pursuant to the terms and conditions of this Omnibus Agreement.
- M. Omnibus Agreement means identical agreements executed in counterparts, which bind the executing Member to its terms and conditions to provide and receive assistance. The terms and conditions of the Omnibus Agreements are all identical and the execution of an Omnibus Agreement by a Member binds that Member to all other Members who have executed an identical Omnibus Agreement in counterparts. To be effective for purposes of receiving assistance, this Omnibus Agreement must be executed and received by the Member's Designated Representative.
- N. Lead Coordinating Agency is the member or designated organization that shall maintain records, lists, and all documents relative to this Omnibus Agreement and each Member's participation in this Agreement.
- O. Termination Date is the date upon which this Agreement terminates pursuant to Article V, herein.

Article III - PARTICIPATION

Participation in this Omnibus Agreement is purely voluntary. Execution of this Agreement is therefore not legally binding on a Member until the Member agrees to become a lender or borrower in accordance with its terms.

No Member shall be liable to another Member for, or be considered to be in breach of or default under this Omnibus Agreement on account of any delay in or failure to provide assistance under this Omnibus Agreement. However, Members who execute the Omnibus Agreement are required to:

- A. Ensure that the Lead Coordinating Agency has their organization's most current Emergency Contact Information.
- B. Identify a primary and alternate point of contact and provide that to the Lead Coordinating Agency along with information on how to contact those individuals 24/7.
- C. Possess a good understanding about how to request assistance under this Agreement.

- D. Operate under the principles of the National Incident Management System (NIMS) and the Incident Command System (ICS).

Article IV - ROLE OF DESIGNATED REPRESENTATIVE OF MEMBERS AND OF LEAD COORDINATING AGENCY

Each Member shall identify a Designated Representative who shall serve on behalf of their respective Member to implement the terms of this Omnibus Agreement.

The Washington Public Ports Association (WPPA) will serve as the Lead Coordinating Agency.

The Designated Representative of each Member and the Lead Coordinating Agency shall:

- A. Participate in any meetings convened on the implementation of this Omnibus Agreement.
- B. Obtain and communicate to relevant Member departments the discussion items and decisions of the meeting, as they bear on interoperability among Members.
- C. Maintain a copy of this Omnibus Agreement (including amendments) and a list of the Members. The Lead Coordinating Agency shall maintain a master copy of the agreement and accompanying original Member signature pages.
- D. The Lead Coordinating Agency shall ensure that each Member has a copy of the signature page of newly executed Omnibus Agreement(s).
- E. The Lead Coordinating Agency shall provide each Member with copies of the Emergency Contact Information Forms provided by the other Members. The Designated Representative of each Member shall ensure that the Lead Coordinating Agency has current Emergency Contact Information for their respective Member.
- F. The Designated Representative of each Member shall notify the Lead Coordinating Agency in writing upon their Member's withdrawal from this Omnibus Agreement. In turn, the Lead Coordinating Agency shall notify all Members whenever a Member withdraws from this Omnibus Agreement.

Article V - TERM AND TERMINATION

- A. This Omnibus Agreement is effective upon execution by two or more Members, and shall remain in effect indefinitely until rescinded by all subscribing Members.
- B. A Member opting to withdraw from this Omnibus Agreement shall provide written withdrawal notification to the Lead Coordinating Agency. Notice of withdrawal becomes effective upon receipt by the Lead Coordinating Agency. Any withdrawing Member shall remain liable for all obligations incurred during its period of

participation, until the obligation is satisfied. The Lead Coordinating Agency shall notify all participating Members of any withdrawal received by a Member.

Article VI - PAYMENT FOR SERVICES AND ASSISTANCE

Borrower shall pay the Lender for all valid and invoiced Assistance Costs within sixty (60) days of receipt of the Lender's invoice, for the assistance provided by the Lender. In the event Lender provides equipment, supplies or parts, the Lender shall have the option to accept payment of cash or in kind for the equipment, supplies or parts supplied.

Article VII - INDEPENDENT CONTRACTOR

Lender shall be and operate as an independent contractor of Borrower in the performance of any assistance. Employees of Lender shall, at all times while providing assistance, continue to be employees of Lender and shall not be deemed employees of Borrower for any purpose. Wages, hours, and other terms and conditions of employment of Lender shall remain applicable to all of its employees who provide assistance. Lender shall be solely responsible for payment of its employees' wages, any required payroll taxes and any benefits or other compensation. Borrower shall not be responsible for paying any wages, benefits, taxes, or other compensation directly to the Lender's employees. The costs associated with borrowed personnel are subject to the reimbursement process outlined in Article XII. In no event, shall Lender or its officers, employees, agents, or representatives be authorized (or represent that they are authorized) to make any representation, enter into any agreement, waive any right or incur any obligation in the name of, on behalf of, or as agent for Borrower under or by virtue of this Omnibus Agreement.

Article VIII - REQUESTS FOR ASSISTANCE

A Member may request assistance from other participating Members to prevent, mitigate, respond to and recover from incidents, emergencies, disasters, or in concert with drills or exercises. Requests for assistance shall be directed to participating Member(s) primary contact person(s) from the list maintained by the Lead Coordinating Agency. . Verbal requests shall be followed up with a written request as soon as practical or within seven (7) days. The Lender shall give verbal approval of the request to the requesting Member as well as the Lead Coordinating Agency. This verbal approval shall be followed up with written approval as soon as practical or within seven (7) days of the approval. The extent to which the Lender provides any assistance shall be at the Lender's sole discretion. In the event the emergency impacts a large geographical area that activates either Federal or State emergency laws, this Agreement shall remain in effect until or unless this Agreement conflicts with such Federal and State laws.

Article IX - GENERAL NATURE OF ASSISTANCE

Assistance may be in the form of resources, such as equipment, supplies, and personnel or the direct provision of services. The execution of the Omnibus Agreement shall not create any duty to

respond on the part of any Member. A Member shall not be held liable to any other Member for failing to provide assistance. A Member has the absolute discretion to decline to provide any requested assistance and to withdraw resources it has provided at any time without incurring any liability. Resources are “borrowed” with reimbursement and terms of exchange varying with the type of resource as defined in Articles X through XII. The Members hereto recognize that time is critical during an emergency and diligent efforts shall be made to respond to a request for resources as rapidly as possible, including any notification(s) that requested resources are not available. A subscribing Member maintains the option of submitting a request for assistance directly to local emergency management coordinating organizations.

Article X - LOANS OF EQUIPMENT

At the sole discretion of the Lender, equipment may be made available upon request of a Member. Unless mutually agreed upon otherwise, the first eight (8) hours of use shall be without cost to the Borrower, after which use of equipment, such as construction equipment, vehicles, tools, pumps and motors, shall be at the Lender’s actual cost or at their current equipment rate. Equipment and tool loans are subject to the following conditions:

- A. Assets and equipment of a Lender shall continue under the command and control of the Lender, but shall be under the operational control of the appropriate officials within the incident management system of the Borrower.
- B. At the option of the Lender, loaned equipment may be loaned with an operator. See Article XII for terms and conditions applicable to use of borrowed personnel.
- C. Loaned equipment shall be returned to the Lender upon release by the Borrower, or immediately upon the Borrower’s receipt of an oral or written notice from the Lender for the return of the equipment. When notified to return equipment to a Lender, the Borrower shall make every effort to return the equipment to the Lender’s possession within 24 hours following notification.
- D. Borrower shall, at its own expense, provide consumable supplies needed to operate equipment unless mutually agreed upon otherwise. The Borrower shall take proper precaution in its operation, storage and maintenance of Lender’s equipment. Members are responsible to ensure that Equipment shall be used only by properly trained and supervised operators. Lender shall endeavor to provide equipment in good working order. All equipment is provided “as is”, with no representations or warranties as to its fitness for particular purpose.
- E. Lender’s cost related to the transportation, handling, and loading/unloading of equipment shall be borne by the Borrower unless mutually agreed upon otherwise. Lender shall provide copies of invoices for such charges where provided by outside sources and shall provide hourly accounting of charges for Lender’s employees who perform such services. Payment for such invoices shall be under the same terms and conditions stated in Article VI.

- F. Without prejudice to a Lender's right to indemnification under Article XIV, in the event loaned equipment is lost or damaged while being dispatched to Borrower, or while in the custody and use of the Borrower, or while being returned to the Lender, Borrower shall reimburse the Lender for the reasonable cost of repairing said damaged equipment. If the equipment cannot be repaired within a time period indicated by the Lender, then Borrower shall reimburse Lender for the cost of replacing such equipment with equipment that is of equal condition, quality, kind, and capability within six months of such request by Lender. Any determinations of what constitutes "equal condition, quality, kind and capability" shall be at the discretion of the Lender. If Lender must lease or rent a piece of equipment while the Lender's equipment is being repaired or replaced, Borrower shall reimburse Lender for such costs as provided under Article VI. Borrower shall have the right of subrogation for all claims against persons other than Members to this Omnibus Agreement who may be responsible in whole or in part for damage to the equipment. Borrower shall not be liable for damage caused by the sole negligence of Lender's operator(s).

Article XI - EXCHANGE OF MATERIALS AND SUPPLIES

Borrower shall reimburse Lender in kind or at Lender's actual replacement cost, plus handling charges, for use of partially consumed or non-returnable materials and supplies, as mutually agreed between Borrower and Lender. Other reusable materials and supplies which are returned (unused) to Lender in clean, damage-free condition shall not be charged to the Borrower, and no fee shall be charged. Lender shall determine whether items returned are "clean and damage-free" and items shall be treated as partially consumed or non-returnable materials and supplies if an item is found to be damaged by Lender.

Article XII - LOANS OF PERSONNEL

Any Lender personnel providing assistance to Borrower shall remain under the command and control of the Lender, to include medical protocols, standard operating procedures and other protocols. The organizational units shall be under the operational control of the appropriate authorities within the incident management system of the Borrower. Lender shall not be liable for cessation or slowdown of work if Lender's employees decline or are reluctant to perform any assigned tasks if said employees judge such task to be unsafe. A request for loaned personnel to direct the activities of others during a particular response operation does not relieve the Borrower of any responsibility or create any liability on the part of the Lender for decisions and/or consequences of the response operation. When supervisory personnel are loaned, the lender may restrict the scope and duties of supervisory personnel loaned.

Any valid licenses, certifications, or other permits issued to Lender personnel by Lender or Lender's state, evidencing qualification in a professional, mechanical or other skill, may be recognized by the Borrower during the term of the event and for purposes related to the event.

When notified to return personnel to a Lender, the Borrower shall make every effort to return the personnel to the Lender immediately after notification.

The Lender must ensure that loaned personnel have the ability, skill, and certification necessary to perform the work required and may be obliged to disclose the qualification(s) and training level of personnel identified to provide assistance.

Lender may, at its option, make such employees as are willing to participate available to Borrower. Unless mutually agreed upon otherwise, these employees shall be provided without cost to the Borrower for the first eight (8) hours of service, after which they shall be loaned at Borrower's expense equal to Lender's full cost, including employee's salary or hourly wages, call back or overtime costs, benefits and overhead, and consistent with Lender's personnel union contracts, if any, or other conditions of employment. Costs to feed and house loaned personnel, if necessary, shall be chargeable to and paid by the Borrower. The Borrower is responsible for assuring such arrangements as may be necessary to provide for the safety, housing, meals, and transportation to and from job sites and housing sites (if necessary) for loaned personnel.

Article XIII - RECORD KEEPING

Time sheets and/or daily logs showing hours worked and equipment and materials used or provided by the Lender shall be recorded on a shift –by-shift basis by the Lender and/or the loaned employee(s) and shall be provided to the Borrower as needed. If no personnel are loaned, the Lender shall provide shipping records for materials and equipment, and the Borrower is responsible for any required documentation of use of material and equipment for state or federal reimbursement. Under all circumstances, the Borrower remains responsible for ensuring that the amount and quality of all documentation is adequate to enable disaster reimbursement.

Article XIV - INDEMNIFICATION AND LIMITATION OF LIABILITY

- A. INDEMNIFICATION. Except as provided in section B, to the fullest extent permitted by applicable law, the Borrower releases and shall indemnify, hold harmless and defend each Lender, its officers, employees and agents from and against any and all costs, including costs of defense, claims, judgments or awards of damages asserted or arising directly or indirectly from, on account of, or in connection with providing assistance to the Borrower, whether arising before, during or after performance of the assistance and whether suffered by any of the Members or any other person or entity.

The Borrower agrees that its obligation under this section extends to any claim, demand and/or cause of action brought by or on behalf of any of its employees or agents. For this purpose, the Borrower, by mutual negotiation, hereby waives, as respects any indemnity only, any immunity that would otherwise be available against such claims under the Industrial Insurance provisions of Title 51 RCW of the State of Washington.

- B. **ACTIVITIES IN BAD FAITH OR BEYOND SCOPE.** Any Member shall not be required under this Omnibus Agreement to indemnify, hold harmless and defend any other Member from any claim, loss, harm, liability, damage, cost or expense caused by or resulting from the activities of any Member's officers, employees, or agents acting in bad faith or performing activities beyond the scope of their duties.
- C. **LIABILITY FOR PARTICIPATION.** In the event of any liability, claim, demand, action or proceeding, of whatever kind or nature arising out of rendering of assistance through this Omnibus Agreement, the Borrower agrees to the extent permitted by law, to indemnify, hold harmless, and defend, to the fullest extent of the law, each signatory to this Omnibus Agreement whose only involvement in the transaction or occurrence which is the subject of such claim, action, demand, or other proceeding, is the execution and approval of this Omnibus Agreement.
- D. **DELAY/FAILURE TO RESPOND.** No Member shall be liable to another Member for, or be considered to be in breach of or default under this Omnibus Agreement on account of any delay in or failure to provide assistance under this Agreement.
- E. **DISPUTE RESOLUTION PROCEDURES.** Each Member seeking to be released, indemnified, held harmless or defended under this Article with respect to any claim shall promptly notify the Borrower of such claim and shall not settle such claim without the prior consent of Borrower, which consent shall not be unreasonably withheld. Such Member shall have the right to participate in the defense of said claim to the extent of its own interest. Member's personnel shall cooperate and participate in legal proceedings if so requested by the Borrower, and/or required by a court of competent jurisdiction.

Article XV - SUBROGATION

- A. **BORROWER'S WAIVER.** To the extent permitted by any applicable insurance policy, Borrower expressly waives any subrogated claim against the Lender, which it may have on account of, or in connection with, the Lender providing assistance to the Borrower under this Omnibus Agreement.
- B. **LENDER'S RESERVATION AND WAIVER.** Lender expressly reserves its right to subrogation or reimbursement against the Borrower to the extent the Lender incurs any self-insured, self-insured retention or deductible loss. The Lender expressly waives its rights to subrogation for all insured losses only to the extent the Lender's insurance policies permit such waiver.

Article XVI - WORKER'S COMPENSATION AND EMPLOYEE CLAIMS

Lender's employees, officers or agents, made available to Borrower, shall remain the general employee of Lender while engaged in carrying out duties, functions or activities pursuant to this Omnibus Agreement, and each Member shall remain fully responsible as employer for all taxes, assessments, fees, premiums, wages, withholdings, workers' compensation and other direct and indirect compensation, benefits, and related obligations with respect to its own employees.

Likewise, each Member shall provide worker's compensation in compliance with statutory requirements of the State of Washington.

Article XVII - MODIFICATIONS

No provision of this Omnibus Agreement may be modified, altered, or rescinded by any individual Member without 2/3 affirmative concurrence of the Members to this Agreement. Modifications to this Omnibus Agreement must be in writing, must be approved by a 2/3 affirmative vote of the Members, and must be signed by the Designated Representative of each Member.

Article XVIII - NON EXCLUSIVENESS AND PRIOR AGREEMENTS

This Omnibus Agreement is not intended to be exclusive among the Members. Any Member may enter into separate assistance agreements with any other entity. No such separate agreement shall terminate any responsibility under this Omnibus Agreement. To the extent that prior agreements between Members are inconsistent with this Agreement, prior agreements for assistance between the port authorities hereto shall supersede this Omnibus Agreement, until and unless the inconsistency is reconciled by the Members in writing.

Article XIX - GOVERNMENTAL AUTHORITY

This Agreement is subject to laws, rules, regulations, orders, and other requirements, now or as amended, of all governmental authorities having jurisdiction over the events covered by this Omnibus Agreement. A Member and its employees providing assistance under this Agreement shall be entitled to all privileges and immunities from liability as are authorized by the Washington Emergency Management Act, Chapter 38.52 RCW, and other State or Federal law.

Article XX - NO DEDICATION OF FACILITIES

No undertaking by one Member to the other Member under any provision of this Omnibus Agreement shall constitute a dedication of the facilities or assets of such Member, or any portion thereof, to the public or to the other Member. Nothing in this Omnibus Agreement shall be construed to give a Member any right of ownership, possession, use or control of the facilities or assets of the other Member.

Article XXI - NO PARTNERSHIP

This Omnibus Agreement shall not be interpreted or construed to create an association, joint venture or partnership among the Members or to impose any partnership obligation or liability upon any Member. Further, no Member shall have any authority or undertaking for or on behalf of, or to act as or be an agent or representative of, or to otherwise bind any other Member.

Article XXII - NO THIRD PARTY BENEFICIARY

Nothing in this Omnibus Agreement shall be construed to create any rights in or duties to any third party, nor any liability to or standard of care with reference to any third party. This Agreement shall not confer any right, or remedy upon any person other than the Members. This

Omnibus Agreement shall not release or discharge any obligation or liability of any third party to any Member.

Article XXIII - ENTIRE AGREEMENT

This Agreement constitutes the entire agreement, though prior agreements of the Members may take precedent over certain terms set forth in this Agreement.

Article XXIV - SUCCESSORS AND ASSIGNS

This Omnibus Agreement is not transferable or assignable, in whole or in part, and any Member may withdraw its participation in this Omnibus Agreement under Article V.

Article XXV - GOVERNING LAW

This Omnibus Agreement shall be interpreted, construed, and enforced in accordance with the laws of the State of Washington.

Article XXVI - VENUE

Any action which may arise out of this Omnibus Agreement shall be brought in the superior court of the State of Washington.

Article XXVII - TORT CLAIMS

It is not the intention of this Omnibus Agreement to remove from any of the Members any protection provided by any applicable Tort Claims Act or other statutory immunity or limitation.

Article XXVIII - WAIVER OF RIGHTS

Any waiver at any time by any Member of its rights with respect to a default under this Omnibus Agreement, or with respect to any other matter arising in connection with this Omnibus Agreement, shall not constitute or be deemed a waiver with respect to any subsequent default or other matter arising in connection with this Omnibus Agreement. Any delay in asserting or enforcing any right, except those related to the statutes of limitations, shall not constitute or be deemed a waiver.

Article XXIX - SEVERABILITY

- Should a court of competent jurisdiction rule any portion, section or subsection of this Omnibus Agreement invalid or nullified, that fact shall not affect or invalidate any other portion, section or subsection; and all remaining portions, sections or subsections shall remain in full force and effect.

Article XXX - NOTICES

Any notice, demand, information, report, or item otherwise required, authorized, or provided for in this Omnibus Agreement shall be given in writing and shall be deemed properly given if (i)

delivered personally, (ii) transmitted and received by telephone facsimile device and confirmed by telephone, or (iii) sent by United States Mail, postage prepaid, to the Designated Representative for all Members at the address designated in the organization's Emergency Contact Information Form or Lead Coordinating Agency, as the case may be.

SIGNATORY DOCUMENTATION SHEET

SIGNATURE PAGE

IN WITNESS WHEREOF, the Members hereto has caused this Omnibus Agreement for Emergency Assistance to be executed by duly authorized representatives as of the date of their signatures.

ORGANIZATION:

ADDRESS:

AUTHORIZED SIGNATURE:

DATE:

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After Action Report/Improvement Plan
(AAR/IP)

Regional Supply Chain Resilience
Project Kickoff Seminar

Regional Supply Chain Resilience Project Kickoff Seminar

After Action Report/Improvement Plan

October 19, 2013



September 12
Seattle, Washington
Doubletree Southcenter

2013

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Administrative Handling Instructions

- The title of this document is Regional Supply Chain Resilience Project Kickoff Seminar After Action Report/Improvement Plan
- The information gathered in this AAR/IP is unclassified and there are no special handling instructions.
- At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.
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Executive Summary

The Regional Supply Chain Resilience Project Kickoff Seminar was conducted on September 12, 2013 at the Doubletree Southcenter Hotel in Seattle, Washington.

Sponsored by the Puget Sound Regional Catastrophic Planning Team (RCPT), the kickoff seminar was created by regional stakeholders that followed the guidance set forth in the Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP). The purpose of the seminar was to introduce stakeholders to the Regional Supply Chain Resilience Project. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

Stakeholders were brought together to help identify how to implement a series of stakeholder identified strategies to improve supply chain resilience. The goal of the project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience. The seminar planning team was composed of numerous and diverse agencies, including:

- Thurston County
- Snohomish County
- The City of Seattle
- Amazon.com
- Pacific NorthWest Economic Region (PNWER)

The seminar planning team developed an earthquake seminar to help generate discussion on the impact to the supply chain, and identify the role of the private sector in community points of distribution; transportation tools and messaging for supply chain recovery; and the role of the state in coordination of supply chains and logistics.

Major Strengths

The major strengths identified during this discussion are as follows:

- The Washington State Department of Transportation (WSDOT) has developed a prioritized pass system for moving cargo trucks through impacted areas.
- Recognized need and benefit for partnering with the private sector, both to use their expertise and to ensure the quick recovery of economic drivers in the region.

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Primary Areas for Improvement

Throughout the seminar, several opportunities for improvement in the Region's ability to respond to the incident were identified. The primary areas for improvement, including recommendations, are as follows:

- 1) Because trucks get rerouted, or need to pass through different jurisdictions post-event, Tribes need to be included in the Emergency Operations Centers and be included in the planning.
- 2) Staging areas are large undertakings for local governments, and because pre-identifying sites is difficult, local jurisdictions felt they were in over their heads on managing this responsibility. They have limited time for local planning, and only a handful of jurisdictions have any kind of existing plan for Community Points of Distribution (CPODs), and they do not have the opportunity to test them frequently.
- 3) Jurisdictions expressed concern that they would not have the right equipment or staffing to support CPOD set-up and wanted to bring in private sector experts as partners in developing and fulfilling these plans.
- 4) Tracking road closures and road mapping is done by many different agencies, and is imperfect. There is no one overarching program or agency managing maps of road closures and existing ones are unreliable.
- 5) Private sector organizations need to have a greater role in planning, and be educated on available tools, like the WSDOT pass system.

The seminar was successful at identifying gaps in communications and coordination planning between the private and public sectors. The scenario that was reviewed stimulated thoughtful exploration of significant topics that need to be explored in further detail as the region continues to define and refine private and public business continuity and response plans for a large-scale disruption to the supply chain. At the forefront of those continued discussions will be efforts to improve regional communications and coordination; policies and procedures; and situational awareness in order to promote resiliency and recovery from a regional event which disrupts the supply chain. While the region has done much to advance the roles of the public and private sectors, and, the seminar identified several gaps in coordination that need to be continually tested and corrected.

SECTION 1: EXERCISE OVERVIEW

Exercise Name

Regional Supply Chain Resilience Project Kickoff Seminar

Type of Exercise

Tabletop

Exercise Start Date

September 12, 2013

Exercise End Date

September 12, 2013

Duration

Three hours

Location

DoubleTree Southcenter
16500 Southcenter Parkway
Seattle, WA 98188

Sponsor

Puget Sound Regional Catastrophic Planning Team

Program

Regional Catastrophic Preparedness Grant Program

Mission

Response and Recovery -- Assist stakeholders in testing their supply chain restoration plans, and explore interdependencies of regional critical infrastructures and potential cascading failures resulting from a large-scale interruption to the supply chain.

Capabilities

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

Scenario Type

Earthquake causing disruption to the Supply Chain

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Exercise Planning Team

Participant	Organization	Email
Sandy Johnson	Thurston County	johnsons@co.thurston.wa.us
Elenka Jarolimek	King County	elenka.jarolimek@seattle.gov
Steve Myers	PNWER	Steve.myers@pnwer.org
Eric Holdeman	PNWER	Eric.holdeman@pnwer.org

Participating Organizations

2-1-1 & Crisis Clinic of King County, WA	Washington State EMD
Amtrak	WSDOT
AT&T	
Boeing Company	
Boeing Company, Supply Chain Security	
Center for Regional Disaster Resilience,	
PNWER	
Center of Excellence for Marine Manufacturing	
& Technology, Skagit Valley College	
City of Seattle	
COE for HS/EM, Pierce College	
Directorate of Logistics - Joint Base Lewis-	
McChord	
Economic Services	
FEMA Region X	
Gleaves Consulting, LLC	
King County Office of Emergency Management	
King County Zone 3	
Marine Exchange of Puget Sound	
Moffatt & Nichol	
Northwest Healthcare Response Network	
PNWER	
Port of Olympia	
Port of Seattle	
Ports America	
Puget Sound Energy	
Regional Catastrophic Preparedness Grant	
Program	
Seattle Emergency Management	
Snohomish Co. Emergency Mgmt.	
Thurston County	
USCG	
USCG Sector Puget Sound	

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The Regional Supply Chain Resilience Project Kickoff Seminar was designed to provide background to the project and to introduce participants to the players in the region and what their role would be, using the impacts of an earthquake in the region as the frame for the discussion.

The purpose of the seminar was to introduce stakeholders to the Regional Supply Chain Resilience Project. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

Stakeholders were brought together to help identify how to implement a series of stakeholder identified strategies to improve supply chain resilience. The goal of the project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

- **Objective 1:** Critical Resource Logistics and Distribution
 - *Develop and Maintain Plans, Procedures, Programs, and Systems:* Establish plans and procedures for coordination with non-governmental and private sector organizations for obtaining resources

- **Objective 2:** Restoration of Lifelines

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- *Develop and Maintain Plans, Procedures, Program and Systems:* Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities
- **Objective 3:** Economic and Community Recovery
 - *Activate Economic and Community Recovery:* Implement private-sector recovery, local assistance, and recovery and mitigation plans.

Scenario Summary

Regional Supply Chain Resilience Project Kickoff Seminar

Agenda

- 9:00 am - Welcome and Introductions
9:10 am - Regional Supply Chain Project Overview and Timeline:
9:35 am - Sample Scenario of Earthquake and impacts to Supply Chain and Group Discussions
- Washington State coordination on Supply Chains and Logistics
 - Community Points of Distribution and the role of the Private Sector
 - Transportation Tools and Messaging for Supply Chain recovery
- 11:45 am - Timeline and project Next steps
12:00 pm - Adjourn

Introduction and Welcoming Remarks

Eric Holdeman from the PNWER Center for Regional Disaster Resilience began the meeting and the group went around and did personal introductions. Holdeman spoke about the importance of filling out the evaluation sheet and emphasized the importance of having as much private sector involvement as possible, asked who else should be involved? Stated this is a supply chain project. A slide of a map NW WA State was shown. Holdeman stated this is a working group, no one is dictating, it is bottom up process and requires participation. The objectives are to focus on the supply chain.

Regional Supply Chain Project Overview and Timeline

Holdeman stated a region is not defined by a map, but an area that shares resources and people. Need to develop a critical infrastructure protection action strategy. Need to include tools and pre-messages. Develop a mutual aid agreement for Puget Sound

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ports. Holdeman talked about an official at the Port of Bellingham who drafted mutual aid agreement 8 years ago with an attendee at the meeting who formerly worked at the Port of Seattle. PNWER wants to help to develop it. Gave project timeline. He hoped to solidify objectives during the meeting. Holdeman talked about First to See phone application. FEMA is developing a similar application.

Sample Scenario of Earthquake and impacts to Supply Chain and Group Discussions

Holdeman outlined the scenario; data is from study from 2005 study. Seattle fault is a vertical fault, not horizontal like San Andreas in California. Talked about 3 feet of displacement, in the 1400s there was 20 feet displacement. Gave details on impact to infrastructure for 6.7 magnitude earthquake on the Seattle fault. Most bridges were built before modern building code development. Government is doing lots of retrofitting now, but has not dealt with liquefaction because it is too expensive.

Comments about various regional airfields: Payne field is most viable on bedrock. SeaTac is on good soil as is McCord Airbase. Holdeman showed picture from Kobe, Japan from the aftermath of the earthquake there. A Port of Seattle official commented about Port of Kobe. The Japanese government rebuilt the port but business never fully came back. Holdeman said ships are not on rails so they can go where they want. Touched upon the huge fuel distribution issues and issues during Superstorm Sandy.

A representative from the Center of Excellence for Homeland Security at Pierce College stated if food distribution is down, Alaska will become nervous, and they will need to secure alternative sources for food. Holdeman gave his priorities for restoration: communication, electrical power to medical facilities and businesses, transportation routes, and fuel distribution. Holdeman believes there will be urban depopulation; which will help ease some problems.

Washington State coordination on Supply Chains and Logistics

Two officials from the Washington State Emergency Management Division (WA EMD) began their presentation highlighting how to request resources. There was a slide with the sequence to find resources. If a jurisdiction is impacted WA EMD wants them to go to county first and then work their way up the different levels of government. Applicants need to meet threshold of support. Further explanation of sequence. Another EMD official talked about external affairs and business liaisons. Many ESF have link to private sector. No direct link to EOC for some in private sector. Business will call EMD and tell them they are open. Big box stores will call tell them they are open and what supplies they have. Official talked about All Hazards Consortium and their work during Sandy, issues with toll roads. Need to tell community what roads are open, to trucks in Idaho and Oregon. Allow access to situational report, to help them make decisions. Can tell people what resources are available. Gave example of fuel trucks not going during snowstorm but it did not matter because people were not driving. All Hazards

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Consortium collected data through credit cards use to see what stores were open and in business. Working on developing pass system to allow access to damaged area. PPT Slide on their partners. Talked about WA Lodging Association, and why hotels/motels are important for disaster recovery. Holdeman asked about requirements to go to state for resources, do you need to exhaust all your resources before going to state? EMD official responded they need exhaust non-commercial resources, of theirs and their neighbors.

Question regarding the pass system that has been developing for years. The EMD official has gone to most of Gulf Coast states, there passes are typically for a given city, one is usual insurance adjusters, and one is for business people. It is easier for this region because hurricanes have known time frame. In Washington, if there is an event that impacts most jurisdictions, they can go to state, if they have business in multiple areas, they will issue to them, and they can use 8-5 pm and use the roads. Initially they will be for insurance and contractors. First they will deem if it is safe. They need to get in their quickly because they can have compounding issues, gave example of earthquake at a Safeway. Worried about pass issues, can drive on state highways but not allowed on surface streets. Gave example of Chelan County worrying about paying for sheriffs. Will be primarily for catastrophic events.

A representative from AT&T asked the WA EMD about dealing with American Express because they know who is up and running. The WA EMD official stated there are issues with tribal representation in EOCs. Gave example of a PSE truck trying to go through Thurston County and getting stopped by highway patrol, they had to call in. That is where liaisons working with business partners can have things work more efficiently. A representative from AT&T had an issue with the channels for asking for resources, they will give them away before it can go through the proper government channels. An official from PNWER said there is massive bottleneck potential, it would be impossible to prioritize. Gave example of needing eight bulldozers when you have two.

A Port of Seattle representative talked about passes not working, how is it going to work during an event? WA EMD Official said Business will print passes; he will just give numbers for pass. An official from the USCG asked about federal government workers needing passes. The WA EMD representative said they should come to the state government for the pass.

An attendee thought the more the group can get checklist and protocols ready this will advance the discussion. There was talk about training on September 30. There was a comment about getting the Chambers of Commerce involved and a WA EMD official said they work with Chambers of Commerce. There was a question regarding the pass system for general workers. The WA EMD official said it is for business people to make businesses operational. A question was asked about when the plan will be made public. The WA EMD official said it is in version 10C now, and will probably be out next month. There was a question about reviewing plan. It has been sent to WASEMA and Fire Marshall. It has not been sent to Transportation group which Amtrak is a part of. A WA EMD official said there are three ways to request resources: through Web EOC, an

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Excel Spreadsheet and just calling them. There was talk about resource distribution. They have four MOUs. Do not have county staging areas identified. CPODs are generated by the county

A Thurston County Emergency Management representative said staging areas are large undertakings for local governments. This is a gap; it will be very difficult for local jurisdictions to handle this. A representative from ATT wanted to know where they will be. There was confusion over feeding areas and CPODs. CPOD type 1 serves 20,000 people, type 2 10,000 people, type 3 5,000. A King County logistics representative said it is difficult to pre-identify sites, while a City of Seattle official it is important to develop staffing for CPODs.

Community Points of Distribution and the role of the Private Sector

A Thurston County Emergency Management representative described what a CPOD is. They primarily distribute water and MREs, sometimes blankets and ice. In CPOD planning, they plan to serve 40 percent of population. Planners need to consider geography, demographics, roads, etc... to highlight this representative showed a map of Bellevue. Selected sites to serve 5,000 to 20,000 people per day. The drive through model is most typical. Other models include walkup models, which are typically utilized in higher density areas. Other pods serve mass transit, example of Tacoma Convention Center and the light rail. The representative talked about Thurston County having CPOD locations set up for two hours then moving due to the rural nature of the county. CPODs are not supposed to compete with businesses. Once businesses open CPODs should close. Commercial sites are well suited for CPODs because they are well designed for distribution. Fred Meyer in Snohomish County would be a location for a CPOD and its staff has agreed to work at the CPOD.

Current challenges include limited time for local planning, issues with communication only a handful of jurisdictions have plans for CPODs. It is a topic that is competing with other topics for emergency managers and jurisdictions do not get to practice often. Threshold issues for opening and closing. All stores will not open simultaneously. Lot of political pressure, which is why we need thresholds.

An official from FEMA stated CPODs are great because they keep people out of shelters. A representative from ATT talked about using post office to deliver goods. A representative from Thurston County discussed using FedEx, and the grocery store distribution system in Mason County. There was talk about CPODs as one element in a vast feeding system. The group thought they should look broader to see how they tie into the whole system. A FEMA official talked about charging lifesaving battery equipment. There was a question about Food Banks. An official from Thurston County said their Food Bank volunteers are the CPOD volunteers. It was noted on September 26 there is mass feeding exercise in Seattle. There was a question about bridges possibly impacting CPODs. An attendee stated siting CPODs is not as easy as you think, because they need to bring in large trucks. A USCG official asked a question

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about using churches as CPOD locations. The official responded that a few do, but it is difficult because they landscape their parking lots, but they are good options for staffing CPODs. A representative from the Port of Seattle asked a question CPOD for pets. It was stated that CPODs are just for people, and need to be efficient as possible, should go elsewhere to meet additional goods.

Holdeman asked the official from Thurston County what she would like to see out of this. She said one of our biggest concerns is finding location, staffing, and finding equipment to move everything around. She does not know if local governments will be able to develop that capability but private sector can and she wants to bring those two together. An official from WA EMD talked about CPOD trainings, people should contact him if they are interested. The official from Thurston County said we are unfamiliar with business logistics; do not know businesses critical issues. Finding a way to share and educate people in local jurisdictions would be a great thing to do. There was talk about needing to get right people in the room, people from institutional food distribution. The audience emphasized there needs to be specific targets. A representative from PNWER emphasized a representative from food distribution could not make it to the meeting. An official from the WSDOT wants to have Waste Removal working groups and targets. There was talk about the differences between business and humanitarian goals. A representative from the Center of Excellence for Homeland Security at Pierce College stated we need to go to people who do logistics for their job, not the attendees who do it as a hobby. An attendee stated you need to go to business not just invite them to an event. A representative from the USCG thought the group needs to develop methodology, to determine priorities. The USCG has developed a baseline of data to help us understand where we are today.

An attendee talked about Path Aware in California. It is best tool she has seen. It is the best but they ran out of resources. An official from ATT talked about an exercise in Portland on October 24-25. A Port America official was a little bit disappointed a lack of the private sector at the meeting.

Transportation Tools and Messaging for Supply Chain recovery

King County will blend maps but there is a huge gap because that ends at the county line. It does not get identified. If we get into catastrophic event, they won't have tools. They use WebEOC program. People can log into it if they have the password. They do visual mapping once an hour but that is only from state perspective. He does not know if the Port of Seattle has looked at this. He does not know if roads are open or closed.

The WSDOT official stated as long as you can get into the state website you can get find all the information. Put this information in Olympia Office or Camp Murray office. This official started at WSDOT in 2006 and the windstorm that year was a mess, they received a bunch of various information about road closures, but now webEOC only updates state roads. Holdeman talked about developing a crowd sourced road map, to let people geospatially know what's going on. Technically it is all possible today, if we just want to get it going. The WSDOT official talked about people going to Google and

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Bing for traffic information but sometimes road is shown as close but really there are no cars on there.

A Thurston County official said tracking road closures is very difficult because it is done by different agencies.

A PNWER representative asked question about using webEOC. The WSDOT official said to get them together, it costs 50k, and WebEOC will not let them talk to the state. WSDOT official said number one thing is networking. Need to make sure WSDOT radios are working with counties.

An official from WSDOT said we need to tell information if we are about to close the lane. Need multi-jurisdictional truck credentials. That is something that is barrier to access for multiple jurisdictions. Their system is designed for day 3-7 after disaster and it has never really been tested.

A representative from PNWER asked Barb to describe pass system. Do not want bottlenecks. It is an online system where any carrier public or private can reserve time slot they can move their goods. First emergency, then essentials, then others. They have a lot more to do and there is no backup plan ever if telecom is done.

Timeline and project Next steps

Holdeman asked about the venue for the meeting and if the attendees liked it. They thought it was a good location. Want to get reaction to having workshops, do we need to break it out. A representative from ATT suggested having break outs in larger sessions.

A WA EMD official stated sometimes we get right organization, but wrong person, the project needs someone who can make decisions. A WSDOT official said before we develop strategies we need to develop goals, also reiterated getting the right person involved. Holdeman reemphasized the point that the group needs better understanding of how logistics work.

A representative from the USCG talked about a problem of moving barges on the Mississippi River. After 10-12 days biggest thing they need to move was salt for kidney dialysis. There is a need to have daily prioritization. There is need to understand how fast that commodity system is, government sometimes does not realize how big it is. Katrina almost shut down milk production in WA State due to lack of plastic bottles being manufactured in Louisiana. A different USCG official said when talking about the US-Canada project sometimes you need the wrong person (who attended a meeting) to tell the right person in a company they need to engage with resilience planning. A Port of Seattle official said we should go to them to tell them, rather than just set up workshop because they are too busy. An attendee from PNWER emphasized that you only really need one or two major players to attend. Holdeman thanked everyone for coming and concluded the meeting.

SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and associated activities. The capabilities linked to the exercise objectives of the Regional Supply Chain Resilience Project Kickoff Seminar are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

CAPABILITY 1: Critical Resource Logistics and Distribution

Capability Summary: Critical Resource Logistics and Distribution is the capability to identify, inventory, dispatch, mobilize, transport, recover, and demobilize and to accurately track and record available human and material critical resources throughout all incident management phases. Critical resources are those necessary to preserve life, property, safety, and security.

Activity 1.1: Establish plans and procedure for coordinating with non-governmental and private sector organizations for obtaining resources.

Observation 1.1: Area for improvement - develop means for the state and private sector to partner on recovery. Strength - the state has an existing system for prioritizing cargo movement into affected areas. Area for improvement -- the private sector needs to be engaged in this WSDOT system. Area for improvement -- Develop a credentialed pass system for ensuring key lifeline restoration personnel are able to get into affected areas.

References:

- 1) Washington Military Department Emergency Management Division, Basic Emergency Management Plan – Emergency Support Function 7 – Communications (October 2008)
- 2) Washington State Statewide All-Hazards Strategic Plan - Objective 4.5 - TC #16 (2011)

Analysis: Participants agreed that there needed to be a great engagement with the private sector, and means through which they could involve the private sector in planning and share current capabilities and best practices. The state shared an outline on their existing prioritized pass system for cargo, but admitted that it wasn't known by most private sector, and that it could be down due to telecommunication disruptions. This emphasizes the need engage the private sector and to develop a credentialing system through which key lifeline restoration personnel can be identified pre-event and provided with passes, which will not be dependent upon computer systems during an event.

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Recommendations:

1. Develop a work group for public and private sector coordination for supplying community points of distribution, developing credentials and sharing current capabilities.

CAPABILITY 2: RESTORATION OF LIFELINES

Capability Summary: Restoration of Lifelines is the capability to initiate and sustain restoration activities. This includes facilitating the repair/replacement of infrastructure for oil, gas, electric, telecommunications, drinking water, wastewater, and transportation services.

Activity 1.1 Develop and Maintain Plans, Procedure, Programs and Systems: Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities

Observation 1.1: Area for improvement -- private sector hasn't been involved or reached out to regarding. Strength - the state has an existing system for prioritizing cargo movement into affected areas. Area for improvement -- the private sector needs to be engaged in this WSDOT system. Area for improvement-- involve private sector in planning to a greater extent.

References:

- 1) Washington State Statewide All-Hazards Strategic Plan - Objective 5.2 - TC #36 (2011)

Analysis: The exercise group discussed how to partner with the private sector in order to ensure CPOD locations were not competing with business, but were instead placed in locations where there was the greatest need. In order for this to happen, the private sector must have some process through which they can get into impacted areas both to assess and restore facility capacity. The WSDOT pass system may help them gain clearance to freeway and highway systems, but they said it would not be effective on city streets. Additionally, there is no system for providing credentials to the private sector and lifeline restoration professionals prior to an event to help them get around road blocks and speed business and supply chain resumption

Additionally, looking at the future of the project, it was thought that there were not enough private sector representatives in the room to get a good picture of what post event actions would be taken. They recommended the invitation list be expanded for future events.

Recommendations:

- 1) Perform outreach to the private sector to inform them of the WSDOT pass system and how they can use it in an emergency event.

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- 2) Develop a system for private sector and other lifeline resumption service providers to obtain and maintain credentials to enter restricted areas.
- 3) Reach out to additional private sector for remaining meetings

CAPABILITY 3: ECONOMIC AND COMMUNITY RECOVERY

Capability Summary: Economic and Community Recovery is the capability to implement short- and long-term recovery and mitigation processes after an incident. This will include identifying the extent of damage caused by an incident, conducting thorough post-event assessments and determining and providing the support needed for recovery and restoration activities to minimize future loss from a similar event.

Activity 1.1: Activate Economic and Community Recovery: Implement state, regional, tribal and local assistance and recovery plans

Observation 1.1: Area for improvement – participants didn't feel they understood the role of supply chains or what the private sector was planning. Area for improvement - the private sector is not included on mapping of open roadways, which are not consolidated

References:

- 1) Washington State Statewide All-Hazards Strategic Plan - Objective 5.3 - TC #37 (2011)

Analysis: Throughout the discussion, it was clear that participants from the state, county, city, and other local government both didn't understand the extent of the commodity system in the region, and were uncertain what tools and contingency plans the private sector had in place. In the case of supply chain resiliency, the majority of the responsibility is going to fall on private sector organizations who will need support from the public sector responders. It is essential not only that private sector organizations have business continuity plans, but that those plans take supply chain logistics into consideration and that those plans are shared with the public sector.

Additionally, mapping of road systems in the state was discussed. The various departments of transportation keep maps of road incidents and traffic flow, but the maps do not integrate and there were concerns that they are not as accurate as they should be for decision making.

Recommendations:

- 1) Develop an outreach piece that outlines best practices for business continuity planning and supply chain resilience
- 2) Reach out to local private sector and ask them to share supply chain resilience plans with local government emergency management

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- 3) Train local emergency management in each county on crowd sourcing options for mapping and integrating information, like CrowdMap or FirstToSee.

SECTION 4: CONCLUSION

This event was a kickoff seminar and short scenario driven discussion meant to identify gaps in the supply chain resiliency planning in the region. The supply chain is key not only to the restoration of businesses post-disaster event, but also for bringing in supplies CPODs.

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The most significant gap realized through this event was the lack of awareness regarding the private sector's supply chain resilience plans. The participants admitted to not knowing the extent of the commodity system in the region, and have not been partnering with the private sector to share current capabilities or emphasize the importance of planning. For the remaining events, it will be key to bring in essential private sector, including large employers, business dependent on "just-in-time" supply chains, and the ports.

The concerns highlighted through this discussion will make up the basis for concerns to be addressed through the remainder of the Regional Supply Chain Resilience Project. It is clear that future events need to provide more opportunity for information sharing, and must include an even greater private sector presence in order to help public sector decision makers better understand the vast intricacies of the Puget Sound supply chain infrastructure.

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APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the Regional Catastrophic Planning Team home area of Skagit, Snohomish, King, Pierce, Thurston, Mason, Kitsap, and Island counties in Washington State as a result of Regional Supply Chain Resilience Project Kickoff Seminar conducted on September 12, 2013. These recommendations draw on both the After Action Report and the After Action Conference.

Table A.1 *Improvement Plan Matrix*

Capability	Observation Title	Recommendation	Corrective Action Description	Capability Element	Primary Responsible Agency	Agency POC	Start Date	Completion Date
Capability 1: Critical Resource Logistics and Distribution	1. Establish plans and procedures for coordinating with non-governmental and private sector organizations for obtaining resources	1.1 Develop a work group for public and private sector coordination for supplying community points of distribution, developing credentials, and sharing current capabilities	1.1.1 Establish working group for the public and private sectors	Planning	PNWER	Steve Myers	November 1, 2013	June 1, 2014
Capability 2: Restoration of Lifelines	1. Develop and maintain plans, procedures, programs, and systems: coordinate with state and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities	1.1 Perform outreach to the private sector to inform them to the WSDOT pass system and how they can use it in an emergency event	1.1.1 Perform outreach	Planning	WSDOT	Rachel Knutson	Oct 1, 2013	Oct 2, 2014

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		1.2 Develop a system for private sector and other lifeline resumption service providers to obtain and maintain credentials to enter restricted areas	1.2.1					
		1.3 Reach out to additional private sector for remaining meetings	1.3.1 Develop strategy for and implement outreach to the private sector for future meetings	Outreach	PNWER	Steve Myers	October 1, 2013	June 1, 2014
Capability 3: Economic and Community Recovery	1. Activate economic and Community Recovery: Implement state, regional, tribal, and local assistance and recovery plans	1.1. Share best practices for business continuity and supply chain resilience	1.1.1 Develop outreach piece that outlines best practices for business continuity and supply chain resilience					

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		1.2 Share local private sector supply chain resilience plans	1.2.2. Reach out to local private sector and ask them to share supply chain resilience plans with local government and emergency management					
		1.3 Train local emergency management in social media and crowd source systems for situational awareness	1.3.2 Provide training in systems like FirstToSee and CrowdMap to local emergency management to help them use crowd sourcing and social media for situational awareness.	Training	PNWER	Eric Holdeman	Oct 1, 2013	June 1, 2014

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APPENDIX B: LESSONS LEARNED

While the After Action Report/Improvement Plan includes recommendations which support development of specific post-exercise corrective actions, exercises may also reveal lessons learned which can be shared with the broader homeland security audience. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-exercise lessons learned with the emergency response community. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned from exercises for sharing on *LLIS.gov*.

For reference, the following are the categories and definitions used in LLIS.gov:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

Exercise Lessons Learned

The Regional Supply Chain Resilience Project Kickoff Seminar highlighted the great work going on in the Region to foster partnerships between the public and private sectors.

Through the exercise it was identified that many public sector organizations do not understand the extent of the supply chain and commodity network in the region, and haven't collaborated with the private sector to ensure they are informed of plans in place

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4. Would you be interested in be part of a Supply Chain Resilience Work group?
(Please Circle One) **Yes** **No**

5. Based on the Workshop today and your experiences, what improvements to supply chain resilience and broader preparedness would you recommend for the region?

6. What issues were not addressed that you would like included in follow-up activities?

7. In the event of a catastrophic incident, an issue that has been identified as a concern is providing private sector input to the long term recovery process would you be interested in being part of a work group to address this issue.
(Please Circle One) **Yes** **No**

8. What suggestions do you have to get business involved in regional resilience planning and two-way information sharing and communications?

9. This is the 4th Interdependencies Workshop. What other issues scenarios or themes would you like to see an interdependencies workshop address in the future?

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10. Would you be interested in serving on the WA State HLS Region 6 (King County) Critical Infrastructure Protection Work group?
(Please Circle One) **Yes** **No**

Optional:

Name_____

Title_____

Organization_____ Email: _____

Thank you for your feedback. Please return it to organizers as you leave.

If you are interested in discussing your observations or providing additional information for the summary report, please contact Steve Myers at Steve.Myers@pnwer.org

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APPENDIX D: ACRONYMS

Table F.1: Acronyms

Acronym	Meaning
AAR/IP	After Action Report/Improvement Plan
CPOD	Community Point of Distribution
EMD	Emergency Management Division
EOC	Emergency Operations Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
PNWER	Pacific NorthWest Economic Region
TC	Target Capability
TCL	Target Capabilities List
PSE	Puget Sound Energy
RCPT	Regional Catastrophic Planning Team
USCG	United States Coast Guard
WA	Washington
WASEMA	Washington State Emergency Management Association
WA EMD	Washington Emergency Management Division
WSDOT	Washington State Department of Transportation

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**Regional Supply Chain Resilience
Project Kickoff Seminar**

APPENDIX E: PARTICIPANTS

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Regional Catastrophic Preparedness Grant Program

Appendix B – Project After Action Reports

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Business Continuity Manager
Puget Sound Energy

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After Action Report (AAR)

Regional Supply Chain Resilience
Project Site Access Workshop

Regional Supply Chain Resilience Project Regional
Site Access Workshop

*After Action Report
February 26, 2014*



January 29
Seattle, Washington
DoubleTree Southcenter

2014

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Administrative Handling Instructions

- The title of this document is Regional Supply Chain Resilience Project Site Access Workshop After Action Report
- The information gathered in this AAR is unclassified and there are no special handling instructions.
- At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.
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Executive Summary

The Regional Supply Chain Resilience Project Site Access was conducted on January 29, 2014 at the Doubletree Southcenter Hotel in Seattle, Washington.

Sponsored by the Puget Sound Regional Catastrophic Planning Team (RCPT), the Site Access Workshop was created by regional stakeholders following the guidance set forth in the Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP). The purpose of the Workshop was to introduce stakeholders to the Washington State Emergency Management Division's program for allowing vetted businesses into areas impacted by a disaster to conduct damage assessments of their facilities and property. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

The goal of the Regional Supply Chain Resilience Project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience. The Workshop planning team was composed of numerous and diverse agencies, including:

- Thurston County
- Snohomish County
- King County
- WAEMD
- Pacific NorthWest Economic Region (PNWER)

This Workshop will help inform the work of the working group by helping stakeholders understand the opportunities for site access post-disaster. Currently, businesses are not permitted to do site assessments without approval from local law enforcement. The goal of the 'State Access Pass' is to have businesses identify individuals that can be vetted before a disaster so they are allowed access to conduct damage assessment on their property with coordination of local law enforcement. The goal of this Workshop was to hear from businesses and answer questions about the program

Major Strengths

The major strengths identified during this discussion are as follows:

- The State of Washington Emergency Management Division's leadership on site access protocols

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- The Washington State Department of Transportation (WSDOT) has developed a prioritized pass system for moving cargo trucks through impacted areas.
- Recognized need and benefit for partnering with the private sector, both to use their expertise and to ensure the quick recovery of economic drivers in the region.

Primary Areas for Improvement

Throughout the workshop, several opportunities for improvement for the state's Business Re-Entry (BRE) plan were identified. The primary areas for improvement, including recommendations, are as follows:

- To improve business buy-in, passes that allowed holders to bypass traffic at roadblocks would add value
- To ensure areas were not overwhelmed with requests for entry, participants suggested that a tiered pass system through which the state could identify priority business.
- Many businesses do not put their logo on photo ID for security purposes; participants suggested a secondary form of company ID could be a letter outlining the holder's need to be in the area.
- Because Washington is a home rule state, there were concerns about jurisdictions buying in. Participants suggested a signed agreement.

The State welcomed any input participants had at the meeting or after the event, which they agreed to take under advisement as they move towards finalizing the program.

SECTION 1: EXERCISE OVERVIEW

Exercise Name

Regional Supply Chain Resilience Project Site Access Workshop

Exercise Type

Discussion

Workshop Start Date

January 29, 2014

Workshop End Date

January 29, 2014

Duration

Four hours

Location

DoubleTree Southcenter
16500 Southcenter Parkway
Seattle, WA 98188

Sponsor

Puget Sound Regional Catastrophic Planning Team

Program

Supply Chain component of the RCPT project

Mission

Response -- Assist stakeholders in testing their supply chain restoration plans through increasing understanding of the State of Washington's options for site access after a large-scale event and to improve state plans through

Capabilities

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

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Project Site Access Workshop**

Exercise Planning Team

Participant	Organization	Email
Sandy Johnson	Thurston County	johnsons@co.thurston.wa.us
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Steve Myers	PNWER	Steve.myers@pnwer.org
Eric Holdeman	PNWER	Eric.holdeman@pnwer.org
Jeff Parsons	WAEMD	jeff.parsons@mil.wa.gov

Participating Organizations

ABLE Engineering Services	Seattle Police Department Shell - Puget
Bartell Drugs	Sound Refinery
Boeing	Snohomish Co. Emergency
CBRE, Inc.	Management
City of Seattle	Starbucks Coffee Company
Department of Justice / United States	Tacoma Power
Attorney's Office	Tesoro Refining and Marketing
Everett OEM	The Beckett Group
Expeditors International	The Boeing Company
King County - Wastewater Treatment	Thurston County
PACCAR Inc	Unified Grocers
Pierce County Emergency Management	UPS
PNWER	USCG
PNWER Center for Regional Disaster	USCG Sector Puget Sound
Resilience	Washington State Patrol
Puget Sound Energy	WMD - Emergency Management
Regional Catastrophic Preparedness	Division
Grant Program	WSDOT
Safeway	Washington State Fusion Center
Seattle Emergency Management	

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The Regional Supply Chain Resilience Project Site Access Workshop was designed to provide participants information on the State of Washington's plans for providing access to damaged areas after an event. The Washington State Emergency Management Division has developed a program that will allow vetted businesses into areas impacted by a disaster to conduct damage assessments of their facilities and property. Currently, businesses are not permitted to do site assessments without approval from local law enforcement. The goal of the 'State Access Pass' is to have businesses identify individuals that can be vetted before a disaster so they are allowed access to conduct damage assessment on their property with coordination of local law enforcement.

The purpose of this workshop was to present the State's site access plan, and through facilitated discussion, hear from businesses and answer questions about the program. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

The goal of the overall project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

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- **Objective 1:** Critical Resource Logistics and Distribution
 - *Develop and Maintain Plans, Procedures, Programs, and Systems:* Establish plans and procedures for coordination with non-governmental and private sector organizations for obtaining resources
- **Objective 2:** Restoration of Lifelines
 - *Develop and Maintain Plans, Procedures, Program and Systems:* Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities
- **Objective 3:** Economic and Community Recovery
 - *Activate Economic and Community Recovery:* Implement private-sector recovery, local assistance, and recovery and mitigation plans.

Scenario Summary

Regional Supply Chain Resilience Project Site Access Workshop

Agenda

9:00 am	Welcome and Introductions and Project Overview <ul style="list-style-type: none">• Eric Holdeman, CRDR Director
9:30 am	Overview of State Business Re-Entry Access Pass <ul style="list-style-type: none">• Jeff Parsons, Private Industry Program Manager
10:00 am	Break
10:15 am	Table Discussions: Input from Businesses on State Site Access Pass <ul style="list-style-type: none">• All Participants
11:15 am	Developing a Supply Chain Working Group and Upcoming Activities and Projects <ul style="list-style-type: none">• Eric Holdeman, CRDR Director
12:00 pm	Adjourn

Welcome and Introductions and Project Overview

Eric Holdeman welcomed participants and explained the agenda for the day. He then gave an overview of the supply chain resilience project. It is a project including the eight counties of Puget Sound. He shared the project objectives:

- Create a working group to focus on supply chain resilience
- Examine Public/Private sector engagement opportunities on the Business Re-Entry Pass system
- Identify best practices and develop a transportation strategy. Partly done through showcasing the Fuel Distribution Plan for the State of Washington

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- Develop a post-disaster mutual aid agreement for Puget Sound ports to assist in keeping maritime business in the region.
- Identify best practices for regional transportation information sharing through tools and messaging such as crowd mapping

He reviewed the project timeline, explaining the future meetings. Additionally, he emphasized the need to be in the room building relationships. He said everyone should be thinking about long term and interdependent issues. He also spoke about the importance of public and private partnerships during an emergency. He shared a story of a boil water warning in Seattle, saying that when they realized they were underprepared to provide bottled water, they turned to Safeway, having just met a representative at a PNWER event.

Steve Myers, Program Manager, PNWER introduced speaker Jeff Parsons, Washington State Military Department, Emergency Management Division

Overview of State Business Re-Entry Access Pass - Jeff Parsons, Private Industry Program Manager, Washington State Military Department, Emergency Management Division

Parsons presented on the State's proposed business re-entry (BRE) access pass. He said that after seeing the challenges of recent disasters, the state recognized the need for a plan regarding how to get businesses back into impacted areas after a disaster. For a model, he explored the Gulf Coast and eastern seaboard plans, but found them challenging outlines because they are made primarily for hurricanes. In our region hurricanes are not a major risk and planning is different because hurricanes typically have several days of lead time before landfall. Knowing when hurricanes are eminent allows for people to prepare and evacuate the area ahead of the disaster and return to the impacted area afterward. Florida is the most advanced with two plans; one for insurance, and one for businesses and others. He said he tried to mix the policies on the insurance side with the administrative piece of the business plan in developing a plan for Washington.

He shared that the pieces in the appendices were from real life situations. For example, the corporate letter was used by Verizon in a hurricane. He added that to get to where we are now, we have gone through numerous iterations. We have received edits from throughout the state, and have room for more input. This may be something the state can pass along to the city level -- with the state issuing the passes to a city, and the city acting as a pass-through to businesses in their jurisdiction. For large corporations, we would give the passes to the corporate office, and they would distribute the passes to each of their employees.

As for cost, in a federal disaster declaration the cost would eventually be covered by FEMA. The local jurisdiction would have control over who would enter an impacted area.

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He shared that in Oklahoma, after the tornados, they brought businesses in on buses so they could control where people went and account for everyone who went in. He emphasized the need to know who was going into an affected area. Each jurisdiction may administer access to the impacted area differently. All the state asks is that the lead in each jurisdiction contact the state EMD with their policy for entry so they can gather and distribute that information to the businesses and organizations. The state requires government issued photo ID, business issued photo ID, and a vehicle hang tag pass, which is good for 4 years.

He said homeland security requirements call for a specific business photo ID with picture and logo. He encouraged organizations to do this.

Holdeman asked, why doesn't the state just run it and let people in?

Parsons said no state has a state wide system. The closest in Florida, but most cities and parishes have their own systems. The tags in Washington will be transferrable within a company. The tags would be applied for and in place before an emergency. The State will have approximately 1000 on hand during an event if something happens to your tags, or you were unable to apply ahead of time (new business), but this backup system is an exception. Processing for an unknown company could take 3-4 business days, since the state EOC will be activated.

Participant question: Many of us have people on site 24/7, what is the contingency for that?

The corporate offices will have a set number of hangtags, and may keep a few in the corporate office and send a few to satellite offices. If it is done at the city or county level, people working in that jurisdiction may get it from the city, or a corporation can apply for it from the state level. This needs to be coordinated.

He shared that they wanted an inexpensive pass that could be used at any site, with advanced or limited technology. The first 1-3 days will be first responders only.

He said this is primarily for business people to go back in and do the things they need to do -- close the safe, insurance adjusting, site assessment, maybe bring in an engineer or electrician.

Participant question: You said that entry for local citizens is up to the local jurisdiction, but isn't it true that it is up to that local jurisdiction to decide when the access passes will be allowed?

Parsons said this is correct, they will have the power to decide where, when, and in what manner, credentialed people will be allowed into the impacted area. This could be five days in one city, one hour in another. This is why it is important for jurisdictions to tell the

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state when they will be letting folks in. We don't know who will be manning these access points, but the cost of staffing them should be a non-issue in a declared disaster.

The state will notify business owners who have applied for passes through PIER to share when and where cities are open and accepting passes.

Participant question: What if we have 4 people in a vehicle

Parsons said each person in the vehicle will need their own hang tag

Participant question: There seems to be an assumption that all the emergency managers will know about this

Parsons said it has been vetted from the DNR standpoint.

Participant question: But couldn't I have an incident commander tomorrow who doesn't know this pass? Won't the fact that the person isn't specifically named on the pass cause issues?

Parsons said whoever was manning the check point could call the state and check on who has it, we can follow up with the company. The company needs to track who has what badge. Putting names on the badges would complicate what is supposed to be a simple system. He said in the end there has to be some element of trust.

Participant question: What is the benefit to business to do the extra step of going through EMD, vs previously making our own passes.

Parsons said it offers consistency. Business will know when things are open and that they can go to the access point with their credentials. Instead of having to go to each check point and ask permission, they know their passes will be good in each area.

Participant question: You will include phone numbers on the cards?

Parsons: Yes we will

Participant question: When you have access points you will have roadblock? Will this pass allow us to bypass some of those restrictions to get the front?

Parsons said no, but it will allow you to get through the access point. However the local level will have the options for limiting and changing the rules.

Participant question: You're going to ask businesses to apply for a pass, when right now they don't need it, so what is the benefit? Can you have a system in a home rule state?

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Parsons reviewed what exists in other states. He said looking back to green river planning, the jurisdictions each had their own passes, and said they wouldn't recognize one another's, but they would recognize a state pass.

A representative with AT&T shared the issues they have had with multiple passes in different states, saying the state needed a pass like this. He continued to talk about the problems in Louisiana during recovery from Hurricane Katrina, and why this pass is a good system.

A city emergency manager said you'll likely find that it won't be individual incident commanders will be making the decisions, but that the multi-agency coordinator will likely be making those decisions. This isn't a perfect system. This is a home rule state, but if we can implement a useful system, people will be open to it.

A participant said she saw this not as letting the right people in, but keeping the wrong people out.

Parsons thanked everyone for their comments, saying the plan has not yet been reviewed by the assistant attorney general, and he welcomed contact and input from everyone as the refine the plan.

Rachel Knutson from Washington State Department of Transportation (WSDOT) then shared information about the Commercial vehicle pass system meant for trucks moving critical commodities. They have an on-line registration system, and are giving a ranking based on what trucks are carrying and given a window of time for when they can pass through the affected zone. However, WSDOT has not had an opportunity to try this since it was established in 2007. Technology has changed a lot, and they are reviewing ways to update their system to reflect that. There are some issues using this in an urban area because you will need space to turn trucks around. More information at:
<http://www.wsdot.wa.gov/CommercialVehicle/questions.htm>

Table discussions: Input from Businesses on State Site Access Pass - All Participants

Report outs and key takeaways

Table 1: It would be good if the plan had clearer definitions for business. The group liked the idea of a tiered approach. Maybe this is where we could add the local as well. Business reentry is a pretty broad umbrella. It should clearly state it is only for damage assessment at first and could lead to restoring business operations? It would be nice to bring in some additional technology, such as the QR code on the hang tag. It was noted that most rural communities do not have the technology to support QR codes. They also expressed concerns about having passes tied to people, maybe have a letter attached to pass.

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Table 2: Concerned that all levels of government buy in on this pass. How will the state pursue this? Also the second group agreed to the need for a tiered system. Also allow access to go around traffic jams to respond to event, i.e. driving in HOV lane or moving to front of line at ferry to get on ahead of non-essential travelers.

Table 3: Possibly having a contracted engineer on retainer vs. waiting for government officials. They also noted communication without phone lines would be challenging. Defining multi-jurisdictional business could also be a challenge because of the disparity that could exist from jurisdiction to jurisdiction. Also the badge tied to a person could cause issues. Companies may rotate staff and create some problems because the pass isn't linked to a particular person but a position in the company. Linking passes to individuals could be problematic but they could have it link up with employee numbers. Finally, would it make sense to have pass numbers correspond for a certain types of business?

Table 4: Again it was noted that participants thought a need for tiered system was necessary as well as subsequent tables. It was suggested that the state could speak with other regional recovery efforts to get input on this -- like the regional transportation recovery annex group. It was noted there could be some confusion on who should have access, whether it is the owner or contracted operator and if vendors and suppliers would be allowed access. Who actually owns the facility and who gets in?

Table 5: Need to come up with a structure that helps identify the infrastructure concerns. The group raised a question about whether this works as a top down process or if it needs to be driven at the county level. Are multi-county organizations the only ones who should be allowed into the state system and should business in an individual jurisdiction work directly with that jurisdiction. I was also suggested that the pass system could be vetted through the Washington State Emergency Management Association (WSEMA) to get more comments.

Table 6: A major grocer mentioned that they want access to a store location as soon as possible, to do initial damage assessments. Sometimes the state gets in the way, consumes resources, example Diesel fuel in Sandy. If you have a resource that's traveling you're wasting time if they might get denied. It would be important to have the pass be electronic. You're going to have people coming in from outside, people you may not know ahead of time, and coordinating physical passes will take a lot of time. Link between the permit and the individual it an issue too. The reality is you're asking access into a controlled, closed system. You are really looking at getting your critical folks in so you can get to work on the business recovery. Snohomish County likes the idea of tiered system; do not need a lot of tiers. All inspections will have to be fast tracked. We are going to have 320 tons of debris management to take care of during recovery.

Table 7: Assignment of priority users for access. Plans already include working with the

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local municipalities through current relationships. Not so much for the business, but for the personnel managing the roadblock which helps them. Vendors, suppliers, and engineers and how we would move the pass along. Maybe create a fast lane for personnel who have the pass, which would be an added value.

Table 8: Expanding beyond private business -- schools, hospitals, municipalities, getting to the trucks. We should not assume that cell phones are going to work.

Table 9: It allows business to account for the people we send in. It is not just getting through the check point, but who are we sending into the check point. How we work with our agencies -- we need that work too. It is important we work with local emergency management.

Jeff Parsons told participants he really appreciate their comments. He added that the state did look at tiers, but the multiple badges does increase the cost. There are options, which the state will review. The issue with utility companies is that they may or may not be emergency workers and no way of knowing on any given day. Going in to shut of gas with fire dept, they are first responders. But those coming in to reestablish power are not. Please give me suggestions on how to fix it, and I will consider it, he said. We need your definitions. We just need to agree on the definition for the record. We need to know what X is so that people can look and know outside of their own lexicon. Please put your name and phone number on your comment sheets so I can contact you and ensure I understand and can improve this plan.

**Developing a Supply Chain Working Group and Upcoming Activities and Projects
- Eric Holdeman, CRDR Director**

Holdeman explained the next steps for the project. Said we need a private sector chair for the supply chain working group.

SECTION 3: CONCLUSION

The Regional Supply Chain Resilience Project Site Access Workshop was designed to provide participants information on the State of Washington's plans for providing access to damaged areas after an event. The Washington State Emergency Management Division has developed a program that will allow vetted businesses into areas impacted by a disaster to conduct damage assessments of their facilities and property. Currently, businesses are not permitted to do site assessments without approval from local law enforcement. The goal of the 'State Access Pass' is to have businesses identify individuals that can be vetted before a disaster so they are allowed access to conduct damage assessment on their property with coordination of local law enforcement.

Although participants better understood the state's plans for site access passes post-disaster, the discussion highlighted a few concerns. Participants generally agreed that rather than a single pass, a tiered system that helped identify priority access would be ideal. The state has explored this, and determined that it would cost more, but they are willing to revisit the idea. There were some concerns about buy in both from the jurisdictions who would be managing the check points, and from businesses that haven't experienced issues accessing areas in the past. However, the state has been working with jurisdictions to get their input, and has been pursuing this badge project based on suggestions made during the planning for Green River flooding.

APPENDIX A: LESSONS LEARNED

While the After Action Report/Improvement Plan includes recommendations which support development of specific post-exercise corrective actions, exercises may also reveal lessons learned which can be shared with the broader homeland security audience. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-exercise lessons learned with the emergency response community. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned from exercises for sharing on *LLIS.gov*.

For reference, the following are the categories and definitions used in *LLIS.gov*:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

Exercise Lessons Learned

The Regional Supply Chain Resilience Site Access Workshop highlighted the state's Site Access system, which was developed based on best practices in other states, specifically Florida, where events are more frequent and pass systems have been tested. Though there were some concerns that in a Home Rule state, like Washington, a state-wide pass system would not work, it was explained that no state has a pass system that can override county or city control of access. Additionally, AT&T explained that prior to these passes in Florida they were having considerable difficulty gaining access county by county post-hurricane, but that a single pass system had significantly eased their progress.

APPENDIX B: PARTICIPANT FEEDBACK

PARTICIPANT FEEDBACK FORM

Wednesday, January 29, 2014

Southcenter Doubletree Hotel

Overall impression and general comments on the Workshop- **Please rate each component on a scale of 1-5 (5 being excellent /valuable; 1 being not valuable)**

Workshop	Excellent	Very Good	Satisfactory	Fair	Poor	N/A
Overall Impression of Workshop	5	4	3	2	1	N/A
Quality of Discussion Session	5	4	3	2	1	N/A
Utility of Information Provided	5	4	3	2	1	N/A

1. What industry or type of organization do you represent?

2. Did the Workshop meet your objectives? (*Please Circle One*) **Yes** **No**
Somewhat

3. What, if any, was the most valuable 'take away' or insight you gained from the Workshop?

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4. In the event of a catastrophic incident, what plans do you have in place for site access and does it require local, state law enforcement and emergency management involvement?

5. For businesses and organizations that have multiple locations do your plans take into consideration jurisdictional borders?

(Please Circle One) **Yes** **No** **N/A**

6. Based on the Workshop today and your experiences, what improvements to site access and broader preparedness would you recommend for the region?

7. What issues were not addressed that you would like included in follow-up activities?

8. Do you have information that you would be willing to post to a crowd map for two-way information sharing and communications?

1. Would you be interested in being part of a Supply Chain Resilience Work group to advise the region on improving supply chain resilience?

(Please Circle One) **Yes** **No**

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Optional:

Name_____

Title_____ Phone:_____

Organization_____ Email: _____

Thank you for your feedback. Please return it to organizers as you leave.

If you are interested in discussing your observations or providing additional information for the summary report, please contact Steve Myers at Steve.Myers@pnwer.org or 206-443-7723

APPENDIX C: ACRONYMS

Table F.1: *Acronyms*

Acronym	Meaning
AAR	After Action Report
BRE	Business Re-Entry
CPOD	Community Point of Distribution
CRDR	Center for Regional Disaster Resilience
DHS	Department of Homeland Security
DNR	Department of Natural Resources
EMD	Emergency Management Division
EOC	Emergency Operations Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HLS	Homeland Security
HOV	High Occupancy Vehicle
HSEEP	Homeland Security Exercise Evaluation Program
ID	Identification
PNWER	Pacific NorthWest Economic Region
QR	Quick Response
TC	Target Capability
TCL	Target Capabilities List
OEM	Office of Emergency Management
PSE	Puget Sound Energy
RCPT	Regional Catastrophic Planning Team
USCG	United States Coast Guard
WA	Washington
WASEMA	Washington State Emergency Management Association
WA EMD	Washington Emergency Management Division
WMD	Washington Military Department
WSDOT	Washington State Department of Transportation

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Project Site Access Workshop**

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After Action Report (AAR)

**Regional Supply Chain Resilience
Project Regional Fuel Distribution
Workshop**

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Regional Supply Chain Resilience
Project Regional Fuel Distribution
Workshop

Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop

After Action Report | May 7, 2014



March 26
Seattle, Washington
DoubleTree Southcenter

2014

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**Regional Supply Chain Resilience
Project Regional Fuel Distribution
Workshop**

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**Regional Supply Chain Resilience
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Workshop**

Administrative Handling Instructions

The title of this document is Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop After Action Report

The information gathered in this AAR is unclassified and there are no special handling instructions.

At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.

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Homeland Security Exercise and Evaluation Program (HSEEP)

After Action Report (AAR)

**Regional Supply Chain Resilience
Project Regional Fuel Distribution
Workshop**

Handling Instructions

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**Regional Catastrophic
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**Regional Supply Chain Resilience
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After Action Report (AAR)

**Regional Supply Chain Resilience
Project Regional Fuel Distribution
Workshop**

Executive Summary

The Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop was conducted on March 26, 2014 at the Doubletree Southcenter Hotel in Seattle, Washington.

Sponsored by the Puget Sound Regional Catastrophic Planning Team (RCPT), the Regional Fuel Distribution Workshop was meant to educate participants on the current system for fuel distribution in the region and impacts a catastrophic event could have on distributing fuel to critical infrastructure. The workshop gave regional stakeholders the opportunity to learn how they might be individually impacted and what role they could play during the recovery of the region. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

The goal of the Regional Supply Chain Resilience Project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience. The workshop planning team was composed of numerous and diverse agencies, including:

- Thurston County
- Snohomish County
- King County
- Washington State Petroleum Association
- Washington State Department of Commerce
- Pacific NorthWest Economic Region (PNWER)

This workshop will help inform the work of the working group by helping stakeholders understand the system for fuel distribution in the region and impacts a catastrophic event could have on distributing fuel to critical infrastructure. The availability of fuel will have significant impacts on the ability of businesses and supply chains to get back to business after a catastrophic event.

Major Strengths

The major strengths identified during this discussion are as follows:

- The State of Washington has established a State Petroleum Advisory Group (SPAG), which is helping identify actions the state can take prior to a catastrophic event to prepare business and the state to respond and mitigate the impacts to energy and fuel availability
- AT&T has a model for strategic partnerships to utilize mutually beneficial actions to mitigate fuel access issues.

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**Regional Supply Chain Resilience
Project Regional Fuel Distribution
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-
- The State has experience trucking fuel around breaks in the pipeline, and other transportation capabilities, depending on the severity of the event.

Primary Areas for Improvement

Throughout the workshop, several opportunities for fuel distribution resiliency were identified. The primary areas for improvement, including recommendations, are as follows:

- Many organizations do not have contracts with their distributors that ensure fuel availability. Those with contracts do not know what priority they would have, or if their distributors have contracts directly with refineries or if they purchase fuel on the spot market.
- Organizations do not know who they would communicate with or through what means to make requests for fuel.
- Participants suggested the development of pre-determined fuel distribution sites and access prioritization, including defining who would be considered first responders.

The State welcomed any input participants had at the meeting or after the event, which they agreed to take under advisement as they move towards finalizing the program.

SECTION 1: EXERCISE OVERVIEW

Exercise Name

Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop

Exercise Type

Discussion

Exercise Start Date

March 26, 2014

Exercise End Date

March 26, 2014

Duration

Three hours

Location

DoubleTree Southcenter
16500 Southcenter Parkway
Seattle, WA 98188

Sponsor

Puget Sound Regional Catastrophic Planning Team

Program

Regional Catastrophic Planning Grant Program

Mission

Response -- Assist stakeholders in testing their supply chain restoration plans through increasing understanding of the State of Washington's options for site access after a large-scale event and to improve state plans through

Capabilities

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

Exercise Planning Team

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**Regional Supply Chain Resilience
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Bonneville Power
Center of Excellence HSEM
City of Seattle
City of Seattle, Finance and
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Costco Wholesale
Department of Commerce, State Energy
Office
DHS-FEMA, Region 10
EPA
Everett OEM
FEMA Region 10
Island Transit
Northwest Healthcare Response
Network

PNWER
Port of Seattle
Seattle Emergency Management
The Boeing Company
Thurston County
Unified Grocers
USCG
WA Emergency Management Division
Washington Military Department
Washington State Ferries
Washington State Fusion Center
Washington State Patrol
Washington Trucking Assoc.
Western Distribution Services, LLC
Western States Petroleum
WMD - Emergency Management
Division
WSDOT

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop was meant to educate participants on the current system for fuel distribution in the region and impacts a catastrophic event could have on distributing fuel to critical infrastructure. The workshop gave regional stakeholders the opportunity to learn how they might be individually impacted and what role they could play during the recovery of the region. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

The goal of the overall project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

- **Objective 1:** Critical Resource Logistics and Distribution
 - *Develop and Maintain Plans, Procedures, Programs, and Systems:* Establish plans and procedures for coordination with non-governmental and private sector organizations for obtaining resources

- **Objective 2:** Restoration of Lifelines
 - *Develop and Maintain Plans, Procedures, Program and Systems:* Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities

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- **Objective 3:** Economic and Community Recovery
 - *Activate Economic and Community Recovery:* Implement private-sector recovery, local assistance, and recovery and mitigation plans.

Scenario Summary

Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop

Agenda

9:00 - 9:30 am	Introductions and supply chain project overview
9:30 - 10:00 am	Overview of the regional fuel system Frank Holmes, Washington State Petroleum Association
10:00 - 10:30 am	Insights on the state planning underway for fuel distribution Mark Anderson, Washington State Department of Commerce
10:30 - 12:00 pm	Discussion on challenges and the role regional stakeholders play into the fuel distribution system

Welcome and Introductions and Project Overview

Eric Holdeman, Director, PNWER Center for Regional Disaster Resilience called the meeting to the order, welcoming everyone to the event. He introduced the agenda for the day, noting that everyone in the room was highly dependent on the fuel distribution system. He asked everyone in the room to introduce themselves.

Holdeman then explained that many people had to pull out of attending the event today because of response to the Oso, WA landslide response.

He explained the project overview, saying PNWER is working with the Puget Sound Regional Catastrophic Planning Team (RCPT) to implement a series of stakeholder identified strategies to improve regional supply chain resilience. He said this grant was tied specifically to planning, rather than buying equipment. He noted that the 8 county regional catastrophic planning team included Skagit, Snohomish, King, Pierce, Thurston, Mason, Kitsap, and Island counties.

He explained the project objectives: Create a working group to focus on supply chain

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resilience; Examine Public Private engagement opportunities on the Business Re-Entry Pass system; Identify best practices and develop a transportation strategy by showcasing the Fuel Distribution Plan for the State of Washington; Develop a mutual aid agreement for Puget Sound ports for post-disaster mutual aid agreement to assist in keeping maritime business in the region; and identify best practices for regional transportation information sharing tools and messaging such as crowd mapping. He noted that anyone interested in being on the planning group should let PNWER know, because they are committed to keeping this working group on even after the end of the grant.

He explained that the last workshop topic was site access. Today the group would be working on a transportation strategy and fuel. There is a dependency in the region on just-in-time supply chains that increases our vulnerabilities in regard to fuel supply. He gave the example of Shell gas stations, which receive three deliveries a day, keeping little gas on hand at any given time.

Overview of the Regional Fuel System

Steve Myers introduced Frank Holmes, Director of the Northwest Region and Marine Issues for Western States Petroleum Association (WSPA). Frank has been with WSPA for the past 19 years representing WSPA member's interests with the states Legislatures and Regulatory agencies along with interacting with the media and the community. Holmes opened by sharing a map of the fuel distribution system in the state of Washington. He explained that WSPA works on the refinery side at the state and local level. They are headquartered in Sacramento and he looks after the northwest region. He said he would give an overview of the Washington distribution system. There are 5 refineries in Western Washington: BP at Cherry Point, Phillips 66 in Ferndale, Tesoro and Shell in Anacortes, and U.S. Oil in Tacoma. Four of the five refineries were built back in the late 50s. In the 70s, the BP Refinery was built.

The initial refineries were built primarily for Canadian oil. As Alaska's North Slope was developed in the 1970s, the focus shifted to Alaska domestic production, for which Cherry Point was built. The rest of the refineries also shifted into primarily North Slope oil.

More recently, shale production is being developed across the nation. The Bakken formation in North Dakota has been used primarily in the U.S. With directional drilling and hydraulic pressuring, it is now possible to drill for this oil. This crude oil is shipped via rail to the Northwest. Since 2012, all Washington refineries have begun the permitting process to process crude oil from North Dakota. We still receive Alaska, Canadian, and other foreign crudes -- today the bulk still comes from Alaska. Rail deliveries from the east are fairly new.

The last report on where the local refineries receive their crude was made in 2011, and will be updated this year. Canada is the source for about 25% of the crude, 10% comes on rail from the east, and the remainder comes primarily from Alaska. In 2011, they were processing 536,000 barrels a day. Fuel is processed at the refineries and distributed

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from there. Of the 536k barrels, 51% is consumed in western Washington, 13% is shipped internationally--mostly back to Canada--and the remainder sold domestically, mostly to Oregon. There is one major north-south pipeline, the Olympic, which carries gasoline, jet fuel, and diesel. This carries product to Portland. From there, there is another pipeline which carries fuel to Eugene, Oregon. The system also has terminals, where bulk fuel is brought in, stored, and distributed via trucking systems. Terminals are located throughout the state and region, including Tacoma; Seattle; Vancouver, WA; Spokane; and Boise. Holmes noted that the state of Washington, and essentially the whole west coast, is kind of a fuel island. The Midwest, gulf coast, and east coast pipeline systems are like a spider web. We are not broadly connected in the Pacific Northwest. We must either manufacture here, or bring it in via vessel. We do get some additional fuel brought in from California through the Portland area, and some fuel from the Yellowstone pipeline.

A participant asked how much gas and diesel goes through pipeline? What happens if the pipeline is down?

Holmes noted that you can truck around disruptions in the pipeline. He noted that the Yellowstone pipeline is an interesting circumstance because it has a break over tribal land, where they must remove the oil from the pipeline and truck it to where the pipeline begins again. He said gas in the region included 153,000 barrels by pipeline daily and 72,000 by barge. The pipeline is a big piece of the business.

A participant asked, how many days of fuel are at each facility?

Holmes noted that one of the constraints he had was being unable to share specific supply numbers because of competition concerns.

Mark Anderson, from Washington State Department of Commerce, explained that the status of fuel in the region at the time of an event is going to be different for each event, but generally, there are 7-10 days worth of inventory supply on a regular basis. This is down from storage in 1986. This is because of ethanol use, just-in-time supply chains, and other considerations. This question is difficult because it is related to demand -- there is more supply when the price is high. When we are looking at a specific event, like the 2011 closure of Trans Alaskan Petroleum Pipeline System (TAPPS) because of the BP leak, we see the impact of supply reflected in the prices. The period between 2-8 weeks post-closure is the challenging time frame. He noted that all the refineries are different and use different kinds of oil. They cannot just start using a new supply -- the need to test the oil to see if it will work in their refinery. The 7-10 days projection is all the supply in the system, including what's in the pipeline and at the terminals.

An attendee asked, if one refinery is not available, will the other refineries kick in to fuel the fuel stations with their supply?

Mark Anderson said it depends on the stations, and what the contracts with suppliers and distributors are. They may charge three times the normal amount to supply the spot

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market. If it's really short then price will go up significantly, reducing demand.

An attendee asked how much of the oil in Washington goes to Oregon, and how much stays in Washington?

Holmes said that 34% leaves the state for domestic markets and 51% stays in western Washington. That's of what is produced in local refineries each day.

A participant asked, if the pipeline was down, where would we get trucks, and are there enough trucks, to get fuel to SeaTac, etc? What if the pipeline was down in 5 places?

Holmes responded that the trucks and vessels serving the facilities are owned by the facilities. Mark Anderson is working with the companies to get a sense of the situation for the whole state.

Anderson added that with the Bellingham area explosion, people didn't notice significant differences in availability. Prices did go up, but the oil companies were able to barge around the break quickly. If there were breaks in multiple locations, it would take more to fix it, and there may be limitations on the movement of ships and trucks.

A participant noted that during Superstorm Sandy, there were a number of barges lined up waiting to offload supply to terminals, however the terminals were down due to power outages. How have we explored these possible impacts?

Anderson said the State has explored the issues that arose during Superstorm Sandy and are using that as a guide for exploring options. He noted that the Department of Transportation has 124 storage tanks. He also said there were options for pumping from barges to trucks, or barge to barge. He noted that the big earthquake potential in the region would result in an event worse than Sandy.

Holdeman noted that for these plans, they needed to clear the waterway, restore power for the offloading docks, and the restore power for stations and point of sale systems. He told a story where the fuel had made it to the port and the port was given the responsibility of getting the fuel moving, though the port was really only able to do one piece of a large, interdependent system.

Holdeman then asked whether the tank trains could go through the passes, but Holmes explained that they must go through the Columbia River Gorge in the south because of the weight of each car. Holdeman then noted there were concerns about rail capacity issues, including grain movement, and that increasing oil shipping via train may not be an option. He asked if there were concerns about fuel availability with over 100,000 people moving to the state of Washington each year.

Holmes said increasing fuel efficiency in cars have actually caused demand to reduce. The refineries we have here are probably all we will have --there is not a lot of opportunity to grow. Permitting depends on the needs of each company individually.

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Additionally, there have been growing legislative concerns. For instance, recent efforts to address the disquiet around crude transportation via rail.

It was noted that there are weekly calls exploring response plans and other factors of the crude transportation by rail to address those concerns.

Holdeman asked about the impacts of increased use of liquid natural gas.

Holmes said their members were involved, but it is an evolving resource. A lot of organizations, like Tote and Puget Sound Energy are looking to develop their LNG use. There is a large natural gas distribution system throughout the state already. From a trucking perspective, LNG is probably going to be growing in the long haul trucking fleet and infrastructure will have to keep up with it.

Steve Myers introduced Mark Anderson. Mark Anderson is a senior policy advisor for the Washington State Department of Commerce. He manages the Energy Emergencies and Security Program, with primary responsibilities for energy contingency planning, critical energy infrastructure identification and protection, and coordination of energy emergency response.

Anderson explained that there are three different kinds of petroleum supply issues. These include insufficient crude oil, insufficient refined product supply, and the inability to pump and distribute product. Each problem has different causes.

Crude and refined oil shortages cause noticeable product supply problems. With the pump and distribution issue, we have plenty of supply but cannot sell it. One major cause of this is power issues. Another possible problem is destruction of infrastructure. Third is lack of transportation infrastructure. Fourth is loss of personnel to manage the distribution line -- like in the case of pandemic influenza.

The state has had emergency fuel plans since the early 70s. The way they approach it now is very different, but the plans have been evolving since then. The 2011 subduction-zone earthquake and tsunami in Japan was a wakeup call that exposed significant gaps in Washington's plan.

Private companies control every part of the oil pipeline process. They are regulated by some government, but the state does not own or operate any piece of this. This will be true after an earthquake as well. The state will assist in getting the Energy companies' supply systems back up and running. The state will be working with the oil companies to fill gaps, by partnering with state industries, local governments, and other parties to get fuel where it needs to be. It's the industry that will get it there. When there's a problem, the state contacts them directly. They will share the nature and scope of the outages and supply disruption, what it will take to fix and estimates of restoration. The state will gather this information from all companies and analyze the big picture and use that to implement or recommend response options and offer assistance to the oil companies. The state doesn't have its own crews, trucks, etc, but they do have other state resources

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they can offer the private sector. For instance, trucks with gravel, flaggers, or access to federal assistance. Current plans are available online on the commerce website at <http://www.commerce.wa.gov/Programs/Energy/Office/Topics/Pages/EnergyEmergencies.aspx>.

The state has a four stage plan: Monitoring, Preparation/Minor Operations, Energy Supply Alert, and Energy Emergency. The latter two are statutory stages that must be declared by the governor.

The state is always monitoring. They are currently monitoring the Oso land slide; they regularly watch for spills and refinery issues. Essentially, the state keeps an eye on anything that has a potential to turn into a major supply concern. Monitoring is a situation where no immediate supply problem exist, yet there is a possibility that problems could develop. It is a continuum. Normally the oil companies and utilities manage problems themselves. When they turn to local jurisdiction for help, the state will monitor, but still act in the background.

In a condition of Energy Supply Alert, the governor may issue orders to:

(a) suspend or modify existing rules of the Washington Administrative Code of any state agency relating to the consumption of energy by such agency or to the production of energy, and (b) direct any state or local governmental agency to implement programs relating to the consumption of energy by the agency

In Washington, there has only ever been one energy supply alert. Former Gov. Gary Locke declared a reduction of energy use and increased use of diesel generators when there was a shortage of power on the west coast in 2001. Under an energy supply alert, the governor can suspend or modify any rules of Washington Administrative Code regarding energy.

In an energy emergency, the State can direct change in what is being produced and in what quantities. This also allows authority for dictating where supply goes.

In a condition of Energy Emergency, the governor may issue orders to:

- a) implement programs, controls, standards, and priorities for the production, allocation, and consumption of energy
- b) suspend and modify existing pollution control standards and requirements or any other standards or requirement affecting or affected by the use of energy, including those relating to air or water quality controls
- c) establish and implement regional programs and agreements for the purposes of coordinating the energy programs and actions of the state with those of the federal government and of other states and localities.

He then reviewed response options. These help with limiting lines, keeping people from hoarding, and identifying and addressing emerging issues.

He said the Japan earthquake was a wakeup call, sharing a photo of post-tsunami

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destruction. In Washington, we know now that on the coast, we will not only have shaking and tsunami, but a lateral movement of up to 90 feet, and sinking of 1-2 meters. This will mean some of our response will actually be under sea level. The oil producers will not be able to supply the western Washington coast line by truck. The state will need rescue boats, helicopters, and other specialty equipment, and will need to fuel that process. If the earthquake is worse than hitting the coast, but instead the whole I-5 corridor shakes, this subduction zone could shake for multiple minutes. The state could lose most of the bridges. How bad it's going to be depends on the earthquake, and how bad it'll be on the coast. The tsunami will reach the refineries, though it should be spread out by then and not cause significant damage.

Based on the review of the Japan earthquake, the State determined the need for a larger, better trained workforce; more precise procedures; better data; and to determine everything that can be done before the event, and do it.

The first three have been addressed, as the phase I of operations. They have trained all staff to be ESF 12 Operators and wrote ESF 12 guidance. They also implemented the Washington energy supply tracking system, which has all pipelines, refineries, terminals, compressor stations, substations, transmission lines, hospitals, fire stations and other pertinent information. It is made up of hundreds of layers and thousands of pieces of data. They are always improving this. For instance, they are currently trying to learn what kind of generators hospitals in the region have.

Phase two is determining everything the State can do before an event and doing it. Last week they met with the State Petroleum Advisory Group for the first time. The goals of the SPAG are to figure out everything that can/should be done before and event to facilitate a more timely, quality response (and to do it); and to work together during an event to solve specific problems. The group will meet periodically to address these goals. The group is made up of individuals that have a key role to play in facilitating an emergency fuel supply and distribution capability, and/or have an essential need for a fuel supply and distribution capability.

The group has identified the following key issue areas:

Customer Preparedness Education

An organization's ability to get fuel during an emergency is based on their preparation ahead of time. The state will do what it can to help once the emergency hits, but companies will mostly have to rely on themselves and their partners. The state is assisting companies to help their customers assess risk and explore backup options. He said part of this education was small hints for preparedness, for instance you can't run your generator for ten minutes every six months and assume it will be working for you. You must test your generators at load and refresh your diesel fuel as it will expire. The group's goal is to teach every business how to assess risk and figure out what they can do for themselves to get the supply they need. Does your distributor not have a contract

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with the oil company? Might be cheap fuel on spot market most of the time, but if things go bad, you're not getting any fuel.

Executive Order Templates for Alerts and Emergencies

When the big one hits, the governor will declare an energy emergency immediately. The executive orders require comments on what the State will do about environmental regulations, etc. Templates will help declare on a moment's notice.

For each of these key issues the State is identifying who needs to be involved in answering these questions, or who can help answer these questions ahead of time.

Acquisition of Private and Public Resources

The EMD does this all the time. If we can fill out a form ahead of time and know what information we need for getting generators ahead of time, for instance, the State can more rapidly pass list through DOE to FEMA and have requests more quickly addressed.

Fuel Storage Capability and Real Time Storage Management

The State wants to create the database of all available tanks in the region and talk about what can be done to manage fuel during an emergency. Where can we go to store fuel and move it from place to place. are there enough public or private tanks. do we need barges and rail cars? Can we get around broken locks? Can we pump from barge to barge or onto rail cars? The state is putting together a full list of capabilities. Where can we go in an emergency to do real time storage management on fuel?

Emergency Fuel Allocation

Government has the authority to put fuel allocation into place and order reductions in electricity use. A whole lot can be done working with the industry to do things on a voluntary basis and build partnerships.

A participant asked, does the governor have the authority to say that private sector companies must allow the State to use fuel in their private tanks?

Anderson said he is not an attorney, but yes. The person will need to be compensated. But likely that person's attorney will say something else. In an emergency situation, the governor may do a lot of things that have to be dealt with later legally and financially.

He invited anyone in the room to join the communications list, and said that if there were experts who would like to give presentations to the group, they were welcome to submit an idea.

A participant asked, if the State had considered incentives for large companies? Can

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you force them to put in generators for pumping?

Anderson said the state has discussed options. At one point the legislature passed a bill giving a break on B&O taxes for companies that put in generators. The State is now looking into the 14 gas stations that did it why they did it, and what drove the decision making.

A participant asked, "if I don't have a contract with a distributor, am I screwed?"

Anderson answered with an honest "Maybe." It's a free market system, based on contracts, and if your distributor doesn't have a contract, that may be something that prevents your access to fuel. We may need to be in a declared emergency before priorities are made absolute.

A participant then asked, regarding situational awareness during an emergency, is the SPAG a forum for pushing out information? How will this be pushed out?

Anderson said no. The big picture will come from the oil companies. The second way will come through local the emergency management agency's ESF 12 representative at the counties and large cities. Those messages about who has needs are shared with ESF 12 at the state level.

A participant then said it was clear the energy sector and transportation sector needed to talk together. How do you coordinate the prioritization between the ESFs?

Anderson said all ESF have different priorities, and in the state EOC the ESFs report on the biggest issues, concerns, etc. Grid issues are a significant concern and are then bounced up to the policy group. We already know it will be search and rescue for the first week or two. Then energy may be addressed. We talk and work together.

Dave Holcomb, FEMA Region X, explained that the ESF for energy included production, refineries, and utilities. Pipelines actually fall under the transportation sector

Participants were then asked to hold discussions at their tables on the challenges and the roles of regional stakeholders in the fuel distribution system.

At the tables, participants were asked, After hearing the briefing on the fuel distribution system in Washington State:

1. What was the most important piece of information you received from the briefing on the fuel system?
2. What is the primary issue that you are concerned with: Personally?
Professionally?
3. If you store fuels, how many days of supply do you have for: Your vehicle fleet? Your emergency generators? Other? Are there other petroleum products that you use that could be impacted?

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4. What mitigation strategies might be possible given a fuel shortage?
5. Is there any potential to partner with another company or agency to survive a fuel shortage?
6. Do you have emergency fuel contracts and do you know where are you in the priority? What guarantees do you have?
7. Do you have any alternative fuel plans at this point?
8. What suggestions do you have for a planning team to consider in writing a state emergency fuel plan?

Report out from the Tables

Table 1: We thought the description of fuel movement throughout the state was an eye opener. We also questioned where there would be post-disaster fuel distribution points and how fuel would be moved. Had a lot of questions about how to set priorities, who gets it, and who would be in charge. We explored the movement of product, and how we may be able to move it. We identified businesses we could partner we. We thought there needed to be a big communication piece as part of the planning.

Table 2: Having a map with the refineries, distribution, and how fuel was moved was necessary. Learning about the authority of the governor was a new topic that they were not aware of before the workshop. We didn't previously know about the State's fuel isolation. The ability to pump around the problem areas was an idea that they had not known about previous to the workshop. Big concerns included communications, getting the ability to pump and managing points of sale. Mitigation of contract issues and ensuring you know your priority. Ensuring you know what fuel you have on hand and be prepared to share. During Katrina, Shell sent AT&T information about where fuel was and how much. If you can't put generators at the facilities, why don't we require gas pumps that allow a plug in for generators? AT&T did something similar -- provided their generator to run pumps so AT&T could get fuel. Florida requires gas stations to have quick generator hook ups.

Table 3: The main takeaway was that it takes a lot of partnering to improve the resilience of the system. As a private company, we recognize that we will need to know how to keep operating, and identify what we will be able to give. Not all areas will be out of power -- those that can still be in business, should be working the fullest capacity like Costco in Sandy. Criticality is very important -- we might need to go low-tech. At some point we need telecommunications. Who will prioritize who gets what and with what speed. It's a good wakeup call that we need to reassess plans, build connections, and see who our partners are.

Closing Remarks

Eric Holdeman then brought the meeting to an end. He said the resilience we have as a region and a state is going to depend on each of organization individually making small improvements, recognizing the issues, and building on lessons learned over the years. This improves the resiliency for each organization, which improves it for the whole

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region. The true improvements come through individual organizations doing their little piece.

PNWER will have another event next week, a cyber security summit. The public/private sector interface must last long term. We will have a final event on May 14 regarding the long term working group and a simple tool for posting information and helping the public know where resources are available.

SECTION 3: CONCLUSION

The Regional Supply Chain Resilience Project Regional Fuel Distribution Workshop was meant to educate participants on the current system for fuel distribution in the region and impacts a catastrophic event could have on distributing fuel to critical infrastructure. The workshop gave regional stakeholders the opportunity to learn how they might be individually impacted and what role they could play during the recovery of the region.

In response to the earthquake in Japan and the cascading impacts of the subsequent tsunami, nuclear concerns, and aftershocks, the state has developed the SPAG to direct planning efforts for the State regarding fuel availability, and to provide guidance for private sector organizations on preparedness. Participants responded positively to discussion, and through feedback forms distributed at the beginning of the meeting. Many were previously unaware of the sparse network of fuel lines in the state, learning that Washington is considered a fuel island. Participants said they were better aware of the planning the state has undertaken, and what concerns they should bring back to their own organizations, including reviewing contracts with their distributors.

APPENDIX A: LESSONS LEARNED

While the After Action Report/Improvement Plan includes recommendations which support development of specific post-exercise corrective actions, exercises may also reveal lessons learned which can be shared with the broader homeland security audience. The Department of Homeland Security (DHS) maintains the *Lessons Learned Information Sharing* (LLIS.gov) system as a means of sharing post-exercise lessons learned with the emergency response community. This appendix provides jurisdictions and organizations with an opportunity to nominate lessons learned from exercises for sharing on *LLIS.gov*.

For reference, the following are the categories and definitions used in LLIS.gov:

- **Lesson Learned:** Knowledge and experience, positive or negative, derived from actual incidents, such as the 9/11 attacks and Hurricane Katrina, as well as those derived from observations and historical study of operations, training, and exercises.
- **Best Practices:** Exemplary, peer-validated techniques, procedures, good ideas, or solutions that work and are solidly grounded in actual operations, training, and exercise experience.
- **Good Stories:** Exemplary, but non-peer-validated, initiatives (implemented by various jurisdictions) that have shown success in their specific environments and that may provide useful information to other communities and organizations.
- **Practice Note:** A brief description of innovative practices, procedures, methods, programs, or tactics that an organization uses to adapt to changing conditions or to overcome an obstacle or challenge.

Exercise Lessons Learned

Through participant discussion, attendees learned about AT&T's use of strategic partnerships to fuel response vehicles during hurricanes. The company uses their own generators to run pumps at fuel stations where power is out, and in exchange they get priority access to the stations fuel. Partnerships like this can be explored ahead of time, and may ease recovery for all parties.

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APPENDIX B: PARTICIPANT FEEDBACK

PARTICIPANT FEEDBACK FORM

March 26, 2014

Southcenter Doubletree Hotel

Overall impression and general comments on the Workshop- **Please rate each component on a scale of 1-5 (5 being excellent /valuable; 1 being not valuable)**

Workshop	Excellent	Very Good	Satisfactory	Fair	Poor	N/A
Overall Impression of Workshop	5	4	3	2	1	N/A
Quality of Discussion Session	5	4	3	2	1	N/A
Utility of Information Provided	5	4	3	2	1	N/A

1. What industry or type of organization do you represent?

2. Did the Workshop meet your objectives? (*Please Circle One*) **Yes** **No**
Somewhat

3. What, if any, was the most valuable 'take away' or insight you gained from the Workshop?

4. What was the most important piece of information you received from the briefing on the fuel system?

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5. How many days fuel supply do you have—if any, for vehicle fleet, for emergency generators, other

6. What was the most useful portion of this workshop on the state fuel system?

7. What mitigation strategies might be possible given a fuel shortage?

8. What suggestions do you have for a planning team to consider in writing a state emergency fuel plan?

9. Are you the lead for fuel management in your organization or do you have a particular expertise or unique perspective in fuel management? Explain

10. Would you be interested in being part of a Supply Chain Resilience Work group to advise the region on improving supply chain resilience?
(Please Circle One) **Yes** **No**

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Optional:

Name_____

Title_____ Phone:_____

Organization_____ Email: _____

Thank you for your feedback. Please return it to organizers as you leave.

If you are interested in discussing your observations or providing additional information for the summary report, please contact Steve Myers at Steve.Myers@pnwer.org or 206-443-7723

APPENDIX C: ACRONYMS

Table F.1: *Acronyms*

Acronym	Meaning
AAR	After Action Report
CRDR	Center for Regional Disaster Resilience
DHS	Department of Homeland Security
DNR	Department of Natural Resources
EMD	Emergency Management Division
EOC	Emergency Operations Center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HLS	Homeland Security
HSEEP	Homeland Security Exercise Evaluation Program
LNG	Liquid Natural Gas
PNWER	Pacific NorthWest Economic Region
TC	Target Capability
TCL	Target Capabilities List
OEM	Office of Emergency Management
RCPT	Regional Catastrophic Planning Team
SPAG	State Petroleum Advisory Group
USCG	United States Coast Guard
WA	Washington
WASEMA	Washington State Emergency Management Association
WA EMD	Washington Emergency Management Division
WADOC	Washington State Department of Commerce
WSDOT	Washington State Department of Transportation
WSPA	Western States Petroleum Association

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Workshop

**Regional Supply Chain Resilience
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Regional Supply Chain Resilience

**Project Workshop: Assuring and Sustaining
Supply Chain Resilience**

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Project Workshop: Assuring and Sustaining
Supply Chain Resilience

Regional Supply Chain Resilience Project Workshop:
Assuring and Sustaining Regional Supply Chain
Resilience

After Action Report
June 6, 2014



May 20

Seattle, Washington

Southcenter Embassy Suites

2014

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**Project Workshop: Assuring and Sustaining
Supply Chain Resilience**

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**Project Workshop: Assuring and
Sustaining Supply Chain Resilience**

Administrative Handling Instructions

The title of this document is Regional Supply Chain Resilience Project Workshop: Assuring and Sustaining Supply Chain Resilience After Action Report

The information gathered in this AAR is unclassified and there are no special handling instructions.

At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.

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Regional Supply Chain Resilience

**Project Workshop: Assuring and
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**Project Workshop: Assuring and
Sustaining Supply Chain Resilience**

Executive Summary

The Regional Supply Chain Resilience Project Workshop: Assuring and Sustaining Regional Supply Chain Resilience was conducted on May 20, 2014 at the The Southcenter Embassy Suites in Seattle, Washington.

Sponsored by the Puget Sound Regional Catastrophic Planning Team (RCPT), the Workshop was created by regional stakeholders following the guidance set forth in the Federal Emergency Management Agency (FEMA), Homeland Security Exercise and Evaluation Program (HSEEP). The purpose of the Workshop was to introduce stakeholders to the SitMap, situational awareness tool, and to help define the goals for the Regional Public/Private Sector Supply Chain Working Group. Participants included key transportation and supply chain stakeholders; federal, state, and local government agencies; critical infrastructure owners and operators; and businesses, community organizations, and industries essential to the regional economy.

The goal of the Regional Supply Chain Resilience Project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience. The Workshop planning team was composed of numerous and diverse agencies, including:

- Puget Sound Energy
- King County
- Thurston County
- City of Seattle
- Pacific NorthWest Economic Region

This workshop was an opportunity to introduce stakeholders to the SitMap, a situational awareness mapping tool developed as a recommendation of earlier workshops during this project. Participants also met to review the Puget Sound Critical Infrastructure Regional Integrated Action Plan, and through table top discussions helped refine and prioritize recommendations. The newly formed Regional Public/Private Partnership Supply Chain Working Group will be helping support supply chain strategy for the region, and will manage the Integrated Action Plan. Participants discussed the primary goals for

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this working group, which was developed based on the outcomes of previous workshops in this series, and will continue on after the end of the grant.

Major Strengths

The major strengths identified during this discussion are as follows:

- There is strong stakeholder interest in using SitMap as a tool for the region for small and large event situation awareness.
- The region has a history of engaging the private sector in resiliency planning, and through the Supply Chain Working Group, they voiced their support for public/private partnerships to increase the preparedness of the region.

Primary Areas for Improvement

Throughout the workshop, several opportunities for improvement for SitMap and the Supply Chain Working Group were identified. The primary areas for improvement, including recommendations, are as follows:

- 6) To improve buy-in for the SitMap, organizations would require additional training and informational documents on the administration and expectations of the program
- 7) The recent, and likely future, decrease in grant funding presents a challenge for the completion of the integrated action plan. Addressing funding opportunities for the action plan should be a primary goal of the Supply Chain Working Group.
- 8) There is no mobile platform for SitMap, which could present a challenge for users. Participants suggested seeking future funds for a mobile application, or testing of the current site on mobile devices to ensure compatibility
- 9) Participants suggested an exercise only version of the SitMap be created for use in trainings without the possibility of spreading false information.

The planning team agreed to take these suggestions under advisement for use in finalizing the SitMap, or for potential future projects. The Supply Chain Working Group will be meeting regularly to move the integrated action plan along.

SECTION 1: EXERCISE OVERVIEW

Exercise Name

Regional Supply Chain Resilience Project Workshop: Assuring and Sustaining Supply Chain Resilience

Exercise Type

Discussion

Workshop Start Date

May 20, 2014

Workshop End Date

May 20, 2014

Duration

Four and a half hours

Location

Embassy Suites
15920 W Valley Hwy
Seattle, WA 98188

Sponsor

Puget Sound Regional Catastrophic Planning Team

Program

Regional Catastrophic Preparedness Grant Program

Mission

Response -- Assist stakeholders in testing their supply chain restoration plans through increasing understanding of the State of Washington's options for site access after a large-scale event and to improve state plans through

Capabilities

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

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Exercise Planning Team

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LeanPM, LLC
NOAA
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Network
Peace Winds America
PNWER
Puget Sound Energy
Puget Sound Pilots
Seattle Fire Department
Seattle Police

Thurston County Emergency
Management
Totem Ocean Trailer Express
U.S. Department of Homeland Security
University of Washington
US DOT / FAA
US. Government Accountability Office
USCG
Valley Medical Center
Virginia Mason Medical Center
Washington State DOT
Washington State Ferries
Washington State Fusion Center
Washington State Fusion Center
Yusen Logistics

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The Regional Supply Chain Resilience Project Workshop: Assuring and Sustaining Regional Supply Chain Resilience was conducted to introduce stakeholders to the SitMap and to help define the goals for the Regional Public/Private Sector Supply Chain Working Group.

This workshop was an opportunity to introduce stakeholders to the SitMap, a situational awareness mapping tool developed as a recommendation of earlier workshops during this project. Participants also met to review the Puget Sound Critical Infrastructure Regional Integrated Action Plan, and through table top discussions helped refine and prioritize recommendations. The newly formed Regional Public/Private Partnership Supply Chain Working Group will be helping support supply chain strategy for the region, and will manage the Integrated Action Plan. Participants discussed the primary goals for

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this working group, which was developed based on the outcomes of previous workshops in this series, and will continue on after the end of the grant.

The goal of the overall project is to develop a supply chain resilience working group made up of public/private sector stakeholders to provide input and advise the region on issues related to supply chain resilience.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following capabilities during this exercise:

- Critical Resource Logistics and Distribution
- Restoration of Lifelines
- Economic and Community Recovery

- **Objective 1:** Critical Resource Logistics and Distribution
 - *Develop and Maintain Plans, Procedures, Programs, and Systems:* Establish plans and procedures for coordination with non-governmental and private sector organizations for obtaining resources

- **Objective 2:** Restoration of Lifelines
 - *Develop and Maintain Plans, Procedures, Program and Systems:* Coordinate with State and local emergency management officials to determine what credentials lifeline restoration personnel will need to produce to enter potentially restricted areas and fulfill their responsibilities

- **Objective 3:** Economic and Community Recovery
 - *Activate Economic and Community Recovery:* Implement private-sector recovery, local assistance, and recovery and mitigation plans.

Scenario Summary

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**Project Workshop: Assuring and
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***Regional Supply Chain Resilience Project: Assuring and Sustaining Regional
Supply Chain Resilience***

Agenda

8:30 am - Introductions and supply chain project overview

- Eric Holdeman, PNWER/CRDR Director

8:45 am - Situational Mapping Work Presentation

- John Mitchell, Incident Tactics

10:15 am - Break

**10:30 am - Review and Prioritization of Puget Sound Critical
Infrastructure Regional Integrated Action Strategy**

- All participants

**12:00 pm - Working Lunch – Regional Public/Private Partnership
Working Group: Review of Supply Chain Strategies and How do we
continue to make regional supply chain resilience a priority**

- All participants

1:00 pm - Adjourn

Introductions and Project Overview - Eric Holdeman, Director, CRDR

Holdeman welcomed everyone, and thanked them for being in the room today. He introduced himself, explaining the Center for Regional Disaster Resilience, the disaster resilience piece of PNWER. He then reviewed the agenda for the day, saying this is the last workshop of the project. He gave a safety briefing for fire or earthquakes. He explained the handouts – the agenda, a review of the SitMap, a participants list, the integrated action strategy, and the draft supply chain action strategy. He had everyone in the room introduce themselves.

Holdeman thanked the PNWER staff for their hard work on this project.

Holdeman then gave an overview of the Supply Chain Project, explaining that the CRDR

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was working with the Puget Sound Regional Catastrophic Planning Team (RCPT) to implement a series of stakeholder identified strategies to improve regional supply chain resilience. The RCPT is made up of 8 counties. He explained the project timeline, explaining the SitMap wasn't part of the original project plan, that that came out of previous discussions.

Situational Mapping Work Presentation - John Mitchell, Incident Tactics

Holdeman introduced the SitMap. He said this was an outcome of a number of exercises to provide a tool to provide situational awareness on a map. He warned this wasn't a black technology hole like some systems that have been built in the region which were quite expensive to develop and maintain. Instead it is a single function tool to provide clear, and easy to use, information. He explained that in developing it, the development team recognized that it needed to be as uncomplicated as possible. He welcomed John Mitchell from Incident Tactics to provide a demonstration of the map.

John Mitchell introduced himself and his colleague Chris Rogers. He explained that the map platform was ESRI's ArcGIS. He explained that there were only two types of access -- public and contributor. Contributors were trusted users from local agencies, who could populate the map. Additionally, they used existing RSS and other data feeds. He warned that they were 80% through development and had not done a large demonstration like this.

Holdeman explained that there will be a splash page website with an explanation of the site, and a link to the map.

Rogers provided an overview of the look and navigation of the map. He explained the various layers -- including traffic feeds, and public alert layers. He then demonstrated the process of adding information to a map. It is a simple process of clicking on the map and adding the appropriate legend image. He also explained that for closures that affected large areas, there was an option to draw a shape to shade the affected area.

A participant asked whether everything contributors posted went on the public site.

It was explained that, yes, it all goes to the public facing site

A participants asked how many users from one organization would have access. Who do we email for log-in and password?

Mitchell explained that each agency would have a single log-in. Holdeman expanded on the information presented do far, saying that PNWER will administer the map. ESRI licenses cost \$1250 a year, and \$500 in management if needed. For a user agency,

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there is no cost. If there are desired changes, we would need to seek funding to cover the cost of that development. We hope to use this for whole community awareness, to help organizations make informed decisions about how to manage a situation.

Brandon Hardenbrook, from PNWER, noted that this tool has been considered many times over the years, to pull all information into one spot. If you have a data stream already, we can integrate it here.

A participant asked for clarification, asking if by single agency it was meant that the county gets a log in, and then has to give it to the water district, etc? Or do they send the information to me?

Holdeman said we are trying to make this fast. The agency with the information should have the log in and be informed of the need to post. This means the water district would probably have their own log in.

A participant asked how difficult is it to modify the symbology?

It is not difficult at all, and we will train PNWER in that, Mitchell said. Rogers said the symbology was based on an existing symbology. Holdeman noted that we don't want to have too many symbols, but to use the pop up information for details.

Another participant asked about the access of each contributor, asking if there would be limits to which types of symbols and actions a particular party could use?

Mitchell said no, there is a presumption that the person who closes something that would be the first to know it, and the first to report it, regardless of what type of agency they are.

Another participant asked if they would be able to export layers from this and into their own ArcGIS?

Rogers said yes you can have it downloaded into your own ArcGIS, and add this layer.

The final question before break regarded the time out of information. A participant asked, is there an alert for reminders that you put something up, and ask if it is still valid.

Mitchell said they are developing that now. They considered having it expire automatically, with an email warning, but didn't want to remove important public information. They are now designing a file that will email the poster to warn them the placard has been up for a while.

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Matt Morrison, from PNWER, asked about whether it was accessible on mobile.

Mitchell said the contract did not call for a mobile piece, however it does seem to be easily accessible on Android devices.

Table discussion on SitMap

Report out from the tables:

Holdeman asked, How would your agency use this?

An AT&T stakeholder said this would be very useful to get to the employees to understand where incidents were. The problem he noticed was that for showing what roads are closed, you can only track what WSDOT posted.

A participant from DHS said this is another source of information to help us to do what we need, and to help us identify what the cascading impacts might be.

The PSE representative asked if this information would be compiled from the county and city? Holdeman said yes, it would pull from available RSS feeds.

A participant asked if they would be putting everything on the map, including Building collapses? Flood forecasts?

Holdeman said it would be any information contributors thought would impact people and should be on there. It would not be policed.

Could this be applied to other exercises in the region such as Cascadia? Could we have an exercise site? Mitchell said it would not be difficult at all, they could make a duplicate site just for the exercise.

Holdeman asked what other data streams if any did people come up with besides transportation?

A participant said maritime would be one they would love to see, particularly with regard to the Coast Guard. During Hurricanes Katrina and Sandy there was a lot of uncertainty about the ports and whether they were open or close, what waters were navigable, etc. This was using a tool called ERMA on google, a window where you can look at several different available feeds at one time.

Another participant noted that they would like to see rail, nothing that there is a U.S. railways feed now. There is quite a bit of data available there. It's all very centralized.

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A participant asked if it would display weather. Holdeman asked how that would be displayed geographically. A participant from NOAA said they have an RSS feed and webmount server where you can see that type of info.

Another participant asked what happens when RSS feeds are not being updated as frequently? How do we assign enough manpower in an event?

A stakeholder from the USCG asked how much information do you want the public to have? We are comfortable talking internally but what information do we want out there.

Holdeman said part of it was recognizing that the public is not the enemy. The first people at a site these days are citizens -- they pull people out of buildings, they report on social media. We need to empower everyone to be informed.

Another participant suggested increasing day-to-day use by including SeaTac flight data.

A participant asked whether the PNWER administrator could remove things that were posted to the map, saying if something happened to me, shouldn't the administrator have the authority to remove items? The agency would have the power, and would need to identify backup, Holdeman said.

A participant asked whether all users would need their own ESRI license.

Mitchell said yes. He explained that in development, they had reviewed open source pieces. They settled on ESRI because of the dependency and the ease of use. All that is required for contributors, is that you have access to an ESRI ArcGIS license. Most agencies already have a license somewhere in their organization. We have 5 extra licenses we can share. This is an extra step we wouldn't have had with Google, but the system can be so simple because of this extra step.

Another participant referred to the demo and the use of a polygon to outline an affected area, asking if that could be set using coordinates.

Mitchell said he believed so, but he would need to get firm confirmation.

Holdeman asked, What are the barriers in using this tool?

Participants said that garnering buy-in, finding users, and ensuring the information was up-to-date and provided value. One participant suggested that garnering input and use and establishing yourself as the authoritative source would be the biggest challenge. If you don't do that, you won't get wide use. Holdeman suggested that PNWER could help with this.

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One participant said the biggest questions people will are: how can it benefit me? How can we add to it to our workflow and make it a benefit to others? Where is the benefit for the military, private sector, etc.

Holdeman said he would like to market it to the TV stations and have them put it on their websites.

WSFC said it needed to be integrated into future exercises, to start herding all the cats that way. A possible limitation was policy within each agency on how to use this, and the liability piece. PNWER might need to garner agreements with agencies.

Another participant asked if there was a way to be notified of for new information? Mitchell said this was probably easily possible through email.

Someone else said it came down to an agencies willingness to maintain another tool. Holdeman said that the next step is getting the website up and notifying people that it is up.

Review and Prioritization of Puget Sound Critical Infrastructure Regional Integrated Action Strategy

There was a discussion at each table on their assigned section. Tables then reported out, giving the two actions they thought were the highest priority.

Communications and Information Sharing

1. Recommended action A10: Emergency Backup Communications Systems Inventory and Assessment. The group suggested adding gaps to the language. They noted that everyone tests their primary systems, but they don't tend to exercise with the backup systems.
 2. Recommended a combination of actions A18 and A19: Leverage work to date and additional capabilities to develop an operational regional all-hazards two-way information-sharing capability among government agencies and the broader stakeholder community that utilizes the Washington State Fusion Center. As part of this effort, delineate the role of the Fusion Center in information sharing, along with the roles of other key contributors to an information sharing system; and Collaborate with city, county, and state officials to combine efforts to create and maintain a regional transportation system website or map with a list and the status of all roads (state and local. They suggested removing the reference to the Washington State Fusion Center, because this falls outside their tasking.
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3. Recommended a combination of actions A15 and A24: Studies should be done to understand the impacts of decreased bandwidth and possibly compromised IT infrastructure on communications during an event and solutions identified, researched and tested with exercises; and Internet Communication Systems Mitigation Actions. Internet Service Providers can become overwhelmed and the access/last mile can become extremely congested, impeding communications and remote operations during events. This activity will identify these shortfalls, recommend ways to expand coverage, and provide for redundancies to support disaster communications requirements. They noted that a lot of this will be ownership driven by the owners of the system, but users needed to know how to scale operations as well.

Transportation and Supply Chain Resilience

1. Recommended a combination of actions B13 and B27: Develop a Regional Disaster Supply Chain Risk Assessment and Resilience Strategy that covers: Earthquake -related interdependencies impacts on disaster supply chains and potential mitigation measures, including alternative energy and communications means; Roles and responsibilities and incident management and recovery processes; Decision-making process, including procedures for prioritization of food, water and fuel allocations to infrastructures and locations; and Transportation Sector Recovery Analysis. The focus of this activity will be to conduct an in-depth analysis of the restoration and recovery issues facing the transportation sector, taking into account redundant resources for the recovery of assets. This analysis will result in the development of pre-established recovery priorities, resource requirements, and restoration timelines for the sector, facilitating a unified, efficient recovery for the sector following a disaster event.
2. Recommended a combination of Actions B24 and B25: The focus of this activity will be to further refine regional infrastructure dependencies and interdependencies analysis, with particular focus on energy, water, wastewater, transportation systems, business continuity, and continuity of operations; and Supply Chain Study. This activity will identify and assess critical supply chain dependencies and interdependencies for area businesses and those entities that are dependent upon them. Disasters can have cascading consequences that are felt far from their source. This activity will identify and map critical inter- and intraregional supply chain dependencies /interdependencies as well as recommend redundancies to mitigate potential service interruption.

Lifeline Infrastructure Systems

1. Recommended action C5: With technical assistance from relevant federal agencies and leveraging existing capabilities, undertake an assessment of local
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and regional interdependencies, effects and consequences associated with impacts of a pandemic on critical infrastructure and essential service providers under different pandemic scenarios. Suggested the removal of the term "pandemic"

2. Recommended action C9: Long-Term Sewer Service Loss Study. The focus of this activity will be to assess the potential for long-term sewer service disruption to large number of businesses and residents following a flood event. This activity will assess potential impacts, identify capabilities gaps, and suggest mitigation strategies to offset extended disruptions. In addition, it will identify restoration priorities and strategies and address issues involving sewage and wastewater. Recommended the inclusion of sewer and water.

Community and Economic Resilience

1. Recommended action D5: Create a regional inventory of normally available private sector, non-profit including philanthropic and other key stakeholder resources and supplies that could be readily mobilized after a major disaster. They said this seemed like the most important thing -- knowing who has what and how to contact them. They said they believed it had been attempted in the past but not been carried out.
2. Recommended a combination of actions D9, D12, and D14: Examine policies to ensure that hospitals in collaboration with other healthcare providers and supply chain organizations develop and exercise business continuity plans; and Identify incentives to keep small businesses operating after a regional incident or disaster, and to return to the region if they have left, as well as what legal or policy provisions many need to be developed or changed; and Explore ways to expand FEMA, Small Business Administration and other government disaster assistance programs and to appropriately provide assistance to the private sector. They said these all had to do with business continuity, and that they would like to see a general push for business continuity planning, and coming up with incentives for them to do it.

Governance and Policy Coordination

1. Recommended a combination of E23, E24, E27, and E28: Create a long-term recovery advisory council made up of public and private stakeholders prior to an event and begin to talk through scenarios and priorities of the region; and Development of a multi-agency/multi-jurisdiction coordination and decision-make structure is necessary to address regional preparedness, response and particularly long-term recovery; and Regional Disaster Management Structure for Long-Term Recovery. This activity will further develop, validate, and exercise a regional coordination structure for long-term recovery/restoration, with emphasis on a multi-agency, public-private construct capable of prioritizing and overseeing
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- long-term recovery functions. This will include regional priorities agreed to in advance for emergency restoration of utilities and resources and emergency housing and business resumption options; and Regional Disaster Recovery Plan. The focus of this activity will be to develop and implement an overarching region-wide plan for long-term recovery and economic resilience, including recovery of critical infrastructures and business assets, consistent with National Recovery Framework. This plan will designate decision-making structures and authority for regional recovery and enable the prioritization of recovery activities.
2. Recommended a combination of E9, E10, and E12: Undertake a pilot project to identify legal and policy barriers, as well as requirements for effective cross border, cross-jurisdictional command and control; and Region-wide Inventory and Assessment of Existing Physical and Cyber Disaster / Attack Preparedness Capabilities (e.g., mechanisms, plans, procedures, methodologies, approaches, communications systems, sensors, and tools. Will provide a baseline of what has been done to avoid “recreating the wheel.”); and Develop and conduct an exercise and training program for stakeholders on emergency management plans and incident and recovery chain-of-command procedures.

A participant suggested that a low hanging fruit for the supply chain resilience task force might be providing opportunities for larger companies to share best practices and strategies with their supply chain (smaller companies).

A participant asked about the state recovery plan. Hardenbrook said one of the criticisms was the lack of pre-planning, but the restoration task force will be called together only after the most catastrophic of disasters.

Holdeman said there were questions about what would happen with these plans. He shared actions that had been taken and fulfilled from other exercises.

A participant asked how we could put together a recovery and mitigation fund ahead of time. How do we manage the incoming funds? Holdeman pointed out that regional disasters are often attributed to the nearest large metro area, for example the Nisqually earthquake was often referred to as “the Seattle earthquake,” even though the epicenter was not in Seattle. Therefore when people donate funds they often are donated to the wrong place. He added that United Way has a way of managing funds so that this is less likely to happen.

Windsor said the national priorities should be leveraged with grant applications.

Regional Public/Private Partnership Working Group: Review of Supply Chain Strategies and How Do We Continue to Make Regional Supply Chain Resilience a Priority?

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Holdeman explained that out of these meetings will be the public/private sector working group. Assuming the grant money is gone, what kinds of projects can we work on all together, he asked?

He ran through probable and certain upcoming projects. He added that PNWER is dedicated to following this Action Plan through.

A participant mentioned the Washington Coalition of Recovery Planners, an informal group open to anybody. Suggested participants get involved.

Another participant mentioned that the Cascadia Subduction Zone exercise planning team will be holding an upcoming meeting to determine the key goals of the event. This is an opportunity to ensure we include the private sector in our exercises. Another participant asked if Cascadia would be all response. It was thought that though they hadn't defined the priorities, they seemed to be most focused on response. However, participants believed that recovery was going to be the really challenging.

Megan Levy of PNWER was asked to talk about the recent Cyber Security Workshop. She said that this past April 1 – 2 PNWER held the Emerald Downs III Cyber Security Workshop at Emerald Downs, and that it was mostly focused on how to identify the triggers to moving a cyber event outside an organization and getting help from law enforcement. IT systems and physical security, natural disasters and cyber systems were also discussed. For the next conference, Levy said the focus will be on physical infrastructure such as fiber optic cables etc. She and the planning team is looking for input on any current threats or upcoming conversation as cyber becomes a bigger and bigger piece of an organizations' vulnerabilities.

A participant asked if Microsoft was involved.

Levy answered that Russ McCree is involved. Microsoft is a frontrunner when it comes to thinking about what vulnerabilities we face.

Holdeman noted the importance of overlapping these projects both to recognize interdependencies and to use funds to the greatest benefit. He asked if anybody else had any other thoughts.

A participant said that he thinks a critical question was posed earlier: who isn't here who should be? How can we get big private sector people involved? Participation is the most important thing if nothing else, and getting input from people is also of the utmost importance.

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Another participant said that he thought this tied back to the last comments before lunch: how to build support for this kind of thing. He thinks it's important we speak in terms of the region and that we use the right language. Defining the risk buy-back and talking about individual infrastructures will be important. The biggest question to pose to people is: if we weren't doing what we're doing here, what risk does that represent? If you start talking in those terms you start to have some more clout and the budget begins to flow. Hardenbrook said that in port recovery exercises, a suggestion was to get the FFC to focus on business continuity planning. It could really help push the ports to having a port-wide plan.

Morrison said that the idea of a supply chain resilience task force or committee is so important, if there's an incident it's vitally important to pull together leaders in every sector to provide valid information, not only in response but to begin looking at recovery. So many efforts have said "we need a task force," but in very few situations are they actually created. Morrison noted that the idea of this committee would be to have leaders from every sector who could provide guidance in response and recovery. He said it would help us reduce the recovery time, guaranteed, if the right people can coalesce quickly.

Holdeman asked if anyone from the Fusion Center had comments.

One WSFC participant said that trying to push this maritime cybersecurity thing has a significant private sector piece to it. When there are no built-in incentives, it comes down to trying to build a relationship with people and establishing a common goal. That method has been somewhat successful.

The other Fusion Center participant said that they will continue to work with information sharing platforms to see what works for everyone. They are always gathering information from their stakeholders to see what is working. In addition they have spoken to people in the federal government to see how these platforms can be more useful. Although, sometimes when they are trying to move in the right direction they do not always get lots of feedback from their stakeholders, so if you have feedback please let them know.

A participant from the University of Washington who was doing research on collaboration for disaster planning explained that one thing that was fascinating was seeing over and over the importance of personal relationships to working well together, collaborating, and sharing information. Many times, these aren't with the person in the job role you think you might connect with on paper. A lot of participation depends on funding, or being able to afford to let a person leave for the day, or multiple days. This community has been recognized as an example of wonderful collaboration across sectors.

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Holdeman emphasized the importance of meeting, planning, and exercising. He asked everyone to fill out their feedback forms. He emphasized that we would not be where we are today without the contribution of the people here, and the other organizations who have participated over the course of the event. Adjourned.

SECTION 3: CONCLUSION

The Regional Supply Chain Resilience Project Workshop: Assuring and Sustaining Regional Supply Chain Resilience was opportunity to introduce stakeholders to the SitMap, a situational awareness mapping tool developed as a recommendation of earlier workshops during this project. Participants also met to review the Puget Sound Critical Infrastructure Regional Integrated Action Plan, and through table top discussions helped refine and prioritize recommendations. The newly formed Regional Public/Private Partnership Supply Chain Working Group will be helping support supply chain strategy for the region, and will manage the Integrated Action Plan. Participants discussed the primary goals for this working group, which was developed based on the outcomes of previous workshops in this series, and will continue on after the end of the grant.

Participants were interested in the SitMap and agreed that could be a very useful tool, but there were concerns about buy-in. However, there was a lot of enthusiasm, and the use of RSS feeds could help centralize information after a disaster without the need to manage an additional system. Participants recommended a exercise version be created to give organizations the opportunity to integrate the use of SitMap into their planning.

Through this event, the integrated action plan for the region was also reviewed and prioritized. The team will use the notes from this discussion to refine the Action Plan, which will be integrated into the final report for the overall RCPT Regional Supply Chain Resilience Project.

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APPENDIX A: PARTICIPANT FEEDBACK

PARTICIPANT FEEDBACK FORM

Tuesday, May 20, 2014

Southcenter Embassy Suites

Overall impression and general comments on the Workshop- **Please rate each component on a scale of 1-5 (5 being excellent /valuable; 1 being not valuable)**

Workshop	Excellent	Very Good	Satisfactor y	Fair	Poor	N/A
Overall Impression of Workshop	5	4	3	2	1	N/A
Quality of Discussion Session	5	4	3	2	1	N/A
Utility of Information Provided	5	4	3	2	1	N/A

1. What industry or type of organization do you represent?

2. What, if any, was the most valuable 'take away' or insight you gained from the Workshop?

3. What was the most important piece of information you received from the briefing on the Situation Map (SitMap)?

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4. What suggestions do you have to improve regional coordination between the public and private sector?

5. Based on the Regional Integrated Action Strategy what are the top priorities the working group should focus on beyond the end of the grant?

6. What additional priorities would you like to see added to the Regional Integrated Action Strategy?

7. As the RCPGP grant comes to a close what topics should the Private/Public Sector Working Group focus on keeping in mind funding will be limited?

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8. Would you be interested in being part of a Supply Chain Resilience Work group to advise the region on improving supply chain resilience?

(Please Circle One) **Yes** **No**

Optional:

Name_____

Title_____ Phone:_____

Organization_____ Email: _____

Thank you for your feedback. Please return it to organizers as you leave.

If you are interested in discussing your observations or providing additional information for the summary report, please contact Steve Myers at Steve.Myers@pnwer.org or 206-443-7723

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APPENDIX B: ACRONYMS

Table F.1: *Acronyms*

Acronym	Meaning
AAR	After Action Report
CRDR	Center for Regional Disaster Resilience
DHS	Department of Homeland Security
ERMA	Environmental Response Management Application
FEMA	Federal Emergency Management Agency
FAA	Federal Aviation Administration
FFC	Field Force Command
GIS	Global Information Systems
IP	Infrastructure Protection
HSEEP	Homeland Security Exercise Evaluation Program
NOAA	National Oceanic and Atmospheric Administration
NPPD	National Protection and Programs Directorate
PNWER	Pacific NorthWest Economic Region
RSS	Really Simple Syndication
TV	Television
TCL	Target Capabilities List
OEM	Office of Emergency Management
PSE	Puget Sound Energy
RCPT	Regional Catastrophic Planning Team
USCG	United States Coast Guard
WA	Washington
WASEMA	Washington State Emergency Management Association
WA EMD	Washington Emergency Management Division
WSFC	Washington State Fusion Center
WSDOT	Washington State Department of Transportation

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Puget Sound SitMap

Project Goal: To provide a single spatial (map) view of incidents that are occurring in the Puget Sound Region that provides public agencies, businesses, nonprofits and the general populace with a single location to go to get information during an emergency or disaster.

Concept: This map (called SitMap) will be an amalgamation of system disruptions, route considerations, public safety instructions, forecasts and service closures that are occurring in real time. The map will be populated via a protected log-in by pre-identified public and private organizations that provide facilities and services. Where possible, the map should be able to be populated via an RSS feed from organizations that already maintain an established data stream. Other organizations will post information, e.g. road closures, power outages, service disruptions, on a case by case basis by entering their information through an interface that will plot the information on the map.

The map interface will be ersi.net which is available as a free product on the Internet. Data will be stored in the Amazon cloud.

Development Criteria:

The map will have a limited number of identifiable icons designating the type of service disruption, hazard or event.

The map must be intuitive to use with conventional tools and processes that are familiar to the typical individual consumer/user of digital map technology.

There must be a web-based Intel version and built without limiting the future development of a companion product configured for users of both Android and Apple mobile devices.

The counties to be covered include: Island, Skagit, Snohomish, King, Kitsap, Pierce, Thurston and Mason (RCPT).

The development of a separate mobile app is not part of this limited project.

Operational Procedures: Each organization is responsible for posting their data to the map and each will have an individual password. The user will select an icon from a short list, click and drag that icon to a map. A text box will automatically open and details about that incident can be entered in the text box.

Users can zoom in or out. They can turn layers on or off, e.g. WASHDOT transportation traffic information. Incidents can be sorted by range of dates.

Users Types

Viewers:

Anyone can view information on SitMap. There is no login requirements associated with its use. Just note that the information posted there was done so by individual organizations and the information displayed there is maintained solely by them. There is no ability to change delete information except by the posting organization.

Anyone can view SitMap. If you have trouble viewing SitMap. Viewers can zoom in and out; turn layers on or off, for example, if you don't want to see traffic information from Washington State Department of Transportation (WASHDOT), simply turn that layer off. Note also that incidents can be sorted by range of dates.

Contributors:

Contributors are public agencies and larger private sector businesses that have relevant information to be shared with other organizations and the general public.

Accounts are issued to organizations not individuals. Organizations are responsible for their internal procedures for and control systems for who has authorization to post information and to remove it from SitMap.

Contributors must have an ESRI license in order to post. If your agency doesn't have an ESRI license, contact PNWER to discuss alternative solutions.

All content that is posted to the website is the responsibility of the contributor to maintain for accuracy. There is no override capability by any administrator other than the organization that posted the information.

Each organization is responsible for posting accurate information, and removing information when it is no longer applicable.

For additional information, contact Eric Holdeman, Director, Center for Regional Disaster Resilience (CRDR), 253-376-6683, eric.holdeman@pnwer.org website www.sitemap.org.