

**Marine Strategy Framework Directive  
consultation: UK Initial Assessment and Proposals  
for Good Environmental Status**

**Question and Answer Document**

**March 2012**

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**Northern Ireland  
Executive**

[www.northernireland.gov.uk](http://www.northernireland.gov.uk)



**The Scottish  
Government**



**Llywodraeth Cymru  
Welsh Government**

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This consultation document has been published by Defra for HM Government and is also available on the Defra website at: <http://www.defra.gov.uk/consult/open/>

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This document has been produced to support the joint consultation between Defra, the Northern Ireland Executive, the Scottish Government and the Welsh Government on the implementation of the Marine Strategy Framework Directive (MSFD). The consultation documents and information on how to respond can be found at: <http://www.defra.gov.uk/consult/open/>

Further details on the MSFD can be found at: <http://www.defra.gov.uk/environment/marine/msfd/>

# General Information

## Administration of the Consultation

Q.1 Where can I find the Consultation?

A.1 The consultation has been emailed to key stakeholder groups and is available on the Defra website - <http://www.defra.gov.uk/consult/open/>

Q.2 What are the timings for this Consultation?

A.2 The Consultation is open from the 27th March through to the 18<sup>th</sup> June 2012.

Q.3 How do I respond to the Consultation?

A.3 The closing date for this Consultation is 18<sup>th</sup> June 2012. Responses should be emailed to [MSFDTeam@defra.gsi.gov.uk](mailto:MSFDTeam@defra.gsi.gov.uk) or sent by post to: MSFD Team, Department for Environment, Food and Rural Affairs, Area 2D, Nobel House, 17 Smith Square, London, SW1P 3JR.

Q.4 Does the Consultation document include all the information I need to be aware of?

A.4 The Consultation package available at <http://www.defra.gov.uk/consult/open/> should include all the information necessary. The Consultation document includes a summary of the Initial Assessment of the state of UK seas, proposals for UK characteristics of Good Environmental Status (GES) and associated targets and indicators, and the Impact Assessment which outlines the potential costs and benefits of the proposals. Additional information such as the technical advice on which the proposals are based can also be found on the Consultation pages.

Q.5 What is the process for considering Consultation responses?

A.5 The Government will consider all responses received and publish their formal response later in 2012. The proposals will be amended if necessary based on the consultation responses prior to submission to the European Commission.

Q.6 When will the proposals outlined in the Consultation be submitted to the European Commission?

A.6 The formal deadline outlined within the Directive for submission of Member States proposals is the 15th July 2012, however Member States have an additional 3 calendar months from this date to prepare their documentation for submission.

Q.7 Who can I speak to if I have further questions on any aspect of this Consultation?

A.7 For further information on any aspect of the consultation please contact Naomi Matthiessen on 0207 238 5388 or Joanne Higgs on 0207 238 4284

## Practical application of the Marine Strategy Framework Directive (MSFD)

Q.8 Where does the MSFD apply in UK waters?

- A.8 The MSFD applies to the whole of the UK's marine area, from mean high water (springs) to the extent of the UK's jurisdiction. This includes the water column, sea bed and subsoil within the UK territorial sea area and the UK renewable energy zone (Exclusive Economic Zone when formally agreed), and beyond that, to the sea bed and subsoil within the limits of any areas designated under section 1(7) of the Continental Shelf Act 1964. For more information, see Figure:2 Area of UK waters over which the MSFD applies on p.17 of the Consultation document.
- Q.9 Which regions and subregions of the MSFD apply to UK waters? How do these link with existing UK marine areas i.e. the Charting Progress 2 assessment regions?
- A.9 The Directive divides Europe's waters into four marine regions, with the UK's waters fall within the North East Atlantic Ocean marine region. This region is further divided into four subregions, with the UK's waters falling within the Greater North Sea sub-region and the Celtic Seas subregion. The boundaries of these sub-regions within UK waters are consistent with the boundaries of the 8 Charting Progress 2 assessment regions, with Charting Progress 2 regions 1,2 and 3 falling within the Greater North Sea subregion, and Charting Progress 2 regions 4,5,6,7 and 8 falling within the Celtic Seas subregion. For more information see Table 1: MSFD Marine Regions and associated Subregions on page 17 of the Consultation document. The European Environment Agency is developing a map of the MSFD marine regions and sub-regions and this will be available shortly.
- Q.10 Do the MSFD marine regions and subregions align with the OSPAR marine regions?
- A.10 The Directive requires marine regions and subregions to be defined taking into account key features of the marine ecosystem (e.g. hydrological, oceanographic and biogeographic features). The OSPAR regional boundaries were primarily defined on an administrative basis. For this reason, the UK has chosen to define the boundaries of MSFD subregions within its waters on the basis of the Charting Progress 2 assessments regions, which take better account of hydrological, oceanographic and biogeographic features. This means that there are some differences between the UK's chosen boundaries for the MSFD subregions and the OSPAR regions.
- Q.11 What are the responsibilities of the UK Government and Devolved Administrations in implementing the MSFD?
- A.11 The UK administrations have agreed to develop a single Marine Strategy covering the whole of the UK's marine area. The Secretary of State is responsible for carrying out the UK initial assessment and developing the UK characteristics of GES and associated targets and indicators, in close collaboration with Scottish and Welsh Ministers and the Department of Environment in Northern Ireland. Each of the UK administrations are then responsible for developing their own programmes of monitoring and measures in close coordination with each other.

Q.12 How will GES be assessed in practice? How will a UK assessment be aggregated at a regional seas scale and what would constitute a failure to achieve GES?

A.12 These are fundamental and challenging questions facing all Member States which are still being considered within OSPAR and at an EU level. Further work is planned at EU level over the next 12 months to develop thinking on these issues and the UK plans to play a proactive role in this.

Q.13 Who will be responsible for ensuring activities in the marine environment are not compromising the targets set in order to achieve GES?

A.13 Government Departments, regulators, and other agencies currently involved in the licensing and management of human activities will continue to be responsible for ensuring the sustainable use of the marine environment and thus meeting the requirements of the MSFD.

### **Development of the proposals in the Consultation**

Q.14 How have stakeholders been involved in developing the proposals in this consultation to date?

A.14 Stakeholders have been engaged in the development of the UK's approach to implementation of the Directive from the start. In particular the proposed characteristics of GES and associated targets and indicators have been developed with input from stakeholders through a number of workshops and meetings over the last two years.

Q.15 Have the Devolved Administrations been involved in drafting the proposals in this Consultation?

A.15 The Devolved Administrations have been closely involved throughout the development of these proposals and have provided significant technical expertise to support the development of the evidence base on which the proposals are based. The proposals have been formally agreed at Ministerial level by each of the Devolved Administrations.

Q.16 What role have scientists played in developing the proposals in this Consultation?

A.16 The evidence on which the proposals are based has been developed by the Centre for Environment, Fisheries and Aquaculture Science and the Joint Nature Conservation Committee, with input from a wide range of scientific experts and economists, including those within the UK Marine Monitoring and Assessment Community (UKMMAS). In particular the UKMMAS Healthy and Biologically Diverse Seas Evidence Group (HBDSEG) has played a leading role in developing the evidence base for the proposals for the biodiversity elements of GES.

Q.17 Why are the monitoring implications included in the proposals when monitoring programmes for MSFD do not need to be in place until 2014?

A.17 This consultation covers proposals for UK characteristics of GES and associated targets and indicators. We are not consulting on the monitoring programmes for assessing progress towards GES at this stage, and these will be developed over the next two years with input from relevant experts and stakeholders. However, for the purposes of this consultation experts have

Q.18 What is the risk that the Consultation proposals are gold plating the Directive?

A.18 Detailed discussions have taken place with other Member States, the Commission, key stakeholders, experts, and policy makers to ensure the proposals in the consultation do not go further than the Directive requires. The proposals are based on the 11 Descriptors set out in the Directive, and the criteria and indicators set out in the Commission Decision on Good Environmental Status<sup>1</sup> and do not go beyond these.

Q.19 Is the evidence base sufficient to support the proposed targets and have targets been proposed where evidence is lacking?

A.19 All the proposals for targets in this consultation are based on the best available evidence and expert judgement. Where it has been considered that the evidence base is not strong enough to support a target, no proposals have been put forward. Where gaps in our understanding prevent the setting of targets indicators have been proposed and further work will be undertaken in order that targets can be put forward at the next review period in 2018.

Q.20 How do the proposed GES characteristics and associated targets and indicators take into account the impacts of climate change on the marine environment?

A.20 Whilst the Directive does not explicitly require Member States to set targets which address the impacts of climate change it does require that they are set in light of prevailing environmental conditions. The proposals for GES targets in this consultation take into account, as far as possible, future environmental changes such as natural variation and anthropogenic climate change. The Directive also requires Member States to adopt an adaptive management approach, ensuring their Marine Strategies are reviewed on a six yearly cycle. This provides an opportunity for Member States to account for changes in prevailing environmental conditions, such as those arising from climate change, as they become clear.

Q.21 Some of the proposed targets are trend-based and do not set an overall threshold for GES. How can these targets be considered to adequately describe GES?

A.21 In principle trend targets cannot describe GES. However, for some aspects of GES, where our scientific understanding is limited, it has been necessary to take a more pragmatic approach to meeting our obligations under the Directive. Discussions with the European Commission have indicated that it understands these issues and supports the adoption of trend based targets with the expectation that they will be modified in the future as our understanding improves.

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<sup>1</sup> Commission Decision of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters 2010/477/EU <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:232:0014:0024:EN:PDF>

Q.22 The MSFD allows for a balancing of environmental protection with economic considerations. How has this been accounted for in the development of the proposed targets?

A.22 An Impact Assessment has been developed to accompany the proposals set out in this consultation which analyses the potential economic impacts of the proposals. The Government and Devolved Administrations are keen to seek input from stakeholders on the content of this analysis as part of the consultation exercise. Further detailed economic analysis will be carried out over the next 3 years as part of the development of the UK's programmes of measures for achieving GES. This will include both cost effectiveness and cost benefit analysis of any new measures. As part of the development of the programmes of measures the Government and Devolved Administrations will consider the justification for using any of the exceptions set out in the Directive, including the requirement that Member States do not need to take action to achieve GES if the costs of doing so would be disproportionate taking into account the risks to the marine environment, provided there is no further deterioration.

### **Links between MSFD and existing legislation and regulatory frameworks**

Q.23 How have existing legislative requirements been considered in developing the proposals in this consultation i.e. Habitats Directive, Water Framework Directive, Marine and Coastal Access Act?

A.23 Significant environmental protection is already provided in UK waters through numerous legislative and policy mechanisms. Given the MSFD is intended as a Framework Directive which brings these together in a holistic manner, existing targets and indicators (e.g. from the Water Framework Directive and the Habitats Directive) have been considered and included within these proposals where appropriate.

Q.24 How will the reformed Common Fisheries Policy support the achievement of GES?

A.24 The CFP will continue to be the principle legal mechanism for managing fish stocks in EU waters. We expect a reformed CFP to play a critical role in supporting the achievement of GES for commercial fish (Descriptor 3) and biodiversity (Descriptors 1, 4 and 6), ensuring consistency across European waters and promoting sustainable stocks and fishing practices.

Q.25 The MSFD and the Water Framework Directive overlap in coastal water bodies. How will this overlap be managed to ensure a joined up approach is taken?

A.25 Given the degree of overlap, both geographically and in terms of objectives, there is the potential for significant synergies between the targets and measures across the two Directives. The MSFD recognises that overlaps with the WFD exist and makes it clear that in coastal waters the MSFD is only intended to apply to those aspects of GES which are not already covered by the WFD (e.g. noise, litter and aspects of biodiversity). In order to improve the consistency of approaches across the two Directives, the proposals for GES targets and indicators in this Consultation have been aligned as far as possible with similar targets and assessment tools under



the WFD. A more detailed factsheet on links between MSFD and WFD is available at <http://www.defra.gov.uk/environment/marine/msfd/>

Q.26 How do the Marine Policy Statement and marine planning contribute to delivering the objectives of the Directive?

A.26 The UK marine planning framework was set up under the UK Marine and Coastal Access Act 2009, the Marine (Scotland) Act (2010) and the forthcoming Northern Ireland Marine Bill, to ensure the sustainable development of marine resources which includes applying an ecosystem-based approach to the management of human activities. The overarching framework for marine planning in the UK is the Marine Policy Statement (MPS). The MPS brings together and clarifies UK marine policies and reflects European legislation and wider international commitments in achieving sustainable development. Marine planning contributes to the effective management of marine activities and will clarify marine objectives and priorities, directing decision-makers and users towards more consistent, evidence based decisions and sustainable use of marine resources, tailored towards local conditions. Marine Plans will support the implementation of the UK's programme of measures for GES as part of their objective of achieving sustainable development and the policies for each Plan area are being developed taking into account the proposed GES targets and indicators.

Q.27 The MSFD Programme of measures has to be implemented by 2016, but marine plans will not be in place across the UK until 2021, how will this affect the UK's achievement of GES?

A.27 Marine Plans will support the implementation of the UK's programme of measures for GES as part of their objective of achieving sustainable development. The overall impact of marine planning in helping to achieve GES will become clearer as the programmes of measures for GES are developed between now and 2015 taking into account the existing policy framework. However, marine plans are only one of a range of tools which we will be using to support the achievement of GES.

Q.28 What contribution will Marine Protected Areas make towards achieving GES?

A.28 The UK's network of Marine Protected Areas will fulfil the Directive's requirement to put in place spatial protection measures which will contribute to a coherent and representative network of Marine Protected Areas. It is also expected to play a significant role in supporting the achievement of the GES characteristics and targets proposed in this consultation, particularly in relation to threatened, vulnerable and representative species and habitats. However, until the sites are designated we cannot say to what extent this network will help achieve GES and additional measures may be needed to provide some protection to species and habitats outside the MPA network.

Q.29 Is achieving GES equivalent to achieving Favourable Conservation Status under the Habitats Directive?

A.29 Although the broad aims of GES and Favourable Conservation Status are similar, it would be wrong to say that they are equivalent. The Habitats

Directive is aimed at protecting particular species and habitats which are threatened or declining, whereas GES under the MSFD is something which must be achieved for species and habitats across the whole of the UK's seas. For this reason, it was not considered appropriate under GES to apply the FCS targets that are used under the Habitats Directive to all UK species and habitats. Instead, an approach has been taken which ensures comparability of targets between the Directives for listed species and habitats, but recognises that a different approach is needed for wider marine habitats and species not covered by the Habitats Directive. However, due to the strong links between the objectives of these two Directives it is anticipated that management measures being taken to achieve the Habitats directive will play a significant role in supporting the achievement of GES, particularly in relation to Descriptors 1 (biodiversity), 4 (food webs) and 6 (seafloor integrity).

Q.30 Will the review of the implementation of the Habitats and Wild Birds Directives affect the proposals being put forward and how will the outcomes of the review be taken up in the UK proposals?

A.30 The Review has delivered a series of sensible, pragmatic measures which will uphold the integrity and laudable ambition of the original Directives, yet will also reduce many of the administrative headaches which can impede progress and flexibility. It demonstrates that important work can be done to alleviate unnecessary red tape and improve efficiency without watering down the ultimate objectives.

### **Regional Coordination between Member States in the North East Atlantic**

Q.31 What has been done to ensure sufficient regional coordination has taken place between the UK and other countries and what has been the role of OSPAR?

A.31 The UK has held a number of bilateral meetings with other countries to improve regional coordination, including with France, Germany, Ireland, and the Netherlands. In addition, within OSPAR, the UK has chaired a dedicated group of policy experts to facilitate the exchange of information and approaches between Countries. The OSPAR thematic committees have also considered the scope for coordination of GES targets and indicators across the North East Atlantic Region and have developed advice on this. An OSPAR report on the extent of regional co-ordination on the MSFD within the North East Atlantic should be available shortly.

Q.32 Are the UK proposals sufficiently coordinated with other Member States?

A.32 Our engagement so far with other countries gives us confidence that the UK proposals in this consultation are broadly in line with what will be put forward by other Member States, particularly those in the North East Atlantic. However, it will not be possible to achieve a perfectly coordinated regional approach to implementation of the Directive in 2012 and this will be an iterative process as we move forward with future cycles of the Directive. Improving regional coordination is a high priority for the UK and we plan to play a proactive role both in OSPAR and at a European level going forward.

Q.33 Will the UK proposals be changed after the Consultation if other Member States decide to take significantly different approaches to the UK?

A.33 Any changes to the proposals will need to be considered in the light of the responses we receive to the consultation and ongoing discussions in OSPAR and the relevant EU working groups. Any significant changes to the UK proposals would be subject to further consultation with stakeholders.

### **Implications of the proposals in the Consultation**

Q.34 Will the proposals contained within the Consultation result in more regulation and greater administrative burdens on businesses?

A.34 The proposals for GES targets and indicators contained within the Consultation do not impose any additional regulation or administrative burdens on businesses. In terms of implementing the measures necessary for achieving GES, it is anticipated that the existing regulatory framework will play a significant role and it is not yet clear whether any additional regulatory measures will be needed. This is something which will be explored as the UK Government and Devolved Administrations start to develop the programmes of measures for GES between now and 2015. Stakeholders will be fully engaged in this process and every effort will be made to keep additional regulation and administrative burdens to a minimum.

Q.35 Have the MSFD regulations been considered in the Red Tape Challenge?

A.35 The MSFD is transposed in the UK through the Marine Strategy Regulations 2010. These Regulations were included in the list of measures that were open to scrutiny and challenge by the public as part of the Red Tape Challenge. Defra is recommending that these Regulations be kept on the basis that the analysis in our most recent Impact Assessment indicates that the costs of implementing them are likely to be significantly outweighed by the benefits. The public can view comments on the MSFD Regulations on the Red Tape Challenge website:  
<http://www.redtapechallenge.cabinetoffice.gov.uk>.

Q.36 How can I tell what measures will be necessary to meet the proposals outlined in the Consultation?

A.36 An Impact Assessment has been developed as part of the consultation package analysing the potential impacts of the proposed GES targets and indicators. This looks at a range of possible management measures which policy makers and experts consider could be necessary to meet the targets proposed in the consultation. As part of the consultation process we are keen to get input from stakeholders on whether this range of potential measures is realistic and whether any additional/different measures might be needed.

### **Next steps in the MSFD implementation process**

Q.37 What are the next steps in implementing the MSFD?

A.37 Once the UK initial assessment, characteristics of GES and associated targets and indicators have been finalised and submitted to the European Commission, work will begin to develop and implement a coordinated monitoring programme (by July 2014) to measure progress towards

achieving GES. Following this, a programme of measures for achieving GES will be developed (by December 2015) and implemented (by December 2016).

Q.38 How and when will fit for purpose monitoring programmes be developed?

A.38 Considerations are already underway with respect to the monitoring requirements of the MSFD. The required development and adaptation of monitoring programmes will be progressed within the framework of the UK Marine Monitoring and Assessment Strategy in order to meet the Directive deadline of July 2014. All relevant stakeholders will have the opportunity to input to this process.

Q.39 How and when will programmes of measures be decided?

A.39 Discussions will begin shortly as to the measures necessary to achieve GES, building on the illustrative measures considered within the Impact Assessment. These will be discussed in detail with all interested stakeholders to ensure they are appropriate and suitable to meet MSFD needs without resulting in unnecessary burdens. The programme of measures will be developed by December 2015 and implemented by December 2016 with existing measures and policy commitments expected to play a significant role in achieving GES.

Q.40 Will there be an opportunity to review and change these proposals in the future?

A.40 The Directive requires Member States to review their marine strategies on a 6 yearly basis. This means we will be provided with an opportunity to re-assess our characteristics of GES and associated targets and indicators and make any necessary changes in 2018. The Commission is planning to review the Commission Decision on Good Environmental Status with Member States in 2014 and any changes to this will need to be reflected in the review Member States undertake of their marine strategies in 2018. Reviews of monitoring programmes and programmes of measures will also take place on a 6 yearly cycle.

## **Descriptor 1 – (biodiversity), Descriptor 4 (food webs) & Descriptor 6 (seafloor integrity)**

Q.41 Why have the proposed GES targets and indicators for Descriptors 1, 4 & 6 been developed together?

A.41 Descriptor 1, biodiversity, has a very broad biological and geographical scope, containing indicators relating to species and habitats which link explicitly to food webs (Descriptor 4) and sea floor integrity (Descriptor 6) respectively. Rather than considering each of these closely related elements of GES in isolation, targets and indicators for these Descriptors have been developed together in relation to six ecological components of marine biodiversity: three species components comprising of birds, fish, mammals; and three habitat components comprising of sediment habitats, pelagic habitats and rock & biogenic reef habitats. This multi species and multi habitat approach means that the proposed targets and indicators recognise

the inherent links between these Descriptors and the need for duplication of targets and indicators is minimised.

Q.42 What do we know about current environmental status in relation to Descriptors 1, 4 & 6?

A.42 The initial assessment indicates that all aspects of biodiversity have been affected by human activities. The status within the main groups of species (fish, cetaceans, seals and birds) is mixed, with evidence of stable or improving status of some aspects of each species groups countered by concerns over the status of particular species and the impact of pressures from climate change and fishing activity. Seabed habitats remain degraded due to anthropogenic pressures, although there is evidence that the level of pressure has remained stable or decreasing over the past 10 years. Continued improvements will be needed to the status of both species and habitats in order to achieve GES.

Q.43 What are the main monitoring implications of the proposed targets and indicators for Descriptors 1, 4 & 6?

A.43 The proposals for GES targets and indicators for these Descriptors have been based as far as possible around existing indicators and monitoring programmes, therefore reducing the cost burden to Government and conservation bodies. However, it is anticipated that some new monitoring will be needed in order to fill gaps in our understanding of species and habitats and the impacts of human pressures on them. A more detailed assessment of these monitoring requirements will be carried out as part of the development of the monitoring programmes for GES between now and 2014.

Q.44 Do the proposals adequately cover all aspects of biodiversity or are there gaps?

A.44 A number of gaps have been identified under Descriptor 1 Biodiversity. At this time we are unable to propose targets and indicators for cephalopods and inshore fish stocks under the ecological component of fish. Further work will also be needed between now and 2018 to develop additional indicators for food webs (energy transfer between trophic levels), and sea floor integrity (benthic ecosystem features).

Q.45 How well aligned are the UK proposals with what other Member States are planning under these Descriptors?

A.45 The approach to developing targets and indicators for these Descriptors is comparable across Member States that are party to the OSPAR Convention, and there is a high level of agreement regarding the use of existing indicators for MSFD (for example the OSPAR Ecological Quality objective for grey seal pup production). There are some differences between countries in terms of the species, habitats and number of targets considered under these Descriptors, mainly due to the differences in the extent and diversity of each countries' marine waters. The UK is working closely within OSPAR to ensure these approaches are aligned, and will continue to develop common biodiversity indicators with other OSPAR countries between now and 2018.

Q.46 Will any additional measures be needed to achieve the GES targets for these Descriptors?

A.46 There are numerous measures already in place, or planned within the coming years which should make a significant contribution to achieving the GES targets proposed for these Descriptors. The UK Government and Devolved Administrations will be looking at the potential need for additional measures between now and 2015.

## Descriptor 2 – Non Indigenous species

Q.47 What do we know about current environmental status in relation to Descriptor 2?

A.47 Around 60 non indigenous species (NIS) have become established in UK Seas, but there is no consensus on the proportion that is having an adverse impact on the marine environment. The impacts of most concern are those on intertidal and shallow subtidal habitats, particularly around the south and south-western coasts of the UK, where studies suggest there are far more NIS compared to the rest of the UK.

Q.48 What are the main monitoring implications of the proposed targets and indicators for Descriptor 2?

A.48 The main implications of the proposals for this Descriptor include the need for improved management of the key pathways and vectors of introduction of NIS, as well as changes to existing monitoring programmes to begin collecting the data needed to assess the abundance and distribution of such species to support future target setting.

Q.49 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.49 There is ongoing coordination between Member States at this time through the OSPAR framework. Currently the UK's proposals are about managing the pathways and vectors of movement of NIS whereas most other Member States are setting abundance reduction targets. Scientific advice to government has indicated that abundance targets would not be helpful currently due to lack of data and issues with identifying species. The target proposals in this consultation represent a pragmatic, effective approach to reducing the risk of NIS arrival and spread.

Q.50 Can species in the marine environment be eradicated like they are in the terrestrial environment?

A.50 There have been a number of successful eradications in the terrestrial environment, where species can be identified, contained and/or controlled and eradicated. The understanding in respect to species abundance, distribution, introduction, ability to survive in new environments and ultimate impact on that environment means assessments have been limited in the marine environment. Where specific marine NIS have been identified as having adverse impact it has so far proved almost impossible to eradicate them.

- Q.51 What action can the UK take to reduce the risks of introduction and spread of NIS?
- A.51 The proposed UK targets take a pragmatic approach, which focuses on reducing the risk from pathways and vectors which facilitate introduction and spread of NIS. Measures to reduce these risks would have limited effectiveness if the UK takes them in isolation. The UK Government and Devolved Administrations recognise that any future management measures to support the achievement of targets for this Descriptor must be fully co-ordinated across Europe and internationally.
- Q.52 Are alien invasive species, invasive non-indigenous species and invasive non-native species the same?
- A.52 Yes all terms refer to species outside of their natural range due to intentional or unintentional introduction resulting from human activities which have an adverse effect on biological diversity, society or the economy. The different terms have been used in international, European and national strategies respectively.
- Q.53 How do the proposals relate to the Invasive Non-Native Species Framework Strategy for Great Britain and measures under the IMO Ballast Water Convention?
- A.53 The proposals in this consultation are consistent with the GB framework strategy which considers prevention as the key to limiting the number of new non indigenous introductions into European waters. The UK is working at the international level through conventions such as the International Convention on the Control and Management of Ships' Ballast Water and Sediments to ensure international guidelines are in place as we recognise that national controls alone are likely to be ineffective and unfair on UK businesses.
- Q.54 Why do the proposals not cover the specific indicators in the Commission Decision document?
- A.54 Scientific advice has indicated that quantitative targets covering all the indicators required by the Commission cannot be drafted at this time due to the lack of information on current abundance, distribution and impacts of invasive non-indigenous species in the marine environment. The proposed targets are therefore operational, with indicators proposed to support the gathering of information needed for robust quantitative targets in 2018.
- Q.55 Will any additional measures be needed to achieve the GES targets for this Descriptor?
- A.55 Additional measures are likely to be necessary to achieve the targets proposed for this descriptor. All potential measures identified relate to reducing the risks associated with the key pathways and vectors through which NIS can be introduced or distributed. We are currently commissioning a study to review these pathways and vectors which will inform a risk based review of potential additional management measures. Defra and the Devolved Administrations will involve all relevant stakeholders in the development of measures going forward.

## Descriptor 3 – Commercial Fish and Shellfish

Q.56 What do we know about current environmental status in relation to Descriptor 3?

A.56 Although, there has been a substantial increase in the number of fish stocks that are harvested sustainably over the period 2000 -2010, a significant proportion of indicator stocks (>60%) continue to be harvested at rates that are unsustainable and/or have reduced reproductive capacity. Further reductions in fishing pressure on approximately half of stocks in UK waters would be needed to ensure levels expected to provide the highest long term yield.

Q.57 What are the main monitoring implications of the proposed targets and indicators for Descriptor 3?

A.57 There are no additional monitoring implications under the proposals for stocks assessed and managed under the CFP. There is the potential need for some additional monitoring of inshore stocks, but these would be at the local scale.

Q.58 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.58 There is a high level of coordination in the North East Atlantic with Member States that are party to the OSPAR Convention taking similar or identical approaches for those stocks managed under the CFP. The International Council for the Exploration of the Sea (ICES) has developed further guidance for Member States which will provide opportunities to better align approaches across the region.

Q.59 Will any additional measures be needed to achieve the GES targets for this Descriptor?

A.59 This consultation sets out proposals for UK characteristics of GES and associated targets and indicators. The proposals are not regulatory in nature and will have no direct or immediate impact on the fishing industry. Achievement of the proposed targets will be delivered through a range of measures, which Government and the Devolved Administrations must put in place by 2016 at the latest. In relation to fisheries management measures, existing policies and mechanisms will be used to achieve the proposed targets, which are consistent with the UK's position on reform of the CFP.

Q.60 What role will the reformed CFP play in supporting the achievement of GES?

A.60 The UK Government and Devolved Administration's aim for the reformed CFP is to achieve healthy fish stocks, a prosperous fishing industry and a healthy marine environment. Key to this will be to reduce overexploitation of commercial stocks and the wider negative impacts that fisheries have on the marine environment, by integrating fisheries management with wider environmental objectives. Successful reform of the CFP will provide the legal mechanism for the sustainable management of marine resources which is consistent across EU waters, and will (with the exception of shellfish and non CFP stocks) help achieve GES for this Descriptor, and the wider biodiversity



Q.61 Do the proposed GES targets for this Descriptor require all stocks to be at Maximum Sustainable Yield (MSY) levels?

A.61 The principle of MSY has been accepted by the UK Government and Devolved Administration's under a number of different commitments including the World Summit on Sustainable Development (WWSD). However, it is recognised that MSY is a single-species target, taking no account of species interactions or the mixed nature of many EU fisheries. Therefore, the proposed targets will not be directly applied to all fish and shellfish stocks exploited in UK waters but instead to a selection of stocks chosen to be representative of all commercial stocks, based on scientific advice.

Q.62 Who will make the decision about which stocks will be included in the assessment of GES?

A.62 UK Government and DA's will be advised by key experts on the stocks that should be included in the assessment of GES. UK experts are working with experts from other EU Member States in ICES and OSPAR to ensure the same criteria for stock selection is used, even if the stocks to be assessed are different.

## **Descriptor 5 – Human induced eutrophication**

Q.63 What do we know about current status in relation to Descriptor 5?

A.63 There are relatively few eutrophication problem areas in UK waters at present. These are of limited size and measures have been put in place to address the main sources of nutrient inputs to UK waters in these areas.

Q.64 What are the main monitoring implications of the proposed targets and indicators for Descriptor 5?

A.64 The implications of the proposals are relatively minor as the proposals reflect our current obligations under OSPAR and other existing legislative requirements e.g. the Water Framework Directive and the Nitrates Directive. There may be a requirement to put in place some additional monitoring of plankton, the cost burden of which would fall on UK government and regulators.

Q.65 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.65 The proposals put forward in this Consultation are very well aligned with the intentions of other countries in the North East Atlantic, based on existing approaches taken under the Water Framework Directive and within OSPAR.

Q.66 How do these proposals relate to the Water Framework Directive and the Nitrates Directive?

A.66 The proposed targets and indicators for this Descriptor have been developed in a way which takes account of the implementation of these Directives. Future assessments made under these Directives will be used alongside

Q.67 Will any additional measures be needed to achieve the GES targets proposed for this Descriptor?

A.67 As eutrophication caused by human activity is generally a coastal issue in UK waters which arises from terrestrial inputs of nutrients, it is considered likely that measures that are being taken, or will be taken under existing legislation (e.g. the Water Framework Directive, Nitrates Directive) will be sufficient to achieve the GES targets proposed for this Descriptor.

## **Descriptor 7 – Impacts of changes to hydrographical conditions**

Q.68 What do we know about current status in relation to Descriptor 7?

A.68 There are no significant broad scale alterations of hydrographic conditions affecting ecosystems in UK waters beyond those currently covered by provisions of the Water Framework Directive through classification as heavily modified water bodies. However, the impacts of human developments at local or subregional scales need to be set against increasing evidence of wider regional scale shifts in hydrographic conditions as a result of changing climate and increased levels of atmospheric CO<sub>2</sub>.

Q.69 What are the main monitoring implications of the proposed GES targets and indicators for Descriptor 7?

A.69 There are not expected to be any significant additional monitoring implications associated with the proposals for this Descriptor. There will be a small cost for UK government and regulators in reviewing the current licensing and consents regime to ensure it meets the requirements of the Directive and the updating of any existing guidance where necessary.

Q.70 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.70 There is some divergence in the approaches being proposed by Member States at this time. However, where coordination exists it is in line with the UK proposals. Efforts are underway to try and better align the approaches being put forward through the adoption of shared statements of ambition and common language across the North East Atlantic.

Q.71 How can you be sure that the current licensing and consents process is sufficient to ensure broader scale impacts are not occurring?

A.71 This question has been considered by experts and we are currently confident that the licensing framework in place in the UK is appropriate and fit for purpose. In order to test this Defra have commissioned Cefas to consider a number of past and theoretical case studies in order to confirm the current framework is able to meet the requirements of this Descriptor. Work is also continuing within OSPAR and within the UK (through the Marine Management Organisation) to further develop more reliable methodologies for assessing cumulative impacts

Q.72 Will any additional measures be needed to achieve the GES targets proposed for this Descriptor?

A.72 It is not envisaged that any additional measures will be necessary in order to achieve GES for this Descriptor as the current licensing and consents regime is considered to provide appropriate management of current activities.

## Descriptor 8 - Contaminants

Q.73 What do we know about current status in relation to Descriptor 8?

A.73 Environmental concentrations of monitored hazardous substances in the sea have generally fallen, but are still above levels where there is a risk of pollution effects in many coastal areas, especially where there have been historical discharges, emissions and losses from high population densities or heavy industry. Levels of persistent organic pollutants found in marine species have declined following the regulation of the substances concerned, but additional man-made chemicals are still being found in marine samples. The volume of oil accidentally spilled varies widely from year to year and is generally small and of relatively minor significance unless there is a major spill.

Q.74 What are the main monitoring implications of the proposed targets and indicators for Descriptor 8?

A.74 As the GES target proposals for this Descriptor are based on existing legislative requirements and policy commitments (e.g. Water Framework Directive and OSPAR) it is not envisaged there will any significant implications. However, if new substances are added to the Water Framework Directive and OSPAR contaminant lists then there may be some additional monitoring costs in the future.

Q.75 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.75 There is a high level of coordination in the North East Atlantic with Member States that are party to the OSPAR Convention taking similar or identical approaches (based on current obligations and activities under OSPAR). Efforts will continue, where appropriate, to identify opportunities to improve the alignment of approaches both within and beyond the OSPAR area.

Q.76 Have existing legislative requirements relating to contaminants been taken into account in developing these proposals?

A.76 GES will only be achieved for this Descriptor through the successful implementation of existing legislative obligations, in particular the Water Framework Directive, the Hazardous Substances Directive, the Integrated Pollution Prevention and Control Directive, and the Urban Waste Water Treatment Directive. The proposals for this Descriptor are based on existing legislative requirements and work will continue within the UK, North East Atlantic, and EU working groups to ensure coordinated approaches to reporting, monitoring and measures are taken.

Q.77 There is a clear overlap between this Descriptor and the requirements of the Water Framework Directive, how is this being managed and how does the proposed approach align with UK commitments under OSPAR?

A.77 The proposed GES targets and indicators for this Descriptor have been developed in a way which takes account both of the implementation of the Water Framework Directive and the UK's commitments within OSPAR. The UK will continue to use the OSPAR assessment framework and assessments made under the Water Framework Directive to determine whether GES is being achieved in UK waters.

Q.78 Cleaning up legacy pollution can be expensive - how will this be dealt with under the MSFD?

A.78 It is recognised that in some areas legacy pollution (i.e. contamination in sediments) is still a problem. These areas are mostly coastal waters and would be addressed through the Water Framework Directive river basin management plans. Taking measures to remediate legacy contaminants in sediments is not usually practical due to the high costs associated with such action, and disturbing these sediments can exacerbate the problems. In these instances it will be necessary to invoke the derogations for disproportionate cost provided in the Directives but continue to reduce inputs from the significant sources.

Q.79 Will any additional measures be needed to achieve the GES targets proposed for this Descriptor?

A.79 It is not envisaged that any additional management measures will be needed beyond those measures taken under other existing legislation such as the Water Framework Directive, the Hazardous Substances Directive, the Integrated Pollution Prevention and Control Directive and the Urban Waste Water Treatment Directive.

## **Descriptor 9 – Contaminants in fish and seafood for human consumption**

Q.80 What do we know about current status in relation to Descriptor 9?

A.80 Monitoring of fish and other seafood for human consumption indicate that contaminant levels rarely exceed maximum levels specified in the legislation. However, this monitoring is not generally related to specific geographical areas in UK waters, but based on surveys of marketed fish and seafood.

Q.81 What are the main monitoring implications of the proposed targets and indicators for Descriptor 9?

A.81 The main additional monitoring implication of the proposed targets for this Descriptor is the need for some additional sampling of commercially exploited species currently collected on existing fish stock surveys and spatially referenced sampling from fish markets may be needed. This would be carried out by the UK Government and relevant agencies.

Q.82 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.82 There is a high level of coordination with other Member States as a result of the Descriptor requiring compliance with existing Community legislation.

Q.83 Why are biotoxins and microbial contamination not included under this Descriptor?

A.83 The International Council for the Exploration of the Sea (ICES) and the Commission's Joint Research Centre (JRC), which produced advice on the scope of this Descriptor, agreed that hazardous substances should be defined in this instance as substances (i.e. chemical elements and compounds) or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern. This means that microbial contaminants do not fall within the interpretation of this Descriptor (although their status is considered in the UK Initial Assessment). With respect to biotoxins, the ICES and JRC specifically agreed that although regulatory levels have been set, they should not be considered, as their presence in fish and seafood cannot always be clearly linked to human activities. For example, harmful algal bloom events can arise from climatic and hydrographical circumstances as well as from human induced eutrophication and the distinction is not necessarily clear. The UK will continue to maintain the robust systems we have in place to protect public health from contamination of seafood by biotoxins and microbial contamination.

Q.84 Spatially linking food safety monitoring data is not generally done in the UK at the moment which means it will be difficult to determine whether GES is being achieved or not in UK waters - how will this be addressed?

A.84 Discussions are underway within the UK Marine Monitoring and Assessment Strategy and in conjunction with the Food Standards Agency on how to ensure current monitoring programmes are fit for purpose..

Q.85 Will any additional measures be needed to achieve the GES targets proposed for this Descriptor?

A.85 It is not believed that any additional management measures will need to be taken as measures taken under the Water Framework Directive, the Hazardous Substances Directive, the Integrated Pollution Prevention and Control Directive, and the Urban Waste Water Treatment Directive will all contribute to ensuring GES under this Descriptor is maintained.

## **Descriptor 10 – Marine litter**

Q.86 What do we know about status in relation to Descriptor 10?

A.86 Levels of marine litter are considered problematic in all areas where there are systematic surveys of beached litter density. There has only been limited surveying of litter on the seabed and in the water column, which has demonstrated that litter tends to accumulate in certain areas as a result of wind and currents..

Q.87 What are the main monitoring implications of the proposed targets and indicators for this Descriptor?

A.87 The main additional monitoring implications of the proposed targets for marine litter is the need to improve the coverage of monitoring programmes to fill the gaps in our understanding of current levels of litter in the marine environment.

Q.88 How well aligned are the UK proposals with what other Member States are planning under Descriptor 10?

A.88 The UK proposals for beach litter targets are generally aligned with other countries in the NE Atlantic, with most countries proposing trend-based targets. There is also a consistent approach to microparticles with the majority of countries proposing that more research and monitoring are needed before targets can be proposed. Approaches to other aspects of this Descriptor are less consistent. For litter on the seafloor and in the water column some countries propose trend-based targets and others are opting not to set a target at this time. Some countries plan to adopt the OSPAR EcoQO on the amount of plastic found in fulmar stomachs or a variation of it, to address impacts of marine litter in animals, while others are proposing that more data or a more robust indicator is needed. Efforts are continuing to better align approaches.

Q.89 Under the Government's preferred option GES targets only been proposed for beach litter. Does this mean the UK Government does not believe there is a problem for the other elements of this Descriptor?

A.89 Targets have only been proposed where there is considered to be sufficient scientific evidence to support them. A good dataset is available for marine litter on UK beaches, providing sufficient evidence on which to base a target. Targets have not been proposed for the remaining elements of this Descriptor because at this point in time there is insufficient understanding of the levels, types, sources, and impacts of these types of litter. Without this information it is not possible to determine an appropriate, evidence based target. Further monitoring is proposed in order that robust targets can be developed in time for 2018.

Q.90 What additional measures will UK Government put in place to address the issue of marine litter?

A.90 It is still too early to say whether additional measures will be needed and if so what measures would be most appropriate. However, the UK Government considers tackling the sources of marine litter to be the most effective way of managing the problem. Measures to reduce land-based sources of litter are already being taken forward as part of the UK Government's Waste Review<sup>2</sup> and Devolved Administration waste policy. Efforts are underway to bring together terrestrial schemes, such as the 'Love Where You Live' campaign, with marine activities in order to ensure a more coordinated and collaborative approach.

Q.91 What is the role of the KIMO fishing for litter scheme in achieving GES for this Descriptor?

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<sup>2</sup> Government Review of Waste Policy in England 2011 - <http://www.defra.gov.uk/publications/files/pb13540-waste-policy-review110614.pdf>

A.91 The UK Government and Devolved Administrations are still assessing the relative contributions existing measures are likely to make to achieving GES under this Descriptor, however, initiatives such as the KIMO fishing for litter scheme could play a role in addressing specific types of litter in the marine environment, whilst raising awareness of the problem.

Q.92 Will the MSFD consultation give responsibility for tackling marine litter to one Agency (e.g. the Marine Monitoring Organisation)?

A.92 The MSFD consultation only covers proposals for GES characteristics and their associated targets and indicators. Measures to achieve GES do not have to be developed until 2015. Defra and the Devolved Administrations will be developing the programmes of measures for GES over the next 2 years with full involvement from stakeholders.

## Descriptor 11 – Underwater noise

Q.93 What do we know about current status in relation to Descriptor 11?

A.93 There is currently not enough evidence to provide a quantitative assessment of the current status and trends of underwater noise in UK Seas due to a lack of available information from monitoring studies. However, increases in construction levels are likely to have contributed to localised increases in noise levels, whilst it remains unclear whether changes in shipping activity have resulted in an increase in ambient noise levels.

Q.94 What are the main monitoring implications of the proposed GES targets and indicators for this Descriptor?

A.94 The main additional monitoring implications of the noise proposals are the creation of a database to record impulsive sound generating activities in space and time (the noise registry) and the establishment of an appropriate monitoring programme for ambient noise. The establishment and maintenance of the noise registry will require a degree of funding from UK Government and is likely to require some small changes in the detail of the information submitted by developers as part of the licensing process. The cost burden of putting in place monitoring programmes to measure ambient noise will fall on UK Government and work is currently underway to determine the most cost effective means of achieving this in coordination with the approaches being taken by other Member States.

Q.95 How well aligned are the UK proposals with what other Member States are planning under this Descriptor?

A.95 A great deal of information sharing has taken place within OSPAR with respect to this Descriptor. For impulsive sounds it is clear that a majority of countries in the North East Atlantic will be taking a similar, if not identical, approach to the UK's preferred approach. For ambient noise there is a relatively even split between those countries which are proposing trend-based targets and those that are not setting targets until more monitoring has been carried out (the UK's preferred approach). Further work will be carried out at EU level to improve the level of coordination across Member States between now and 2018.

- Q.96 Has sufficient consideration been given to the requirements of existing national, EU and international objectives when considering potential noise targets e.g. the Habitats Directive?
- A.96 Appropriate consideration has been given to existing obligations however there are no existing frameworks, targets or indicators which explicitly address the wider cumulative effects of underwater noise. The disturbance requirements of the Habitats Directive do apply indirectly to certain species, however this is at a very different scale to the objectives of MSFD.
- Q.97 The preferred GES target proposed for impulsive sounds does not appear to require any additional management of noise generating activities - is there sufficient evidence to indicate current inputs of impulsive sound are not a problem?
- A.97 We are confident that compliance with existing legislative requirements such as the Environmental Impact Assessment Directive, the Strategic Environmental Assessment Directive and the Habitats Directive is sufficient to ensure that the direct impacts of noise on the marine environment are appropriately managed. Defra has also been working closely with Cefas, JNCC, DECC and the Crown Estate to look at the potential for cumulative impacts on noise. This work has indicated that current and projected levels of impulsive sounds are unlikely to result in significant cumulative impacts, such as significant behavioural effects on marine life. For this reason a target requiring additional management of current activities is not considered necessary at this time.
- Q.98 What is the significance of the source thresholds proposed preferred option for impulsive sounds?
- A.98 The specific thresholds and frequencies outlined in the target intended to ensure that those activities with the potential to cause significant harm are captured and recorded, in particular the main activities currently generating impulsive sounds in the marine environment i.e. piling and oil and gas seismic surveys. This is based on evidence, highlighted in Tasker et al. (2010) and, Southall et al. (2007), and many other studies on noise related effects.
- Q.99 Will the creation of a noise registry as proposed in the Government's preferred option place additional burdens on developers? What information will developers be required to submit?
- A.99 The intention of the noise registry is not to place additional burdens on industry but rather to support them in being able to understand the potential for cumulative impacts of their activities in UK waters and beyond. It is intended that the registry will not require developers to collect new information above and beyond what is already collected but rather ensure useful assessment information contained within licence applications and post project reporting is collated and made easily available from a single source. Detailed discussions on the exact requirements of the registry will begin soon, led by the JNCC. Regulators, decision makers and industry representatives will all be included in these discussions.



Q.100 Will the proposals for noise targets set out in the Government's preferred option create any barriers to future offshore wind deployment and oil and gas activities through temporal or spatial restrictions?

A.100 Following detailed discussions with DECC, the Crown Estate and industry representatives we are confident that the proposals set out in the Government's preferred option do not put up any barriers to future renewable energy and oil and gas activities. It is important to recognise that the intention of this Descriptor, and the MSFD more broadly, is not to put up barriers to development but rather ensure any activities taking place are carried out in a sustainable manner. The noise registry should be seen as a tool to assist in decision making by providing greater certainty that human activities are not causing significant impacts on the marine environment.

Q.101 What role will existing mitigation measures play in achieving GES e.g. PAM, Soft-start, Marine Mammal Observers?

A.101 Existing mitigation measures will continue to play a crucial role in ensuring noise levels are not causing significant harm to the marine environment thus helping ensure the UK achieves GES. The need for their use will still be determined through the Environmental Impact Assessment and Appropriate Assessment processes, and appropriate guidance in order that direct, near field impacts are mitigated. The preferred approach proposed in this Consultation intends to help ensure the broader/cumulative/behavioural impacts of noise generating activities, which are not directly addressed through these existing frameworks, are also considered in a robust manner.

Q.102 I have seen it reported that the sea is getting nosier - if this is the case why has nothing been proposed to address noise from shipping?

A.102 Detailed discussions have taken place as to whether it would be appropriate to establish a target for ambient noise levels. At this time we are unable to determine current levels of ambient noise or assess whether these levels are increasing or decreasing in UK waters, making it impossible to establish a meaningful target. The UK will continue to fill in the gaps in our evidence base with respect to ambient noise and continue to work with the international community to determine whether future action is necessary.

Q.103 Why has the frequency of sound proposed for the ambient noise indicator been restricted?

A.103 This coverage of low-frequency sounds alone is part of the Commission Decision on Good Environmental Status and cannot be changed by the UK. The frequencies outlined in the Commission Decision reflect the fact that most fundamental shipping sounds are concentrated in the two third octave bands (not only in deep waters but also in the conditions of the North Sea) and at these frequencies shipping sounds dominate other sounds. In addition, most of the higher frequency noises are harmonics of the fundamental noise sources and therefore measuring them would likely be replication. Limiting the bands covered will also reduce the overall cost of monitoring and reporting. The range of frequencies could be amended in the future if this is deemed appropriate.

Q.104 How will the future development of GES targets and monitoring for noise be coordination across the North East Atlantic?

A.104 Regional coordination is an obligation placed on Member States under the Directive. In order to achieve this, at EU level to develop coordinated approaches to the setting of targets and indicators and the development of monitoring programmes.

Q.105 How will increases in anthropogenic sounds be identified and accurately measured in light of the fact that global warming is likely to lead to an increase in natural noise levels?

A.105 The ambient noise indicator is targeted at frequencies where anthropogenic sound sources dominate natural sources within the ambient noise landscape. Global warming may have several effects, but it is not believed that “natural” sounds i.e. from increases in storminess and rainfall will increase greatly at these frequencies as a result of climate change.