Salish Sea & Columbia River Operational Forecast System (SSCOFS)

SSCOFS Technical Specifications

SSCOFS

All NOAA/National Ocean Services' (NOS) Operational Forecast Systems (OFS) and the Marine Channels Forecast products can be found in the NOAA Tides and Currents products page located here: https://tidesandcurrents.noaa.gov/models.html.

- **During model development**, the SSCOFS can be found here:
    - https://tidesandcurrents.noaa.gov/ofs/dev/sscofs/sscofs.html
- **After operational implementation**, the SSCOFS will be found here:
    - https://tidesandcurrents.noaa.gov/ofs/sscofs/sscofs.html
- SSCOFS will provide high resolution and 3-dimensional nowcast and forecast guidance of water levels, currents, water temperature and salinity to ensure safe and efficient navigation while enabling support for emergency response and ecological forecasting

SSCOFS Basics

The SSCOFS domain includes Puget Sound, the San Juan Islands, the straits of Georgia and Juan de Fuca, and extends south along the Pacific Coast to include the Columbia River.

- **Horizontal Resolution:** The resolution varies from ~ 100 m along the shoreline to 500 m in deeper parts of Puget Sound and the Georgia Basin, and increases to 10,000 m over the continental shelf. Resolution in the Columbia River varies between 100 and 200 m.
- **Vertical Resolution:** 10 spatially varying sigma layers
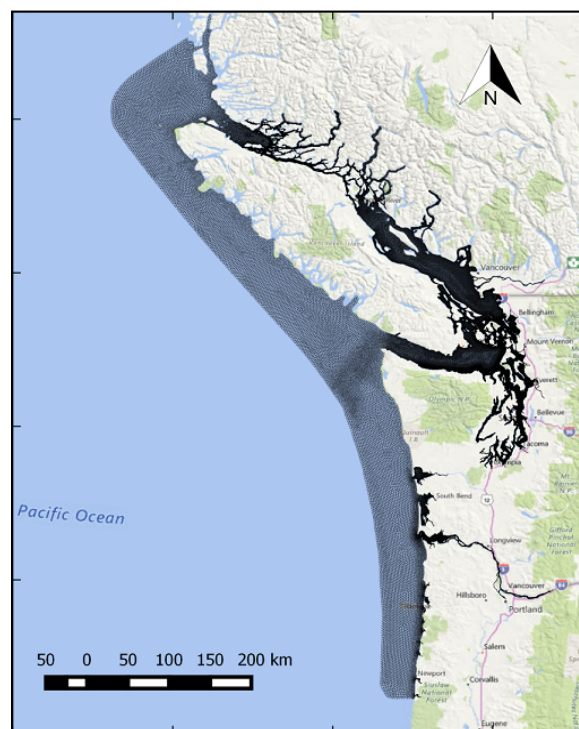
Core Ocean Model: FVCOM

The Finite-Volume Community Ocean Model (FVCOM), developed by the University of Massachusetts – Dartmouth, is one of the NOAA/NOS' preferred core ocean models operated under a standardized Coastal Ocean Modeling Framework at NOAA's Weather and Climate Operational Supercomputing System (WCOSS2) operated by the NOAA/National Weather Service National Center for Environment Prediction Central Operations.