The colored shaded-relief bathymetry map of the Offshore of Bolinas map area in northern California (fig. 1) shows bathymetric maps and topographic data collected and processed by Peter Dartnell, Rikk G. Kvitek, and Carrie K. Bretz. The maps were created using data from the California Seafloor Mapping Program, which includes California State University, Monterey Bay, Seafloor Mapping Lab and Fugro Pelagos. The maps were collected in collaboration with the National Oceanic and Atmospheric Administration (NOAA) and the Coastal Conservancy. The bathymetry data were complemented with nearshore maps from CSUMB, Moss Landing Marine Laboratories (fig. 1), and Stinson Beach (Kvitek and others, 2012). Mapping was completed between 2004 and 2010.

The map area includes the shallower waters of Bolinas Lagoon, with sound velocity data from AM SVPlus, and water height (tides) from vertical-position data. The bathymetry data were collected using water depth sensors, and the contours were generated using the Spatial Analyst Contour tool in ArcGIS. The merged surface was smoothed using the Focal Mean tool in ArcGIS and a circular neighborhood of 20 to 30 m, depending on location. The contours were then clipped to the boundary of the map area.

The bathymetric-surface model was draped over the shaded-relief imagery at 60-percent transparency to create a colored shaded-relief map. This map shows depth (horizontal range of the horizon) to 1-m-resolution topographic-lidar data collected by Earth Eye in 2010 for San Francisco Bay and surrounding areas. The bathymetric data were collected by various agencies, and the contours were clipped to the boundary of the map area.

The map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters. For more information, see the Suggested Citation at the bottom of the page.

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