

Oregon Fuel Action Plan

Improving Resilience in
the State of Oregon

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HISTORY: Energy Assurance & Resiliency



Awards Grants to 50 States – Fall 2009

To enhance state government energy assurance and resiliency

Oregon Department of Energy (ODOE)

- Partnered with the Oregon Public Utility Commission (OPUC) and the Oregon Department of Geology and Mineral Industries (DOGAMI)
- Assessed seismic vulnerabilities and earthquake impacts on critical energy infrastructure from a 9.0 Cascadia Subduction Zone (CSZ) earthquake
- Coincided with the state's development of the Oregon Resilience Plan

USDOE Definition: Resilience

“The ability of the energy critical infrastructure to absorb, adapt to, and/or rapidly recover from a potentially severe and disruptive event”



Oregon Imports 100 Percent of the State's Refined Petroleum Products

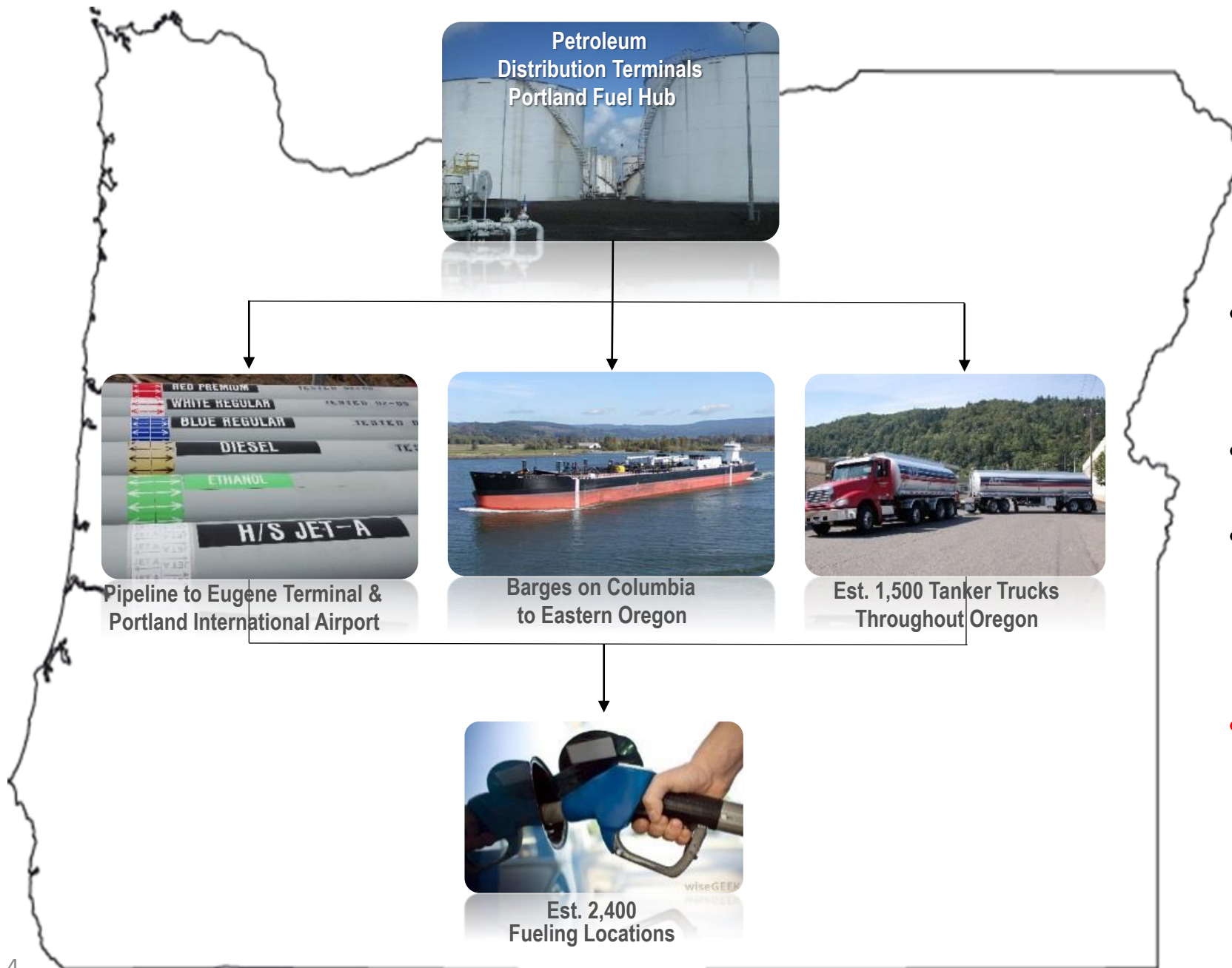
- Washington refineries supply more than 90 percent
 - ✓ About 75 percent by Olympic Pipeline to Oregon
 - ✓ Remaining product by tanker ships to Oregon
 - ✓ Portland Fuel Hub – located on liquefiable soils
anticipate significant fuel supply loss
- Utah refineries supply less than 5 percent to eastern Oregon communities
- California refineries supply less than 5 percent to southern Oregon communities



Bay Area Refineries

Salt Lake City Refineries

Oregon Fuel Supply & Distribution System



- Annual fuel imports estimated at three billion gallons
- Six day fuel delivery cycle
- Product delivered throughout Oregon by pipeline, barges, and tanker trucks
- Anticipate significant impacts to distribution system post Cascadia

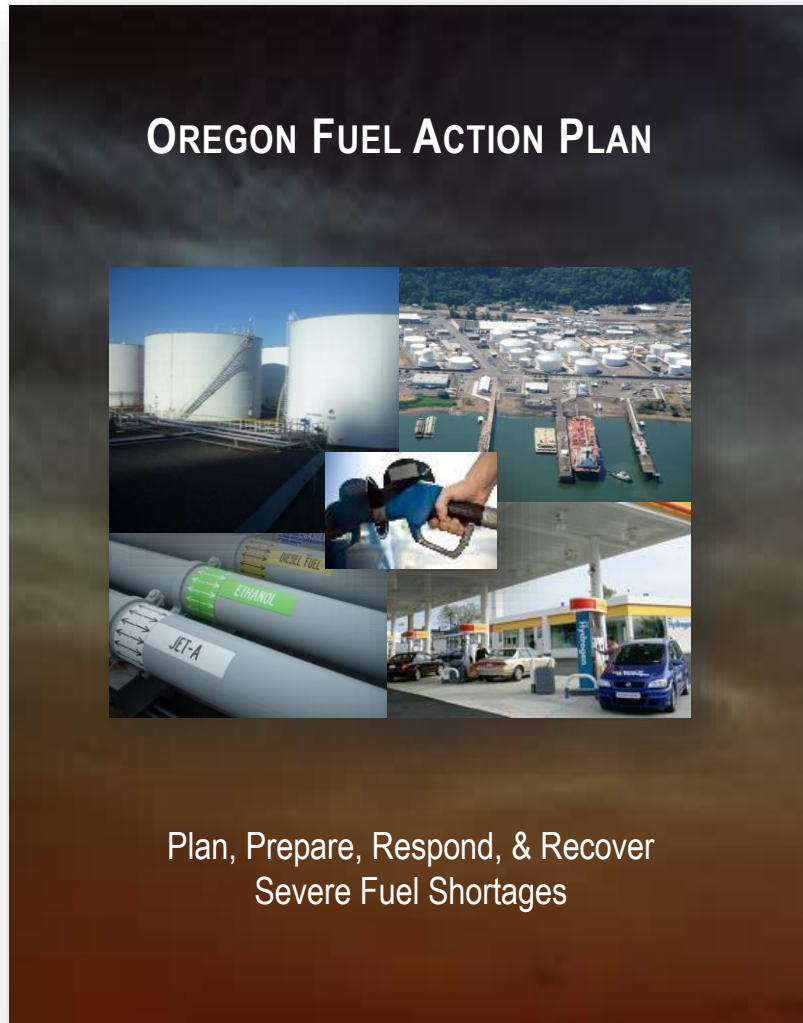
DOGAMI Study Sites Aging Petroleum Infrastructure



Olympic Pipeline built in the 1960s without seismic design standards

Only 3 of the hundreds of fuel tanks at the Portland fuel hub likely to survive Cascadia

Marine docks receiving fuel will be damaged with moderate earthquake



- Identifies ODOE authority and responsibilities to control and direct the state's overall response to petroleum emergencies
- Provides coordination structure for federal, state, county, tribal, and petroleum industry partners
- Provides structure for fuel allocation that identifies pre-approved priority users of fuel and user responsibilities
- Identifies state and county priority lifeline routes to support fuel deliveries
- Pre-designates Fuel Points of Distribution (FPOD) for receiving emergency fuel
- Plan on ODOE website - www./Oregon.gov/ENERGY

Oregon Fuel Action Plan: 9 Priority Actions



Action 1	Action 2	Action 3	Action 4	Action 5	Action 6	Action 7	Action 8	Actions 9
Notification Activation and Authorities	Public Information	Damage Assessment	Assess Fuel Needs & Determine Priorities	Outside Assistance: Fuel Supply	Fuel Conservation Measures	Temporary Waivers	Fuel Allocation	Recovery
<ul style="list-style-type: none"> - Initial Notifications - Activate ODOE AOC - Succession & Authorities 	<ul style="list-style-type: none"> - ODOE Fuel Emergency Outlook Web Page - Public Information Campaign – social media - News conferences - Telephone Information Center 	<ul style="list-style-type: none"> - Assess impacts to petroleum infrastructure - Estimate timeline for repairs - Provide fuel sector info & status updates 	<ul style="list-style-type: none"> - Assess fuel availability in Oregon - Assess 18 state ESFs, counties, and tribal fuel needs - Determine state & regional fuel priorities - Governor’s Disaster Cabinet 	<ul style="list-style-type: none"> - Identify & obtain fuel source - Identify viable fuel delivery options into Oregon - Identify viable options for dispensing fuel 	<ul style="list-style-type: none"> - Issue voluntary fuel conservation measures - Issue mandatory fuel conservation measures 	<ul style="list-style-type: none"> - Obtain temporary environmental operational, and safety waivers as needed to ensure the timely delivery of fuel 	<ul style="list-style-type: none"> - Review & approve/deny fuel requests <i>(ESF Primary State Agencies, counties & tribes)</i> - Allocate fuel to approved state agencies, counties & tribes - Odd/Even Fuel Allocation - Fuel Request Form Provided 	<ul style="list-style-type: none"> - Allocate fuel to support recovery activities - State Recovery Coordinating Team - Governor’s Recovery Cabinet - Terminate fuel recovery activities as appropriate

Fuel Allocation: All Hazards

Saving Lives and Restoring Critical Lifelines & Services



Challenge – Allocating fuel to emergency and essential service providers in the state involves 120 state agencies, 36 counties, 240 cities, and 9 federally-recognized tribes

Standardized Structure – Identifies three categories of priority fuel users:

- 18 ESF Primary State Agencies
- 36 Counties
- 9 Federally-Recognized Tribes



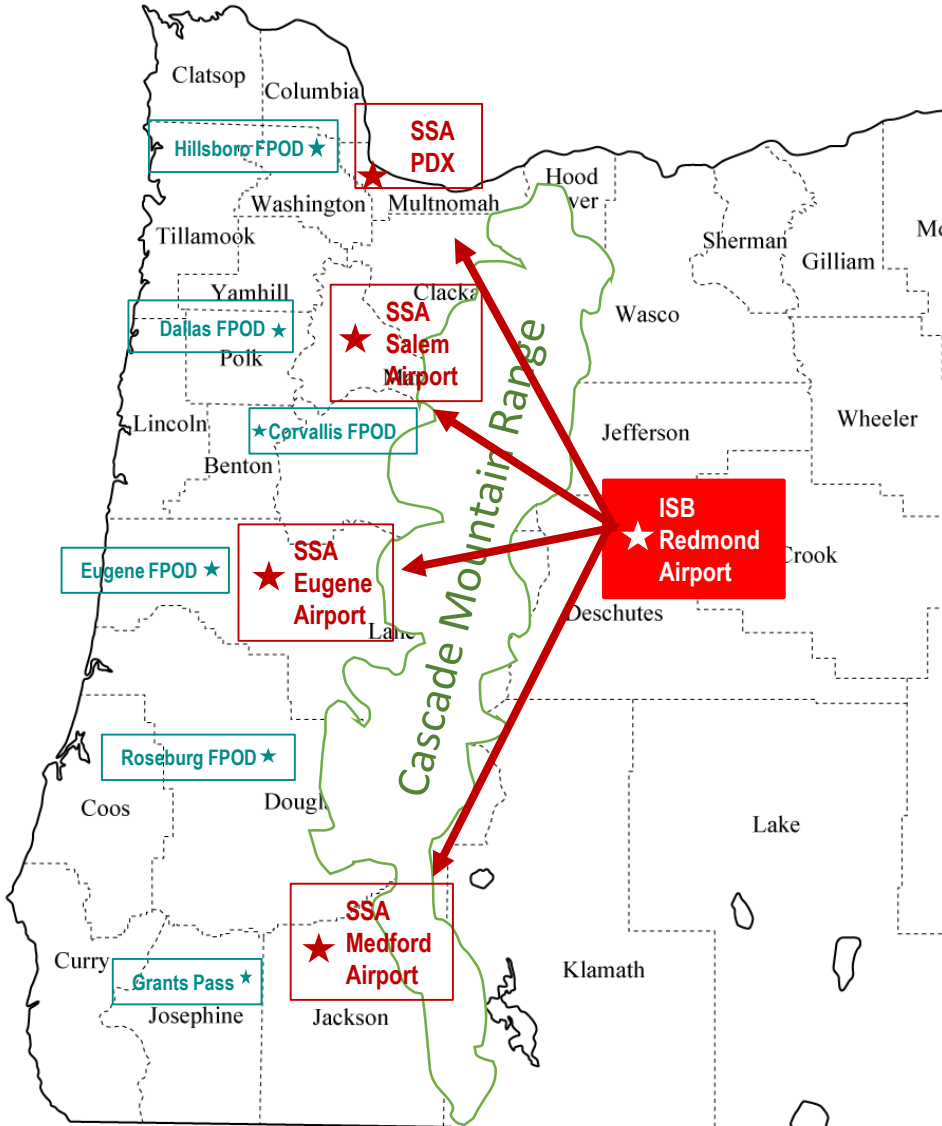
Fuel Strategy: Air Response

INITIAL AIR RESPONSE ACTIVITIES

Required Support: Federal, Military, and Industry

Bulk Fuel Source – Outside Region

- Bulk fuel “pushed” into the federal Incident Support Base - Redmond Municipal Airport
- Initial daily bulk fuel push into Oregon
 - Unleaded gasoline – est. 75,000 gallons
 - Diesel – est. 400,000 gallons
- ODOE directs fuel movement from federal ISB to State Staging Areas and to the pre-designated fuel points in the impacted communities



Fuel Strategy: State & Local Lifeline Routes



Oregon Department of Transportation (ODOT)



- **State Lifeline Routes** – Guide initial repairs on the transportation, power, and communication systems to support fuel delivery
- **County Lifeline Routes** – Counties to identify local priority routes that connect to state lifeline routes
- **Fuel Points of Distribution (FPOD)** – Counties pre-designate FPODs to receive emergency fuel supplies

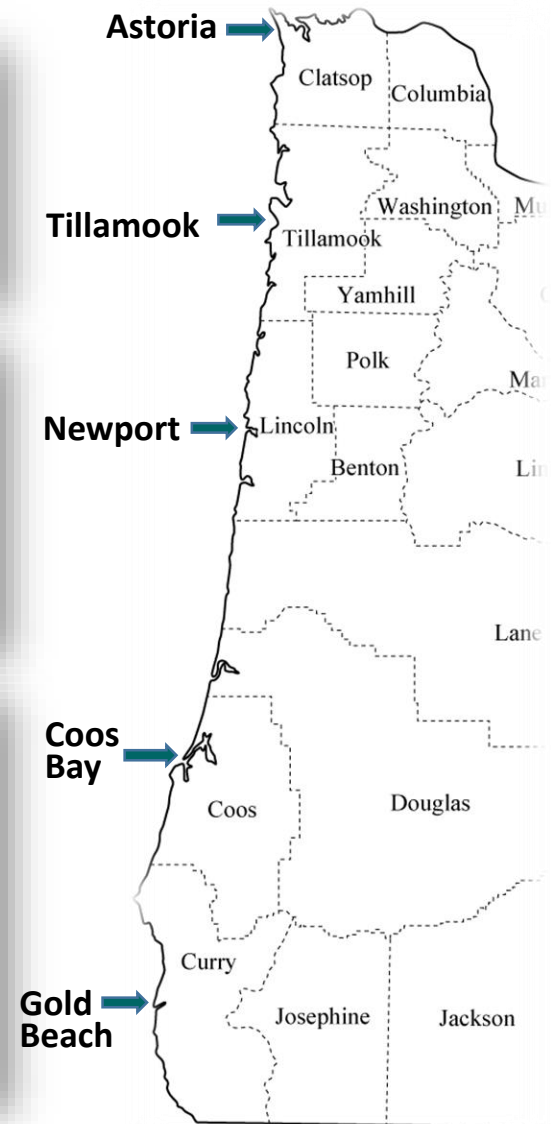
Marion County Example:

- Identified Tier 1 priority routes connecting to state lifeline routes
- Pre-designated 9 FPODs to receive emergency bulk fuel supplies



ODOE has fuel data from 26 of 36 counties

Fuel Strategy: Oregon Coast



U.S. MARITIME ADMINISTRATION (MARAD) ASSETS

Fuel Source: Outside Region

Maritime Assets – Deliver bulk fuel and operate portable fueling points along the Oregon Coast

- Ready Reserve Force ships out 7 – 10 days of notification
- Larger MARAD vessels ship out within 30 days of notification

Foreign Vessels – Lift Jones Act to allow foreign vessels to deliver bulk fuel to Oregon ports

- Superstorm Sandy – Foreign vessels shipped 115 million gallons of fuel to ports in New York and New Jersey

Fuel Strategy: Central & Eastern Oregon



VIABLE CRITICAL INFRASTRUCTURE

Working Transportation, Power & Communications Systems

Fuel Source: Pasco Distribution Terminal-Petroleum Industry

- Reliant on petroleum industry to meet fuel demands
- Obtain temporary waivers to ensure timely fuel movement
- Implement voluntary/mandatory fuel conservation measures
- Implement Odd/Even Fuel Allocation Program if needed
- Implement public information campaign to reduce fuel consumption
 - Apply fuel strategy for Central/Eastern Oregon statewide to meet fuel demands for an extended power outage with working transportation systems





JANUARY 25, 2018 FUELING ANXIETY TABLETOP: GAP IDENTIFIED

- Need for ODOE to assist counties with developing local fuel management plans
- ODOE works with the Oregon Fuels Association and member companies to identify strategies for local fuel management (*acquisition, storage, distribution*) post Cascadia
 - Presented Oregon Fuel Action Plan at OFA Conference (*July 2018*)
 - Survey completed of OFA member companies (*November 2018*)
- ODOE to review survey results
- ODOE to facilitate meetings between counties and fuel distributors as appropriate to assist in local fuel management plan development

Partnership
With OFA
& Members



JANUARY 25, 2018 FUELING ANXIETY TABLETOP: GAP IDENTIFIED

- Need to identify an alternate location for a Fuel Hub if industry determines the existing location is unsalvageable post Cascadia

- Industry Requirements for Alternate Fuel Hub:

- Upriver on stable soils within close proximity to current location
- Access to waterway
- Access to rail systems
- Government support



Oregon Fuel Action Plan: In Progress



Fuel Distribution – Working with the Oregon Fuels Association and member companies to develop a statewide fuel distribution plan

Propane – Working with the Oregon Propane Association to identify strategies for the use of propane to support response and recovery activities

Barges – Working with the Port of Portland and barge companies to identify strategies for using barges to store, deliver, and dispense fuel

Rail – Working with the rail companies to identify strategies for using rail to store, deliver, and dispense fuel

Private
Industry
Partnerships

Oregon Fuel Action Plan



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