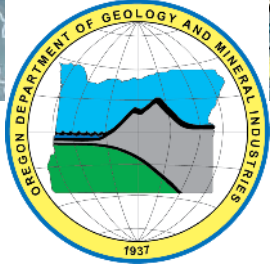


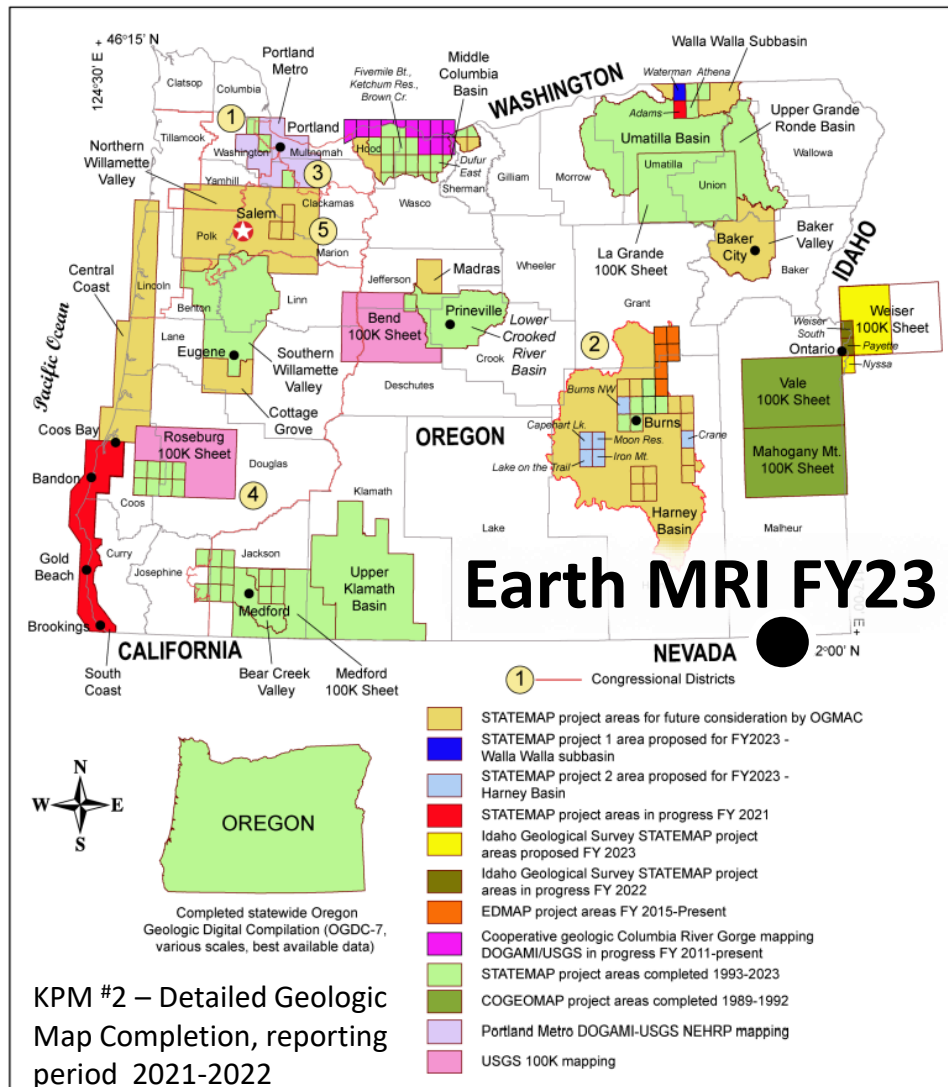
Oregon Department of Geology and Mineral Industries

USGS Earth Mapping Resource Initiative National Tsunami Hazard mitigation Program (NTHMP)

Joint Committee on Ways and Means
Subcommittee on Natural Resources
April 3, 2023

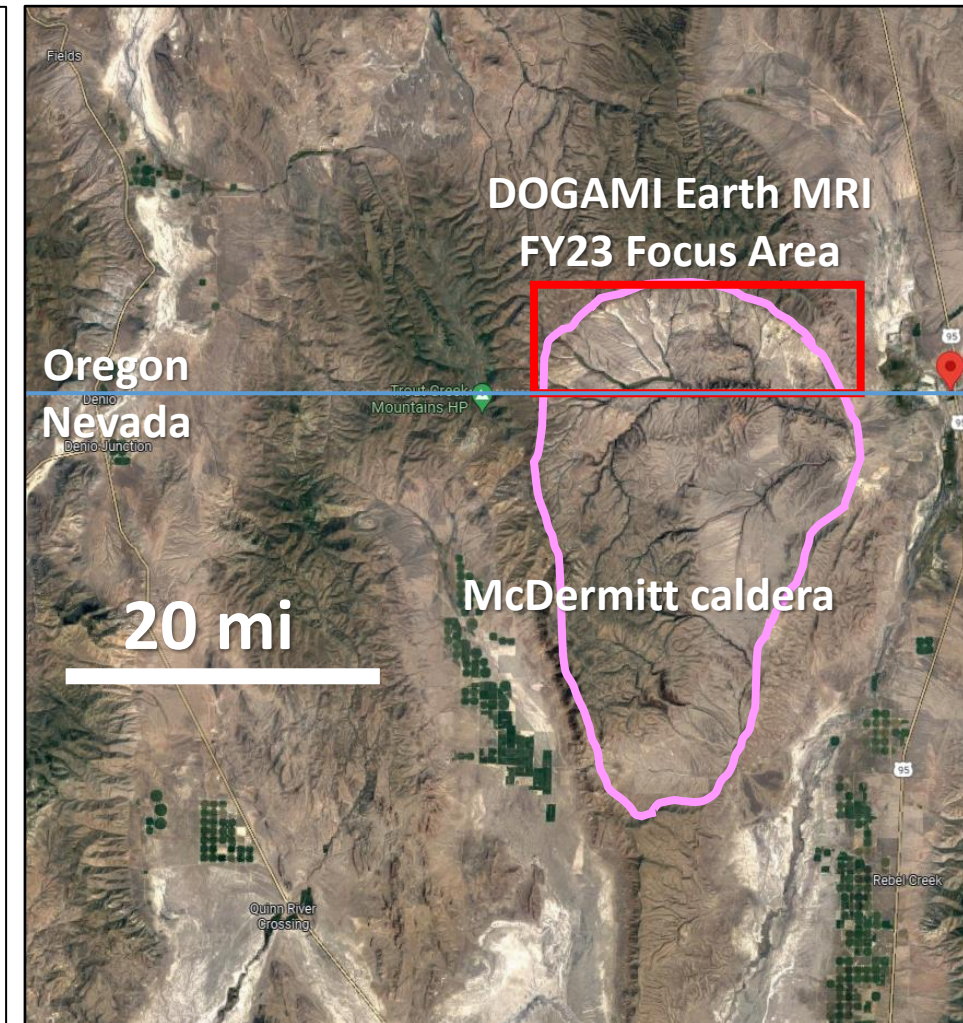


Prior Application: Oregon's Earth MRI FY23 Geologic Mapping



Oregon FY23 Earth MRI focus area - McDermitt caldera, southern Malheur County.

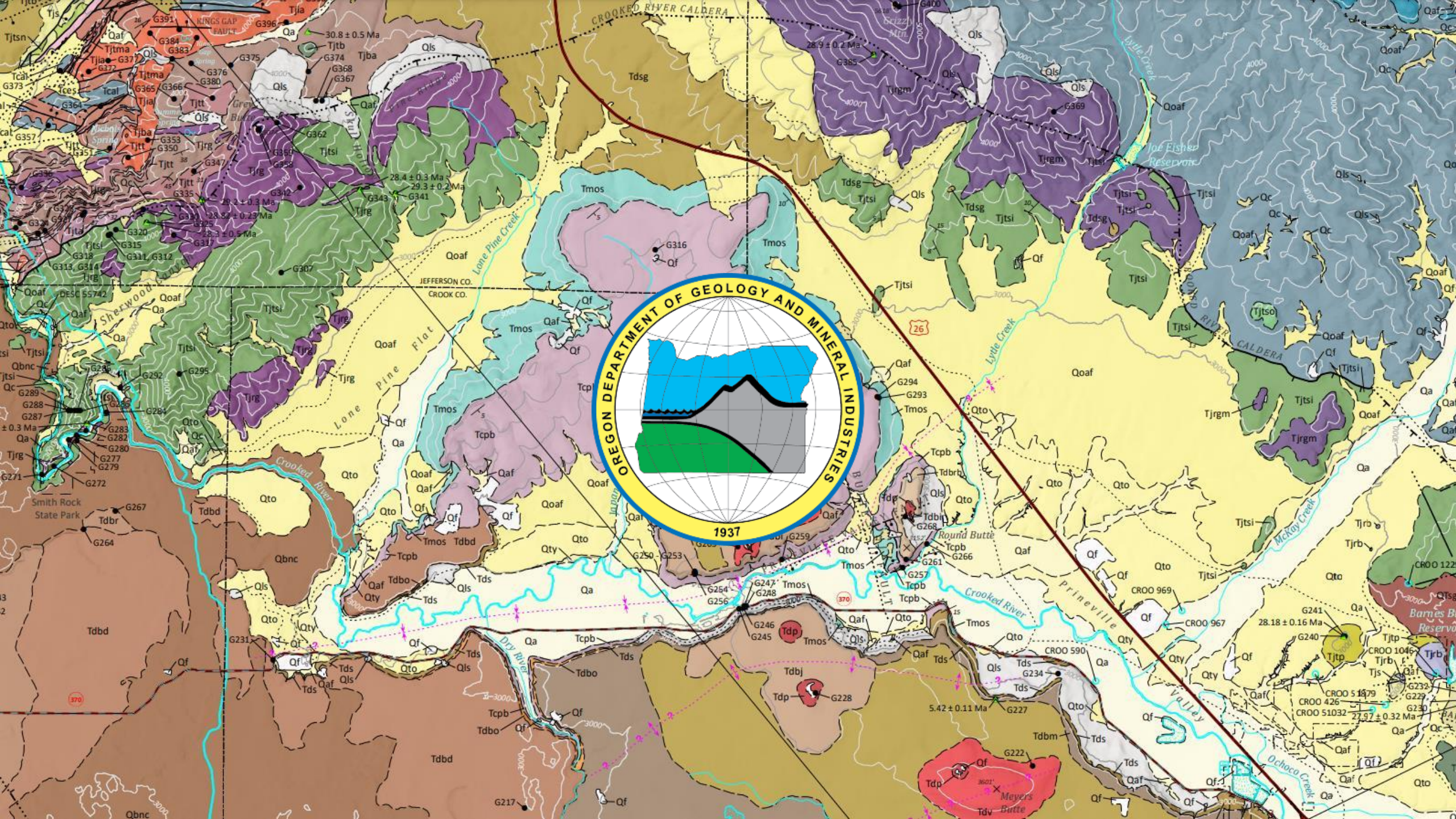
No high-resolution geological maps south of Steens Mountain/Owyhee in Harney and Malheur Counties.





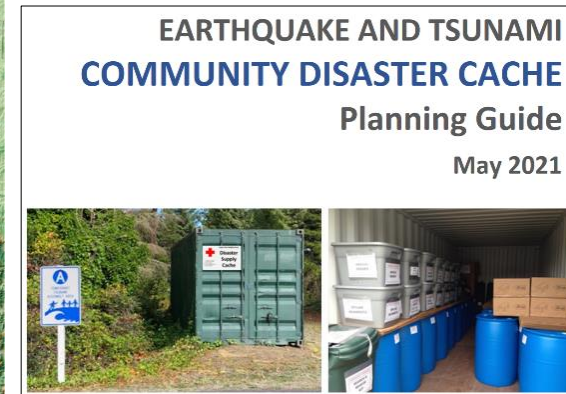
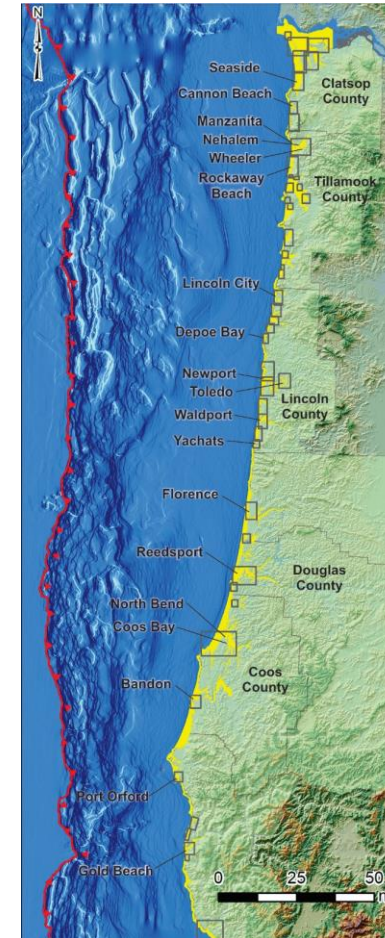
Geological Survey & Services Critical Mineral Focus Area

- DOGAMI requests approval to receive support-**USGS Earth Mapping Resources Initiative** (Earth MRI) **Mine Waste Cooperative Agreements** with the **U.S. Geological Survey** (USGS) **National Cooperative Geologic Mapping Program**
 - \$304k USGS support is under a Cooperative Agreement over 2 years.
- This grant proposes to fund one project entitled:
 - “Critical mineral resource evaluation of the historic Bretz Mine, northern sector of the McDermitt Caldera, Malheur County, southeastern Oregon”.
- The USGS Earth MRI implementation model:
 - Multi-agency partnership.
 - Full indirect to sponsored agency.
 - No match required.
 - No expenditure limitation is requested.
- DOGAMI’s cost share:
 - Indirect to project and used for staff time (\$108k).



Oregon Tsunami Program

- DOGAMI requests approval to receive support from the **National Tsunami Hazard Mitigation Program (NTHMP)**, operated by the **National Weather Service of National Oceanic and Atmospheric Administration (NOAA)**
 - **\$501,664** NOAA support is under a Cooperative Agreement for FY23.
- The NOAA implementation model:
 - Multi-agency partnership, DOGAMI and OEM.
 - Full indirect to sponsored agency.
 - No match required.
 - No expenditure limitation is requested.
- DOGAMI's cost share:
 - Indirect to project and used for staff time (\$178k).

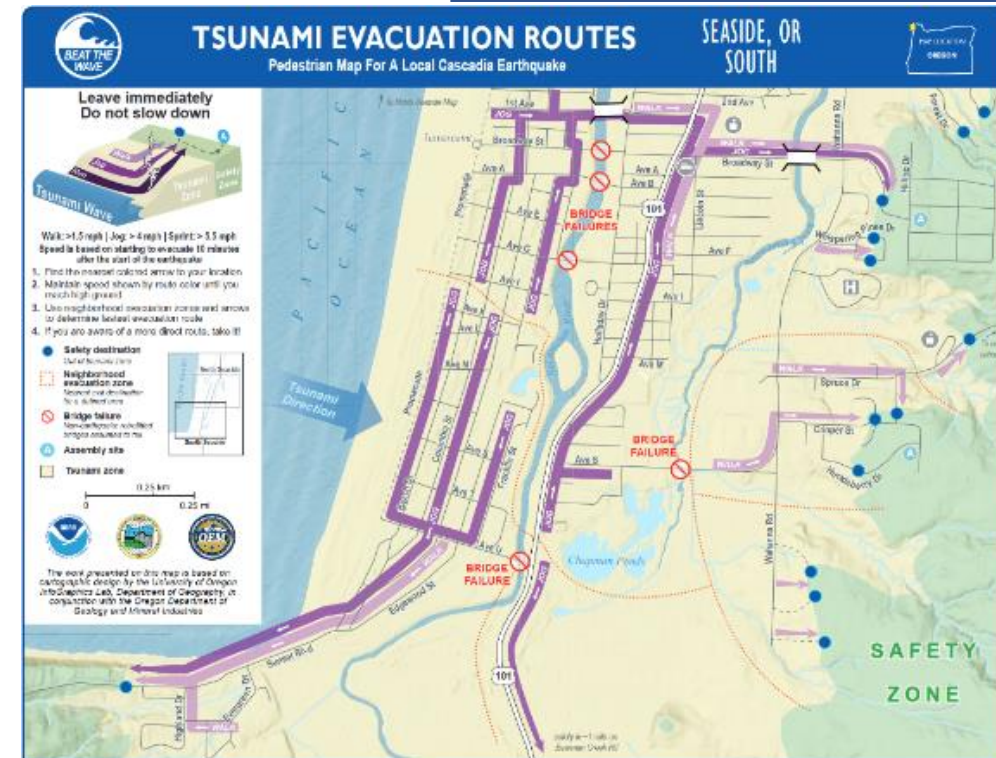


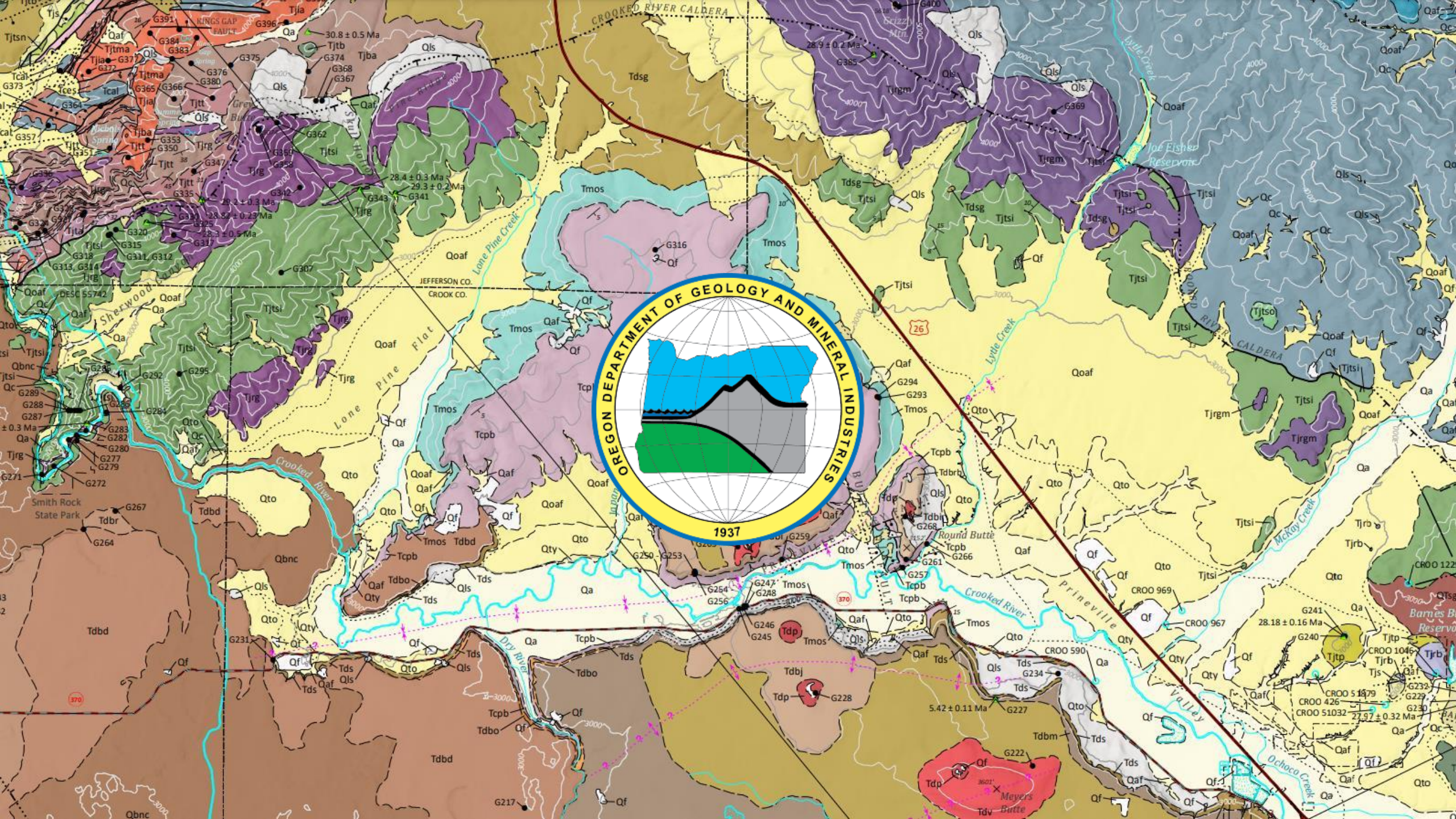
Oregon Tsunami Program

- Our vision is for coastal residents and visitors to be fully prepared for and resilient to Cascadia tsunamis.
- Oregon is at risk of a Cascadia Subduction Zone (CSZ) Earthquake. Over the past 10,000 years there have been 19 great earthquakes, accompanied by catastrophic tsunamis. The last event occurred on 26th January 1700, 323 years ago.
- Since 2003, the DOGAMI/OEM tsunami program has received \$8.6M in federal funding, which is spread between outreach & education, tsunami signage & brochures, and mapping & modeling.

FY 2023 NOAA Grant Proposal:

- Complete “Beat the Wave” tsunami evacuation brochures for coastal communities in Lincoln and Coos County.
- Undertake new probabilistic (2,475-year) tsunami inundation modeling for the northern Oregon coast.
- Update tsunami maritime evacuation map brochure developed for ports and harbors.

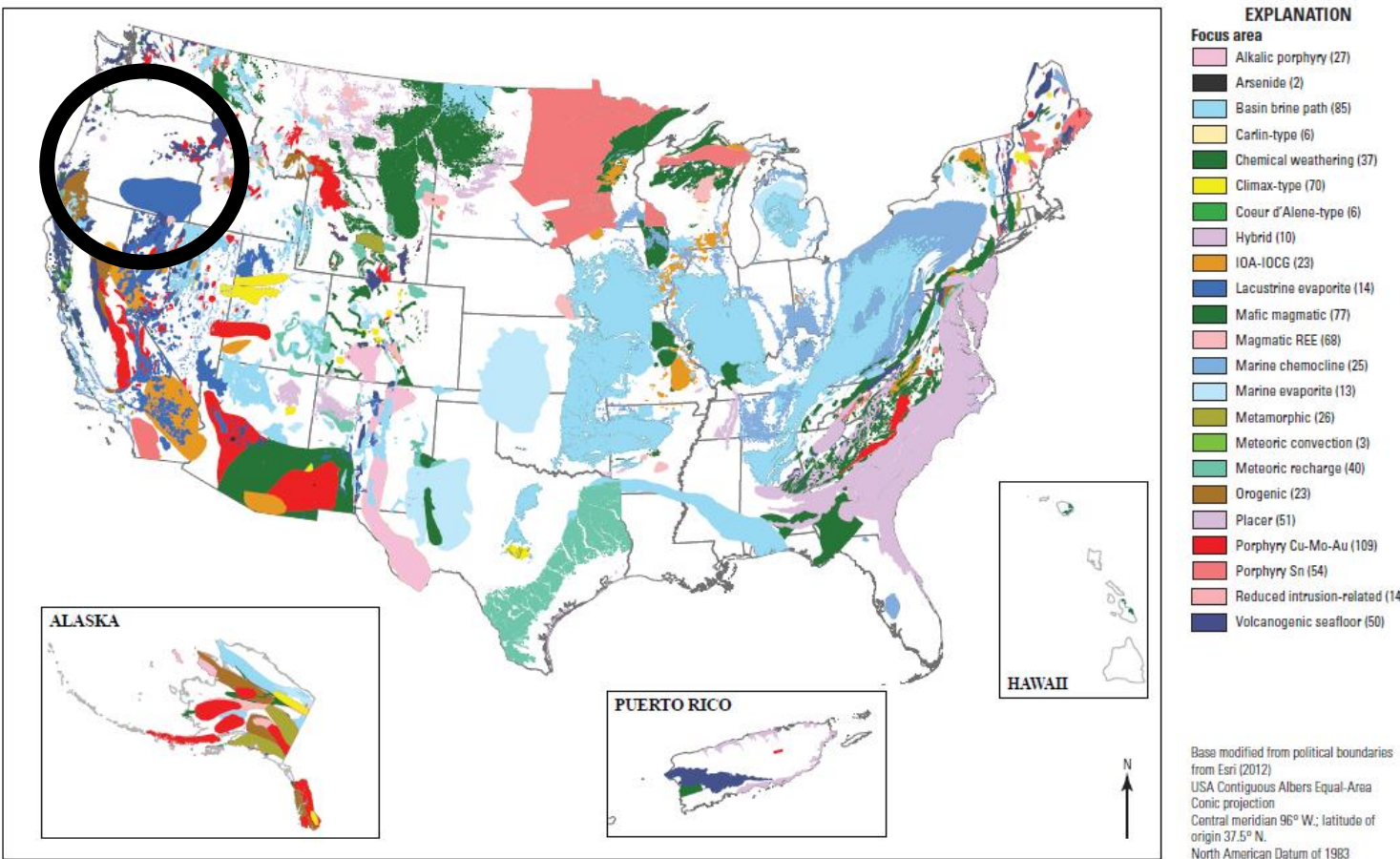






USGS Earth Mapping Resource Initiative (Earth MRI)

- Earth MRI – prioritize and acquire data for critical mineral focus areas.



Critical Minerals

a metallic or non-metallic element essential for modern technologies, economies or national security, and has a supply chain at risk of disruption.

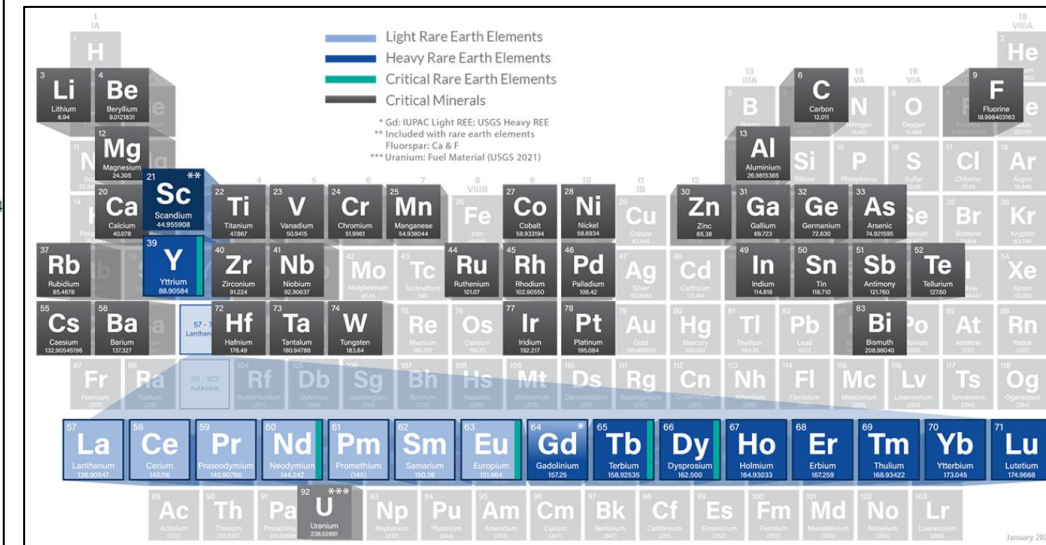


Figure 2. Maps showing focus areas for 23 mineral systems that could host critical mineral resources in the United States and Puerto Rico. Numbers in parentheses in the explanation refer to the numbers of focus areas for each mineral system. Data from Dicken and others (2022), which provides the extent of individual focus areas.

Oregon Tsunami Program – Additional Information

- Mapping tsunami hazards in Oregon initiated in the early 1990s (used in SB379 to define the first national tsunami regulatory zone).
- Due to increased availability of federal funding following the 2004 Sumatra earthquake and tsunami, DOGAMI was funded to accelerate tsunami mapping. Between 2010-2013, the entire Oregon coast was mapped for inundation. Mapping consisted of 5 Cascadia earthquake rupture scenarios and two Alaska (distant) scenarios (north coast updated 2021).
- Since then, we have completed development of the following:
 - “Large-Format” and “Neighborhood” scale evacuation brochures completed for the entire coast.
 - “Beat The Wave” evacuation modeling completed for 47 communities (4 to go).
 - “Beat the Wave” tsunami evacuation brochures completed for 47 communities, including parks (~25 to go).
 - Completed detailed Hazus risk assessment of 6 of 7 coastal counties; Curry county will be completed by mid-year.
 - Purchased and distributed tsunami brochures and outreach material to every coastal community along with tsunami wayfinding signage to coastal communities.

