

Executive Summary

Between March 2007 and December 2008 Archaeological Research Services Ltd carried out, on behalf of English Heritage, a desk based rapid coastal zone assessment of the threat posed to heritage assets in the North East by rising sea level and consequential coastal erosion. The North East Rapid Coastal Zone Assessment, or NERCZA, is one of a series of projects initiated by English Heritage around the coasts of England. The brief specifically required that the assessment be undertaken with reference to Defra's Shoreline Management Plans (SMPs). The area assessed, which extends from Whitby in North Yorkshire to the border with Scotland north of Berwick-upon-Tweed falls within SMP Cell 1. The first phase of the SMPs was completed in the 1990s (SMP1) and a second phase study (SMP2) is currently underway, the SMP2 for the coast south of the Tyne having been completed by the time the NERCZA began, while work to the north is underway at the time of writing. This has led to the assessment of the threat in the two areas being undertaken in relation to slightly different criteria. However, both the SMP1 and SMP2 documents make essentially similar policy recommendations which in most cases amount to either Hold the Line or No Active Intervention. The former case involves various mitigation strategies such as the construction of sea defences while in the latter nature is allowed to take its course. Heritage assets may be considered to be under threat from both the above mitigation strategies and from coastal erosion where no action is to be taken.

The NERCZA study area consists of approximately 200km of coastline between the Lowest Astronomical Tide (LAT) and 1km inland from Mean High Water Springs (MHWS), and includes Coquet Island and the Farne Islands which lie offshore and Holy Island, joined to the mainland at low tide by a causeway. The review of the heritage assets has been based on a consideration of two data sets. The first consists of the Historic Environment Records (HERs) maintained by or for the Local Authorities with curatorial responsibilities for this section of the coast, namely North Yorkshire County Council, the North York Moors National Park Authority, Tees Archaeology (for Redcar and Cleveland, Middlesbrough, Stockton-on-Tees and Hartlepool), Durham County Council, Tyne and Wear Specialist Conservation Team (for South Tyneside and North Tyneside) and Northumberland County Council. The second data set consists of the aerial photograph coverage of the study area from which all archaeological features visible have been mapped to the standards of English Heritage's National Mapping Programme. Within the context of the NERCZA, this has been referred to as the Aerial Photograph Transcription Exercise (APTE). The aerial photograph coverage for 400km² has been examined and 968 new records have been added to the HERs while 270 existing records have been enhanced. These two main data sets have been supplemented by reference to the National Monuments Record.

In assessing the threat to heritage assets posed by sea level rise, major sites and groups of sites are discussed individually and the threats they face evaluated. Categories of more numerous types of site are also discussed but the issue of threat is dealt with in a series of tables in which the SMP policy unit is noted, the importance of individual sites and the degree of threat are rated as high, medium or low. Nearly 75% of the sites recorded in the APTE date from the Second World War and consist of numerous categories of site such as pillboxes or anti-tank obstacles or ephemeral features such as minefields. These sites are listed in tables and the relevant SMP policy unit noted. Many are no longer extant.

The NERCZA study has established that many heritage assets in the coastal zone are under threat from rising sea level and/or the mitigation strategies proposed. The threat is particularly acute in the case of those sites currently situated between LAT and within 200m inland of MHWS. Many of these sites specifically relate to what has been defined in this document as the Coastal/Maritime Landscape such as port and harbour facilities, aids to navigation, shipwrecks and the military defence of the coast but also includes

features of the Terrestrial Landscape which happen to be close to the coast such as the North Yorkshire alum works, two multivallate forts in Northumberland, Bronze Age burials at Low Hauxley and Trow Point and early prehistoric flint scatter sites in County Durham. It is also the case that important inter-tidal peat deposits and old ground surfaces below coastal dunes are particularly vulnerable such as those at Creswell and Druridge Bay.

In carrying out the assessment it has been noted that a number of categories of asset are as yet poorly understood making an evaluation of the threat difficult. Examples include the archaeology of pre-industrial shipbuilding, the development of small harbours, the fishing and whaling industries, early land reclamation and the recreational use of the 'sea side'. It has also been noted that while on a national level over 3% of sites recorded in HERs have a measure of statutory protection this falls below 2% in the coastal zone, a discrepancy that needs to be addressed. A separate project design has been prepared for a Phase 2 of the NERCZA which includes the fieldwork priorities.