FAQ #4: What is meant by inland topography, inland bathymetry, nearshore bathymetry, and offshore bathymetry?

As depicted in Figure 1, the intertidal zone, also known as the littoral zone, is the area exposed to the air at low tide and submerged at high tide; this zone is bounded by the Mean High Water (MHW) and Mean Lower Low Water (MLLW) boundaries which are used differently by coastal states to define official baseline boundaries between state-owned and privately-owned lands. A state’s exclusive economic zone (EEZ) extends seaward to a distance of no more than 200 nautical miles out from its coastal baseline.

The Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM) represents the bathymetric mapping community that maps bathymetric surfaces to include offshore and nearshore areas, the intertidal zone, beaches, and submerged objects that pose a threat to marine navigation. The U.S. Geological Survey (USGS) 3D Mapping Program (3DEP) represents the topographic mapping community that maps the tops of structures/vegetation and the bare earth terrain to include the beach and intertidal zone. Thus both mapping communities share interest in mapping the intertidal zone and beach areas shown. USGS, USACE, and FEMA are interested in mapping inland bathymetry (rivers and lakes).

**Inland Topography**

In Figure 1, “Inland topography” does not end at the top of the beach slope but typically includes the beach area, sometimes as far out as the MLLW line, if tidal conditions permit, to map all land areas that are not submerged.
Inland topography refers to data collected on land, and may include the land surface, features and objects on land such as building structures and vegetation, as well as bare earth topography under vegetation.

**Inland Bathymetry**

Inland bathymetry refers to data collected on the bottoms of lakes, reservoirs, and rivers and may include submerged features such as structures, objects, or vegetation.

**Nearshore Bathymetry**

The nearshore includes coastal waters seaward from the MLLW line well beyond the surf zone and includes the area influenced by coastal currents; but there is no clear boundary between nearshore and offshore. For the purpose of this questionnaire, nearshore bathymetry will pertain to coastal areas to a depth of 10 meters (20 meters in the Florida Keys where waters are exceptionally clear).

**Offshore Bathymetry**

For the purpose of this questionnaire, offshore bathymetry will pertain to areas between 10 and 60 meters deep where waters are clear and waters deeper than 60 meter.