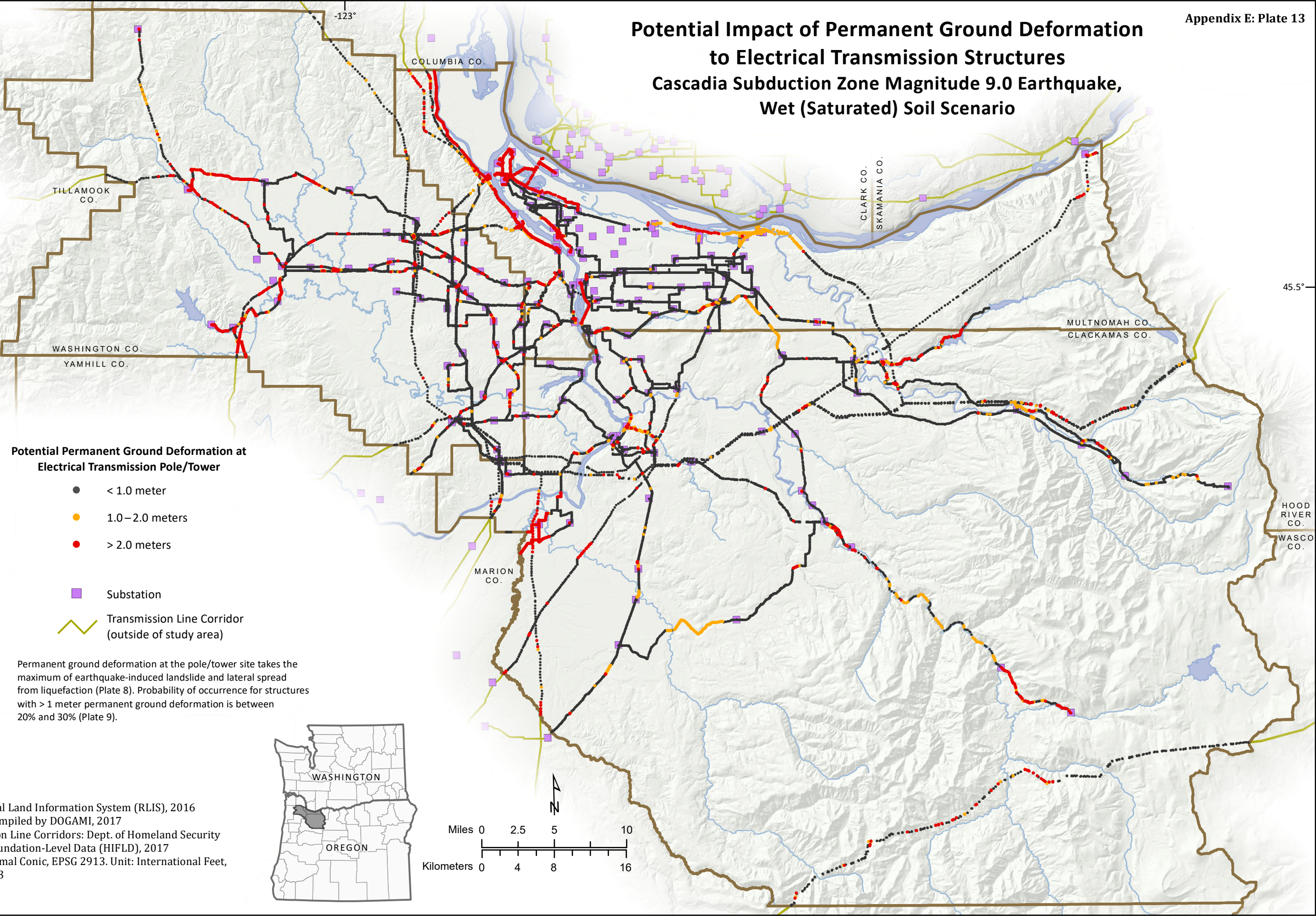


Potential Impact of Permanent Ground Deformation to Electrical Transmission Structures Cascadia Subduction Zone Magnitude 9.0 Earthquake, Wet (Saturated) Soil Scenario



**Potential Permanent Ground Deformation at
Electrical Transmission Pole/Tower**

- < 1.0 meter
- 1.0–2.0 meters
- > 2.0 meters
- Substation
- Transmission Line Corridor (outside of study area)

Permanent ground deformation at the pole/tower site takes the maximum of earthquake-induced landslide and lateral spread from liquefaction (Plate 8). Probability of occurrence for structures with > 1 meter permanent ground deformation is between 20% and 30% (Plate 9).

Source Data:
Hydrography: Metro Regional Land Information System (RLIS), 2016
Transmission Structures: Compiled by DOGAMI, 2017
Substations and Transmission Line Corridors: Dept. of Homeland Security Homeland Infrastructure Foundation-Level Data (HIFLD), 2017
Projection: Lambert Conformal Conic, EPSG 2913. Unit: International Feet, Horizontal Datum: NAD 1983
Map Author: John M. Bauer
September 1, 2017

