Broad Character: Communications

Character Type: Telecommunications

Irish Sea Regional Perspective

Introduction: Defining/Distinguishing Attributes

There are a number of submarine telecommunications cables within the English sector of the Irish Sea:

- BT fibre optic telephone line from Silecroft to Isle of Man, laid 1988. The cable was buried in the seabed along its entire length (http://en.wikipedia.org/wiki/Submarine_communication_cable).
- Fibre optic telecommunications cable LANIS was laid between Blackpool and the Port Grenaugh, Isle of Man 1992 (http://www.stbees.org.uk/misc/telegraph.htm).
- Telecommunications cable SIRIUS SOUTH between Lytham St Annes and Ireland (http://en.wikipedia.org/wiki/Submarine_communication_cable).
- Transatlantic communications cable HIBERNIASEG, from Canada and the United States to Ireland and on to Ainsdale, Southport (http://www.hiberniaatlantic.com/)
- Submarine telecommunications cable ESAT2, Ainsdale (http://en.wikipedia.org/wiki/Submarine_communication_cable).

As well as the active cables, there is also a telegraph cable laid between the mainland and Ramsey on the Isle of Man in 1859, with two more laid in 1875 and 1885. Although now disused, the marine section of the cable is still in place, but the overland section has been removed (http://www.stbees.org.uk/misc/telegraph.htm).

Historical Processes; Components, Features And Variability

England was first joined to the Netherlands by a cable across the North Sea in 1853, from Orford Ness, Suffolk (http://en.wikipedia.org/wiki/Submarine_communication_cable), carrying telegraphy (written communication) traffic. The first cable in this area of the Irish Sea was laid six years later from St Bees to the Isle of Man. Later generations of cables carried first telephony (voice communication) traffic, and then data communications traffic. All modern cables use optical fibre technology to carry telephone traffic as well as Internet and private data traffic. The unprecedented popularity of the Internet and the development of e-commerce have brought about a considerable increase in global electronic data transmission over the last few years.

Values And Perceptions

The presence of submarine telecommunications cables in the marine environment is likely to be largely unnoticed visually. However, their importance cannot be underestimated especially for those millions of internet and phone users.

Research, Amenity And Education

Works undertaken during cable laying and or maintenance may require more detailed landscape/seascape characterisation and may reveal historic environment baseline data.. Palaeoenvironmental evidence has been unearthed during such works, uncovering deposits rich in pollen taxa and macrofossils that can further inform our knowledge of the evolution of marine transgressions and previous character in the landscape/seascape.

Submarine telecommunication cables provide the means to allow internet and phone access, opening up a varied range of educational and amenity tools accessible to the general public.

The need for submarine telecommunication cables and the logistics, practicalities and issues associated with their installation and maintenance provides an interesting cross-curricular educational case study.

St Bees, where the first telecommunications cable was laid to the Isle of Man in the 19th century (Photograph: Cumbria County Council)

Condition And Forces For Change

Overall, the submarine telecommunication cables in the region are modern impositions onto other Character Types. Offshore development affects the character of the landscape/seascape arising from preliminary survey work, laying and maintenance of cable, and removal of disused cables. Preparatory investigations may involve intrusive survey of the sea bed, disturbing and exposing archaeological deposits, but also providing detailed knowledge of seabed conditions. Cables are replaced fairly regularly as technology develops. Laying the cables involves burying them where they cross the foreshore and in shallow waters, potentially disturbing other historic environment features. In deeper waters, submersible ploughs running on tracks or skis and towed by surface vessels are used for trenching, laying cable, and subsequent inspections.

Rarity And Vulnerability

The laying of telecommunications cables is likely to increase, although the development of wireless technology may eventually lead to the redundancy of many of these cable routes.

Published Sources

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