



Department of Commerce

Strengthening Energy Emergency Preparedness & Response Capabilities

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We strengthen communities

The Department of Commerce touches every aspect of community and economic development. We work with local governments, businesses and civic leaders to strengthen communities so all residents may thrive and prosper.



Planning



Infrastructure



Community
Facilities



Housing



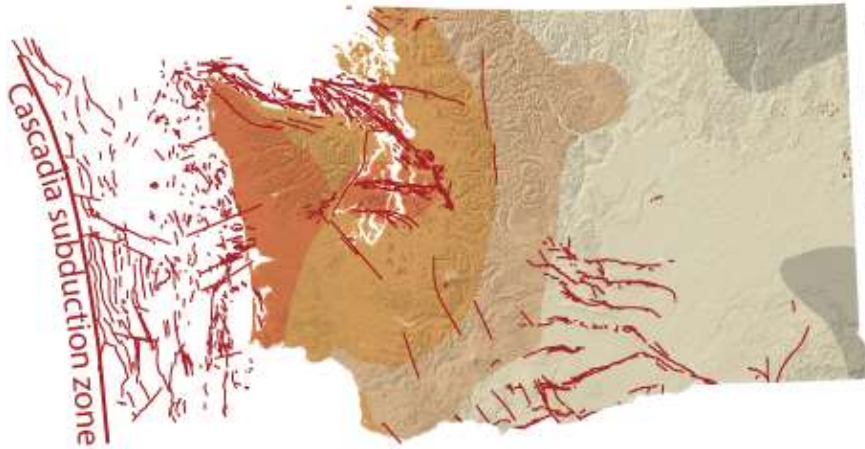
Safety /
Crime Victims



Business
Assistance



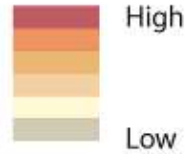
Where We Are



Earthquakes

— Potentially active faults

Shaking Hazard



WA State PA Disaster Funding – Electrical Utilities - 1995 – Present

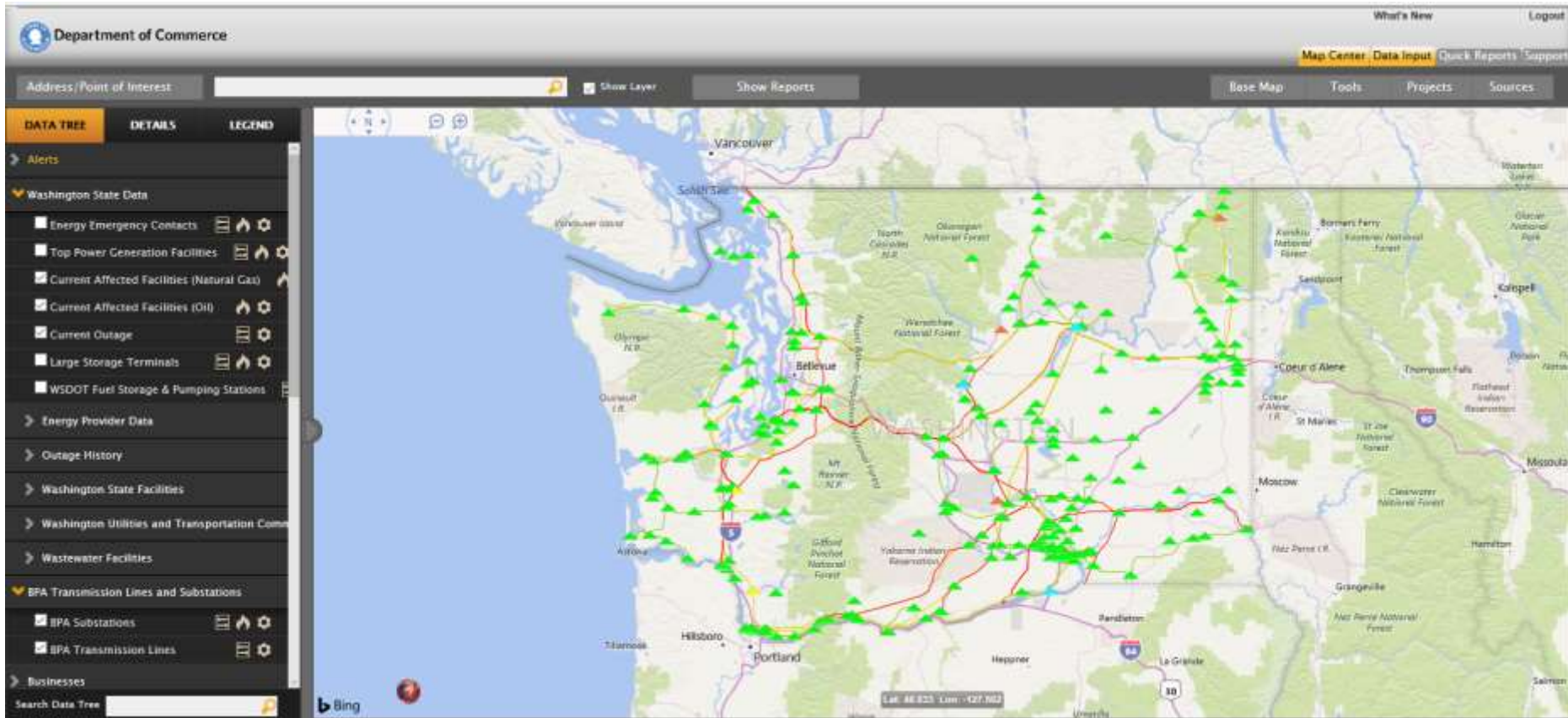
Disaster	Time Frame	Amount
1079	Nov-Dec 1995	\$10,523,176
1100	Jan-Feb 1996	\$ 3,388,754
1159	Dec 1996-Feb 1997	\$ 202,445
1361	Feb-Mar 2001	\$ 1,274,185
1499	Oct-Nov 2003	\$ 1,974,064
1641	Jan-Feb 2006	\$ 2,641,883
1671	Nov-06	\$ 3,687,809
1682	Dec-06	\$25,631,298
1734	Dec-07	\$14,495,662
1817	Jan-09	\$ 7,538,631
1825	Dec 2008-Jan 2009	\$ 8,547,714
4056	Jan-12	\$14,248,347
4083	Aug-12	\$ 1,908,663
4168	Mar-14	\$ 836,769
4188	Aug-Sep 2014	\$15,091,011
4242	Aug-15	\$ 6,267,307
4243	Aug-Sep 2015	\$ 9,935,628
4249	Nov-15	\$15,620,086
4253	Dec-15	\$ 971,408
4309	Jan-Feb 2017	\$ 1,400,155
	Total	
	20 disasters/23 years	\$146,184,995

What We Do For Emergencies & Disasters

- Emergency Planning & Exercises
- EOC Situational Awareness & Coordination
 - Damage & restoration requirements
 - Energy supply and demand
 - Temporary generation
 - Fuel allocation
- Recommendations & Guidance
 - Energy alerts and energy emergencies
- Electricity, Petroleum, & Natural Gas



Washington State Energy Disruption Tracking System



Our Most Severe Risk

Cascadia Subduction Zone Earthquake

- Initial earthquake
 - 8.7 to 9.2 magnitude
 - 3 to 6 minutes of shaking
 - 23,000 injuries
 - 1,100 deaths
- Tsunami
 - Landfall in 15 minutes
 - 30 to 100 feet high
 - 16,000 people impacted
 - 4,500 additional injuries
 - 13,500 additional deaths



Energy Sector Impacts

Electricity

- Loss of over half load capacity
- Partial or complete blackout for western cities

Natural Gas

- Breaks and leaks across over 500 miles of pipeline
- Loss of service to majority of customers

Refined Fuel

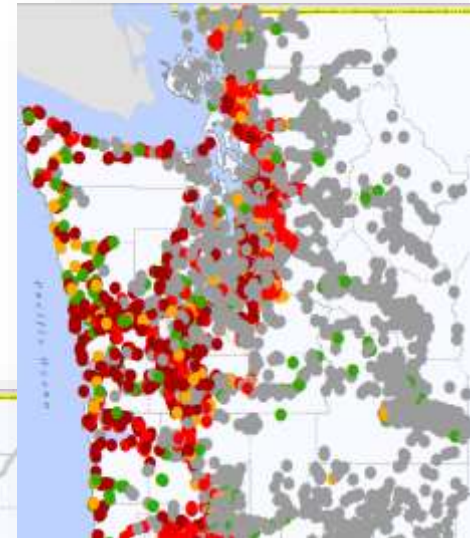
- Breaks and leaks across over 400 miles of pipeline



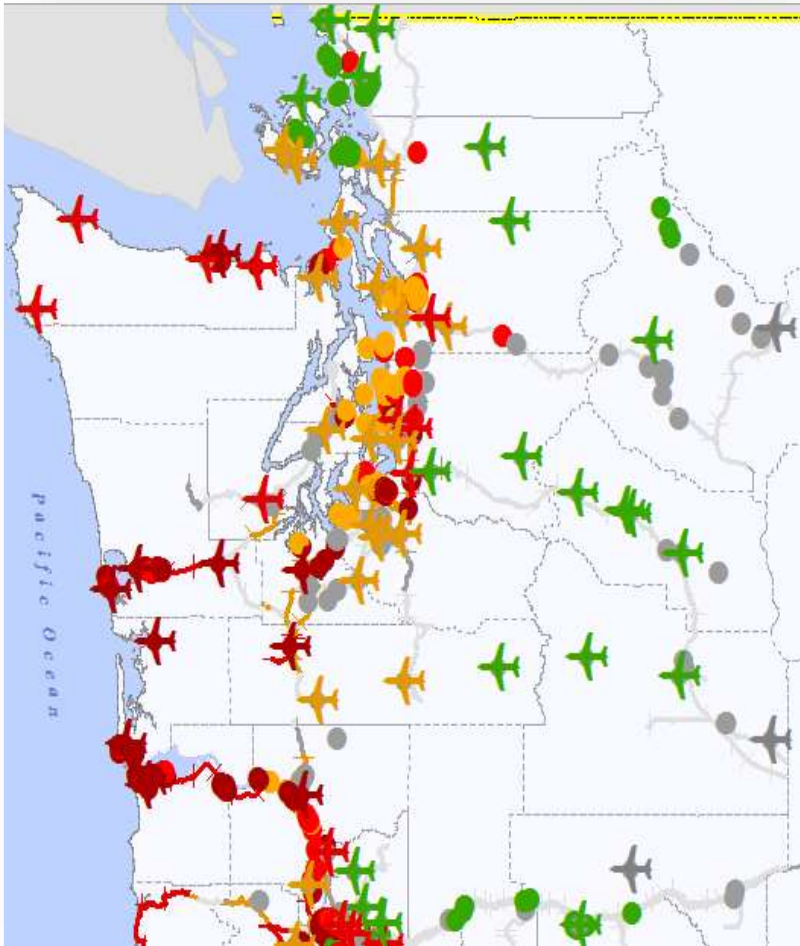
Transportation Impacts

Widespread damage to transportation infrastructure, affecting:

- 16,000 miles of highway
- 7,000 highway bridges
- 6,000 miles of rail
- 100 rail bridges
- 100 airports
- 700 port facilities



Sea, Rail, and Air Transportation Impacts



- Most facilities west of the I-5 corridor suffer complete to severe damage
- Most facilities along the I-5 corridor suffer severe to moderate damage
- Most facilities east of the I-5 corridor suffer slight to no damage
- Many of these facilities are located in liquefaction zones



Communications Impacts

- 60% of 564 cell towers sustain medium to high damage
- 75% of 380 AM/FM radio station facilities sustain medium to high damage
- Communications further deteriorates 8 to 12 hours after initiating event
- High volume calls crash phone lines
- Damaged undersea transpacific cables cause further disruptions



Where We Are

- Statewide Catastrophic Incident Planning Team
 - State, Local, & Private Industry Partners
 - Catastrophic Incident Framework
 - Catastrophic Plan
- Statewide Fuel Allocation Plan
 - Federal & State Partners
 - Fuel Supply Chain Technical Assistance from FEMA



Where We're Going

- Increasing staffing – We're Hiring!
- More planning!
 - Cybersecurity
 - Regional Fuel Allocation Framework
 - Existing Plan Updates
- Outage Data Initiative
- Cascadia Rising 2022
- Mitigation Strategies for Utilities
- Investor Owned Utility Stafford Act Limitations





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