# EIA Quality Mark Case Study

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<th>Breagh Pipeline - Coatham Common section</th>
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## Key Issues

The Breagh Gas Pipeline landfall is located in sand dunes at the South Gare and Coatham Sands SSSI. The SSSI is designated mainly for its botanical importance, especially dune slacks and swamps behind the main dune ridge.

Key project constraints related to avoidance of the most sensitive areas of the SSSI, due to the extent of the designation and presence of previous developments such as the BP CATS pipeline.

The substantial nature of works undertaken in the sensitive dune grassland and marsh habitats beyond the ridge required the development and use of innovative ecological mitigation, and close liaison with Natural England.

Techniques included the lifting, potting and removal of *Ammophila arenaria* (Marram) and key perennial species (scarce orchids, purple milk-vetch and lesser meadow-rue) from the area to a site-based nursery for reinstatement post installation of the pipeline.

## Purpose of the project

The Breagh Gas Pipeline will bring natural gas from the new Breagh Field in the North Sea to the Teesside Gas Processing Plant in Seal Sands, Teesside.

The resource will supply the national system and power generation plants in the Teesside area, and will be a key element in maintaining security of energy supply in the UK.

## Description of the project

The onshore elements of the project include: a beach valve station; a 10km long underground energy utility corridor (containing a 20 inch gas pipeline); and modifications to the existing gas processing plant.

The EIA was undertaken by Envest on behalf of pX Limited and RWE. RSK undertook and reported the ecological assessment of the EIA.
Lessons learnt
Previous knowledge and experience of the Seal Sands area proved advantageous in establishing potential ecological constraints and developing appropriate mitigation solutions on the project.

The assessment noted that the key sensitivities of the SSSI had not changed in 20 years, and that there was limited space to successfully route a pipeline through this area without resulting in a degree of habitat loss.

The assessment recorded the principal ecological impacts of the project as being the temporary loss of vegetation, grasslands and uncommon plants through large-scale sand excavation from the main dune ridge.

Horizontal Direct Drilling (HDD) was used to cross the beach and main dune ridge, with open-cut techniques used in the dunes to install the pipeline in the SSSI dune hinterland. Although the use of modern HDD techniques reduces many of the problems caused by breaching dune ridges, the assessment identified a requirement for targeted habitat restoration.

Lessons learnt cont. -
In establishing mitigation measures, NVC and bryophyte surveys of previously disturbed areas (e.g. BP CATS) concluded that rare plants and valuable vegetation types had fully re-established on similar projects.

A mitigation strategy was subsequently developed and agreed with relevant authorities; this necessitated the lifting of tussocks of *Ammophila arenaria* (Marram) grasses to ensure genetic material of local provenance was replanted in the SSSI.

Some 50,000 vigorously growing modules of marram are now available for use in late 2011 / early 2012; these will be transferred from the temporary nursery and replanted post completion of the engineering works.

Other measures included contouring to match the original landform and agreement of reduced working widths at pinch-points.

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