



## **Defra Consultation on the Marine Strategy Part 1 UK Updated Assessment and Good Environmental Status**

### Response by Honor Frost Foundation Steering Committee on Underwater Cultural Heritage

The Honor Frost Foundation (HFF) Steering Committee on Underwater Cultural Heritage (UCH) welcomes this opportunity to contribute views to Defra's consultation on the Marine Strategy Part 1: UK Updated Assessment and Good Environmental Status (GES).

The primary concern of the HFF Steering Committee on UCH is that the marine strategy framework – including the scope of GES – is itself flawed by the omission of the historic environment<sup>1</sup>, and that this flaw detracts from the proper protection of the UK marine environment whilst inhibiting the achievement of sustainable economic and social uses. Our comments can be summarised as follows:

- The omission of the historic environment from the UK Marine Strategy and its absence from the definition of Good Environmental Status is inconsistent with broader UK Government policy. The UK Marine Strategy should be updated to remedy the omission of the historic environment; and an express descriptor on the historic environment should be added to the scope of GES, complete with objective, targets and indicators.
- The characterisation of UK seas set out in Section 2 of the consultation document touches on matters relating to the historic environment, but it is significantly under-developed. The characterisation should:
  - acknowledge the time-depth and historical development of our current marine environment;
  - recognise how the historic environment contributes to what our seas provide for the UK;
  - demonstrate a detailed appreciation of the large part played by the historic environment in our use of the marine environment;
  - draw on the historic environment in better understanding the relationship between society and the sea; and
  - identify the predominant pressures facing the historic environment.

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<sup>1</sup> The historic environment is defined in para. 2.6.6.1 of the UK Marine Policy Statement as follows: 'The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged'.

- The current approach fails to recognise the relevance of the historic environment to achieving and maintaining certain aspects of Good Environmental Status, including Fish, Benthic Habitats, Commercial Fish, Hydrographical Conditions, Contaminants and Marine Litter. The updated Marine Strategy should make express reference to the historic environment in respect of these descriptors including their objectives, targets and criteria.

This response has not been framed directly by the four questions set out in the consultation document. However, the entire substance of this response can be seen to be addressing, jointly, questions 1 and 4. That is to say, it is our view that the UK Marine Strategy Part One does not provide an accurate reflection of the state of UK marine waters an economic and social uses of those waters (Q1); and in identifying the major gap presented by the omission of the historic environment, we have indicated how this gap could be filled (Q2). This response also comments on the adequacy of criteria and targets (Q2), including operational targets (Q3).

The principal focus of the Honor Frost Foundation is advancing marine archaeology in the eastern Mediterranean. Consequently, we would like to underline the important role of the UK in establishing 'best practice' internationally in how countries should address the marine environment, including the historic environment. That is to say, the thorough integration of the historic environment within the UK Marine Strategy and the inclusion of an express descriptor on GES would have a positive effect far beyond UK seas. Conversely, the continued omission of the historic environment from the UK's conception of its Marine Strategy would have wider, negative consequences. We very much hope that the UK Government will bear in mind its highly influential role internationally in matters relating to the marine environment, and ensure that the revised UK Marine Strategy is an exemplar in advancing marine archaeology in the eastern Mediterranean and beyond.

### **Update the UK Marine Strategy to remedy the omission of the historic environment and add a descriptor for the historic environment to 'Good Environmental Status'**

It is highly unsatisfactory that the historic environment is omitted from the UK Marine Strategy and is absent from the scope of Good Environmental Status. These omissions and absences should be remedied in updating the UK Marine Strategy, so that it properly considers the historic environment and includes an express descriptor on the historic environment complete with objective, targets and indicators.

We appreciate that the marine strategy framework and GES have been determined through European law, but this does not mean that the UK need limit itself to the definitions and scope of the Marine Strategy Framework Directive (MSFD). This is especially important given that the consultation document expressly states that the UK Marine Strategy will continue in use when the UK leaves the EU, when the European definition will no longer apply. The UK already recognises that the marine environment is broader in scope than set out in the MSFD through the statutory UK Marine Policy Statement (MPS). The HFF Steering Committee on UCH is of the firm opinion that the UK's Marine Strategy should address the full scope of the marine environment as set out in the UK MPS, including its policies on the historic environment:

2.6.6.2 The historic environment of coastal and offshore zones represents a unique aspect of our cultural heritage. In addition to its cultural value, it is an asset of social, economic and environmental value. It can be a powerful driver for economic growth, attracting investment and tourism and sustaining enjoyable and successful places in which to live and work.

2.6.6.3 The view shared by the UK Administrations is that heritage assets should be enjoyed for the quality of life they bring to this and future generations, and that they should be conserved ... in a manner appropriate and proportionate to their significance. Opportunities should be taken to contribute to our knowledge and understanding of our past by capturing evidence from the historic environment and making this publicly available ...

It is worth recalling that the policies set out in the UK MPS – including on the historic environment – are binding on decisions relating to the UK Marine Area by public bodies by virtue of s.58 of the Marine and Coastal Access Act 2009.

We note that the introduction to the consultation document makes reference in Section 1.1 to the UK's vision for 'clean, healthy, safe, productive and biologically diverse oceans and seas'. It is worth recalling that this vision, set out in the Government's High-Level Marine Objectives<sup>2</sup>, also recognised the historic environment. Specifically, the high-level objective of ensuring a strong, healthy and just society was framed in terms of people appreciating 'the diversity of the marine environment, its seascapes, its natural and cultural heritage and its resources and act responsibly'. Similarly, the high-level objective of promoting good governance envisioned that 'the use of the marine environment is ... based on an ecosystems approach which takes account of climate change and recognises the protection and management needs of marine cultural heritage according to its significance.' The historic environment is intrinsic to the UK's vision and it is entirely fitting that the UK Marine Strategy reflects this.

We also note that the consultation document refers to the UK's commitments to protect and preserve the marine environment under the UN Convention on the Law of the Sea (UNCLOS) 1982. Again, it is also worth recalling that the UK's commitments under UNCLOS 1982 include an obligation towards the historic environment: States have the duty to protect objects of an archaeological and historical nature found at sea by virtue of article 303(1).

The inclusion of a descriptor on the historic environment would be relatively straightforward to introduce. It would significantly increase appreciation of the human and historical dimension to our current environment and facilitate future management thereby. UK heritage agencies in England, Scotland, Wales and Northern Ireland already have objectives, targets and indicators for the historic environment, including established methodologies and datasets that can be used for monitoring (see, for example, Historic England's *Heritage Indicators 2018*<sup>3</sup>). The UK heritage agencies already encompass the UK Marine Area to some extent in their functions. Consequently, there are existing objectives etc. for the historic environment already applicable to UK sea that could form the basis for the elaboration of objectives, targets and indicators for a descriptor for the historic environment as a component of GES.

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<sup>2</sup> Defra, 2009, Our Seas – A Shared Resource: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/182486/ours-eas-2009update.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/182486/ours-eas-2009update.pdf)

<sup>3</sup> <https://historicengland.org.uk/content/heritage-counts/pub/2018/hc2018-heritage-indicators/>

Recognising the historic environment as a descriptor in Good Environmental Status would help achieve and maintain GES as defined by the current descriptors.

What is lacking from UK management of the marine historic environment, exacerbated by the omission of the historic environment from the Marine Strategy and GES, is a greater degree of joined-up government. Policy and implementation relating to the marine historic environment is strongly siloed, away from other components of the marine environment to which it is strongly related. This amounts to inefficient use of public funds, especially where opportunities for more effective, informed and integrated approaches are missed. The Honor Frost Foundation has recently mapped out the multiple interests and administrative measures that apply to shipwrecks – an important component of the marine environment – demonstrating the need for a more joined up approach<sup>4</sup>. Inclusion of the historic environment within GES would help overcome this major source of inefficiency.

A key point to make about the marine historic environment is that its sustainable use is a major source of environmental, economic and social benefits. Safeguarding the marine historic environment need not be a source of difficulties and constraint: it is an extremely valuable component of UK seas. This point is elaborated in the following section, but reference should be made to the HFF's report on *The Social and Economic Benefits of Marine and Maritime Cultural Heritage*<sup>5</sup>.

Omitting the historic environment from the UK Marine Strategy, despite the historic environment being subject to binding policies in the statutory UK MPS, is a major failing. The absence of a descriptor for the historic environment as an integral component of our marine environment undermines the characterisation of UK seas, as set out in the following section.

## **Acknowledge the historic environment as part of our shared sea**

Although the characterisation of UK seas set out in Section 2 touches on matters relating to the historic environment, the characterisation is significantly under-developed in respect of the historical development of our current marine environment, in fully recognising what our seas provide for the UK, in appreciating the uses of the marine environment, and in representing predominant pressures.

### **Characterisation of our seas**

One of the most important characteristics of the UK coast, coastal waters and offshore waters is the huge time depth of human use of the sea, including human interventions that have strongly shaped the current character of the marine environment. It is common to regard the human pressures that give rise to the need for the UK Marine Strategy to be relatively recent, but it is essential to recognise that major human influences stretch back centuries and even millennia. The coastline of the UK – including the current form of its estuaries – is largely an artefact for much of its length, shaped by construction and reclamation dating back into the Medieval period if not earlier. The effects of human activity on river-borne sedimentation – including land-based

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<sup>4</sup> See *Managing Shipwrecks*, 2018, [http://www.fjordr.com/uploads/3/4/3/0/34300844/managing\\_shipwrecks\\_april\\_2018\\_-\\_web.pdf](http://www.fjordr.com/uploads/3/4/3/0/34300844/managing_shipwrecks_april_2018_-_web.pdf)

<sup>5</sup> [http://www.fjordr.com/uploads/3/4/3/0/34300844/brij3911\\_hff\\_report\\_final\\_web.pdf](http://www.fjordr.com/uploads/3/4/3/0/34300844/brij3911_hff_report_final_web.pdf)

sources of contaminants – also stretch back long into the past, encompassing large-scale metal mining over hundreds of years and even the expansion of arable farming in prehistory. Equally, people have been fishing – often on large-scales – over very long time scales, affecting the overall structure and function of marine ecosystems.

It is essential that the UK Marine Strategy acknowledges the long history of human intervention in the marine environment, both to place current issues in context and to inform – on the basis of historical understanding -- levels of human activity that can be sustained in future.

### **UK MPA network**

The significant improvement in the UK MPA network is a tremendous step forward. Reference might also be made to the role of Marine Protected Areas that are designated for heritage purposes – including Historic MPAs in Scotland – which also offer incidental protection to features of nature conservation interest. Greater reference might also be made to the potential of extensive nature conservation and geological MPAs to offer degrees of protection to heritage assets, including historic wrecks and submerged prehistoric landsurfaces and deposits (protected as quaternary sediments). Overall, there is a strong case for a much more joined up approach to the whole network of MPAs – encompassing historic MPAs – to make the most effective combined use of their management.

### **What our seas provide for the UK**

The characterisation acknowledges that our seas provide many important resources, services and livelihoods, including recreational opportunities. The historic character of our coasts and seas makes a huge contribution to the UK, as a major component of the ‘sense of place’ appreciated by people who live or work on the coast, and as a major attraction to international and domestic visitors. HFF published a report on *The Social and Economic Benefits of Marine and Maritime Cultural Heritage*<sup>6</sup> that would form a starting point for recognising how the marine historic environment contributes to the UK.

As well as its role in sense of place and visiting, it is important to recognise that the historic environment gives rise to a range of other, substantial benefits that can be expressed as Ecosystem Services. Notably, shipwrecks are an important focus for certain forms of commercial fishing, for sea angling, and for recreational diving. Although direct quantifications are unfortunately rare, these services are likely to have a high value, as noted in HFF’s report *Managing Shipwrecks*<sup>7</sup>.

### **Uses of the marine environment**

Following directly from the above, the historic character of UK coasts and seas is a key contributor to our use of the marine environment, creating tangible benefits in goods and services, value, employment and well-being. The characterising recognises the massive contribution of leisure and recreation to the overall marine economy: it is the fourth largest

<sup>6</sup> [http://www.fjordr.com/uploads/3/4/3/0/34300844/brij3911\\_hff\\_report\\_final\\_web.pdf](http://www.fjordr.com/uploads/3/4/3/0/34300844/brij3911_hff_report_final_web.pdf)

<sup>7</sup> [http://www.fjordr.com/uploads/3/4/3/0/34300844/managing\\_shipwrecks\\_april\\_2018\\_-\\_web.pdf](http://www.fjordr.com/uploads/3/4/3/0/34300844/managing_shipwrecks_april_2018_-_web.pdf)

sector in terms of Gross Value Added (GVA) after oil and gas, maritime transport and telecommunications and exceeding renewable energy, fisheries, aquaculture and other sectors. Leisure and recreation is second highest in terms of numbers employed. Clearly, not all of this value and employment arises from the historic environment: but it can be reasonably concluded that a significant proportion is dependent on the quality of the historic environment. It is imprudent for such a source of value and employment arising from the environment not to be reflected expressly in the UK Marine Strategy with a specific descriptor as a component of GES.

The fact that heritage is a major source of benefits, both in economic and in social terms, is made plain by annual studies under the Heritage Counts programme<sup>8</sup>. Although they do not distinguish heritage associated with our coasts and seas from their overall figures, *Heritage and Economy 2018*<sup>9</sup> and *Heritage and Society 2018*<sup>10</sup> provide ample evidence of how significant the use of heritage is to the UK. Both in terms of background data and assessment methodologies, these documents provide a basis on which the importance of our marine historic environment can be gauged. There is hard evidence in these documents, either specifically or by proxy, for the contribution of the marine historic environment in terms of goods and services, GVA, employment and the indicative cost of degradation.

## Society and the sea

The reasons for addressing in detail the role of the historic environment is strongly supported by the sections of the characterisation on social value and benefits of the marine environment, public perceptions and the future of marine social science. These sections are very welcome and underline the importance of engaging with the human dimension of the marine environment. Consistent with our comments above, we strongly welcome the recognition that the marine environment provides considerable social and cultural value, including heritage, identity, inspiration, sense of place, well-being and so on (section 2.5.6). In line with our comments about leisure and recreation, it is essential that Government is able to better understand and safeguard the attributes of our coasts and seas that give rise to these benefits. We concur, therefore, with the comments about needing to understand individual and societal perceptions (section 2.5.7). We also agree with the need to involve communities in marine conservation and planning: though it is not clear that the Marine Pioneers are engaging with communities as much as they might in relation to their heritage. We also support recognition of the importance of marine social sciences in gaining insight into the complexities and diversities of societal relationships with the sea. Indeed, understanding the relationship between people and the sea over time – expressed through the physical attributes of marine environment – lies at the core of marine archaeology. As noted above, express inclusion of heritage within the UK Marine Strategy, with a specific descriptor, is an essential step in ensuring that social value and benefits, public perceptions, and societal relationships with the sea, are effectively grounded in an understanding of past, present and future. We would very much encourage the inclusion of heritage expertise within the Social Science Task Group of the Marine Science Co-ordination Committee.

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<sup>8</sup> <https://historicengland.org.uk/research/heritage-counts/>

<sup>9</sup> <https://historicengland.org.uk/content/heritage-counts/pub/2018/heritage-and-the-economy-2018/>

<sup>10</sup> <https://historicengland.org.uk/content/heritage-counts/pub/2018/heritage-and-society-2018-pdf/>

## **Predominant pressures affecting the marine historic environment**

Express identification of the marine historic environment within the UK Marine Strategy, to include a specific descriptor, would also assist in identifying and addressing the predominant pressures affecting the marine environment. Adding the historic environment would prompt identification of pressures affecting this descriptor, many of which are already outlined in respect of other descriptors. Measures to deal with the pressures affecting these other descriptors are likely to safeguard or enhance the historic environment also, so there are additional benefits to acknowledge. Equally, measures to address pressures on the historic environment will have benefits for other descriptors. However, perhaps the greatest incentive to considering the historic environment when addressing pressures is that it encourages a historical perspective on these pressures, some of which may have occurred over long periods and/or present complex, compounded pressures. A historical perspective on these pressures may be essential to both understanding and ameliorating pressures on descriptors.

## **Recognise the role of the historic environment in respect of other GES descriptors**

Building on the last point, the lack of consideration of heritage means that the current approach fails to recognise the relevance of the historic environment to achieving and maintaining certain aspects of Good Environmental Status, including Fish, Benthic Habitats, Commercial Fish, Hydrographical Conditions, Contaminants and Marine Litter. The updated Marine Strategy should make express reference to the historic environment in respect of these descriptors. Specifically, the UK Marine Strategy should address specifically the role in the marine environment of a) shipwrecks and historic structures, and b) past coastal and marine activities, including their implications for achieving and maintaining GES.

### **Shipwrecks and historic structures**

The principal dimension to the role that shipwrecks and historic structures – such as piers, jetties, breakwaters, harbour walls and sea forts -- play with respect to GES is as habitats. There is a second important dimension specific to shipwrecks, namely their legacy role in respect of pollutants.

Increasingly, historic shipwrecks and built marine heritage are being regarded as significant habitats, comparable in some respects to artificial reefs (including wrecks sunk intentionally in recent years) and modern structures such as windfarm foundations. Shipwrecks and historic structures offer complex, hard substrates often in areas of soft, uniform sediments; this complexity may encourage biodiversity whilst also providing refuges from predators and human activities such as trawling, and serving as nurseries. As historic wrecks and structures have been on the seabed for many decades, they may host slow growing species, and there are indications that multiple shipwrecks in an area may also provide network effects. Although work has been carried out on the ecological value of shipwrecks on the Continent and elsewhere in the world, little research has been carried out in the UK – despite the particularly high number of shipwrecks and historic structures in UK waters. In terms of GES descriptors, the potentially significant role that historic wrecks and structures play in the marine environment has implications for Fish, Benthic Habitats, Food Webs and Commercial Fish that ought to be reflected in the UK marine Strategy.

Shipwrecks should also be considered expressly in respect of Contaminants and Contaminants in Seafood. Shipwrecks are, indeed, double-edged in this respect: contaminants have been introduced to the marine environment through ships being wrecked; but wrecks may also contain these contaminants, preventing them spreading into the marine environment. In the latter case there is, however, a significant risk, in that metal wrecks are subject to decay and deterioration – sometimes exacerbated by human pressures – that may result in catastrophic release of contaminants which were previously contained. Contaminants associated with wrecks include oil and chemicals, especially chemicals arising from ordnance. Contamination from ordnance – as well as the risk of explosion – also arises from ordnance that was deployed or dumped at sea during and after the First and Second World War; an understanding of the historic environment can help in understanding the extent, composition and risks of contaminants associated with large-scale deployment and dumping of ordnance.

### **Past coastal and marine activities**

Aside from wrecks and structures, past human activities at the coast and in marine areas continue to have direct relevance to several GES descriptors. For example, current Hydrographical Conditions in coastal waters often represent permanent alterations resulting from anthropogenic activities in the recent, but also more distant, past. Proposed changes arising from marine infrastructure developments, for example, need to be considered in terms of major changes that have occurred in previous centuries. This is especially evident in many UK estuaries, where the shoreline is often an artefact as a result of reclamation, which may date back to the Medieval period. Equally, the form of the seabed may be a result of various forms of intentional and unintentional manipulation, ranging from dredging to the deposition of large volumes of intertidal sediment as a result of changing agricultural practices or mining.

Obviously, Hydrographical Conditions continue to change as a result of human influences. In particular, reference ought to be made to the effects of anthropogenic climate change on sea-level and on storm frequency and intensity, which merit their own indicators. The historic environment provides valuable context for understanding changes in Hydrographic Conditions such as sea-level over recent millennia, represented by submerged prehistoric landsurfaces and deposits. But the historic environment is also at risk from changes associated with human-induced sea-level rise and increased storminess, causing erosion to sensitive intertidal and shoreline sites that have been stable for centuries.

Past human activities are also relevant to understanding Contaminants and Contaminants in Seafood. In addition to the points made about contaminants associated with shipwrecks and ordnance, human activities in the past may be an important origin of land-based contaminants within sedimentary deposits, especially in estuaries. Whilst it might be assumed that such contaminants are a product of industrial pollution in the last 100-150 years, it is essential to take a more historical perspective that encompasses much earlier industrial processing. Large scale metal mining, for example, may date back many centuries; processing in upland areas made heavy use of watercourses, resulting in deposition of Contaminants within estuarine deposits.

There is also an important historical dimension to Commercial Fish, again because the time-depth of large-scale fishing is much greater than often assumed. This issue is encapsulated by the ‘shifting baseline’ issue, in that it is difficult to establish a baseline for sustainable fishing in future because humans have been influencing fish stocks over a much longer period than conventional



statistics are available. Again, the investigation of the historic environment can contribute to a much better understanding of the history of fishing and fisheries, providing a firmer basis for policy and management. Express recognition of the historical dimension of Commercial Fish is required for this descriptor.

Finally, we would like to express support for regarding Marine Litter as a descriptor for Good Environmental Status. However, we would note that cultural heritage on our coasts and seas should not be regarded as 'litter' even though it is also of anthropogenic origin. Specific laws and procedures apply to the discovery and removal of cultural heritage and, moreover, actions to remove litter could fall foul of heritage law if they take place on designated heritage assets. Further, actions such as removing 'ghost gear' from shipwrecks should avoid causing damage to those wrecks. Shipwrecks and abandoned boats (hulks) should not be removed from intertidal areas as 'litter' or eyesores without first establishing if they are historically significant. In recent years, several heavily decayed vessels in intertidal areas have proved to be very important in heritage terms.

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The Honor Frost Foundation (HFF) is a UK-based charity founded in 2011 to support maritime archaeology in the Mediterranean. Honor Frost was an early pioneer in the field of underwater archaeology. When Honor died in 2010 she left the bulk of her estate to establish the Foundation to promote marine and maritime archaeology with a focus on the eastern Mediterranean.

HFF's mission is to promote the advancement and research, including publication, of maritime archaeology in the eastern Mediterranean and elsewhere, with an emphasis on Lebanon, Syria and Cyprus.

This response has been drafted by HFF's Steering Committee on Underwater Cultural Heritage (UCH), which provides advice to HFF and helps to shape its policy towards UCH. The HFF Steering Committee on UCH identifies potential public policy issues, considers the way to strengthen relationships with key audiences, advises on how to communicate activities, and implements its programme of work accordingly.

For further information about HFF please see <http://honorfrostfoundation.org/>.