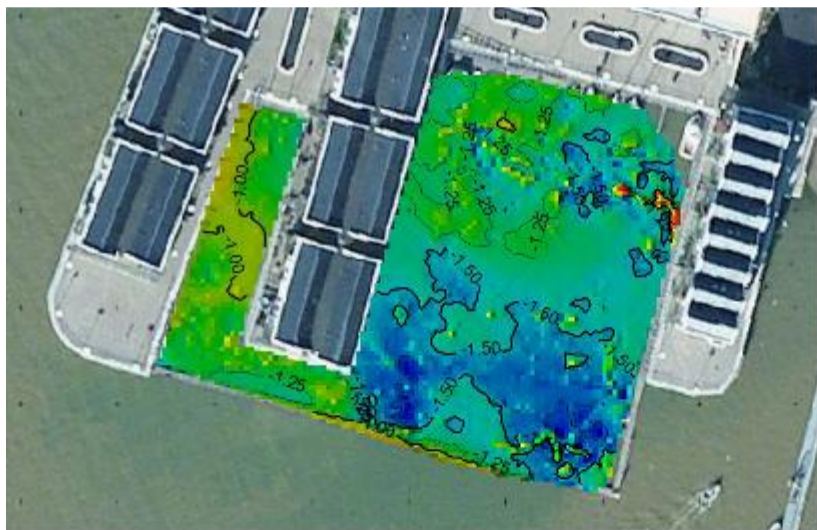


SURVEY



Project	:	Waterside Marina Maintenance Dredge Survey
Client	:	Brightlingsea Harbour Commissioners
Date	:	November 2017
Keywords	:	Marina • Bathymetric Survey • Topographic Survey • Maintenance Dredging • Sediment Accumulation • Volume Calculation • Beneficial Use • Working with Nature
Description	:	<p>Waterside Marina is situated within a high end riverside residential complex, within Brightlingsea Harbour on the River Colne Estuary in Essex, UK, and provides moorings and shore side facilities for recreational vessels and boat owners. In 2015, 11,000m³ of accumulated sediments were removed during a major dredging campaign, with the arising sediments being dispersed on the ebb tide. Following this work, the Brightlingsea Harbour has taken responsibility for the site, which includes undertaking regular maintenance dredging to prevent the marina from silting up in the future.</p> <p>To monitor siltation rates and identify target areas to focus maintenance dredging efforts, a survey was undertaken. However as the season was in full swing with high numbers of moored vessels present which limited access throughout the marina, whilst the surrounding sheet piling and high rise residential blocks satellite reception of the bathymetric and topographic GNSS positioning system was not 100%.</p> <p>To overcome this issue, a combination of bathymetric and topographic survey techniques were employed to achieve the best possible results. An initial bathymetric survey was undertaken from the Exo Surveyor survey vessel in all accessible areas, subject to satellite coverage. To obtain data in areas where satellite reception was available but access was limited, a centimeter accurate GNSS topographic system on a sounding rod was deployed. In areas where both access and satellite reception were limited, a manual measurement using a graduated rod was taken to ensure 100% coverage of the marina.</p>

