

## MONITORING



<b>Project</b>	: USAR Dredging and Restoration Monitoring
<b>Client</b>	: Brightlingsea Harbour Commissioners
<b>Date</b>	: April-October 2017
<b>Keywords</b>	: Day Grab • Surveillance Monitoring • Subtidal Mudflat • Habitat Recovery • Ecology • Benthic Fauna • Colonisation • Protected Species • Native Oyster • SAC • SPA • SSSI • Ramsar • MCZ
<b>Description</b>	<p>Exo Environmental were appointed Principal Designer and Project Manager of a 4 year dredging and restoration project by the Brightlingsea Harbour Commissioners. This project aimed to remove 53,000m<sup>3</sup> of accumulated sediment from within the historic Brightlingsea Harbour and beneficially reuse the majority of the arising material to restore 5ha of local intertidal and saltmarsh habitat.</p> <p>Due to the quality and extent of the local habitats and the rich biodiversity they support, the site is located within several national and international designated sites, including a Marine Conservation Zone (MCZ) that specifically targets the preservation of the local Native Oyster (<i>Ostrea edulis</i>) populations and the biogenic reef habitats this species creates.</p> <p>Under the conditions of the marine licence, the temporal impact of the dredging works on benthic fauna community composition, particularly with regards to monitoring recolonisation and recovery of the local populations within the dredge areas, required monitoring and assessment. To aid interpretation and to monitor rates of sediment accumulation within the Creek, particle size distribution (PSD) was also assessed.</p> <p>To achieve this, Exo conducted repeated surveys of the Year 1 dredge areas immediately following cessation of the dredging works and at regular intervals over a 32 week period using a Day Grab deployed from the Exo Surveyor survey vessel. Although species richness and abundance decreased following dredging activity as expected, recovery of benthic populations was observed over the survey period and corroborated recovery times of estuarine species recorded in existing literature.</p>

