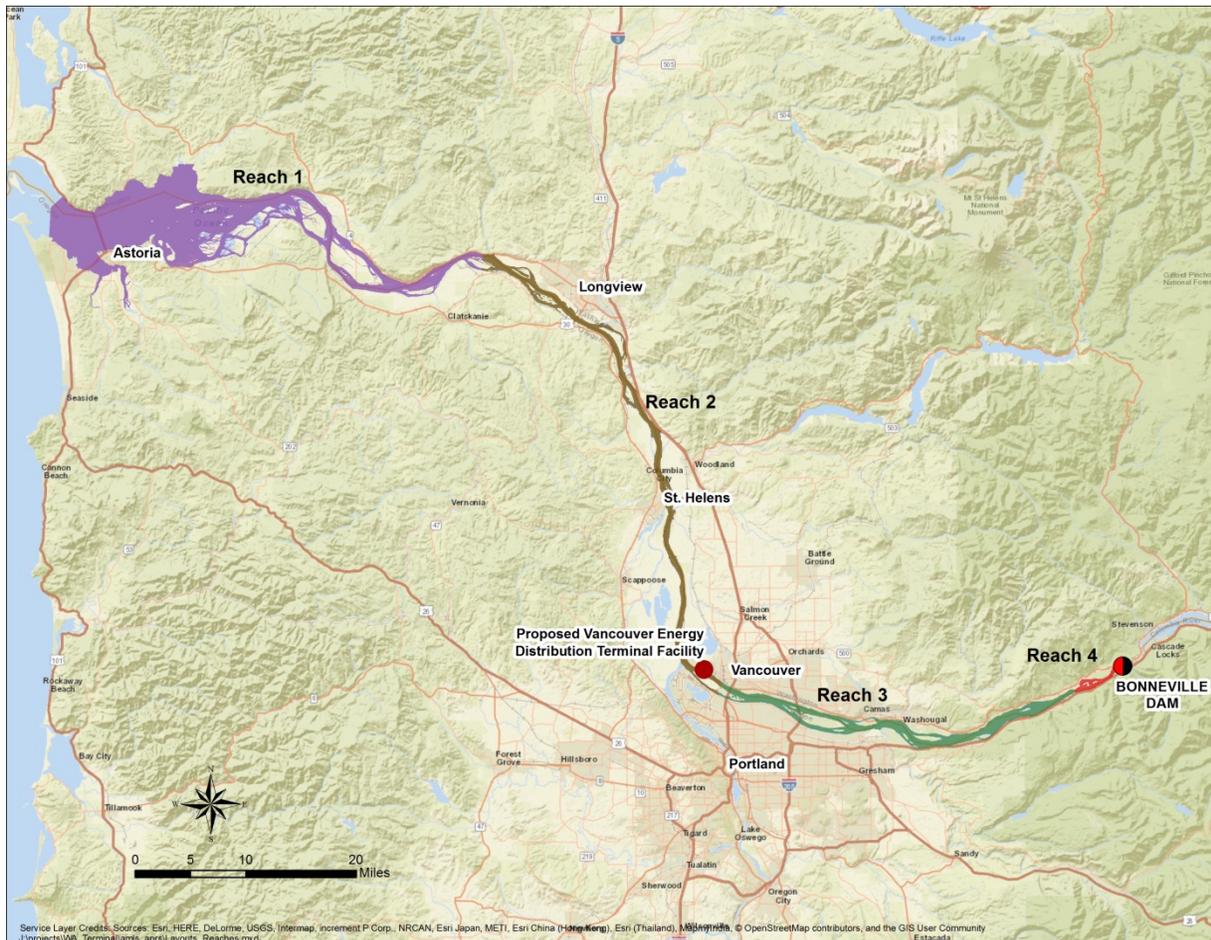


Figure 2.4. LCR reaches defined for this analysis.



In addition, for Reach 1 we estimated the average current speed from station-specific Tidal Current Predictions data computed by the National Oceanic and Atmospheric Administration’s (NOAA’s) Center for Operational Oceanographic Products and Services (NOAA, 2016a). Station predictions are available in approximately 3.5-hour time steps for 2014–2016. We computed averages at select stations (Figure 2.4, Table 2.1) for mid-May, 2014–2016, and found the data to be highly variable between stations. Average net downstream currents ranged from less than 0.1 mph to up to 0.5 mph. Flow velocities predicted for these tidally influenced current stations are at considerable depth rather than at the surface of the river, and may not represent the currents at the surface that would influence floating oil. In particular, the NOAA-predicted currents likely underestimate downstream surface velocities within the lower 18 mi of the river, where density differences between fresh river water and saline seawater result in a two-layered flow system. In this region, currents at depth may move in the opposite direction at the surface, because freshwater surface currents move downstream and saline water moves upstream (NAC, 2015; ODEQ et al., 2015).