

Community Fault Model Working Group (CFM)

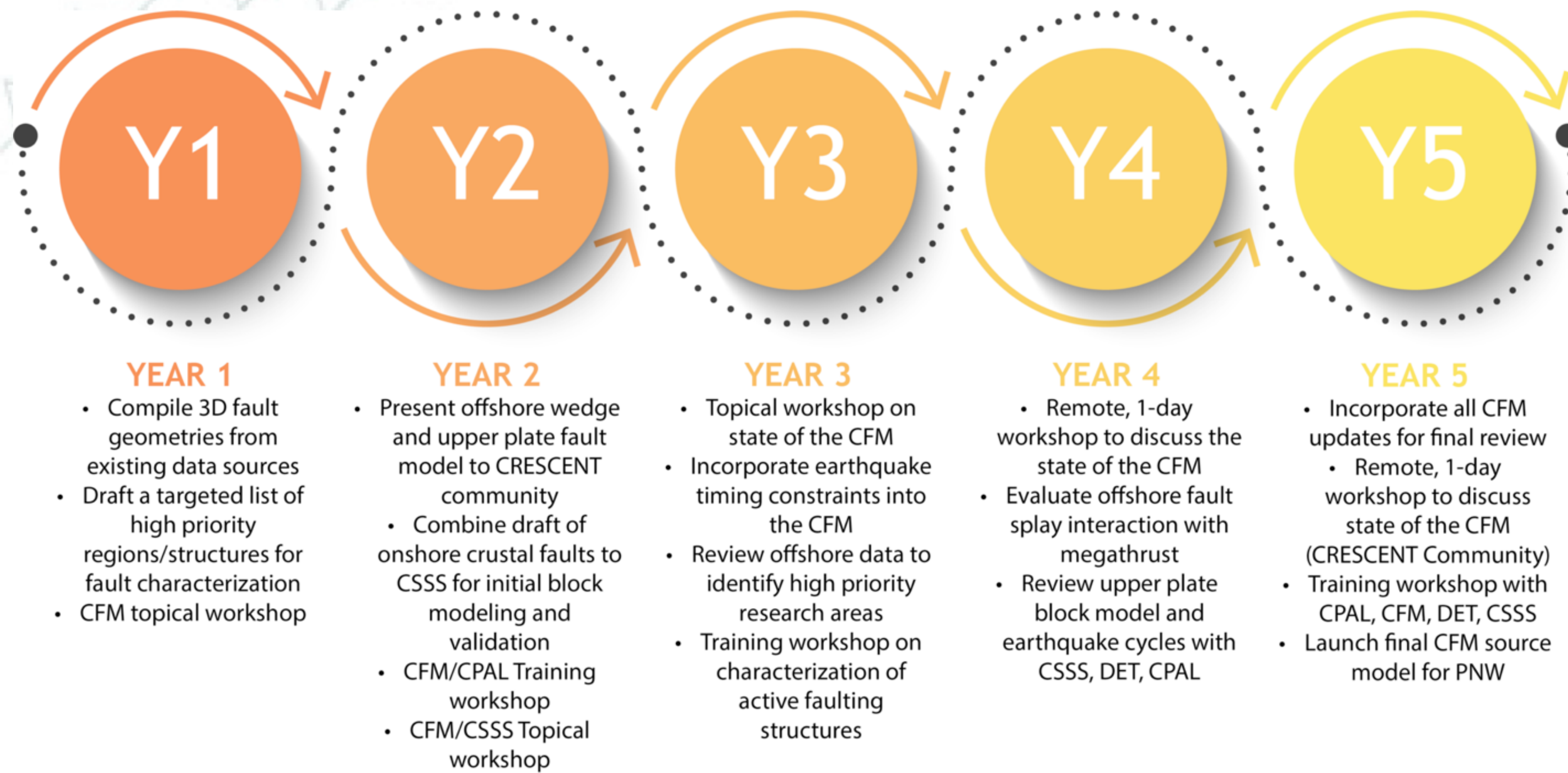
<https://cascadiaquakes.org/cfm/>

Mission:

Develop a comprehensive three-dimensional model of onshore and offshore faults in the upper plate of the Cascadia subduction system.

Products:

Cascadia-wide community fault model with fault locations and geometry, and earthquake geology point data.



Working Group Background

The Community Fault Model (CFM) focuses on understanding fault activity, faulting and fault interactions, and interaction with the Cascadia subduction zone. CFM working group members specializations include structural geology, paleoseismology, tectonic geomorphology, geologic mapping, geophysics, oceanography, seismology, geodesy, and geohazards.

CFM Products and Potential Applications

The CFM group will develop a comprehensive, onshore-offshore, model of earthquake-producing faults in the Cascadia subduction system, in collaboration with the U.S. Geological Survey.

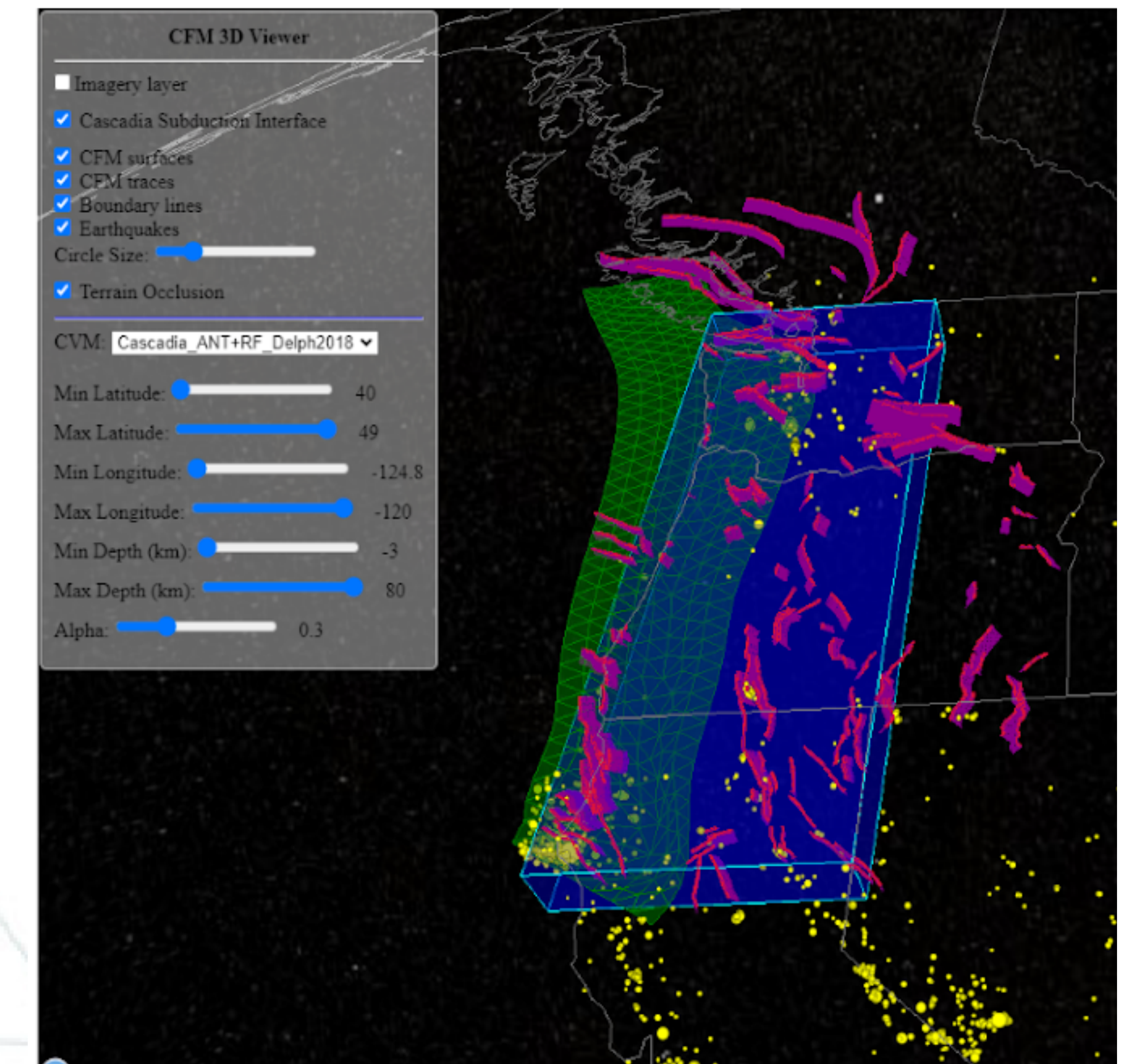
- Known faults will be included in CFM if they meet a set of community standards defined based on input from scientists in academia, state and federal agencies, and other stakeholders.
- The CFM will include the fault name, location, its structure underneath the Earth surface. Where available, it will also include information about the amount the fault moves during and between earthquakes, as well as past earthquake histories, and sizes on the fault.

- The CFM will be available and rendered in 2D and 3D on a CRESCENT webviewer (image below), available for download on the CRESCENT website in Fall 2024.

CFM products can be used in seismic hazard assessment, modeling shaking, the DET group's cutting-edge dynamic earthquake rupture modeling, community velocity model, and more.

Engage with CFM

- The CFM working group will host annual workshops to discuss the state of the CFM. These workshops will be either remote or in person at our biannual Center-wide meetings.
- CFM is co-leading a workshop with the CPAL working group during Year 3, tentatively titled "Geophysical and geological characterization of active fault structures."
- Follow CRESCENT for more information on this opportunity as that date draws near!



Contact Us

Information about CRESCENT can be found at <https://cascadiaquakes.org/>. Please check our website if you would like to subscribe to our newsletter, join our mailing lists, and find dates for upcoming events. You may also join the CRESCENT SLACK community channel to stay connected. Working group lead: Ashley Streig, streig@pdx.edu