

## MARITIME AND MARINE



*Headland's Maritime and Marine Team offers consultancy services and provides Cultural Heritage ES contributions for offshore wind farms, tidal and wave arrays, transmission works, sub-sea cable projects and ports and harbour development throughout the UK and Ireland.*

Headland Archaeology has developed a Maritime and Marine team, as part of our Heritage Consultancy Division that is fully resourced to undertake and advise on all matters concerning the effective management of our maritime cultural heritage. This is particularly the case with the preparation of Cultural Heritage Assessments and associated mitigation strategies designed to protect against potential impacts on the marine historic environment, particularly relevant to the marine cables, renewables and offshore wind sectors. Headland's Maritime and Marine Team have offered consultancy services and provided Cultural Heritage ES contributions for a large number of sub-sea cable, offshore wind farms, tidal and wave arrays, and transmission works projects and ports and harbour development throughout the UK and Ireland.

### HEADLAND'S INPUT THROUGHOUT THE LIFE OF A PROJECT

■ **EXPERT ADVICE AND CONSULTANCY** The Maritime and Marine team provides expert advice from the early stages of a proposed development and ensures a 'joined-up' approach when considering onshore and offshore aspects of a project. This enables the identification of potential heritage constraints and the development of appropriate solutions. Headland considers regulator and stakeholder engagement as a critical element in the success of any form of development,

but especially sub-sea cables and large wind farms. Headland therefore makes all provisions for the delivery of advice and expert briefing to the EIA and design team prior to consultation meetings, and attendance at regulator and stakeholder meetings as and when required.

■ **MARINE GEOPHYSICAL AND GEOTECHNICAL SURVEY** Headland provides archaeological input into marine geophysical and geotechnical survey specifications. Headland liaises with survey teams to advise on the collection of data and the survey parameters that meet current guidelines for the archaeological assessment of geophysical and geotechnical survey within the offshore renewables sector. We are also on standby to provide on-site advice during survey. Headland's Maritime and Marine team has particular expertise in the review, assessment and analysis of large marine geophysical datasets and the integration of that data into the EIA process.

■ **ZONAL / REGIONAL AND SITE SPECIFIC IMPACT ASSESSMENT** With support from our Heritage Consultancy team Headland provides expertise throughout the EIA process from scoping to impact assessment including potential setting issues, and subsequent implementation of a project. By being involved from the early stages, we can ensure that all potential constraints are identified and mitigated effectively to ensure there are no unwanted delays or unexpected extra costs.

■ **SCHEME INSTALLATION, OPERATION AND DECOMMISSIONING** The team can help with the development of protocols and procedures to mitigate against impacts on cultural heritage during the construction, operation and decommissioning of a scheme. Headland is also able to undertake post-consent mitigation works and further survey throughout the installation, operation, and decommission phases of a scheme. This includes the provision of maritime archaeologists who are fully qualified to undertake all aspects of offshore work and hold current sea survival and offshore medical certification. All of our staff are certified by the Joint Nature Conservation Committee and National Parks and Wildlife Service and have extensive offshore experience.

### MARINE INVESTIGATION, SURVEY, MONITORING AND DATA ASSESSMENT

Headland supports a marine investigation and survey capability through established sub-contractors and partners providing a response to any projects involving diving, ROV investigations and related activities. The maritime team has expertise in the assessment and interpretation of marine geophysical data associated with cultural heritage contributions to Environmental Impact Assessment and post-consent survey.

## EXPERIENCE

Examples of our offshore project experience are given below. These include the undertaking of large offshore renewable projects from the early scoping stages, through the ES production, and as advisors to the client for all project elements including the provision of offshore on-site services as required. The examples include the assessment of large marine geophysical datasets and highlight the capacity of Headland to undertake offshore projects.

<i>client</i>	<i>project name</i>
<b>offshore renewables</b>	
Eon	Rampion Offshore Wind Farm, English Channel (2013 – present)
RWE Renewables	Triton Knoll Offshore Wind Farm Transmission Works, Southern North Sea (2012 – present)
RSK	West of Duddon Offshore Wind Farm, Irish Sea (2013 – present)
North Channel, SSE Renewables	Islay Array Offshore Wind Farm (2011 – present)
North Channel, DP Marine	West of Islay Tidal Array (2012 – present)
Siemens/ Marine Current Turbines	Kyle Rhea Tidal Array, Isle of Skye (2011 – 2013)
Seagreen Wind Energy	Firth of Forth (Round 3) Offshore Wind Farm-Phase 1 (2011 – 2013)
Moray Firth, Beatrice Offshore Wind Ltd	Beatrice Offshore Wind Farm (2010 – 2013)
Moray firth, SSE Renewables	Moray Round 3 Zone Offshore Wind Farm (2010 – 2013)
Firth of Forth, Mainstream Renewables	Neart na Gaoithe, Offshore Wind Farm, North Sea (2010 – 2013)

<i>client</i>	<i>project name</i>
<b>sub-sea cable projects</b>	
Eirgrid PLC	Ireland / UK Eirgrid East – West Interconnector, Irish Sea (2010 – 2013)
GeoSurvey UK	Portmarnock, Ireland to Porth Dafarch, Anglesey Sub-Sea Cable (2011 – 2012)
Intertek Metoc	Eirgrid Ireland/France Celtic interconnector, Irish Sea/EnglishChannel (2014 ongoing)
Intertek Metoc	Moyle Scotland/Northern Ireland interconnector, Irish Sea (2014 ongoing)
Intertek Metoc	North Sea Network Cable, North Sea (2012 – present)
Scottish Power & Prysmian	Western HVDC Link Marine Cable, Irish Sea (2011 – present)
<b>port &amp; harbour developments</b>	
Envirocentre	Dales Voe Oil Decommissioning Base, Shetland (2012)
SKM Enviros	Outer Berth Port of Leith, Scotland (2012 – present)
Envirocentre	Aberdeen Harbour, Scotland (2012)
Envirocentre	Tyne Dock, Newcastle, England (2011 – 2012)
St Helena Government	Jamestown Wharf Improvements, St Helena, South Atlantic (2011 – 2012)
Doran Consulting	Bunagee Pier, Co. Donegal, Ireland (2013 – present)

## KEY STAFF

**Chris Lowe** head of consultancy  
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Chris is one of Headland's founding directors and is leading the Consultancy Division. Working principally in Scotland and the north of England, he has over 25 years project management experience including a major call-off contract for pre-forestation surveys throughout upland Scotland on behalf of Historic Scotland. The expertise developed on this project has provided the cornerstone for our upland EIA portfolio. He provided evidence at the 2011 public inquiry in connection with Dunbeath wind farm and is currently involved with the archaeological mitigation programmes at Griffin and Calliachar wind farms in Perth & Kinross.

**Michael Walsh** maritime consultant  
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After a number of years as a Project Manager in the construction industry, Michael pursued a professional career in maritime archaeology. He was awarded a PhD in Maritime Archaeology from the University of Southampton. He is a visiting lecturer at the University's Centre for Maritime Archaeology. He has directed several large scale geophysical and archaeological surveys in the United Arab Emirates and worked on numerous maritime sites around the British coast and the Red Sea.

Michael started at Headland in 2013 where he is currently working on heritage assessments for an offshore wind farm off the coast of Northern Ireland and a wave and tidal scheme off the west coast of Scotland.

**Andy Boucher** principal geophysicist  
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Andy has over 25 years experience, having worked as a geophysicist for English Heritage, the French National Research Agency and West Yorkshire Archaeology Service before becoming MD of Archaeological Investigations Ltd. Andy continues to manage geophysics for Headland. Andy will coordinate and QA all geophysical assessments. Andy is Regional Manager for Headland Midlands & West and is a Company Director.

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