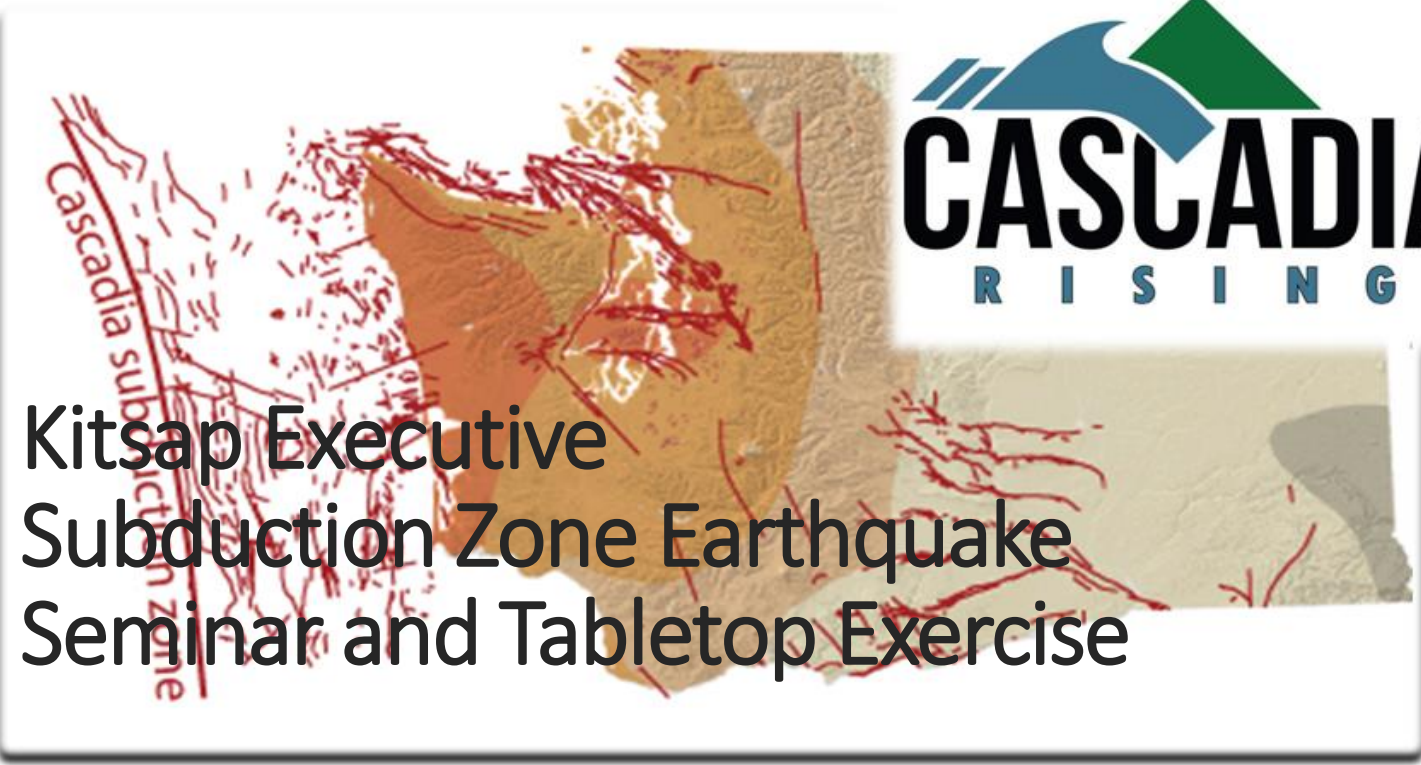


A map of the Pacific Northwest region, showing the coastline and the Cascadia subduction zone. The subduction zone is highlighted in orange and red, with red lines indicating seismic activity. The text "Cascadia subduction zone" is written vertically along the left side of the map.

Kitsap Executive Subduction Zone Earthquake Seminar and Tabletop Exercise

JUNE 1ST, 2016

MIKE GORDON, FACILITATOR

Agenda

- General Information and Introductions
- Exercise Overview
- **Module A: Catastrophic Earthquake: the Local Response**
- **Module B: Stabilizing the Event: Public Health
and Mass Care**
- **Module C: Short Term Recovery: Transportation**
- **Module D: Long Term Recovery: State and Federal
Support**
- Closing Remarks and Parking Lot Issues

General Information and Introductions

General Information

Purpose To **educate and learn** about the impact of a subduction zone earthquake on Kitsap County.

Not to solve problems specifically, but to understand the roles and responsibilities of Kitsap's leadership, understand the importance of collaboration, and the needs of citizens during this disaster.

Put yourself in the disaster and consider the impacts on your jurisdiction or agency.

Introductions

Please introduce yourself, *Name, Title, Organization*

Guide: Pgs. 3-5

General Information

This is a facilitated exercise based on the modeling and impacts of a Cascadia Subduction Earthquake affecting the entire Pacific Coastline

Seminar Booklet contains 4 Modules. Each module contains a presentation, disaster information, and questions

We will explore local response, short term recovery issue, collaboration, and long term recovery

The Seminar booklet also **contains additional information for you to take with you.** Most of this information can be found in the Comprehensive Emergency Management Plan 2015

Guide: Pgs. 3-5

Administration

Informal Setting

If you need to take or make a phone call, please feel free to leave the room to do so as well as use the restrooms or get some refreshments

We will try to break at the end of every hour.

At Noon, we will serve lunch and finish the last module of the exercise

Please ask questions and I may ask subject matter experts to brief the audience on areas affected by the disaster.

We do have a person taking notes and we will maintain a “parking lot” board for unresolved issues or questions.

The Cascadia Subduction Zone

*Explorer, Juan de Fuca, and Gorda Plates
forced under the North American Plate*

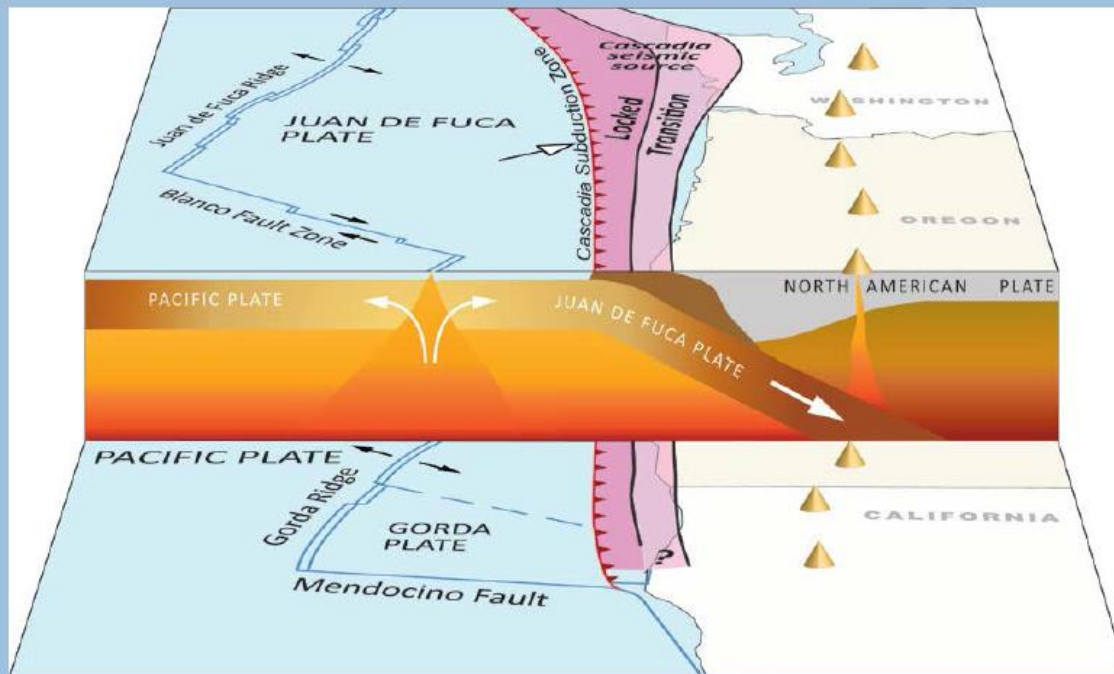


Image Source: Oregon Department of Geology and Mineral Industries

- 700 miles long (1,130 km)
- Last great rupture: January 26, 1700
- 500-year average recurrence
- Odds within next 50 years: 1 in 10

CASCADIA REGION
EARTHQUAKE WORKGROUP

CREW AHEAD OF THE WAVE



Cascadia Earthquake Scenario

- **Magnitude 9.0**
- **Felt region-wide**
- **Shaking intensities greatest along coast & where local conditions amplify seismic waves**
- **“Nisqually-like” shaking intensities in Puget Sound region**
- **Duration is a BIG Difference:**
 - Nisqually ~40 seconds
 - CSZ ~3-6 minutes

CASCADIA REGION
EARTHQUAKE WORKGROUP

CREW AHEAD OF THE WAVE

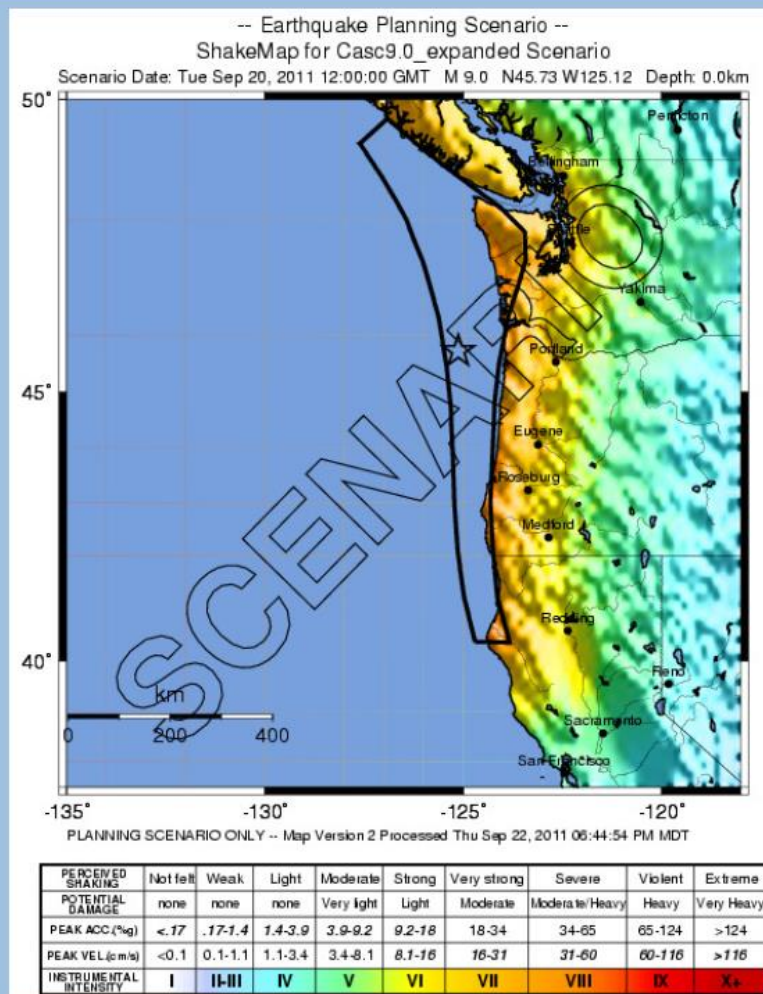


Image Source: USGS

Expect a Large Tsunami

Modeled tsunami hazard zones caused by a M9.0 earthquake on the Cascadia Subduction Zone.

Catastrophic waves of 30+ feet, much larger than those from a distant quake, will strike the coast within 25–30 minutes, causing loss of life and widespread damage to property.



■ La Push, WA



■ Ocean Shores, WA



■ Hoh Tribe
Reservation, WA



■ Long Beach, WA

General Impacts Overview

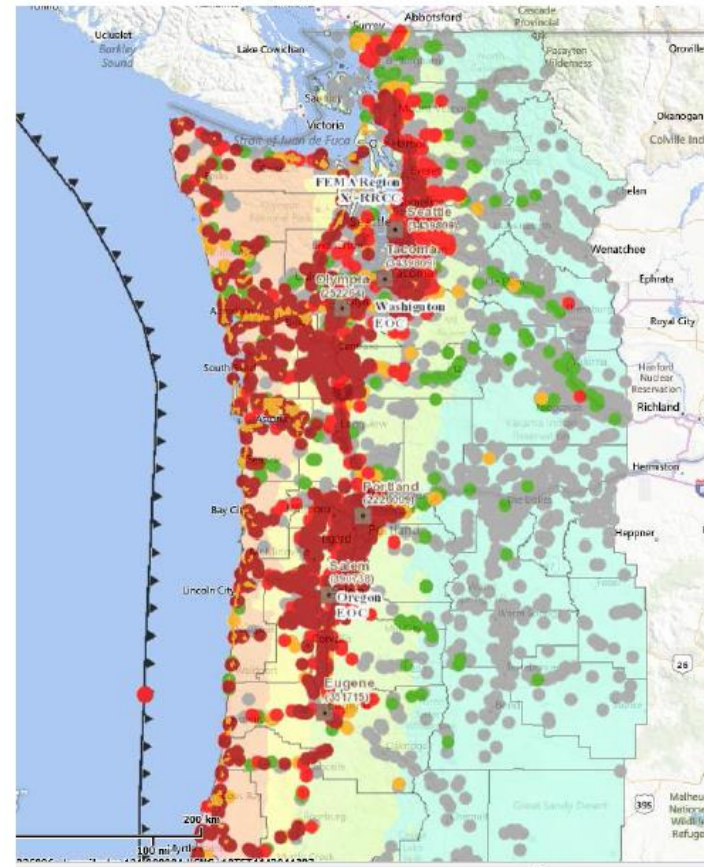
- 15,000 deaths; tens-of-thousands injured.
- 9 million citizens directly impacted.
- 800,000 + requiring shelter; 2,500,000 require mass feeding.
- Significant damage to transport systems:
Ground - Road, bridges, Rail; Air - Airports, runways; Water - Ports, Waterways, Ferry Systems. *
- Significant damages to critical infrastructure lifelines (power, fuels, natural gas, water & wastewater systems, communications etc.)*
- Extensive impacts to public safety facilities including police, fire, EOCs, etc.



Map: Highway Road Segments in the Cascadia Region with expected 'Complete' damages (red)
source: HITRAC.

General Impacts

- 19 hospitals in the Coastal AO and 104 in the I-5 Corridor require augmentation - Up to 100 hospitals and 3,000 nursing homes may require evacuation
- Fatality management services are required for up to 12,660 human remains
- Demand for law enforcement support for the incident from local, county and the state will exceed the current capability
- 86 Chemical facilities experience moderate to complete damage, 6 in inundation zone
- Shelter needs for up to 1,000,000 displaced survivors and 600,000 displaced pets in the I-5 Corridor and Coastal AOs.
- Feeding and hydration support for up to 2.5 million survivors and 1.5 million pets in the I-5 Corridor and the Coastal AOs.



Impacted Bridges

Secondary Earthquake Impacts

Liquefaction: Extensive damage to built environment

Ground Deformation: Extensive impact to buildings, roads, bridges, railways, pipelines, power lines and utility, communications, etc.)

Landslides: Isolate coastal communities by blocking & damaging roads and bridges, railways, utilities lines, etc.

Hazardous Material Spills: Oregon and Washington have thousands of facilities with reportable quantities of hazardous materials, many with EHS (Extremely Hazardous Substances) within the impacted areas.

Flooding: Tsunami, Dam or levee breach landslides, seiche.

Fires: broken water lines, staffing and equipment shortages and access



Exercise Scenario

Refer to the Scenario on pages A-2 through A-7

It has been 48 hours since the earthquake and **ongoing aftershocks** between 1-6 on the Richter scale.

The first 48 hours have been **consumed with life saving efforts** by many including spontaneous volunteers and communities helping their own.

The **greater need is in Seattle/Tacoma areas and along the Pacific Coast** where thousands are dead and 10's of thousands injured or displaced.

Most of the infrastructure is heavily damaged including utilities, communications and roads.

Guide: Pgs. A-2 to 7

In Kitsap...

Lives lost, many injured, many displaced

Significant infrastructure damage to include roads, utilities, and communications

Resources are limited and commodities running out

New human behavior factors...desperation, guarding, self-preservation, etc...

Vulnerable populations are now more vulnerable. Services are more complex or unavailable

Complex environmental hazards affecting all

Communities cut off and families separated from each other

Module A: *Locals Respond*

Key Issues

- Define priorities once life safety is complete
- Define Response Areas and establish a management system
- Maintain situational awareness internal and external to Kitsap
- Establish effective communications with the public as well as internal and external among responders
- Understand emergency powers and disaster Declarations

Guide: Pgs. A-1

Defining Moment for Leaders

Make a difference by defining the tone and direction of emergency response to the public

Look at the strategic needs of the community and work with emergency management and other communities to meet those needs

When needed, make appropriate policy decisions

Support response efforts. Resources will be scarce in this event and we will have to compete with priorities around Puget Sound

Activity:

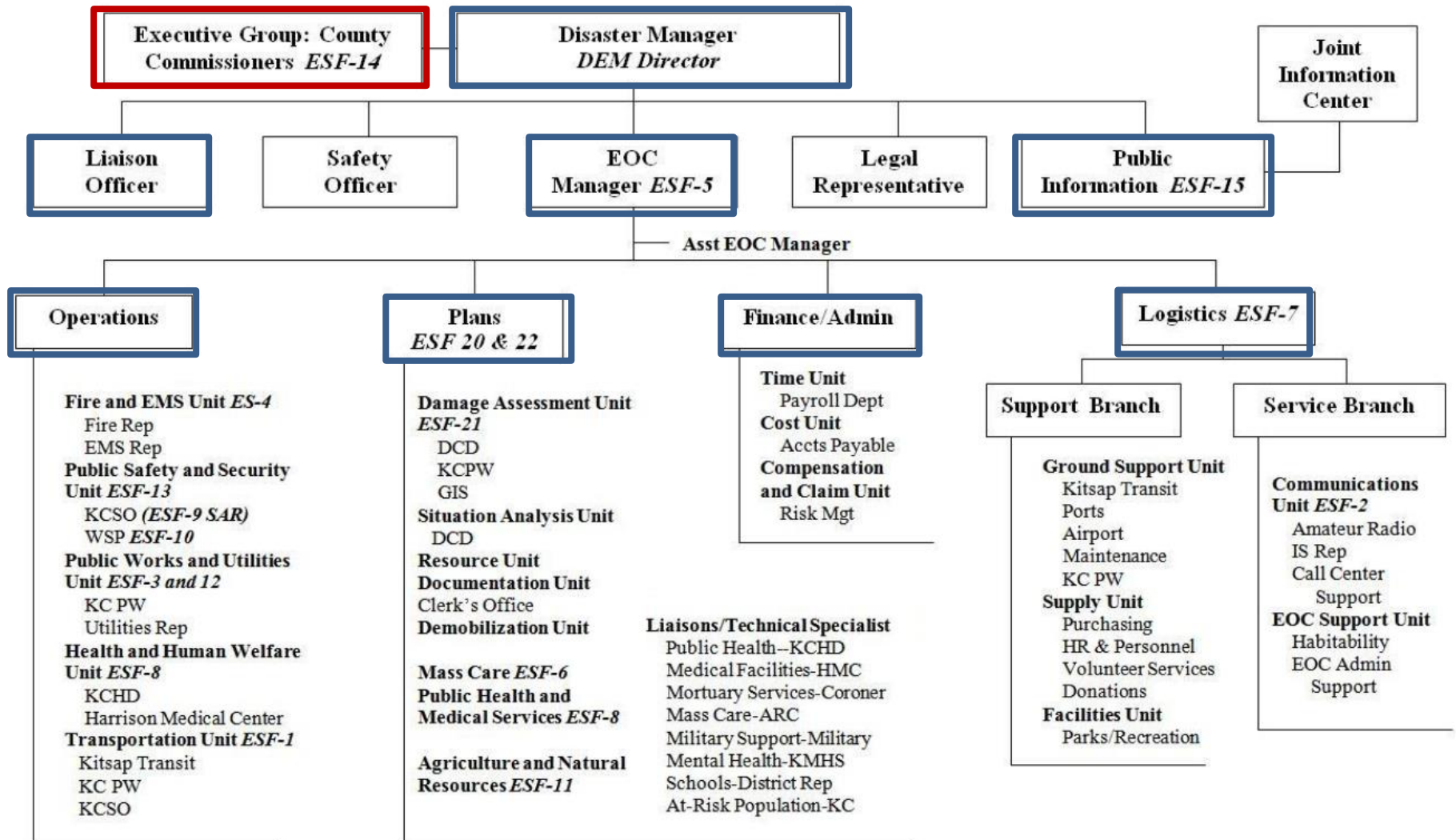
Take a moment at your table to define your role in your agency/jurisdiction. Where do you expect to be in 48 hours?

Q1: Your Role and Responsibility

- As defined in the Comprehensive Emergency Management Plan or your operational plan
- Roles are based on ICS in the EOC. As you become part of the event at any location, there will be an incident commander and system in place.
- The NIMS system is always in place as state and federal support arrive in Kitsap County. As the response/recovery grows, so does the system to accommodate the needs of the County/Cities.
- **Your guide provides a CEMP abstract on “Roles and Responsibilities of Government”**

Guide: References

Exhibit V-3: KITSAP COUNTY EMERGENCY OPERATIONS CENTER ASSIGNMENTS



Guide: Refs RB-1

ESFs: Emergency Support Functions

ESFs provide the structure for coordinating intra/inter agency support for response/recovery to an incident.

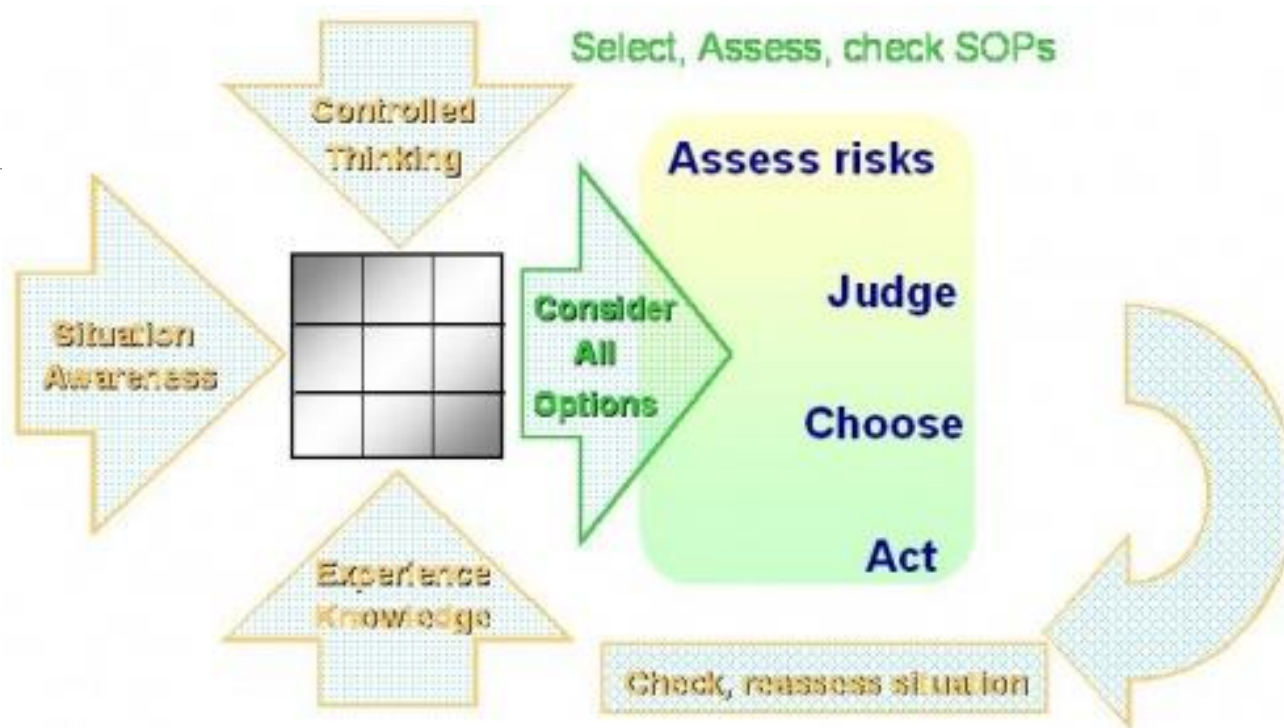
They are mechanisms for grouping functions most frequently used to provide coordinated support to an incident commander.

ESFs allow other state and federal like functions to meld directly into the disaster response.

The Kitsap County Comprehensive Emergency Management Plans (CEMP 15) contains the 18 response ESFs for Kitsap County.

you can find a copy of the CEMP 15 at www.kitsapdem.org/library

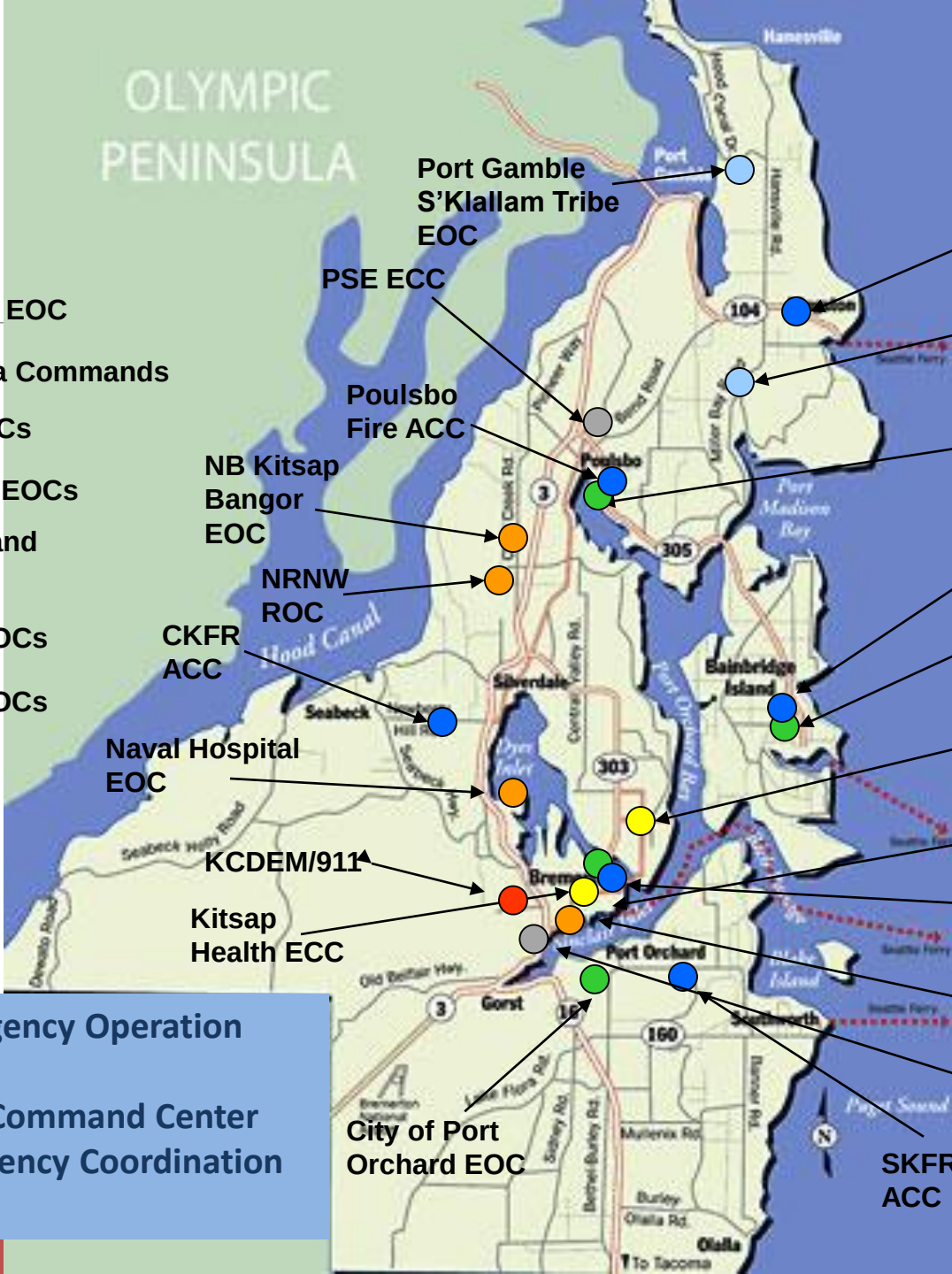
Q2: Situational Awareness



Situation Reports (SITREPS) Incident Snapshot For Counties (ISNAP)
Incident Commanders **Incident Action Plans (IAPs)**
WebEOC **Liaisons** Conference Calls
SME's **Mass Media** Kitsap 911

Multi-Agency Coordination System

- County EOC
- FD Area Commands
- City EOCs
- Federal EOCs
- Health and Medical
- Tribal EOCs
- Other EOCs



- NKFR ACC
- Suquamish Tribe EOC
- City of Poulsbo EOC
- BI Fire ACC
- City of Bainbridge Island EOC
- Harrison Medical ECC
- PSNS EOCs
- Bremerton FIRE ACC
- City of Bremerton EOC
- Kitsap Transit EOC

EOC: Emergency Operation Center
ACC: Area Command Center
ECC: Emergency Coordination Center

Q4: Crisis Communications

- Not about the Media, its about the Public
- Work with your PIO and our Joint Information System (*Center (JIC)*)
- JIC provides 1 voice, defined through a process and approval
- Promise what you can deliver
- Evaluate what the media has broadcasts
- Understand the implication of social media

Activity:

Considering the circumstances on Page A-7, how can we provide instructions to the public?

Q5: Disaster and Law

Alexis Foster, Prosecuting Attorney, City of Poulsbo

Your guide contains a checklist for “*Understanding the Legal Implications of Disaster Response Before Disaster Strikes*”

Activity: *As assigned to your table, what legal implications arise based on the issue at hand?*

- a. Curfew*
- b. Going on private property to install temporary communications for the community*
- c. Taking over a known private water supply*
- d. Moving a fence to support access to a military installation*
- e. Shutting down utility systems that affect critical facilities*
- f. Contract with local Kitsap Mall to establish a base for mass care*
- g. Suspension of government services*
- h. Commandeering of commodities from Costco*

Guide: A-14

Lets Take a Break!

“The safest place to be during an earthquake would be in a stationary store.”

— [George Carlin](#)

Module B: *Stabilizing the Event*

Stabilizing means “*keeping citizens from injuries and further harm.*”

Review the scenario on pages A-2 to A-7, and B-2 to B-3, and C-2 to C-3

For your respective areas of responsibilities.

What issues in your respective areas must be stabilized to keep citizens from further harm?

Guide: B-1

Module B: *Stabilizing the Event*

Key Issues

- Take advantage of resources within the County through integrated partnerships and mutual aid
- Establish systems to manage the medical response
- Mass care is a priority to provide safety and security for citizens
- Communicating information and instruction to the public is key to managing public and environmental hazards

ESF-6 and 8

Jessica Guidry, Manager

Public Health Emergency Preparedness and Response

Kitsap Public Health District

***“Mass Care, Public Health, and Medical Services Needs
During Emergencies”***

Guide: Module B

Q1: Mass Care Issues

Issues that may affect our capability to provide mass care services to the public:

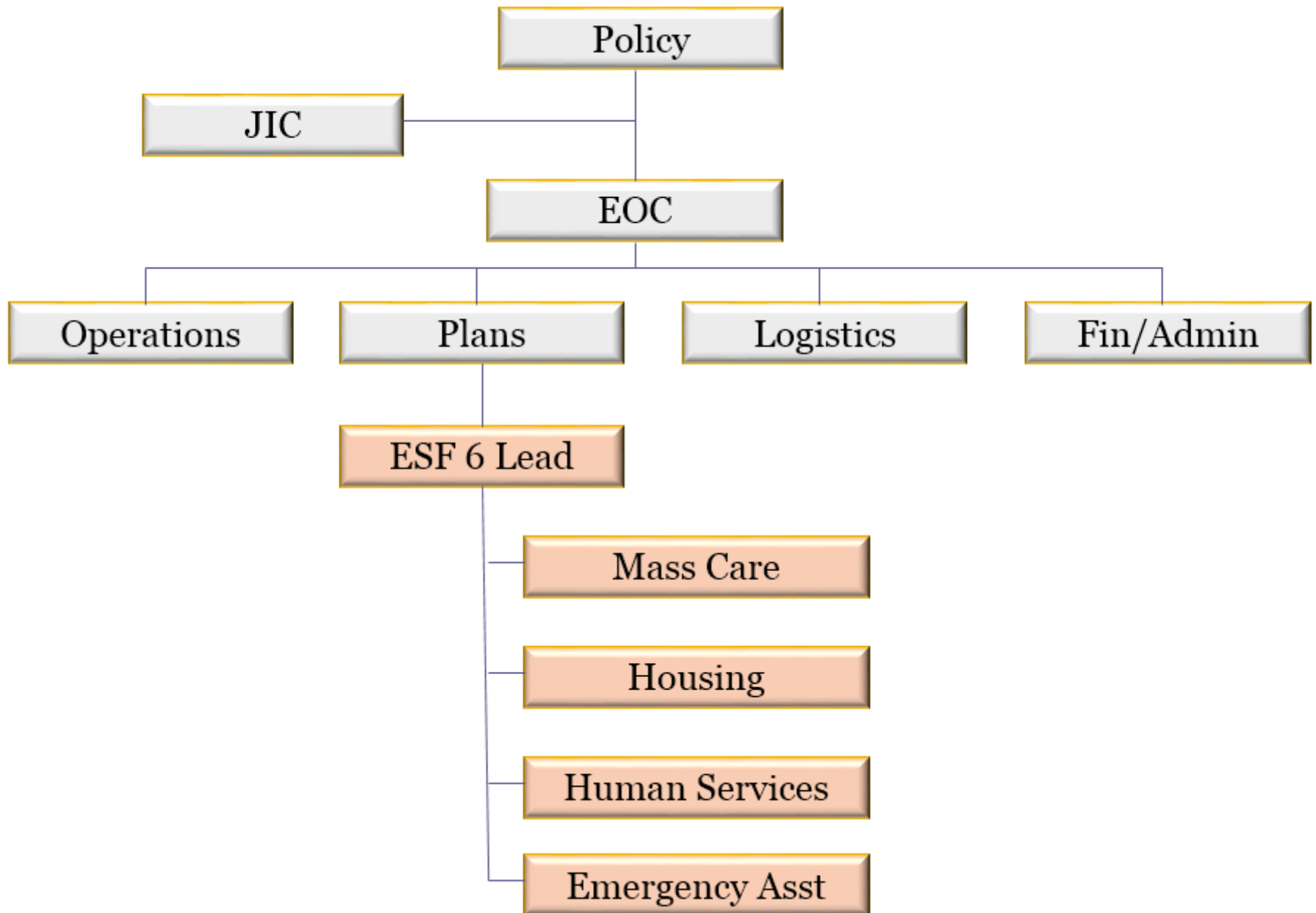
- Mass Care for vulnerable populations
- Finding enough suitable facilities for shelters
- Moving citizens from shelters to temporary housing
- Obtaining resources
- Managing local non-profits and faith based organizations providing services

Activity:

What functions or resources do we need to effectively provide mass care to the public?

Q4: Mass Care Coordination

- Logistical Support System
- Mobilize NGO's and Non-Profits to support mass care functions
- Develop committees to support Temporary housing initiatives
- Programs for Donations Management, volunteer management, and transportation



Resource Request Process

Request Transmitted from County or Tribe to State via:

1. WebEOC
2. ICS 213 RR (State Request Form)
3. Phone
4. Radio RFA Transmittal (RACES)

- County, Tribe & Local Jurisdiction Assets / Agencies
- Contracts / Purchasing
- WAMAS (Intrastate Mutual Aid)
- Other Mutual Aid agreements
- NGOs, Volunteer Organizations, & Private Sector

LOCAL
JURISDICTIONS,
TRIBES, & COUNTY



- State Contracts / Purchasing
- State Assets / Agencies
- State Fire Mob
- PNEMA (International Mutual Aid)
- EMAC (Interstate Mutual Aid)
- RRF (Federal Request)

- Federal Assets / Agencies

Federal

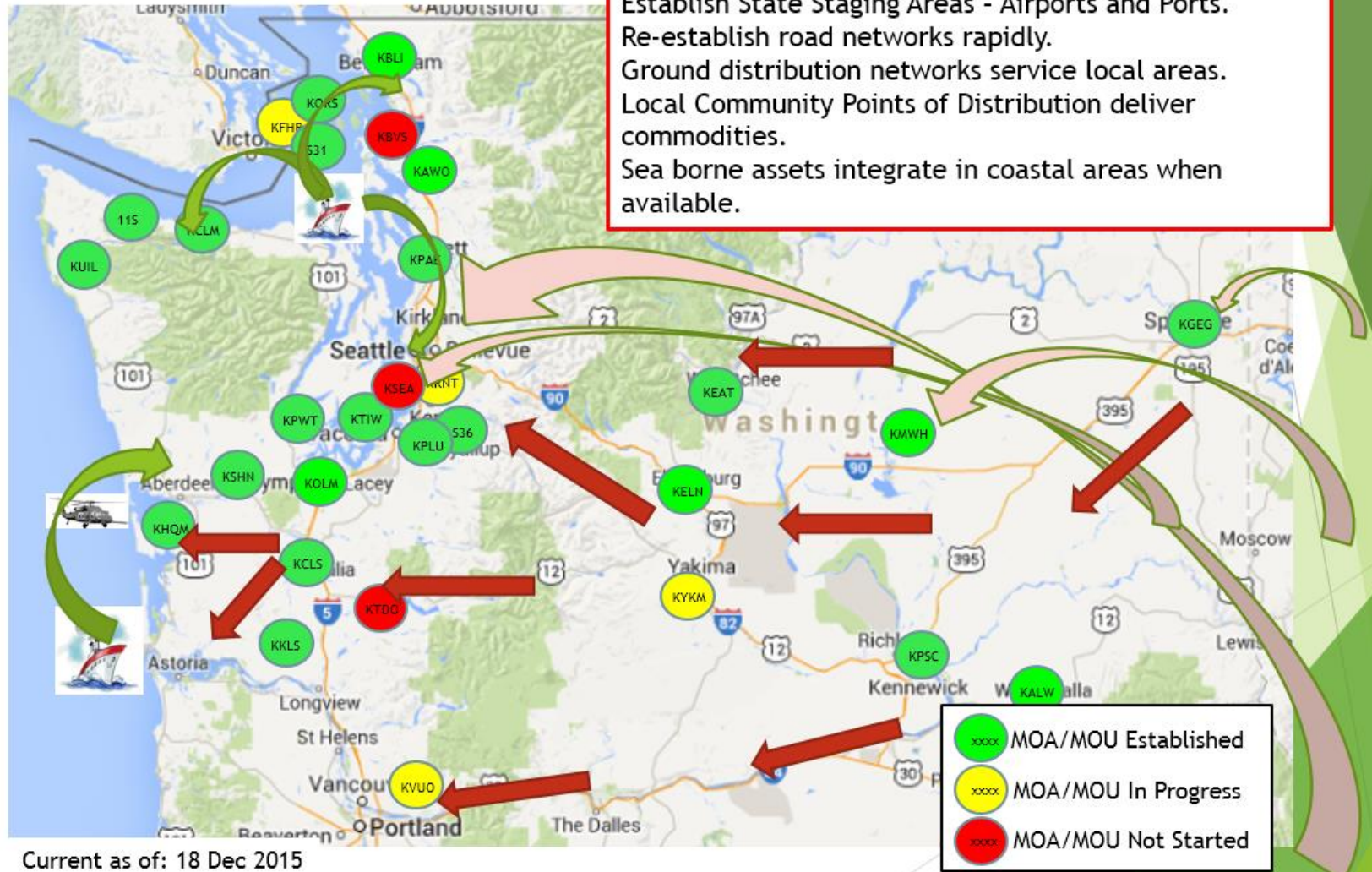


Request Transmitted from State to Federal via:

1. RRF Form (Federal Request Form)
2. Telephone

Initial Response Concept

Establish Central Logistic Support Bases at Sea-Tac, Paine Fld, Moses Lake and Spokane:
Establish State Staging Areas - Airports and Ports.
Re-establish road networks rapidly.
Ground distribution networks service local areas.
Local Community Points of Distribution deliver commodities.
Sea borne assets integrate in coastal areas when available.



Community Points

Distributions

ers

Mason County

To Olympia

To Tacoma

- **Logistical Support Areas**
- **Community Points of Distributions**
- **Shelters**

Ports can also be used to bring in resources as piers and sites are established.

Time for Another Break!

Americans do not have a good track record when it comes to preparing for disasters, unless they see a clear possibility of personally being in harms way.

Irwin Redlener

Module C: *Short Term Recovery*

Temporary roads and manageable transportation	Social and Economic assessment; <i>re-open what you can</i>
Public transportation	Managed displaced citizens
Debris Management	Manage incoming Federal and State Support
Temporary Housing	Environmental repairs
Manage donations	Manage Volunteers
Utilities	Damage Assessment
The emotional/psychological effects	PDA's and IAs
Mass Fatalities	Open Governments, courts and schools

Module C: *Short Term Recovery*

Key Issues

Must be prepared to re-open government services and manage recovery operations.

Begin to integrate volunteers, NGO's, state and federal support

Open Roads and establish key transportation lifelines

Establish clear goals for getting temporary infrastructure in place

ESFs 1, 3 and 12

ESF 1: Transportation

- Monitor and report the status of and damage to transportation systems
- Coordinate transportation activities and processes request for transportation resources
- Identify temporary alternative transportation solutions
- Coordinate the restoration and recovery of critical transportation systems
- Conduct damage assessment and potential mitigation strategies during transportation restoration

Guide: Module C

ESFs 1, 3 and 12

ESF 3: Public Works and Engineering

Scope includes technical advice, engineering services, construction management, damage assessment, emergency contracting, repair to water and wastewater facilities, transportation infrastructure, and support provisions for potable water and emergency power

Also includes:

- Debris Management
- Temporary restoration of roads and facilities
- Emergency demolitions or stabilization of damaged structures
- Assist in Public Damage Assessments
- Structural inspections and assessments of buildings

Guide: Module C

What priorities would you assign to transportation restoration efforts?

How does it affect other jurisdictions and who will you coordinate efforts with?



**Transportation
Damage**

Q2: Transportation Restoration

What priorities would you assign to transportation restoration efforts?

Possible Reasons:

- Schools
- Life safety
- Life lines: resources, food, water, support to the public
- Work
- Economy
- Shelters
- Restoring the infrastructure

ESFs 1, 3 and 12

ESF 12: Energy

Assess engineering systems and utilities damage, supply, demand and requirements to restore such systems

Support fuel for transportation, communications, emergency operations, and other critical facilities

Support energy suppliers and utilities obtain equipment, specialized labor, and transportation to support restoration efforts

Guide: Module C

Q1: Utilities and Services

- Puget Sound Energy
- Cascade Natural Gas
- Water Purveyors
- Kitsap IS Department

Activity:

***Identifying critical services for the County? Power? Water?
Fuel? Communications?***

Q3: Roadblocks to short term recovery

- Are Resources Available?
- Agreeing to priorities
- Defining goals and objectives to meet the needs of the County
- Obtaining federal funding to get you started

Do we Need a Break?

While natural disasters capture headlines and national attention short-term, the work of recovery and rebuilding is long-term.

Sylvia Mathews Burwell

Module D: Long Term Recovery

Key Issues

Integration of Response and recovery efforts must take place to minimize conflicts during recovery

Comprehensive recovery planning provides a starting point for the recovery process (Kitsap Recovery Plan)

Define priorities to get people back to work, back to schools, and back to the stores

Plan for state and federal support as they integrate into Kitsap's coordination system

Identify a unified partnership, authorities and leadership roles

Plan for the emotional side of the disaster

Guide: D-1

Its all about Cooperation

<http://www.fema.gov/media-library/assets/videos/108714>

State and Federal Support

Lit Dudley, Exercise and Training Manager

Washington Emergency Management Division

“State and Federal Support to Disasters”

Working with our Military Partners

George Nixon

Naval Region Northwest

“Defense Support to Civilian Authority”

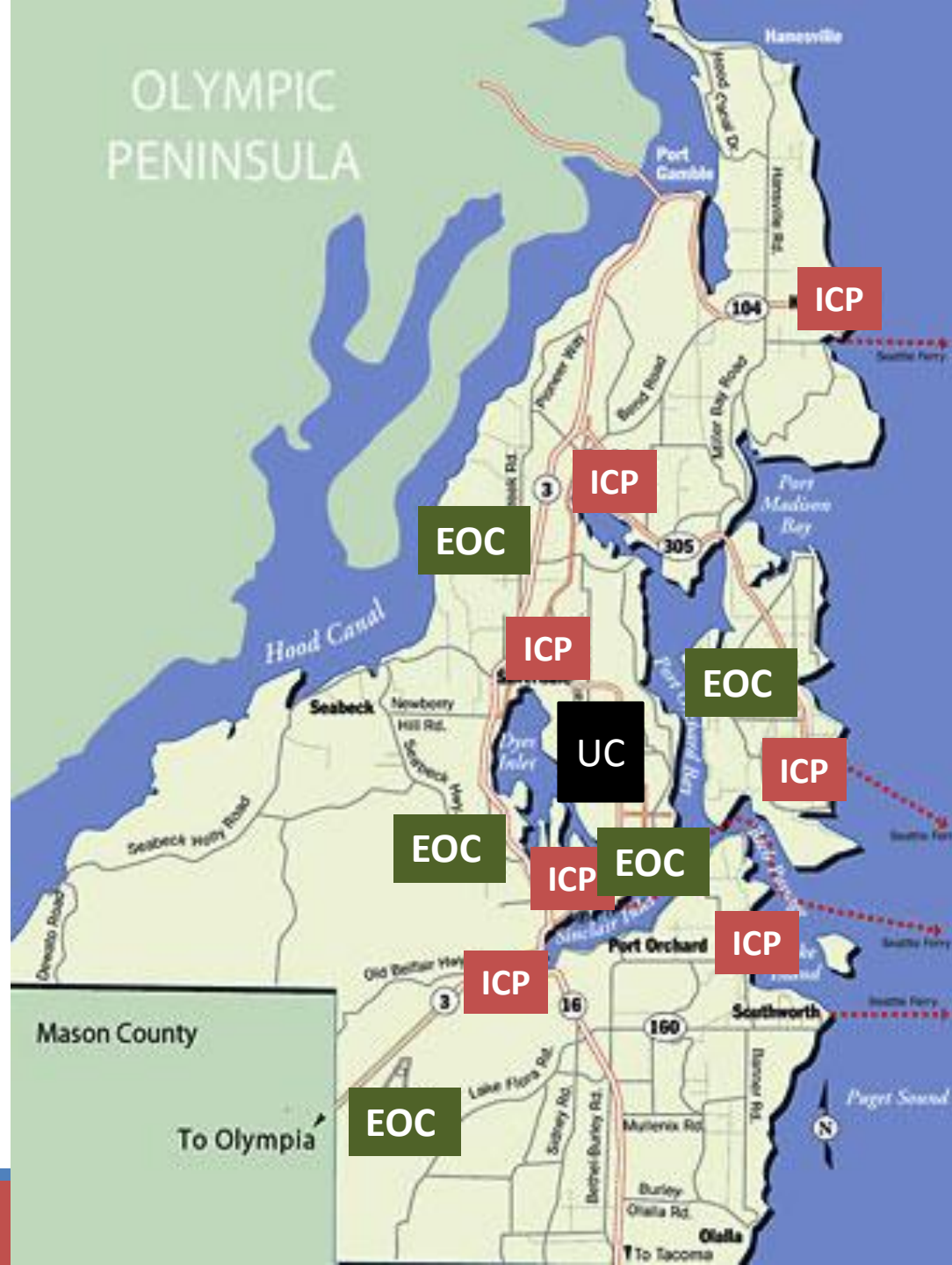
Q1: Unified Command

Definition of Unified Command

As a team effort, Unified Command allows all agencies with jurisdictional authority or functional responsibility for the incident to jointly provide management direction to an incident through a common set of incident objectives and strategies and a single Incident Action Plan (IAP).

Each participating agency maintains its individual authority, responsibility, and accountability.





Managing Incident Sites

UC: Unified Command
ICP: Incident Command Post
EOC: Emergency Operations Center

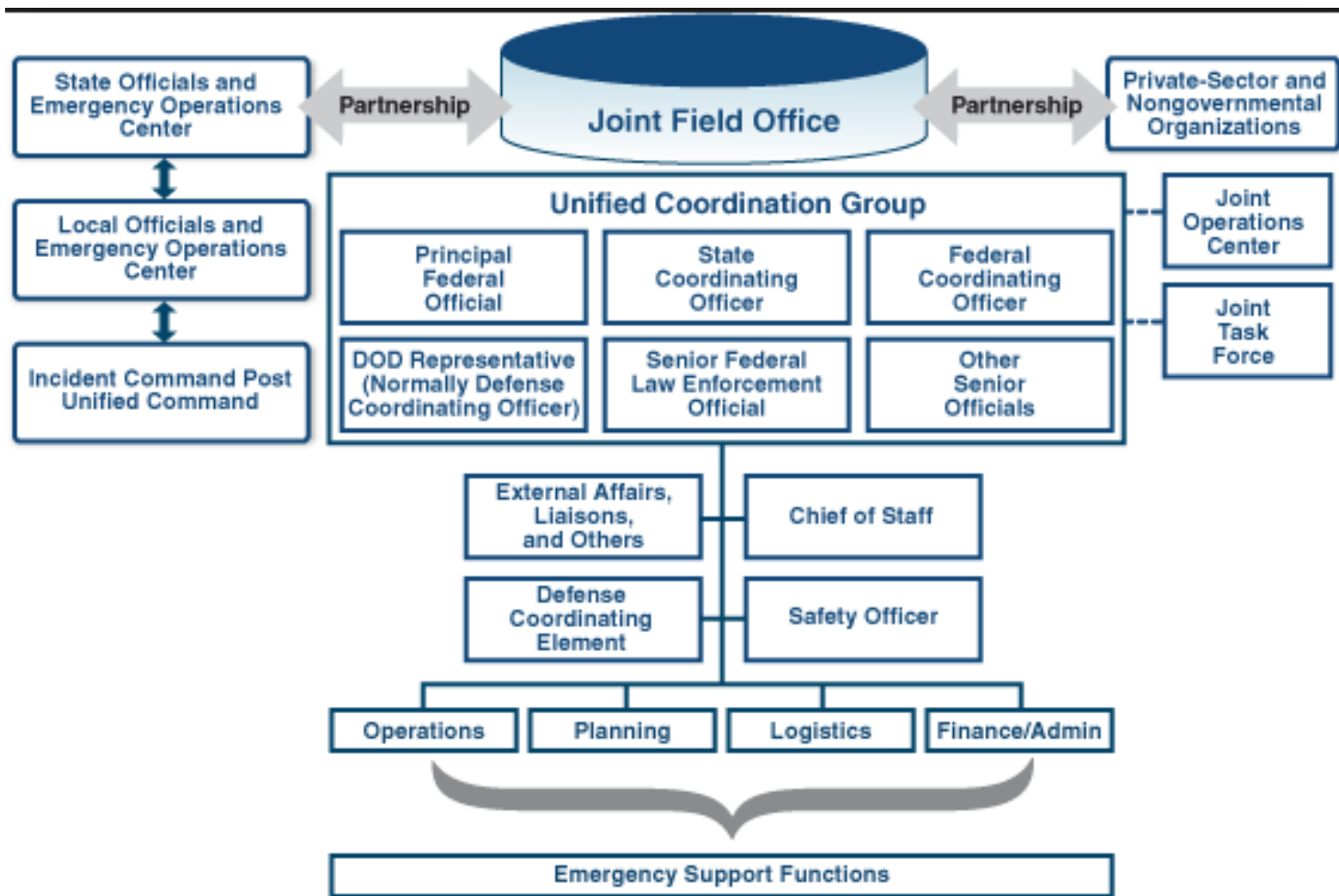
Managing a Disaster

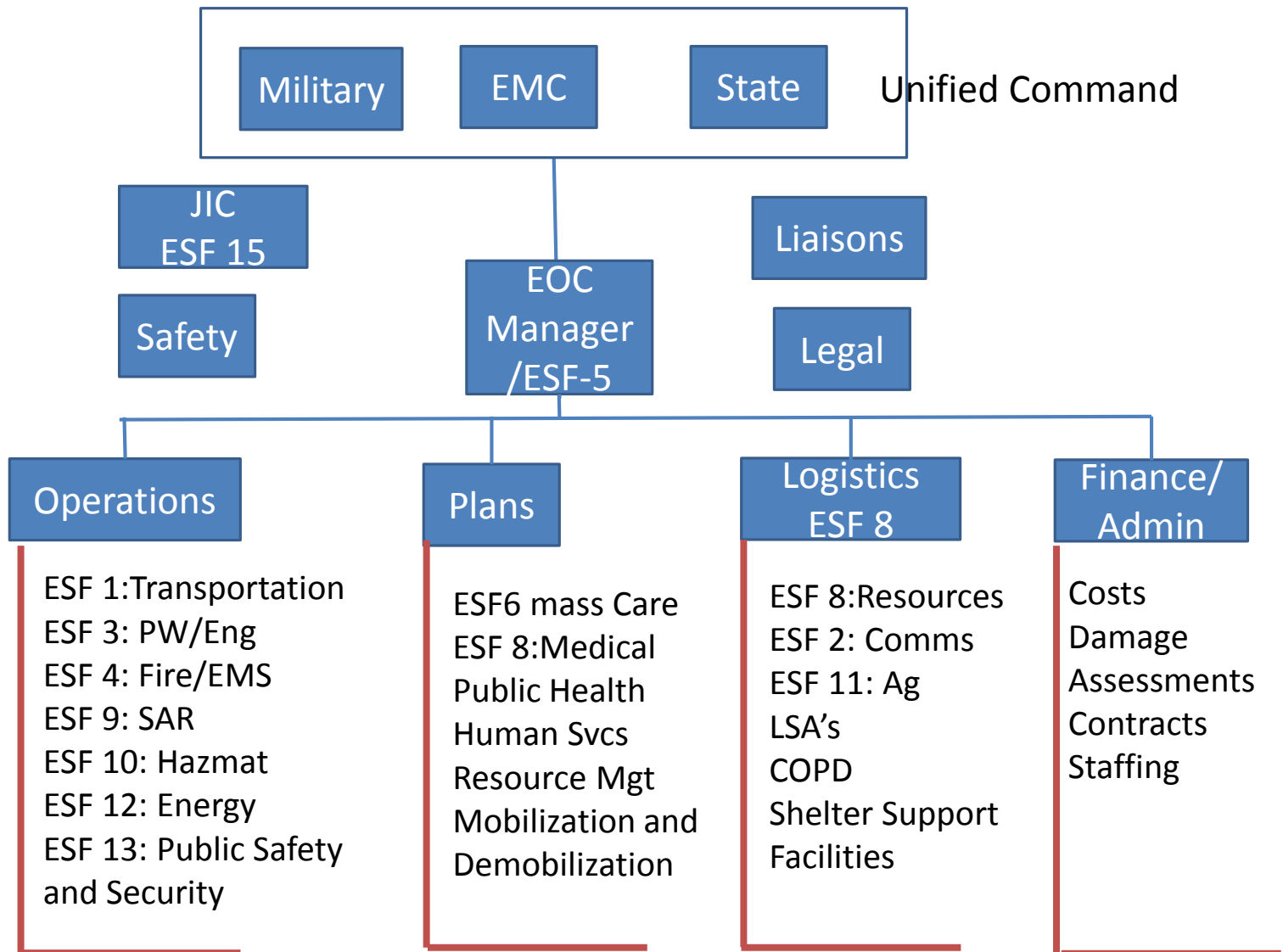
Transition from Incident Command System to a Emergency Support Function (ESFs). This will support incoming state and federal response and subject matter experts

Possibly break County into Area Commands and/or branches in the EOC to improve coordination and span of control of Incident Commanders and other EOCs in the County

Form a Unified Command Structure made up of City/County representatives acting on behalf of County Leaders and other agencies that have primary control or function support. For example, military, Public Health, Transit. Each representative retains their authority.

Eventually, **a larger system will develop as Federal and State attempt to respond throughout the State**





Q2: Continuity of Operations

What are your priorities within your agencies/governments/organization to get services moving again?

Activity:

Working in your groups, define what systems/services you need to provide services to the public?

Q3: Economic Restoration

What partnerships do you need to get the economy in motion?

- Military
- Businesses
- NGO's
- State Agencies
- Non-Profits

How do we get the County back to Normalcy?

Closing Remarks and Parking Lot Review

This event is beyond all of us.

It will change the way people look at Kitsap in the future

It will take decades to recover including the trauma of such an event

We can not experience other similar events in the world and not take action to prepare ourselves

**Thanks
and
Join us during the exercise
June 7 or 8**