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Cascadia Subduction Zone Catastrophic

Annex

ESF 1 – Transportation

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ESF 1 Tasked Agencies	
Primary Agencies	Oregon Department of Transportation (ODOT)
Supporting Agencies	Department of Administrative Services (DAS) Department of Aviation (AERO) Department of Corrections (DOC) Oregon Department of Energy (ODOE) Oregon Department of Forestry (ODF) Oregon Military Department (OMD) Department of State Lands (DSL) Oregon State Police (OSP)
Adjunct Agencies	Civil Air Patrol (CAP)

1 Purpose

ESF 1 coordinates the maintenance and provision of transportation and transportation assets following a Cascadia Subduction Zone earthquake and resultant tsunami. ESF-1 addresses assessing damage to and restoring and maintaining transportation networks, specifically roads and bridges. ESF 1 includes the transportation of personnel, materials, goods, and services to emergency sites, and supporting evacuation and re-entry operations for threatened areas.

2 Scope

- Provide or coordinates the provision of transportation support to State agencies, local jurisdictions, tribal governments, volunteer organizations, and non-governmental organizations requiring assistance in performance of their disaster response and recovery missions.
- Coordinate the flow of land, air, rail and marine traffic in and to the disaster area for the effective movement of relief supplies, personnel and equipment.
- Liaison with commercial transportation providers concerning significant interruptions of service.
- Support evacuation and re-entry operations for threatened areas.
- In conjunction with ESF 8, ESF 1 provides transportation of the Strategic National Stockpile during a deployment in the State of Oregon.

3 Roles and Responsibilities

3.1 Primary Agency

3.1.1 Oregon Department of Transportation

Priorities

- Assess damage to roadways, bridges and tunnels and begin work on all that have been impacted. Response becomes recovery as roadways are made accessible and serviceable to get to impacted communities;
- Provide assistance to counties and local municipalities as support. (Oregon Public Works Emergency Response Cooperative Assistance Agreement);
- Identify heavily impacted areas and prioritize their repair;
- Identify and acquire assets to reach heavily impacted areas;
- Roadway repair priorities: provide an immediate and complete evaluation of 'lifeline' roads. Provide temporary accessibility and repair to make them usable for response and evacuation.

Assets

- Can provide rapid damage assessment with assistance from the Military as well as the Civil Air Patrol to provide aerial reconnaissance and photography;
- Fleet fuel stations located all over the State, at regional and district offices. However, ODOT cannot supplement other agencies' needs for fuel;
- Agreements with Forest Service and BLM to have access to forest roads for access to heavily damaged areas. Will have to rely on local and county jurisdictions to allow access across private land, potentially through eminent domain;
- ODOT has five Regional Offices throughout the State responsible for multiple district offices;
- 14 District Offices with staff and fleet equipment;
- Pre-identified staging areas for equipment: State Fairgrounds in Salem, large office in Bend, and Rest Areas up and down the I-5 corridor are all capable of staging equipment;
- Bend District Office can be used as an alternate AOC for ODOT. All district offices have copies of plans, operation manuals and standard operating procedures to deal with emergencies;
- Technical support branch consisting of: bridge inspectors, other technical specialists, public works support branch, water unit, building inspection, debris management, trucking unit, air transport unit, rail transport unit, water transport;
- Photo / video section provides damage assessment documentation with aerial support from OMD, AERO and CAP;
- Business continuity unit within ODOT AOC;
- Business continuity plans exist with the Department of Motor Vehicles;
- All ODOT facilities and communication centers have generator back up power;
- Regional offices and the AOC have hard wire analog phone capabilities as well as digital.

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- There are three ODOT AOC sites in Salem area and one AOC site in Bend. In an emergency, any of the regional or district offices can support an AOC. Within AOC locations, mobile capability exists to enable movement to an alternate site at any time it is necessary;
- ODOT personnel arrive on response with 'go kits' and are prepared to be self-sufficient for a minimum of 96 hours. That includes food, clothing, and whatever personal items that are needed;
- Have MOU's with county public works divisions to provide support;
- ODOT has multiple bridge engineers, two assigned in every district in the State;
- Two ODOT engineers are trained in structural engineering and are assigned to OSFM USAR teams;
- ODOT Incident Response crews can provide basic hazardous materials response (oil and gas) and traffic control for HAZMAT response.

Communications

- Can project public messaging information via solar powered message boards and surviving highway information systems.
- All of the regional and district ODOT AOC's has ham radio capabilities. ODOT has 60 technical licensed Ham operators statewide. Not many have a general license to operate on 2 meter;
- ODOT has Packet Radio capability;
- Access to ODOT Intelligent Transportation System communications devices used in emergency response operations, such as the Tripcheck.com traveler information website; 5-1-1 traveler information phone number; Highway Advisory Radio; and Variable Message Signs on State highways.

Capabilities

- Coordinate all transportation-related missions in support of the State Emergency Operations Plan;
- Work with other agencies as needed to determine the usable portions of the State transportation system, including roads and bridges, railroads, transit systems, and motor carrier facilities;
- Work with the Oregon AERO in regard to aviation-related response activities; including the use of State owned airports.
- Provide transportation-related public information and mapping support to the Governor's Office, the Oregon ECC, or the lead state response agency, in addition to the public information and mapping support work done within ODOT, during response and recovery activities;
- Coordinate with the U.S. Department of Transportation Region 10 Regional Emergency Transportation Coordinator (RETCO) or designee, to obtain federal transportation support.
- Work with local road authorities and the Federal Highway Administration (FHWA) to implement the Federal-Aid Highway Emergency Relief (ER) program for federal-aid highways in Oregon.

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- Coordinate and control emergency highway traffic regulation in conjunction with the OSP, OMD, and the FHWA;
- Maintain liaison with the Oregon Chapter of the Association of General Contractors and construction and equipment rental companies;
- ODOT provides liaisons with FHA, the Federal Strategic Highway Network (STRAHNET) through DOD, USACE, OMD, and USCG;
- Capable of planning, designing and developing roads, highways, bridges and tunnels. Can and will provide this support to local communities as needed;
- Mapping and GIS capabilities;
- Conduct aerial reconnaissance and photographic missions, as requested, provided resources are available;
- ODOT has up-to-date 'winter' emergency operations plans that are fairly comprehensive emergency operation plans. These operation plans and the emergency operations tool kit are updated before and after every winter;
- Work with DEQ to ensure environmental issues are taken care of when establishing access to coastal communities with temporary or new roadways;
- Coordination with ESF-10 on providing traffic control and intelligence for oil and hazardous material issues;
- Work with JIC and County Operations Centers to establish public messaging priorities and locations;
- Provide evacuation and security assistance through use of barricades and signage;
- Work in conjunction with ESF-12 to coordinate repairs of roadways that run parallel with energy and communication repairs.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- ODOT is not on the list with DAS to automatically receive fuel in this type of an event. Fuel will be critical to run district office generators and for response as well as operation of dispatch centers. There is 25,000 gallons of diesel fuel at the Bend office;
- Loss of communications would be critical. ODOT is part of the State radio system;
- Coastal inundation zones – district offices and equipment will be impacted in this scenario. Inland resources will be needed to fill these resource gaps on the coast.

Support Needed Immediately After a Catastrophic Event

- Immediate request for personnel and equipment through EMAC will be first needed. Response to this kind of incident cannot be done with the current amount of equipment and personnel;
- ODOT will have immediate needs for additional equipment and personnel. The following areas will be of primary concern - coastal district offices/ personnel/ equipment and cannot be counted on for response in this scenario: Astoria, Warrenton, Seaside, Yachats, Cape Perpetua, Coos Bay;

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- Likely be asking for assistance from USN, US Coast Guard and other military support to assist with getting equipment and personnel via air or sea into the coastal areas due to expected road damage and coastal inaccessibility from inland;
- Fuel;
- No capability within ODOT of transporting fuel;
- PPE for responding personnel.

3.2 Support Agencies

3.2.1 Department of Administrative Services

See ESF-7 for complete DAS CSZ information

Priorities

Upon assessment of available personnel, resources and facilities the primary DAS ESF-1 priorities are:

- Assist in the identification of sources to contract transportation services needed for execution of the ESF-1 mission. These services include:
 - Management of the State Motor Pool
 - Provide facilities lease management and negotiation
 - Provide centralized services
 - Provide Geographic Information Systems (GIS) mapping
 - Provide printing services to State agencies

Assets

- Motor-pool fleet consisting of approximately 100 diverse vehicles including: 4WD trucks, SUVs, and vans;
- Small cache of two way radios;
- Six satellite phones currently housed in the COO Division;
- State surplus materials can include: police vehicles, State cars, fire trucks, computers, office furniture, surplus military MREs, and various tools. The amount and types of materials varies from month to month;
- Forklift equipment at surplus warehouse;
- DAS staff includes drivers with CDLs, plumbers, and electricians;
- Some fuel storage at State Motor Pool.

Capabilities

- Manages State efforts to procure or contract for equipment, supplies, services, etc. to meet the needs of the incident;
- DAS maintains a current list of contractors that have been vetted by the State to be able to supply goods and services in a disaster;
- Tasked with the responsibility of procuring a site suitable to the collection and distribution of donated goods and materials;

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- DAS maintains/owns three State offices outside of Salem which may be used as alternate sites for continuity of operations in Pendleton, Portland and Eugene;
- DAS can augment ODOT vehicles for transportation needs.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- Many DAS employees live outside of Salem and would be unable to reach their worksite;
- Some DAS owned State facilities are older and not built to current earthquake standards which will compromise their survivability;
- Damages to State buildings may require moving essential operations to alternate facilities. This will reduce the effectiveness of State operations and make State services more difficult for citizens;
- Potential loss of power and damage to computer systems will provide extreme challenges for all State of Oregon agency operations;
- Limited fuel availability for vehicles and generators;
- Communications, internet, intranet, and cell phones will be limited by damaged repeater and cell sites;
- DAS offices do not have extra supplies (food, water, cots, and blankets) to sustain employees who will be working this event;
- No capability of transporting fuels stored at the State Motor Pool.

Support Needed Immediately After a Catastrophic Event

- Water , food , shelter and sanitary systems for essential responding employees;
- Electrical power restoration or additional generator capacity;
- Additional trained personnel specializing in accounting, comptroller systems and procurement;
- Additional communications hardware, phones, cell phones, and internet accessibility;
- Fuels for generators and fleet vehicles;
- Security for State offices and/or alternate locations, stored generators, fleet vehicles, stored fuels, and surplus equipment;

3.2.2 Department of Aviation

Priorities

- Oregon Department of Aviation (ODA) can get own facility in Salem up and running quickly;
- ODA would get priorities of airport reestablishment from the State ECC;
- Assess stability and usability of State owned airports to carry out response missions;
 - These assessments can be completed quickly pending conditions. Post-quake and with the likely loss of power, weather knowledge and limited air traffic control, these assessments would likely take longer to complete.

- Assess stability and usability of other public use airports to carry out response missions.

Assets

- Oregon Department of Aviation (ODA) administers 28 airports throughout Oregon;
- ODA has contacts with all 97 public use airports, and has knowledge on capabilities of these facilities;
- Can facilitate identification and selection of airport and aircraft for response, but is unable to obligate these assets.
- Coordination with Oregon Department of Energy on obtaining remaining aviation fuel at Oregon airports through an emergency declaration.
- Can provide expertise on airport capabilities and aircraft requirements and capabilities;
- Can provide staff to assess damage at airports and determine their usability (three staff members located in Salem);
- ODA has four 4x4 vehicles, two service vehicles, and limited debris removal ability;
- ODA staff can do site assessments on establishing helicopter landing zones on locations outside of airports (pastures, baseball fields, etc.);
- ODA resources and staff are located exclusively in Salem;
- ODA has radios capable of aviation band, ODOT and OSP equipped radio.

Capabilities

- ODA can coordinate and assist in the establishment of forward staging areas at operational airports that they administer;
- Provide liaison to State ECC to handle aviation issues;
- Coordinates sale of fuel at Cottage Grove, Mulino, and Joseph airports;
- Could coordinate with ODOT to get a mobile repeater, then facilitate the acquisition of an aircraft to be used as an airborne repeater to enhance communications in impact area;
- ODA can provide limited volunteer coordination with the Oregon Pilots Association, AERO program and other aviation related volunteers. ODA conducts training and coordination with volunteers as standard business.

Contacts with private companies

- Aircraft, engineering assistance, fuel repair contacts with private sector;
- ODA has contacts with the heavy lift helicopter consortium (Columbia, HTS, Erickson, Croman);
- Has on their consultant registry contacts with companies to provide airport damage assessment, engineering and repair. These companies are located in Portland, Bend, and Corvallis;
- Contacts with helicopter companies with smaller lift capacity (1,000 lb. lift and less). Approximately 20 helicopters.
- ODA Can provide assessments of airport and runway status for their own operations;

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- Provide expertise and equipment to assist in emergency airport repairs;
- Facilitate the acquisition of aviation assets in an emergency to support State requirements;
- Coordinate using contracted private sector aviation assets to achieve medical and other priority evacuation;
- Coordinate runway and airport repair;
- Assist ECC in assessment and establishment of State staging areas;
- Provide assistance on air traffic control;
- Provide contact information on private use airports and initiate contact with landowners on allowing use of their property.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- In February Cascadia scenario, heavy lift helicopters are coming out of their yearly winter maintenance cycle and may not be operational, or heavy lift helicopters may be in use in other parts of the world during winter in Oregon;
 - Based on scenario, it is estimated that one or two heavy lift helicopters and approximately 20 smaller private helicopters would be available to be contracted;
- Accessibility to fuel resources will need to be identified;
- ODA has no ability to enter into an emergency contract with private sector, would be reliant on other State agencies to enact a contract;
- Coastal airport survivability, and the ability of some airports being able to handle larger aircraft, ODA feels Tillamook, Newport, Cape Blanco and perhaps Siletz airports are likely to survive;
- No standing contracts or agreements with private sector to utilize their assets in an emergency;
- Loss of phone and internet communications with staff and contracts would impact operations;
- No COOP facility identified;
- Need for flight restrictions to ensure air control safety;
- Weather related challenges based on time of year;
- Complete restoration of damaged airport runway runways would take approximately 70 days, sections of damaged runways could potentially be made operational in a week, depending on access and availability of equipment;
- Due to cost factors, non-federally funded airports could be a loss, and be abandoned if damage is too severe.

Support Needed Immediately After a Catastrophic Event

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;

- Transportation assistance to get to airfields (helicopter or cleared roadways);
- Establishment of helicopter landing zones;
- Crews and equipment to repair damaged runways;
- Communications;
- With the winter planning scenario it is likely that fuel supplies would be at a minimum;
- More aviation assets to provide transportation (primarily rotor);
- Air traffic control.

3.2.3 Department of Corrections

Priorities

- First priority for all Oregon DOC facilities is to make themselves and their facilities whole and functional first. No assistance will be available to the response effort until this is complete (keep public safe by ensuring inmates stay inside);
 - Facilities are contained and able to get up to operational status without outside assistance
 - May take one day to one week (or longer?) to get “whole” before they can help State and accept mission assignments
- Must clear facility access paths and roads on site before they can even get to ingress/egress roads;
- Can take State mission assignments after prisons are secure and “whole” again;

Capabilities

- Provide Central Distribution Center (CDC) as possible repository for national stockpile operations;
- Each DOC facility has medical personnel to help injured at the facilities;
 - Basic medical needs of inmates & staff are met on site at each facility
- Clean-up crews (debris removal);
- Fire suppression assistance (wildland);
- DOC can supply trained inmate flaggers;
- Can provide temporary housing (Fire camp tents or at unused /underused DOC facilities);
 - 10% of beds in prison facilities can be used for temp housing
- Provide equipment and operators;
 - Evacuations (moving people)
 - Trucks, bulldozers, other heavy equipment;
- Can possibly augment response with DOC fuel supplies;

Assets

- DOC manages 15 correctional facilities in Oregon and two distribution facilities (Salem & Ontario);
- Facilities have heavy equipment (trucks, bulldozers, etc.) in Salem (near Lancaster & State Streets) & Ontario (Snake River Distribution Area) storage locations;
 - Semi-trucks (sleepers)
 - Also have refrigeration & dry good trucks
 - Vehicles have manual fuel pumps on board
 - Some earthmoving equipment (bulldozers, dump trucks)
 - Staff at every facility have CDLs
 - Trained forklift operators (staff and inmates)
 - Inmate buses and passenger vans (some with handicap lift ramp capability)
- Approximately 143,000 gallons of diesel stored at central processing location;
- Fuel on site at all DOC facilities (need State Voyager card to fuel);
- Limited skill levels on inmate crews;
 - Down tree cleanup & debris cleanup
 - Chainsaw brigade
 - Flaggers
 - Maintenance
 - Mechanics
- Plumbing, carpentry and electricity (inmates);
 - Though felons cannot hold professional licenses, they can perform these duties with supervision
 - Assist journeyman and licensed professionals – inmates trained to this level
- ODF wildfire assistance camp;
 - Crews no longer in use since 2011;
 - Equipment and “mobile camp” still exists and could be utilized.
- Fire crews (can be deployed with responders & under supervision);
 - Trained to live in fire response environment
 - Have own resources / supplies with them
- Two Structural engineers on contract (one in south part of Oregon, one in northern);
- Certified tactical team / WMD (one in Oregon);
 - Specialty team (18 operators per team)
- Staging Areas could be located outside on DOC properties;
- Mobile Kitchen (Food prep for crews / personnel / housing);
 - USAR team support (at base camps)

- Fire team support (at base camps)
- Critical Stress Incident Management (CSIM) – crisis counseling team;
 - Line of duty death
 - Peer counseling
 - Family death
 - CSIM counselors (ESS group) have lawyer/client privileges
 - Could be used in State ECC and other facilities for responder staff members
- Gang Task Force (could be tasked by State and used for security);
 - Not prepared for riot-type situations
 - Can be deputized to function as law enforcement
 - Can provide security for firefighters and EMS
- ODC is self-sustaining for approx. 14 days (similar for all facilities);
 - Stores of salt, gravel, etc., to maintain their properties kept on site at prisons (but ingress/egress away from DOC facilities would need ESF #1 assistance)
 - Prisons keep food supplies for four days
- DOC personnel are trained to be deployed to other DOC facilities;
- Have backup and interoperable communications on site at DOC facilities;
 - Locations east of Cascades facilities may be able to immediately assist State with communication capabilities
- DOC Facilities have generators and back-up fuel;
- All correctional facilities in Oregon have current and constantly updated emergency management plans;
 - Staff well trained to activate plans and respond
 - Very comprehensive plans for all scenarios
 - Plans exercised (and plans activated for many other scenarios routinely)

Catastrophic Event Operational Challenges

- DOC will maybe have 10% of personnel to assist with Statewide response;

DOC can go two to three days (realistically, at best) without staff relief for their own facilities;

- Possibility some of DOC staff will walk off job in this event to care for families
- DOC will be short staffed immediately after any event like this and may initially need assistance with their own priorities
- Ingress/egress to DOC facilities west of the Cascade Range.

Support Needed Immediately After a Catastrophic Event

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as ‘available’ for mission deployment;
- Accessibility to fuel resources;
- Additional trained personnel to assist with DOC operations;
- Transportation assistance to reach DOC facilities;
- Aerial (fixed wing and rotor) support for evacuation, resupply and insertion of teams;

3.2.4 Department of Energy

The Oregon Department of Energy (ODOE) is responsible for planning, preparedness, response, and recovery from petroleum disruptions (ORS 176), liquefied natural gas (LNG) mishaps (496), and radiological emergencies (496).

Priorities

- First priority is ensuring life and safety of personnel and ensuring offices are safe for work;
- Activate Agency Emergency Operations Center;
- Provide liaison to State ECC when activated;
- Rapid assessment of fuel, LNG, and radiological impacts in the State following the event;

Petroleum Program:

- Immediate assessment of fuel storage facilities and delivery systems – Statewide.
- If needed, activate the **Oregon Petroleum Contingency Plan** to direct the State’s overall response to fuel emergencies with potential impacts to Oregon. This includes providing emergency notifications, assessing impacts and issuing fuel conservation measures to the public, and addressing public concerns and disseminating news releases and other event information as appropriate.
- If needed, activate a State-wide fuel allocation program prioritizing fuel requests to provide resources to:

Tier 1 – Emergency Services Sector – county emergency management agencies and organizations performing lifesaving functions;

- Law Enforcement
- Fire Service / Search & Rescue
- Medical Services (Ambulance, Air Transport, Hospitals)

ODOE will work with and rely on the expertise and assessments of each county emergency management agency to determine fuel needs for their respective jurisdictions.

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Tier 2 – Essential Services Sector –State agencies and organizations supporting local response efforts and performing critical functions to restore Oregon’s fuel supply and distribution system and other critical infrastructure. Tier 2 involves the state’s 13 Emergency Support Functions (ESFs);

- ODOE will work with and rely on the expertise and assessments of each ESF lead State agency to determine fuel needs for their respective sector(s).

Tier 3 –Community Hardship - Cities and Counties experiencing hardships caused by fuel shortages;

- Emergency fuel requests from communities will be reviewed by ODOE on a case-by-case basis. Approval will depend on fuel availability and event conditions.

LNG Program:

- Immediate assessment of LNG terminal and LNG waterway transit corridor – Coos County.
- Immediate assessment of pipeline systems transferring product to market – Douglas County, Jackson County, and Klamath County.
- If needed, activate the ***Oregon State LNG Emergency Response Plan*** to direct the State’s overall response to LNG emergencies impacting Oregon. This includes providing emergency notifications, assessing impacts and issuing protective actions to the public, and addressing public concerns and disseminating news releases and other event information as appropriate.

Radiological Program:

- Immediate assessment of fixed nuclear facilities and eastern Oregon communities within 50 miles of the Hanford Nuclear Reservation in southeastern Washington – Morrow and Umatilla counties.
- Immediate assessment of radioactive material shipments on Oregon highways.
- If needed, activate ***Oregon’s Nuclear Emergency Response Plan*** to direct the State’s overall response to radiological emergencies impacting Oregon. This includes providing emergency notifications, assessing impacts and issuing protective actions to the public, and addressing public concerns and disseminating news releases and other event information as appropriate.

Assets

- ODOE operates an agency Emergency Operations Center (EOC) in Salem. The agency EOC serves as the State-wide coordination point for ODOE emergency response activities. ODOE provides a liaison to the State Emergency Coordination Center (ECC) when activated. ODOE maintains six 24/7 duty officers;
- Maintains WebEOC to communicate, share real-time information with federal, State, local, and industry response partners, coordinate response actions, and manage overall emergency operations;
- Maintains an established database containing fuel consumption figures, key contacts, and pre-designated emergency fueling locations for the State’s emergency services and essential services sectors;

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- Maintains database of fixed nuclear facilities, processing plants, and other radiological facilities on the Hanford Nuclear Reservation;
- Maintains emergency response plans to direct the State's overall response to petroleum, LNG, and nuclear emergencies to ensure the protection of public health and safety of Oregonians. Plans include:
 - Oregon Petroleum Contingency Plan – works to overcome possible threats to the availability of fuel resources necessary to maintain essential services and transportation throughout the State.
 - Oregon State LNG Emergency Response Plan – works to overcome possible threats to the safe transport, storage, and liquefying/regasification of LNG in Oregon.
 - Oregon Nuclear Emergency Response Plan – works to overcome possible threats to eastern Oregon residents and the agricultural products in the Pacific Northwest as a result of a radioactive materials release from fixed nuclear facility incidents in southeast Washington.
- Maintains the Fuel Allocation Program designed to ensure emergency fuel to priority users performing lifesaving functions, restoring Oregon's critical infrastructure and preventing community hardships;
- Depending on the event and as resources allow, ODOE can provide responders to local Emergency Operations Centers for the duration of the emergency.

Capabilities

- ODOE is responsible for ensuring State and local emergency response organizations are trained and prepared to respond to petroleum, LNG, and radiological emergencies;
- Assess petroleum, LNG, and radiological facility and system damage, determine and issue protective actions to Oregonians, and monitor industry recovery efforts;
- May deploy ODOE responders as needed to local emergency operations centers to provide technical assistance and/or public information support;
- During a petroleum shortage, LNG incident, or nuclear incident, ODOE will respond to the Oregon State Emergency Coordination Center (ECC) when activated, to serve as the principal liaison between the State and industry experts;
- Request federal and military assistance as appropriate when severe or long-term petroleum, LNG, and/or nuclear events exhaust State resources and Oregon's ability to recover rapidly from an emergency situation. As lead State agency for ESF 12, ODOE works with the U.S. Department of Energy (USDOE – lead federal ESF-12) to request and coordinate the delivery of supplies, equipment and systems, and personnel to support Oregon's recovery efforts;

Petroleum Program – assistance includes obtaining refined petroleum products, assistance in fuel delivery, establishing portable fueling locations, obtaining generators to allow petroleum terminals and pipeline companies to assess damages and restart facilities and systems with minimal delay, and other assistance as appropriate.

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LNG Program – assistance includes providing response teams to track, detect, and clean-up LNG spills and leaks, support evacuations, and other assistance as appropriate.

Nuclear Program - assistance includes providing radiological monitoring teams to collect air, water, soil, vegetation, and milk samples to determine the extent of radiation contamination in affected areas, support in laboratory analysis, and other assistance as appropriate.

- ODOE can advise the Governor to request the federal government to waive a fuel or fuel additive requirement if doing so will alleviate the fuel supply crisis;
 - The U.S. Environmental Protection Agency (EPA) with the concurrence of USDOE may temporarily waive a fuel or fuel additive requirement under the Clean Air Act Section 211(C)(4)(C). A fuels waiver can be issued only when the criteria specified in the clean Air Act have been met and apply to gasoline and diesel fuel only.
- ODOE can provide a copy of an Oregon emergency declaration to the Federal Motor Carrier Safety Administration (FMCSA) which automatically lifts driver hour requirements to ensure fuel deliveries proceed without delay to ensure public health and safety;
- Coordinate the delivery of fuel to emergency and essential service providers as per the Oregon Petroleum Contingency Plan;
- Coordinate with the Oregon Department of Transportation to promote mobility conservation measures for the public during fuel emergencies to reduce fuel consumption by motorists;
- Coordinate with the Oregon Department of Justice to encourage Oregonians report possible cases of price gouging or price fixing at the pumps.

Catastrophic Event Operational Challenges

- Worker Safety - By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- Petroleum Supply and Distribution System Constraints –Oregon has no internal crude resources or refining capabilities in the State. Oregon imports 100 percent of the refined petroleum products from sources outside of the State. More than 90 percent of refined petroleum products used in Oregon come from four refineries in the Puget Sound area of Washington State. Seventy five percent of these products are transported by pipeline traveling 230 miles from the refineries to Oregon's petroleum distribution terminals located at the Port of Portland. Tanker vessels deliver the remaining fuel to the Port of Portland. Oregon also receives limited product in eastern Oregon from a Pasco, Washington terminal as well as limited product from Chico, California to southern Oregon communities.

Oregon is extremely vulnerable to severe or long term petroleum supply and distribution system disruption and damage. Located at the end of a pipeline with no alternative oil source in State or easily accessible source from neighboring states,

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Oregon will experience the supply pinch before states with internal crude supply and refining capabilities, and likely need to implement fuel allocation.

- Interdependencies - Electrical power, communications capabilities, and viable transportation corridors are required to support fuel deliveries throughout the State.

Support Needed Immediately Following Catastrophic Event

- Access to adequate fuel inventory from outside the region;
- Assess and inventory of usable stored fuel supplies at petroleum terminals in Portland and Eugene. This includes available supplies at State motor pools, prisons, and other fleet services;
- Aerial (fixed wing and rotor) support for damage assessment of facilities and associated pipeline systems, as well as the resupply and insertion of response teams.

3.2.5 Oregon Department of Forestry

Priorities

- Ensure safety of personnel and facilities;
- Assessment of State forestry issues as a result of the incident;
- Coordinate with ODOT for ESF 1 transportation needs of forestry assets following incident.

Assets

- ODF is administered via three operational areas in the State: Eastern Area, Southern Area and North Western Area;
 - Each area has 5 districts.
 - Each ODF district has a communications center. The centers are not operational at all time. Are mainly activated during fire season.
 - Can be stood up to provide communications capabilities 24/7 for as long as needed.
- ODF operates the Salem Coordination Center, which is responsible to coordinate the distribution of ODF assets Statewide;
- Area Headquarters offices located throughout the State direct response activities of ODF assets;

Personnel:

- Approximately 800 full time employees located at offices throughout the State.
- Approximately 800 seasonal employees (summer) located at offices throughout the State.
- ODF has roadway engineers who could determine roadway safety and landslide probability.
- Retiree and previously qualified personnel can be used to supplement personnel. All incoming personnel assistance from other states is trained to the same national standard.

ESF 1. Transportation

- Through the Fire Mobilization Plan, ODF is capable of mobilizing a substantial response to emergencies including incident management teams, public information personnel, radio systems, communications trailers, kitchens, shower units, and other support services;
- ODF supports three, 33 person Type 1 incident management teams qualified through the National Wildfire Coordination Group (NWCG). Type 1 teams operate on a rotational system through the fire season. Type 1 teams include mobile kitchen, showers, and operational equipment;
- Incident management teams are staffed with ODF employees across the State plus one Fire Service - structural liaison for each team;
- Several days' worth of fuel for generators to sustain the three Incident Management Teams;
- GIS analysis and support;
 - Can provide assistance on determining access to impacted areas via forest roadway networks.
- Radio / communications trailers;
- Numerous 4WD vehicles distributed Statewide;
- Aircraft – Rotary and fixed-wing. Some ODF air assets are via contract with aviation companies;
- Debris removal equipment;
- Dozers, earth moving and road building equipment;
- Three water trailers that carry one thousand gallons of potable water, each;
- Wildland Fire Engines, water tenders and personnel for emergency response;
- MOU's with all local fire jurisdictions;
- MOU's with federal firefighting jurisdiction; Forest Service, BLM (Bureau of Land Management), BIA (Bureau of Indian Affairs), National Parks, US Fish and Wildlife Service, National Wildfire System for support;
- Look-out towers with cameras located throughout the State in forested areas;

Capabilities

- Can provide equipment and personnel to assist with roadway debris removal;
- One of ODFs primary tasks will be in opening up forest road systems;
- Can provide a network of alternate road systems via forest roadways;
- Private sector contracts and relationships with private forest land owners enables access to private logging roads and coordinating the acquisition of private logging equipment, for road clearance;
- ODF has private sector contracts for aircraft (from out of State);
- Provide logistical support for responders;
- ODF has equipment and personnel trained for road clearing and road construction (gravel roads);
- ODF will work with County Sheriffs and ODOT to establish evacuation routes;
- Maintain and manage forest roads on State owned lands;

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- Lack of normal communication systems will impact the ability to call up personnel resources;
- Personnel resources living / working in the inundation areas will be compromised by the event;
- Unable to contact usual public sector contractors for road building and aerial missions if normal communication systems are down.

Support Needed Immediately After A Catastrophic Event

- Accessibility to fuel resources;
- Additional trained personnel to assist with ODF operations;
- Transportation assistance to reach ODF facilities and/or impacted areas;
- Aerial (fixed wing and rotor) support for evacuation, resupply and insertion of teams.

3.2.6 Oregon Military Department

Guard units are trained and equipped to aid in traffic control, resource distribution, potable water transportation, and providing aerial surveillance of a disaster area. The Guard may also assist in search and rescue, lifesaving and air ambulance missions.

Priorities

- Immediate assessment of surviving equipment and units available for response (including maintenance facilities);
- Establish communications with OMD facilities Statewide and begin implementation of Area of Responsibility (AOR) plans;
- Recall of personnel;
- Identify fuel sources;
- The Oregon National Guard may engage in immediate response lifesaving response actions for up to 72 hours at individual unit commander's decision;
- Re-establish Statewide air traffic control;
- Respond to mission tasking by OEM;
- If contacted by local emergency management or local government authorities, units could respond (this action would likely be concurrent with Joint Operations Center (JOC) mission tasking to that unit).

Assets

- UH-60 Blackhawk helicopters based in Salem;
 - Medical evacuation capability.
- CH-47 heavy lift helicopters based in Pendleton;
- C-23 Sherpa fixed wing transport;

ESF 1. Transportation

- 141 BSB (Brigade Support Battalion) w/ five or six forward support companies throughout the State, two located east of the Cascade Range;
 - Based on scenario it is likely that forward support companies in Bend, Springfield and Pendleton likely be able to respond.
 - Transportation assets include HMMWV (“Humvee”), LMTV Light Utility trucks, HMTV 2.5 ton and 5 ton heavy utility trucks. **numbers of assets outside of impact zone to be provided**
- Additional transportation assets in storage are located at Biak Training Center in Redmond ;
- Security Forces:
 - Quick Response Force (QRF) (2/3 based in Portland Metro area, 1/3 in Klamath Falls).
 - Rapid Response Force (RRF) (Eugene/Springfield area), utilized for convoy security. Designed response time is 36 hours.
- Heavy road clearance/ construction equipment is available-located in Dallas, Albany, Astoria, Biak;
- Significant maintenance facilities located in Salem, Lebanon, Springfield, Camp Withicum, Biak;
- Air traffic control assistance/remote airfield management is available, stationed at Portland and Klamath Falls;
- US Army Reserve Units in State now available to support Oregon National Guard.

Capabilities

- Transportation of SNS, operations and relief supplies and equipment, fuel, personnel via roadways;
- Aerial ambulance, reconnaissance, transportation of operations and relief supplies and equipment via fixed wing and rotary aircraft;
- Convoy security;
- Provide security for transportation missions;
- Engineering and debris clearance on roadways/airfields;
- Establish and support air traffic control operations;
- Contracting assistance;
- OMD maintenance facilities and personnel.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as ‘available’ for mission deployment;
 - Estimated that 24 hours after event only 30% of personnel available for duty.
 - Estimated that 72 hours after event 50% of personnel would be available for duty.

- Accessibility to fuel resources;
- Inability of OMD trucks to use civilian trailer truck hitches;
- Limited petroleum storage.

Support Needed Immediately After A Catastrophic Event

- Diesel and gasoline fuels, to include transit and storage of fuels;
- Personnel to support ESF-1 operations;
- Additional vehicles and operators;
- Heavy lift rotary aircraft;
- Fixed wing aircraft;
- Additional engineering assistance.

3.2.7 Department of State Lands

Priorities

- First priority is ensuring life and safety of DSL personnel and ensuring offices are safe for work;
- Provide liaison to state ECC;
- Provide approvals for the use of State lands as necessary for response and recovery.

Assets

- Have three offices, Salem (80 on staff), Bend (10 staff) and South Slough, Coos Bay (15 staff);
- Natural resource specialists on staff;
- Have scientists on DSL Staff that are linked with the Pacific Tsunami Warning Center;
- Can provide GIS analysis and mapping capabilities. Three specialists that can assist as needed with GIS issues and information;
- Have a small fleet of vehicles in Salem - two 4WD vehicles, three sedans and one cargo van;
- Network of instruments in the South Slough that record water surface elevation and other water quality and meteorological parameters;
- Bend office has six 4WD vehicles;
- Have one boat located in Salem with trailer used to do surveys of property along navigable waterways and survey docks;
- DSL administrative office located in the town of Charleston (SE of Coos Bay on the South Slough);
- South Slough DSL office vehicles:
 - Two 4WD vehicles.
 - A one ton tilt bed equipped with tandem rear wheels and a bumper mounted winch (located at the SSNERR maintenance facility).
 - A half ton conventional pickup with four traction tires. (located on the OIMB campus).

- We have about seven VHF radios with an assigned frequency.
- Two twin axle utility trailers and a 14 HP 4WD diesel tractor equipped with a small front bucket and a three point trailer hitch and power takeoff. This is a smallish “landscape” tractor that fits on the trailers mentioned above.
- South Slough DSL office boats:
 - Smokercraft 18 foot flat bottomed skiff with trailer and steering console. Electric start four stroke 40 HP located on the Oregon Institute of Marine Biology campus in Charleston (in tsunami inundation zone).
 - Alumaweld 16 foot semi vee hull with trailer and steering console. Electric start four stroke 55 HP located on the Oregon Institute of Marine Biology campus in Charleston (in tsunami inundation zone).
 - Valco 16 foot lightweight flat bottom “jon boat” with trailer and 20 HP pull start (location varies between OIMB and SSNERR Interpretive center).
 - Valco 14 foot lightweight flat bottom “jon boat” without trailer and 15 HP pull start outboard .

Human powered craft including:

- 22’ fiberglass eight passenger canoe with trailer.
- Two or three conventional 17’ canoes (three passenger).
- Three or four Roto molded Kayaks (single passenger).
- Trailer designed to carry four to six paddle craft .
- All human powered craft are located at the SSNERR Maintenance facility (outside of the tsunami inundation zone).
- Modified the water supply system at SSNERR’s interpretive center to store 2,000 gallons of potable water in two tanks and have another 1,000 gallon potable water storage tank at the Spruce ranch complex near the maintenance facility;
- DSL has access easement agreements with private property owners to gain access to state lands;
- Maintains a database of all State-owned lands.

Capabilities

- Coordinate with the Oregon Department of Transportation when State lands are affected by a disaster or event, including navigable waterways;
- DSL can provide information relevant to wetlands, State-owned forestland and easements that exist in Oregon, as well as other necessary information consistent with the mission of Department of State Lands;
- Provides pre-event tsunami awareness training;
- Administers navigable waterways up to ordinary high water, coast areas – submerged and submersible lands up to three miles out;
- Manages State owned rangeland and forest lands for income;
- Forest land is managed by the Department of Forestry and timber sales are used to fund education;

ESF 1. Transportation

- Through the State debris removal plan, tasked with providing State lands for stock piling debris;
- As manager of State owned properties, can use State property to establish staging areas;
- Issue rights of way and special use permits for the Army Corps of Engineers, ODOT and other agencies that require access to damaged areas within State lands in Oregon;
- Can assist in the coordination of debris removal;
- Can implement emergency authorization process to allow for emergency removal of debris from waterways without going through the permitting process;
- All staff can be moved to areas of need regardless of area office they are primarily assigned to;
- Staff can work virtually if offices are damaged and unsafe;
- DSL is a regulatory – land management agency and would provide emergency authorization when and where needed;
- DSL has contracts for legal services, real estate services – appraisals, audit services, technical and natural resource services.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as ‘available’ for mission deployment.
- Accessibility to fuel resources;
- DSL does not have mobile operations capabilities. Staff can work from anywhere if there is power and communication connectivity;
- All communications depend on land line, cell phone, and computer e-mail capabilities;
- No capabilities to sustain a crew without a living area, food, water and power;
- Environmental laws that may hinder access to and through State owned lands and water ways.

Support Needed Immediately After a Catastrophic Event

- Fuel for vehicles;
- Getting staff where they need to be due to roadways being compromised;
- Need electricity/telecommunications/internet access for operational capabilities and access to computer databases necessary for operations.

3.2.8 Oregon State Police

Priorities

- Protect people, property and natural resources in the State;
- Assist in keeping highways and roads open primarily Interstate and State highways, for evacuation, emergency response and commerce.

Assets

- Have a cooperative agreement with ODOT, in OSP EOP, to support each other;
- OSP operates two Regional Dispatch Centers (RDC). RDC locations are: Salem (northern) and Medford (southern).
 - If repeater sites are functioning on generator power, communication capability will last for up to a week before fuel is needed for the generators.
- Key OSP offices have satellite phones;
- Some OSP Troopers are Ham operators; however this communication isn't coordinated or used in a functional capacity;
- OSP COOP plans call for regional command staff to respond to local emergency operations centers when events of this magnitude happen;
- Some OSP facilities are equipped with generators and are capable of sustaining power with fuel resupply;
- State is broken up into 3 regions, with each region capable of carrying out OSP operations independently.

Capabilities

- Develop and maintain a liaison between local, state and federal law enforcement agencies in Oregon;
- Because OSP is often first on scene during an emergency, it may act as an initial incident command agency until the local incident command agency is on scene, or if no local agency is available;
- OSP Troopers at a disaster scene may provide limited damage assessment as their duties permit. In addition to enforcement and specific services, OSP provides for the protection of life and property, traffic control, crowd control, communications, emergency first aid, site security, and security for vital State facilities and critical infrastructure. Generally, law enforcement within the disaster/emergency area remains the responsibility of local authorities along established jurisdictional boundaries, unless State assistance is requested or required by statute.
- OSP maintains a presence in the State ECC when it is activated;
- Assist with keeping roads open;
- Assist with damage assessments, by patrol officers and aircraft if possible;
- Assist local communities as much as capable;
- Assist with evacuations;
- Peace keeping missions on the roadways;
- Peace keeping missions in the rest areas where evacuees tend to congregate;
- Highway and roadway safety;
- Law enforcement jurisdiction over State roads, parks, lands & property;
- Assist with search and rescue and lifesaving evacuations;
- Mutual aid agreements with Washington, Idaho, California, and Nevada where OSP can ask for emergency mutual aid within 50 air miles. This would be handled as a verbal emergency request;

ESF 1. Transportation

- Have cooperative policing agreements / MOU's, in State with almost all 36 counties. There are written agreements; however it has been years since they have been renewed and the agency now functions on a verbal agreement;
- Provide safety and security to ODOT crews if needed;
- Event scenario provides for possible vehicle accidents during this incident. OSP will maintain law and order and assist with accident investigations and providing safety / security to ODOT as well as medical personnel;
- Weather permitting, can provide light reconnaissance with aircraft providing that there are runways to take off from and land on. Planes are stored in the Portland area;
- Provide personnel on-scene to assist with road closures, traffic redirection and other activities in line with OSP's mission functions.
- Limited search and rescue with boats;
- Can provide security / escort to supply convoys enroute to the impacted areas;
- Can house responders at Camp Rilea (Clatsop County). Additionally responders can billet at the public safety academy (DPSST-Salem);
- Some key personnel with assigned home-based patrol vehicles.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- Employees may be isolated and unable to respond due to road / bridge damage;
- Accessibility to fuel resources;
 - Fuel resources can last for approximately 4 days.
- Operations dependent on accessibility of roadways;
- OSP Coastal offices will likely be rendered unusable;
- Several coastal offices are located on docks which will be impacted by this event;
- Radio and repeater sites are supplied with generator back-up power and will run out of fuel within three to four days.

Support Needed Immediately After a Catastrophic Event

- Fuel – OSP is commercial fueling dependent;
 - No manual fuel pumping capabilities if power is down.
- Communications between facilities and responders will be an issue if repeaters are down;
- Staff unable to report to work, and fatigue of responders will force need for additional patrol staff and support;
- OSP doesn't have any food or water beyond employee kits (staff is encouraged to have emergency plans for their homes and families as well as food for at least seven days).

3.3 Adjunct Agencies

3.3.1 Civil Air Patrol (CAP)

The Civil Air Patrol is the official civilian auxiliary of the U.S. Air Force. They can provide aerial reconnaissance, airborne interoperable communications relay support for critical communications, transportation of personnel and supplies (such as medical) and NIMS trained staff personnel to assist in an operating command center.

Priorities

- CAP requires an Operational Risk Assessment (ORM), completed by CAP personnel, before launching an operational sortie. This is their first priority which takes into account available personnel, status of airports and runways, weather conditions and other aspects that could impact the flight.
 - These assessments are standardized and can be completed quickly (within minutes) with perfect conditions. Post-quake and with the likely loss of power, weather knowledge and limited air traffic control these assessments would likely take longer to complete.

Assets

- CAP conducts base operations out of primary facilities in Eugene, Medford, Salem, Bend, and the Portland area airports (Troutdale, Washington County, Aurora and Vancouver, WA). These facilities could all serve as the primary CAP command and control;
- Secondary operational fields include Brookings, Klamath Falls, McMinnville, Redmond and Tillamook;
- CAP currently has approximately 250 senior members and a similar number of cadets distributed across the State. Of the 250 senior members, 40 are registered pilots throughout the State;
- Their aircraft include seven Cessna 182 and one Cessna 172 aircraft.

Capabilities

- CAP has developed a catalog of all State highways from and including US 97 to the Coast, which segments that the CAP could fly individual sorties. This catalog is divided based on where CAP aircraft are typically based for rapid response;
- Can provide quick assessments of airport and runway status for their own and other responder operations;
- Once operational, CAP aircraft can:
 - Provide aerial reconnaissance of damaged infrastructure (roads, ports, rail).
 - Transportation of personnel, supplies and equipment.
- In order to maximize damage assessment efficiency, CAP aircraft could include ODOT and other agency personnel or engineers who would be able to provide expertise and familiarity with road and infrastructure issues;
- With prior authorization CAP can add additional interoperable frequencies (within its radio's frequency range) to its airborne radio capability.

Catastrophic Event Operational Challenges

- By nature of a catastrophic event, essential personnel will be delayed in response due to commitments to personal and family safety and security. Responses will be delayed as personnel check in as 'available' for mission deployment;
- Airport runway damage assessments will need to be made prior to the commitment of ready personnel and equipment causing mission delays;
- Accessibility to fuel resources will need to be identified and supplied to CAP.

Support Needed Immediately After a Catastrophic Event

- Responses will be delayed, however not impossible. Fuel needs will be critical to sustained operations;
- Fuel;
- Support (personnel and parts) for maintenance of aircraft;
- Runway clearance and repair of damaged airports.

4 ESF-1 Operations

OEM will coordinate all requests for assistance and communicate with the State agencies to identify the appropriate action and State resources to be used. Once Transportation assets have been identified to meet the request, OEM will create an action to the specific State agencies to accomplish the task.

ODOT will provide a representative to the ECC who will be the primary point of contact for all Transportation needs. ODOT maintains an Agency Operations Center (AOC) off site to specifically manage and coordinate their resources.

4.1 Objective

Provide transportation for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

4.2 Challenges

- Number of significantly damaged and blocked roads, railways, air and seaports will overwhelm the limited number of engineers, inspectors and crews to conduct assessments and inspections.
- Significant damage and debris will limit access to conduct assessments and repair.

4.3 Assumptions

- Damage from the initial earthquake and tsunami will destroy most of HWY 101 and other roads that provide access to the coast;
- Access and supporting infrastructure to/from airports will be a limiting factor for aerial delivery of resources;

ESF 1. Transportation

- Aftershocks will cause a significant amount of additional damage during the response;
- Tsunami threat from aftershocks and floating debris will limit access to coastal communities;
- Fuel requirements for assessment and repair crews will exceed local capability;
- Local, State and Federal capabilities and resources will be overwhelmed by the magnitude of the incident;
- Response resources in the impacted area will have limited capability to function and some impacted areas will be isolated;
- Resources outside of the impacted will have extended response times due to significant impact to transportation infrastructure;
- Severe winter weather including rain, snow, and fog will hamper response operations;
- Instant loss of land line/network communications/power will limit ability Statewide of providing local situational awareness.

4.4 ESF 1 Shortfalls and Requirements

SHORTFALLS	REQUIREMENTS
Damage assessment capability for the transportation sector. (Road, Air, Rail, Sea)	<ul style="list-style-type: none"> ▪ Aerial platforms/GIS support to conduct visual inspections to key infrastructure sites. ▪ Tactical communications support to coordinate transportation assessments/repair. ▪ Certified inspectors to conduct air, road, rail and seaport inspections. ▪ Under bridge inspection equipment.
Availability of crews and equipment to repair and re-direct critical transportation nodes.	<ul style="list-style-type: none"> ▪ Establish Transportation task force to coordinate ▪ Priorities and requirements. ▪ Life support and facilities for repair crews.
Air space management capability	<ul style="list-style-type: none"> ▪ Air Traffic Control Support. ▪ Tactical Communications to coordinate air operations.
Limited access to the impacted area	<ul style="list-style-type: none"> ▪ Security and safety for repair and assessment teams. ▪ Debris clearance to provide access to impacted area. ▪ Waivers for driver restrictions and oversize vehicles on public roads.
Bulk fuel storage and distribution for transportation repair teams	<ul style="list-style-type: none"> ▪ Fuel storage and distribution points. ▪ Security for distribution points and personnel. ▪ Electrical power for fuel distribution points.

4.5 Concept of Operations

Hazard analysis indicates an earthquake and subsequent tsunami will disrupt the transportation network into and within the Statewide impacted areas and the surrounding areas. Transportation into and within impacted areas will be challenging. Transporting heavy equipment and other resources will require unique solutions. Although the primary attention will focus on the road networks, it's likely to initially anticipate access only by air or by riverine /oceanic waterways into the disaster areas.

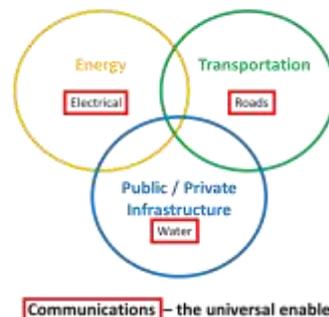
ESF-1 functions include but are not limited to:

- Immediately recommending the closure of all ground, water, and air transportation routes into the impacted areas until engineers and/or inspectors complete:
- Assessment, clearance, and structural evaluation roads and bridges for use by emergency vehicles to include load limitations. Priorities for bridges and roads assessments are for identified ODOT lifeline routes.
Primary/Alternate Lifeline Routes will consist of:
 - Interstate highways
 - Primary roads
 - Secondary roads
 - Major routes to hospitals and other critical facilities as prioritized by ESF 1 responding agencies.
 - Assessment and clearance of ports, terminals and waterways for use.
 - Assessment, structural evaluation, and clearance of airport runways and facilities, including commercial and available private airports, to determine the availability for use by different categories and class of aircraft.
 - Coordination with the rail industry to assess railway damage into and within the impacted area.
 - In coordination with ESF-13, recommend the limitation and restriction of all transportation routes into and out of the impacted areas for emergency response use only.
 - Coordination with county emergency managers and the other ESFs to determine transportation assets that meet the needs and requirements for each impacted area.
 - Coordination with county emergency managers and ESF 7 on prioritizing transportation access into impacted areas where resources (equipment, supplies, personnel, etc.) will be received and later deployed within the area.
 - These locations may be locations identified in SA1 Mass Commodities Annex of Oregon EOP, state owned properties, roadways, waterways, airports, and heliports within the impacted areas.
 - These locations could be situational dependent and could change due to the severity of the earthquake.

ESF 1. Transportation

- Coordination with County and local public works, state agencies with road repair capabilities, federal partners and the private sector in prioritization and repair of damaged transportation routes.
- Coordination with ESF -2, ESF-3, ESF-12 on prioritizing areas where Transportation, public works, communications and power infrastructure can be repaired in tandem.

Critical Infrastructure Prioritization



ESF-1 will coordinate and provide transportation within the categories noted below:

Ground transportation Coordination:

ESF 1 will coordinate with county emergency management and responsible agencies the need and use of long-haul trailers, buses, vans, four-wheel drive vehicles, tractors, and railroad transport (flatbeds, boxcars, etc.) to transport equipment, food, supplies, and emergency workers with all ESFs.

Waterway Coordination:

Coordinate the need, acquisition and use of agency watercraft to assist with response and recovery.

Work with local communities to restore port facilities to be able to receive relief supplies from sea.

Request the USCG to control boat traffic into the ports and surrounding waterways.

Aerial Coordination:

ESF 1 will coordinate aerial resources for visible damage information to quickly assess the situation to determine:

1. The extent and nature of the disaster's effects.
2. The general condition of lifelines and critical facilities.
3. The observed damage information needed for bridge engineering inspections, input for ingress and egress analysis, medical, and public safety.

ESF-1 will identify fixed and rotary aircraft shortfalls and needs to meet response missions across all ESFs and will coordinate with other federal and state sources and private contractors to maintain a listing of potential sources for aerial support. The emergency operations necessary for the performance of this function include but are not limited to:

- ESF 1 responding agencies activate ESF 1 Transportation Plans through their AOCs;
- State ECC receives and coordinates county and State agency transportation requirements (personnel, equipment) to begin establishment of lifeline routes;

ESF 1. Transportation

- Primary/Alternate Lifeline Routes are established to relieve impacted areas;
- Coordinate with and request ESF-13 source and provide personnel to accompany ESF 1 responders to maintain security;
- Coordinate with appropriate agencies to determine the damage status and the operability of airports and ports;
- Validate resource shortfalls and obtain necessary resources;
- Coordination with Federal partners.

5 Supporting Documents

- National Response Framework, ESF 1 – Transportation
- County ESF 1 Annexes
- ODOT Emergency Operations Plan (EOP)
- ODOT First Responder Guide to Highway Incident Response
- ODOT Employee and Family Disaster Preparedness Guide

6 Appendices

None at this time.

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