

Marine Strategy Framework Directive

Response to Submissions – MSFD Initial Assessment Consultation

TABLE OF CONTENTS

1	INTRODUCTION	1
	1.1 BACKGROUND	1
	1.2 CONSULTATION AND PARTICIPATION ACTIVITIES	2
2	OVERVIEW OF SUBMISSIONS	4
	2.1 SUBMISSIONS	4
	2.2 TOPICS COVERED.....	5
	2.3 CONTEXT IN WHICH RESPONSES ARE PROVIDED	5
3	ISSUES RAISED AND RESPONSES	7
	3.1 SUBMISSIONS AND RESPONSES.....	7
	3.1.1 Descriptors 1, 4 and 6	7
	3.1.2 Descriptor 2	19
	3.1.3 Descriptor 3	20
	3.1.4 Descriptor 5	24
	3.1.5 Descriptor 7	28
	3.1.6 Descriptors 8 & 9.....	32
	3.1.7 Descriptor 10	36
	3.1.8 Descriptor 11	47
	3.1.9 Economic and Social Assessment	50
	3.1.10 Other Issues	53
	3.1.11 Public Participation	71
4	CONCLUSION & NEXT STEPS	77
5	REFERENCES	78

LIST OF TABLES

Table 1.1 Public Consultation Documents, Meetings and Workshops held for the Initial Assessment3

Table 2.1 Organisations and individuals from which written submissions and workshop submissions were received (W=workshop).....4

1 INTRODUCTION

1.1 BACKGROUND

The Marine Strategy Framework Directive (MSFD) requires Member States to take the necessary measures to achieve or maintain Good Environmental Status (GES) in the marine environment by the year 2020 at the latest. The aim of the Directive is to protect Europe's marine waters by applying an ecosystem-based approach to the management of human activities while promoting the sustainable use of the marine environment for present and future generations. Responsibility for the implementation of the MSFD in Ireland rests with the Department of Environment Community and Local Government (DECLG).

The assessment of GES is undertaken by reference to eleven descriptors which are described as "qualitative descriptors". Good environmental status requires that:

- Biological diversity is maintained;
- The introduction of non-indigenous species by human activities does not adversely alter the ecosystem;
- Populations of all commercially exploited fish and shellfish are within safe biological limits and are indicative of a health stock;
- Elements of marine food webs are at normal abundance and diversity;
- Human-induced enrichment of water by nutrients (eutrophication) is minimised;
- Sea floor integrity is at a level that ensures the structure and functions of ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected;
- Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems;
- Concentrations of contaminants do not give rise to pollution effects;
- Contaminants in fish and other seafood for human consumption do not exceed relevant standards;
- Properties and quantities of marine litter do not cause harm to the coastal and marine environment; and
- The introduction of energy, including underwater noise, is at a level that does not adversely affect the marine environment.

One of the first steps in the implementation of the MSFD in Ireland was the undertaking of an Initial Assessment of Ireland's marine waters and establishment of a comprehensive set of environmental targets and associated indicators so as to guide progress towards achieving GES. The assessment process drew on a large range of data and information sources, including national monitoring and assessment reports (published and unpublished), national survey results, and scientific literature, together with state, consultancy and academic expert input.

Ireland submitted their Initial Assessment to the European Commission in April 2013 and the full contents of that submission in the form of 117 individual technical reports are available on the DECLG's website –

<http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreportingSheets/>. To enable wider accessibility these reports have been brought together and summarised under a single cover for the Initial Assessment Article 19 Report, available from <http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/>. A detailed report and a Summary Report are both available from this link. These reports include:

- A broad description and status assessment of the predominant, natural physical and oceanographical features, together with the ecological characteristics (species and habitats) present in the Assessment Area;
- An assessment of the human-induced pressures and impacts affecting environmental status, and
- An evaluation of the socio-economic significance of Ireland's marine environment.

A digital atlas, Ireland's Marine Atlas, was developed using data that were compiled or developed in support of the Initial Assessment. The Atlas contains much of the spatial information that was used to determine the current status of pressures and habitats and is available for viewing at: <http://atlas.marine.ie/>. Through the website it is possible to give feedback on the content of the Atlas.

The next steps in the implementation of the MSFD are the establishment and implementation of a coordinated monitoring programme for the on-going assessment of GES and the development and implementation of a Programme of Measures designed to achieve or maintain GES by 2020. Work on these elements commenced in mid-2013 and will continue for the remainder of 2013 and 2014.

1.2 CONSULTATION AND PARTICIPATION ACTIVITIES

On the 29th October 2013, the DECLG launched a public consultation on the Article 19 Report, Summary Report and Ireland's Marine Atlas. The period of public consultation was from the 29th October 2013 until the 10th January 2014. Interested parties were invited to submit written comments on the Article 19 Report to a dedicated email address: msfd@environ.ie, or via the Replies Template provided on the website. Overall, eight submissions were received, one of which was submitted via the Replies Template. No submissions were received in relation to Ireland's Marine Atlas.

As part of the consultation process, the DECLG hosted a one-day workshop on the 11th November 2013 on the implementation of the MSFD in Ireland. The workshop was held at the Morrison Hotel, Dublin, and was attended by staff from various Government Departments and Agencies, environmental Non-Governmental Organisations (eNGOs), maritime sector organisations and academics. The workshop was split into two sessions, a morning session which focused on the Initial Assessment Article 19 Report and, an afternoon information session examining Ireland's options in the development of an integrated monitoring programme. A workshop report was compiled and is available from the DECLG website – <http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/>.

Submissions made in relation to the Article 19 Report, Ireland's Marine Atlas, together with issues raised at the workshop, were reviewed and addressed by the members of the MSFD Technical Working Group, during the period January to March 2014. The members of the MSFD Technical Working Group include representatives from the Department of Environment Community and Local Government, Department of Energy Communications and Natural Resources, Department of Arts Heritage and the Gaeltacht, Department of Transport Tourism and Sport, Department of Agriculture Food and the Marine, Environmental Protection Agency, Marine Institute, the Irish Coastguard and the Sustainable Energy Authority of Ireland, and members of the MSFD Project Team. Comments/issues raised in the submissions have been grouped based on their contents or key issues raised. This document sets out the responses to the submissions received during the public consultation.

A list of documents and meetings held to facilitate public consultation in relation to the Initial Assessment (Articles 8, 9 and 10 of the MSFD) is provided in **Table 1.1**.

Table 1.1 Public Consultation Documents, Meetings and Workshops held for the Initial Assessment

Date	Consultation Activity
2011	Transposition of the Directive into Irish Law – Consultation on the: European Communities (Marine Strategy Framework Directive) Regulations 2011 (S.I. No. 249 of 2011).
2012	A dedicated email address established to which members of the public or interested parties could submit comments msfd@environ.ie .
2012	Leaflet publication: Ireland's MSFD Implementation http://www.environ.ie/en/Publications/Environment/Water/FileDownload,32063,en.pdf .
June 2013	Departmental Funding for SWAN MSFD report: 'The Marine Strategy Framework Directive in Ireland: Requirements, Implications & Opportunities for Environmentally Sustainable Management of Our Marine Waters'.
11 th July 2013	Meeting held with environmental non-governmental organisations, Customs House, Dublin.
January 2014	Departmental Funding for SWAN Marine Strategy Framework Directive (MSFD) all-Ireland eNGO workshop.
29 October 2013 to 10 th January 2014	Initial Assessment Public Consultation launched http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/ . - Article 19 Report - Article 19 Summary Report - Reporting Sheets http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreportingSheets/ - Ireland's Marine Atlas http://atlas.marine.ie
2013	Ireland's Marine Atlas launched and comments invited http://atlas.marine.ie
11 th November 2013	Public Consultation Workshop on the Initial Assessment and Monitoring, Morrison Hotel, Dublin. Publication of a workshop report and presentation on DECLG website. http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/
January 2014	SWAN Workshops funded to discuss the Initial Assessment and monitoring. Response to Public Consultation on the MSFD Article 19 Report : Initial Assessment, GES and Targets & Indicators;
October 2013 – March 2014	The Department provided funding to An Taisce to include in its clean coast seminars raising awareness about marine litter in the Marine Strategy Framework Directive. 10 such regional seminars took place Q4 2013 and Q1 2014.

2 OVERVIEW OF SUBMISSIONS

2.1 SUBMISSIONS

A total of eight written submissions were received during the period 29th October 2013 and 10th January 2014 comprising the following:

- Non-Governmental Organisations: 7
- Private Individuals: 1

In addition, comments articulated during the *Public Consultation and Monitoring Information Workshop* held in Dublin on the 11th November 2013 have been collated and analysed as part of this submissions report, based on the previously published workshop report.

Table 2.1 lists the organisations and individuals who made submissions during the Consultation period. Both written submissions and workshop contributions are included.

Table 2.1 Organisations and individuals from which written submissions and workshop submissions were received (W=workshop)

Submission Reference Code	Written Submission from:	Organisation	Workshop Attendees
MSFD_IA_001	Ian Lumley	An Taisce	
MSFD_IA_002 MSFD_IA_002 (W)	Mary Anderson	Dublin Bay Concern	Ann McManus
MSFD_IA_003 MSFD_IA_003 (W)	Karin Dubsky / Angel Duarte	Coastwatch	Karin Dubsky
MSFD_IA_004	Caitriona Diviney	Irish Wind Energy Association	
MSFD_IA_005	Shay Fennelly	Irish Whale and Dolphin Group	
MSFD_IA_006	Shay Fennelly	Private Individual	
MSFD_IA_007	Pádraic Fogarty	Irish Wildlife Trust	
MSFD_IA_008 MSFD_IA_008 (W)	Sinead O'Brien	SWAN	Sinead O'Brien
MSFD_IA_009 (W)		Carra Mask Corrib Water Protection Group	Con McCole/ Brian Curran
MSFD_IA_010 (W)		Agri-Food and Bioscience Institute	Cordula Scherer
MSFD_IA_011 (W)		Irish Marine Federation	Steve Conlon
MSFD_IA_012 (W)		Irish Seal Sanctuary	Brendan Price
MSFD_IA_013 (W)		Coastal and Marine Research Centre	Jeremy Gault

2.2 TOPICS COVERED

Key issues which were raised in the submissions were collated under the following subject headings:

1. By Descriptor;
2. Economic and Social Assessment
3. Other Issues (if not covered under a Descriptor);
4. Public Participation.

Please note that respondent submissions are quoted in Section 3, as received, without any editing for content, or grammar. Spelling has however been corrected where necessary.

2.3 CONTEXT IN WHICH RESPONSES ARE PROVIDED

The MSFD sets out what Member States must include in their marine strategies. These are:

- An Initial Assessment of the current environmental status of national marine waters and the environmental impact and socio-economic analysis of human activities in these waters (extended deadline for delivery 30th April 2013);
- The determination of what GES means for national marine waters (extended deadline for delivery 30th April 2013);
- The establishment of environmental targets and associated indicators to guide progress towards achieving GES in marine waters (extended deadline for delivery 30th April 2013);
- The establishment and implementation of monitoring programmes for the ongoing assessment of the environmental status of marine waters and the regular update of targets (15th October 2014), and
- The development of Programmes of Measures designed to achieve or maintain GES (March 2016 at the latest).

Many comments made within submissions and during the workshop related to aspects of the Directive such as the establishment and implementation of monitoring programmes, and the development of Programmes of Measures. As these aspects of the Directive were not the subject of this Public Consultation, the relevant authorities have taken note of such comments for consideration as part of current or future development and implementation processes.

In addition, respondents are advised of the following:

- There are acknowledged EU wide gaps in information, knowledge and scale and a recognition of these is an important part of the development of the Initial Assessment, targets and indicators for the MSFD.
- Work is on-going at a national, regional (North-east Atlantic & Celtic Seas) and EU level to create solutions to these problems. Some of these solutions will be available for this cycle of the Directive implementation and others will not be available until the next cycle.
- The Directive allows, where appropriate, the modification of the targets and indicators to achieve GES. This consultation on the Initial Assessment, together with future consultation

and development of monitoring programmes will allow for these modifications to be incorporated where appropriate and effective.

Respondents should also be aware of Recital 34 of the Directive:

“In view of the dynamic nature of marine ecosystems and their natural variability, and given that the pressures and impacts on them may vary with the evolution of different patterns of human activity and the impact of climate change, it is essential to recognise that the determination of good environmental status may have to be adapted over time. Accordingly, it is appropriate that programmes of measures for the protection and management of the marine environment be flexible and adaptive and take account of scientific and technological developments. Provision should therefore be made for the updating of marine strategies on a regular basis”.

Many respondents raised issues in relation to local developments and potential associated impacts. It is important to note the scale at which the Directive is required to be implemented and therefore the scope and spatial limits over which the Initial Assessment reporting is applied. This is specified in Article 3.5 of the Directive:

“Good environmental status shall be determined at the level of the marine region or subregion as referred to in Article 4, on the basis of the qualitative descriptors in Annex I. Adaptive management on the basis of the ecosystem approach shall be applied with the aim of attaining good environmental status”.

3 ISSUES RAISED AND RESPONSES

3.1 SUBMISSIONS AND RESPONSES

3.1.1 Descriptors 1, 4 and 6

Submission and Comment Code	Descriptor	Comment	Response
MSFD_IA_003 (C35) (also see responses under Descriptor 3 below)	D1, D6	<p>Reading the executive summary one gets the impression that those who drafted it thought our waters are generally in GES. It then follows that compliance with the Directive should be easy peasy. It would be useful to have a more informative factual summary of what is and isn't known and quality deductions based on the limited knowledge we have. For example:</p> <p><i>'seabed habitats in Ireland's Assessment Area are generally considered to be in a healthy condition'</i>. Is healthy pristine or OK? Are there black spots and how large are the pristine areas? Getting to specifics it would be nice to know how often an Irish Sea <i>Nephrops</i> ground is trawled and what that ground looks like now compared to ground which isn't trawled?</p>	<p>Expert judgement has indicated that “on balance” Ireland’s marine seabed habitats within the Assessment Area are “generally healthy”. This is a necessarily subjective expert judgement, made on the basis of limited available data, that implies that the defined (predominant and special) habitats are present, not declining in extent, and are self-sustaining at the full Assessment Area scale. There are, however, concerns for some specific habitats of limited extent. More detailed information is provided in the individual technical reporting sheets (http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreporting Sheets/) that were the basis for the Article 19 report.</p> <p>In the Initial Assessment no attempt has been made to judge the current status assessments for any of the Descriptors against achievement of GES because the metrics for doing so are largely still under development.</p> <p>The use of the term “healthy” with respect to seabed habitats in no way implies a “pristine” condition. Data on the occurrence, composition, range, distribution and natural variability of seabed habitats are very limited and originate from relatively recent samples and studies, which prevent any definition of the concept of “pristine-ness” i.e. a condition before any form of human intervention or interaction has occurred. The current assessments attempt to determine whether status is in line with prevailing physiographic, geographic and climate conditions as a practical determinant of status. The MSFD requires that an environmental status is achieved wherein marine waters are ecologically diverse, dynamic, clean, healthy and productive within their intrinsic conditions. The arguably unachievable goal of “pristine” is not a stated objective of the MSFD nor a</p>
MSFD_IA_007 (C63)	D1, D4, D6	Figure 3.2 [of the Article 19 Report] speaks volumes about the likely poor state of marine habitats and food webs as little survives the trawl. Trawling has compromised the seabed where it has occurred and therefore these areas must	

Submission and Comment Code	Descriptor	Comment	Response
		be assessed as of 'poor' status, at least until there is evidence to show the opposite.	<p>declared aim in Ireland's definition of GES.</p> <p>As described in Ireland's MSFD Article 19 report, relatively intensive fishing activity occurs over shallow and shelf mud habitats due to the <i>Nephrops</i> trawl fishery. Figure 3.2 indicates that proportions of the Irish Sea <i>Nephrops</i> fishing grounds were trawled up to eleven times in 2011. It is believed that the benthic community composition on the <i>Nephrops</i> grounds has been heavily modified by trawling activity for several decades. Habitat type and the number of times and area fished will influence how the ground looks.</p> <p>Underwater TV (UWTV) surveys on <i>Nephrops</i> grounds have indicated that burrowing fauna can be seen re-emerging from freshly trawled grounds, implying that there is some resilience to trawling.</p>
MSFD_IA_001 (C03)	D1, D6	The summary report states ' <i>the Initial Assessment has concluded that seabed habitats in Ireland's Assessment Area are generally considered to be in a healthy condition</i> '. However, this is contradicted by the acceptance that in relation to biogenic reefs ' <i>it is thought that fishing pressure is likely to have adversely affected the condition of many reef complexes</i> '.	This comment highlights the difficulty of applying scale to status assessments in the IA and making overall or broad-scale evaluations. Expert judgement has indicated that "on balance" Ireland's marine seabed habitats within the Assessment Area are "generally healthy". This is a necessarily subjective judgement that implies that the defined habitats are present, not declining in extent, and are self-sustaining at the full Assessment Area scale. There are, however, concerns for some specific habitats of limited extent, although there are no actual data to determine if actual adverse anthropogenic effects are being incurred (it is only assumed from fishing intensity data). If all activities with the potential to cause adverse impacts were considered, by default, to have affected the status of all seabed habitats, then an overall (and pragmatic) assessment is unlikely to be possible and the evidence-led basis for the determination of GES is liable to be undermined.
MSFD_IA_007 (C61)	D1, D4, D6	The Government has decided to bundle these three headings [Biodiversity, Food Webs and Seabed Integrity] into one and this seems like a reasonable approach. In the first instance the respondent can	Detailed reporting sheets describing assessments of seabed habitats, their associated invertebrate communities and evaluations of anthropogenic impacts are available on the DECLG website (http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDReportingSheets/). Within these reporting sheets it was highlighted

Submission and Comment Code	Descriptor	Comment	Response
		<p>agree with the definitions put forward for GES in relation to these characteristics. The subsequent descriptions of the various habitat and species and their associated pressures seems to be a fair appraisal however the absence of marine invertebrates as a paragraph for discussion is notable. At sea, as on land, invertebrates form by far the greater portion of biodiversity and are key elements in food webs. They suffer disproportionately from industrial fisheries as they have no economic value and frequently end up as discarded bycatch. Huge quantities (up to 80-90% of the catch in prawn fisheries) are removed each year and are not counted under the new Common Fisheries Policy Regulations in relation to restrictions on discarding. It is accepted that data on this group is scant but it must at least be acknowledged that this significant data gap exists.</p>	<p>that there is currently insufficient quantitative data on benthic habitats and associated species/communities to allow definitive assessments of anthropogenic impacts. The reporting sheets also briefly indicate specific options (e.g. collaborative research initiatives for the deep sea) for addressing data gaps which could be considered when establishing monitoring programmes under Article 11. Furthermore, as indicated in Appendix A of the Article 19 Report, work is underway to develop targets and indicators for Descriptors 1, 4 and 6. Of particular relevance here, are current efforts focusing on the development of species- and community-level targets and indicators for benthic invertebrates and fish, together with ongoing efforts to relate these metrics to levels of specific anthropogenic activities.</p> <p>In respect of the level of discarding in the <i>Nephrops</i> fishery: the total discards in <i>Nephrops</i> trawl fisheries are typically around 50% by weight although there is variation from ground to ground (See ICES, 2013). Benthic invertebrates other than <i>Nephrops</i> would typically account for around 10% of the catch on <i>Nephrops</i> grounds. The benthic community composition on the <i>Nephrops</i> grounds is heavily modified by trawling activity that has occurred over several decades. Also see response under MSFD_IA_007 (C63).</p>
MSFD_IA_001 (C04)	D1, D6	<p>On deep water coral or carbonate reefs, the impact of dredging is stated to “moderate”. However the scale of this impact cannot be determined as Section 3.2.4.3 of the main report confirms that there is major absence of data and monitoring on carbonate mounds. The report reveals major information deficiencies particularly on the quality and status of deep sea habitat. There is no information as to how this data</p>	<p>Deep-water coral was not a habitat that was specifically considered in this report because it was the subject of a more detailed separate assessment as part of Ireland’s Habitats Directive Article 17 submission. The presence of coral was, however, considered as an integral component of three Predominant Habitat Types; Upper slope, Upper bathyal and lower bathyal rock and biogenic reef. In the assessment of pressures affecting these habitats it was concluded that, although they were likely to be sensitive to bottom-contacting fishing gear, fishing activity was predominantly accidental and these areas were preferentially avoided because of the possibility of net and catch damage.</p>

Submission and Comment Code	Descriptor	Comment	Response
		deficiency is to be addressed.	<p>The data in respect of carbonate mound distribution and status are restricted to a limited number of sample stations only, or taken from observations outside of Ireland's defined Assessment Area. These habitats are extremely difficult to survey and so assessments of impacts are almost entirely based on expert judgment.</p> <p>As stated in the detailed reporting sheets (see http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreporting_Sheets/), this habitat is thought to be receiving moderate fishing intensity due to its probable attraction for some commercially important fish species. This estimate of fishing pressure is, however, based exclusively on satellite tracking (VMS) of fishing vessels and does not necessarily provide a reliable indication of actual disturbance effects on the habitat and communities.</p> <p>Looking forward, it is expected that collaborative international research programs, such as the EU FP7 projects HERMIONE and HERMES will continue to contribute and build on our knowledge of deep-sea habitats. Existing information gaps will be further considered when establishing the monitoring program under Article 11 of the MSFD. This information was not published in the Article 19 report but was included in the more extensive, (technical) reporting sheets, which can be accessed by following the link above.</p>
MSFD_IA_001 (C24)	D1, D4, D6	Appendix A of the Article 19 report reveals that major additional data and evaluation is required to meet the obligation of the Directive. In the key areas of biodiversity, food webs, sea floor integrity and underwater noise, the 'targets and indicators' required to be put in place under the Directive are left blank with the notation stating 'under development'. In other areas, particularly in relation to individual fish species and protection of both biogenic and coral or	The development of targets and indicators for Descriptors 1, 4, 6 and 11 presents considerable challenges due to a poor knowledge base and lack of reliable data from which to build viable metrics. This is a European and indeed world-wide issue. Ireland is an active participant in international collaborative efforts to develop consistent approaches to these problems and is working to adapt and apply emerging methodologies to our Assessment Area. Also see response to comment MSFD_IA_001 (C04) above in respect of carbonate mounds and coral reefs.

Submission and Comment Code	Descriptor	Comment	Response
		carbonate reefs, clear targets for identification and protection of biogenic and coral or carbonate reefs is required.	
MSFD_IA_007 (C62)	D1, D4, D6	The most striking aspect of this section [Biodiversity, Food Webs and Seabed Integrity] of the report however is the absence of any targets whatsoever in order to achieve GES. It is optimistically hoped that this was an error of omission rather than a deliberate attempt to avoid setting targets.	
MSFD_IA_007 (C69)	D1, D4, D6	The respondent welcomes this report and hopes that our points can be taken on board. We acknowledge that progress has been made in recent years towards better management of our marine environment however we believe that much more needs to be done. Of greatest concern in this report is the lack of targets for achieving GES for biodiversity/food webs/seafloor integrity. It is on this basis that we feel it is misleading to state in the Executive Summary that the “ <i>overall quality of Ireland’s marine environment is good</i> ”. The dramatic decline in our marine biodiversity, alteration of food webs and destruction of seafloor habitats, coupled with a lack of knowledge or protection for these features, means that the only conclusion that can be drawn is that quality of our marine environment is	There is no scientific evidence to support the statement that a “ <i>dramatic decline in marine diversity</i> ” has occurred in Ireland’s MSFD Assessment Area, nor are there data to suggest measurable alterations in food webs beyond international reports on fisheries. There is circumstantial evidence from satellite tracking (VMS) of fishing vessels to suggest potential impacts on seabed habitats from fishing gear and this is used extensively to determine the spatial area of potential adverse impacts in respect of specific habitat types in the current reporting. With regard to targets, indicators and future challenges see responses to comments MSFD_IA_001 (C03) and MSFD_IA_001 (C24).

Submission and Comment Code	Descriptor	Comment	Response
		<p>'poor'. Much needs to be done to turn this around but it is achievable if the political will is present. It is hoped that that report can be amended to respond robustly to this challenge.</p>	
MSFD_IA_008 (C81)	N/A	<p>1. References to knowledge gaps alone are insufficient. They should be accompanied clearly at the beginning of the document by a statement regarding the resultant limitations of the assessment, GES and target-setting should be made.</p> <p>2. General statements, in particular the one cited from the Executive Summary [Exec. Summ. quote "<i>the results of the Initial Assessment indicate that the overall quality of Ireland's marine environment is good</i>"] should be removed from the report, or at a minimum, reworded and issued with a strong caveat, with a much clearer link made to the knowledge gaps and the resulting uncertain status of such claims, in the context of the significant knowledge deficit.</p>	See responses to comments MSFD_IA_001 (C03), MSFD_IA_001 (C21) and MSFD_IA_001 (C24).
MSFD_IA_001 (C21)	D1, D6	In general the report reveals that major baseline data is required across a wide range of areas particularly sea floor habitat status.	An extensive technical assessment has been undertaken in compliance of MSFD Article 8 (see http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDReportingSheets/). Ireland's defined MSFD Assessment Area spans 490,000 km ² , the majority of which remains unexplored and un-surveyed. The lack of real data with respect to seabed communities and habitats, together

Submission and Comment Code	Descriptor	Comment	Response
		<p>The published reports seek to meet Ireland's compliance with the provisions of Articles 8, 9 and 10 of the Directive. We submit that the reports as published do not contain adequate data on current environmental status as required under Article 8, adequately assess risks under Article 9 and set out appropriate targets under Article 10.</p>	<p>with the physical conditions in which they live presents considerable problems when undertaking an assessment of their status and in the development of viable and practically achievable targets and indicators. For this reason the Initial Assessment has largely been forced to rely on expert judgement, supported by a small but growing literature-base. The Article 19 report and its accompanying summary document are a distillation of the more detailed Reporting Sheets Ireland has submitted to the European Commission, as provided in the link above. In that detailed reporting it acknowledged that major gaps currently exist in our knowledge of the distribution, ecology and current status of the seabed habitats present in the Assessment Area. Work is on-going to address these gaps, though, for example, the seabed mapping efforts undertaken by the INFOMAR programme and a more evidence-led assessment against GES is expected to be delivered in subsequent reporting cycles.</p>
MSFD_IA_003 (C38)	D1	<p>It would be useful to elaborate on salmon and eel as two high profile Irish species in the MSFD. As a migratory wild fish, both spend most of their life at sea and appear to experience increased mortality in the marine environment. There would be high public interest in knowing if they are covered and implications.</p>	<p>The anadromous species salmon and eel were not considered under D1 as reporting was deferred to the Habitats Directive, an option that was provided by the Commission. Salmon and eel are not assessed under Descriptor 3, as they are not commercially fished in Irish marine waters. There is a requirement to consider them under Descriptor 4 (foodwebs). Targets and indicators are still under development for D4 and are, <i>inter alia</i> pending 2014 ICES advice. The inclusion of anadromous species into the D4 assessment will depend on the outcome of the international and national Target and Indicator development.</p>
MSFD_IA_008 (C70)	D1, D6	<p>The respondent is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-plastics is to also to be welcomed in the definition</p>	Noted.

Submission and Comment Code	Descriptor	Comment	Response
		of GES for marine litter.	
MSFD_IA_001 (C18)	D4	<p>The concluding paragraph, in Section 13 of the main report, is unclear in its argument:</p> <p><i>"Ireland has one of the largest marine waters of EU Member States and it is essential that we take a pragmatic approach to implementing the MSFD. This will require a risk-based, but precautionary approach to developing monitoring programmes and any subsequent measures necessary"</i>.</p> <p>This fails to address the overriding requirement which the Directive necessitates in adopting an ecosystems approach as set on in paragraph 8 of the preamble. The report reveals a serious lack of understanding of the marine environment as integrated ecosystem dependent on stabilising and reducing anthropogenic CO2 and other emissions, stabilising ocean temperature and acidification levels and understanding and protecting the complex interrelated chain of marine life.</p>	See Response under Ocean acidification.
MSFD_IA_001 (C17)	D1	Paragraph 6 of preamble to the Directive places strong emphasis on the designation of areas under the Habitats Directive and protected areas generally	Further designation of marine areas in terms of conservation under the MSFD is determined at the development of the programme of measures stage in the implementation cycle of the Directive.

Submission and Comment Code	Descriptor	Comment	Response
		<p>“as an important contribution” to the achievement of Good Environmental Status as well as meeting the obligations of the UN Biodiversity Convention.</p> <p>No evaluation is carried out on the adequacy of existing marine designations, monitoring and management of these areas to ensure favourable conservation status or designation of additional areas.</p>	
MSFD_IA_003 (C34)	D1, D4, D6	<p>The summary gives the impression that the big set up steps and most challenging work has been completed – i.e.</p> <p>‘ The first step in the implementation of the MSFD in Ireland was an Initial Assessment of Ireland’s marine waters and establishment of a comprehensive set of environmental targets and associated indicators for the marine waters so as to guide progress towards achieving GES’.</p> <p>However if one turns to the well set out summary tables of Appendix A one realises that the work is still in progress.</p> <ul style="list-style-type: none"> • For the first Descriptor ‘Biodiversity’ the 4th ‘ Food web’s, the 6th ‘Seafloor integrity’ and the 11th ‘ Under water energy and noise’ there are no targets or indicators, both column entries are marked as ‘under development’ 	<p>Descriptors 1, 4 and 6 are recognised across Europe as being intrinsically linked in terms of the biological or ecological elements that might form the basis of targets and associated indicators. Unfortunately, however, the development of reliable metrics to measure the status or condition of these marine elements, at the scale that is required for MSFD reporting, have proved difficult and has been identified as an issue across all EU Member States and is similarly recognised at a broader international level. Sampling and analytical methodologies are currently the subject of debate. One significant stumbling block to be overcome from the MSFD perspective is the establishment of the ability to differentiate change caused by natural environmental factors from those caused by human activities. Without this ability, any targets and indicators intended for use in ecosystem-based management are rendered ineffective and unsupportable.</p> <p>As indicated in the IA reporting, targets and indicators are indicated as “under development” for the reasons given above. Because the difficulties of developing and testing such metrics have been experienced across all Member States the focus has now moved towards indicator development utilising collaborative international effort, such as through OSPAR or ICES expert groups. Ireland is currently engaged in working with all of these groups, but the process of development and validation, in reflection of the difficulties, may not be fully completed within the current reporting cycle. In addition, conflicting reporting timescales have prevented a full investigation of how the Birds and Habitats</p>

Submission and Comment Code	Descriptor	Comment	Response
		<p>• For descriptor 5 the GES is missing, while targets and Indicators are provided – though we would suggest further indicators (see below) [note, no further indicators were included within the submission as mentioned].</p> <p>While the executive summary might be corrected to reflect the current position, a more important point is that at least here public participation could and should still be possible to establish the missing targets and indicators. This should be part of a campaign to create an excellent and adaptive monitoring programme, which is due to be delivered by July 2014 with wide public participation</p>	<p>Directive reporting outputs can be integrated into MSFD status reporting. This is currently being rectified and has already led to a consensus on seal and cetacean indicators, which will be incorporated into the upcoming MSFD Article 11 reporting (Monitoring Programmes).</p> <p>The IA has identified several gaps in knowledge in relation to Descriptor 11 Underwater Noise in the Irish Assessment Area. Ireland is currently working in partnership with other member States through the MSFD Technical Subgroup on Underwater Noise. This process will ensure development of common methodologies and appropriate indicators, to facilitate national and European coordinated monitoring of noise and in the identification of sources of noise. Ireland has also funded two EPA Strive research projects during 2012/2013 and the outputs from that research will be used to inform the development of a 'risk-based' noise monitoring programme. It is anticipated that this will lead to the quantification and better understanding of the occurrence and intensity of noise in Irish marine waters and its potential environmental impacts, including the future development of quantitative targets and indicators.</p> <p>The characteristics of GES for Descriptor 5 as determined by Ireland are listed on page A2 of Appendix A. In addition, the characteristics of GES for Descriptor 5 are listed on page 54 of the Article 19 report.</p> <p>Public participation is set out in the Directive under Article 19. The formal consultation process and the informal consultations with specific sectoral stakeholders form part of that process.</p>
MSFD_IA_003 (C87)	D1	As the directive is now being rolled out, a positive public feedback loop should be created as soon as possible. This requires planning and is a key to full implementation of the directive. We have	DECLG will provide on-going feedback on the implementation of the MSFD through its website and contacts with interested parties. Workshops may also be organised as part of the public participation process

Submission and Comment Code	Descriptor	Comment	Response
		<p>seen how not involving the public adequately in the Birds and Habitats Directives has led to distrust and lack of understanding. A new way is needed. Targets adopted with citizen participation and indicators which are understood by citizens and where possible user friendly, would make public participation - a directive requirement – easier and more productive.</p> <p>E.g. some seabirds' nests are associated with harbours, which can also be hot spots of entanglement and litter ingestion. If stakeholders understand, are involved, see correct, fair reporting and get positive feedback for action to prevent/avoid/reduce this littering, they will make a conscious effort. A project which links harbour users to bird nest monitoring would be very useful (see Coastwatch 2001 report of Ireland Wales Interreg Harbour project, which saw such scheme emerge in Dunmore East)</p>	
MSFD_IA_007 (C64)	D1, D4, D6	A target for this characteristic [Biodiversity, Food Webs and Seabed Integrity] must also be the urgent establishment of a network of marine protected areas (MPA). As figure 3.2 [of the Article 19 Report] shows there are few places that have not been trawled and if habitats and species are to recover there must be large, effective areas securely protected from damaging fishing	The designation of further MPAs falls under the development of programme of measures for the MSFD. The development of candidate MPAs and full designation will be done under the habitats directive but the requirements and objectives of the CFP and the MSFD will be considered. Article 21 of the directive addresses this issue also.

Submission and Comment Code	Descriptor	Comment	Response
		<p>practices. The current situation where the Department of Agriculture, Food and the Marine (DAFM) grants licences for trawling inside Special Areas of Conservation makes a mockery of the Habitats Directive and the notional commitment to the conservation of our most threatened habitats and species. The situation recently highlighted by the media where a journalist investigating MPAs was referred by the Department of the Environment to the Department of Arts, Heritage and the Gaeltacht, only to be referred back to DAFM shows how biodiversity conservation in the marine environment is not being taken seriously.</p>	
MSFD_IA_007 (C65)	D1	<p>The status of many of our marine species is precarious with a number of rays and sharks in particular listed as Critically Endangered by the IUCN. Ireland stands out as being the only country within its range where Basking Sharks are not a protected species. Another case in point is a recent media report of as little as 12 remaining Angel Sharks left in Irish waters when they were common around the coast as recently as the 1980's. To address this, a third target must be to add marine species to the Wildlife Act (where there are currently not considered wildlife) and followed by species action plans for their recovery (as has been done with a number of terrestrial species). This should include the</p>	See response under MSFD_IA_007 (C64)

Submission and Comment Code	Descriptor	Comment	Response
		designation of specific Natural Heritage Areas for their protection.	

3.1.2 Descriptor 2

Submission & Comment Code	Comment	Response
MSFD_IA_008 (C72)	<p>"some targets are limited to very marginal elements of the descriptor, without a statement of the limitations of this or how it will be addressed: For example the Environmental Target for [Descriptor 2] this descriptor is: '<i>Reduction in the risk of introduction and spread of non-native species through the prioritisation of species and improved management of high risk pathways and vectors.</i>' Given the lack of baseline knowledge acknowledged in the report, this provides no clear target for the further stages of action required by the Directive.</p> <p>The additional operational target of developing action plans for key high-risk NIS species is to be welcomed. However, again it is vague, with details such as how many action plans and for which species not set out. The respondent recommends public participation in the identification of these species, before this target can be deemed definitive.</p>	<p>It is acknowledged by Ireland that it has not been possible to set more detailed targets at this stage due to a lack of data and understanding in relation to NIS distribution, current pressures and impacts. Assessments to date have been limited leading to a lack of baseline information. Improved monitoring, particularly in areas where there are high risk pathways and where known vectors frequent, will improve Ireland's knowledge and begin to address knowledge gaps and contribute to the development of a current baseline. A historic baseline will not be possible to ascertain.</p> <p>Work is on-going at OSPAR level for the development of common indicators for invasive species and Ireland is cooperating with this process. Ireland is also engaged in an all-island strategy for this descriptor.</p> <p>The use of public participation in the development of species lists requires quality control. A more appropriate approach in this cycle of the directive would be the involvement of sectoral stakeholders until public participation tools are sufficiently developed (note, these tools are being developed at EEA level).</p>

3.1.3 Descriptor 3

Submission & Comment Code	Comment	Response
<p>MSFD_IA_001 (C19)</p> <p>MSFD_IA_001 (C06)</p>	<p>It is submitted that the summary report submitted makes unwarranted "tentative" conclusions on two key issues of commercially exploited fish which are not supported by the level of evidence required in the main report. The summary report states that: <i>"In general, populations of shallow and shelf water bony fish are stable in terms of their numbers, distribution and size ranges (population condition). Some commercially important demersal (bottom feeding) species such as haddock, whiting and plaice have increased their distribution, while others, such as megrim, have seen a marked improvement in the population condition. Similarly, non-commercial demersal species, including dragonet, dab and grey gurnard, have shown significant increases in population size while the condition of populations of lemon sole and dab has improved"</i> and, <i>"Overall, there is tentative evidence to suggest an improving picture for marine commercial fish species."</i> It is further stated: <i>"There has been an overall reduction in fishing pressure in the Irish Assessment Area in the last ten years with the majority of the fifty-two assessed stocks now being fished sustainably. Many of the once depleted stocks have now increased to acceptable levels (above defined biomass reference levels)".</i> This must be reconciled with the EPA (2008) State of the Environment Report which stated that <i>"Many commercially important fish species in Irish waters are heavily exploited. In terms of individual stocks it is estimated that as much as 75 per cent is being harvested beyond safe biological limits"</i>.</p>	<p>The results of the EPA report in 2008 are based on the Marine Institute Stock Book of 2007 which summarises the state of stocks in 2006: http://oar.marine.ie/handle/10793/630</p> <p>As can be seen from the summary table of that stockbook (p49) only 2 out of 42 stocks were fished at sustainable levels (in relation to msy), while 14 were overexploited and the remaining unknown. This is only 8 % of the stocks with known reference levels. In contrast, results of the Descriptor 3 assessment indicate that in 2012, 62% of fish stocks and 71% shellfish stocks were fished sustainably (of stocks with known fishing mortality reference levels).</p>

Submission & Comment Code	Comment	Response
	<p>Note: Issues relating to nutrients dealt with under Descriptor 5 below: MSFD_IA_001 (C07), MSFD_IA_001 (C08), MSFD_IA_001 (C09), MSFD_IA_001 (C11).</p>	
<p>MSFD_IA_003 (C35)</p> <p>(also see response under Descriptors 1, 4 & 6 above)</p> <p>MSFD_IA_003 (C36)</p>	<p>Reading the executive summary one gets the impression that those who drafted it thought our waters are generally in GES. It then follows that compliance with the directive should be easy peasy. It would be useful to have a more informative factual summary of what is and isn't known and quality deductions based on the limited knowledge we have. For example:</p> <p>The Fish Species resume (Piii) is amazingly positive compared to the picture one gets when looking at the Marine Institute stock book or even the body of this MSFD document. Para 3 notes '<i>data on four elasmobranch species were available for the current assessment. The distribution of lesser spotted dogfish is increasing and the population condition is presently stable, while both distribution and population condition for spurdog, thornback ray and cuckoo ray is currently also considered to be stable</i>'. However the 4 are four of at least sixty elasmobranch species in our waters, so what about the other 56, some of whom are heading for extinction?</p> <p>And how can a species like cuckoo ray be described as '<i>stable</i>' in the executive summary but in the body of the document it is acknowledged that ICES trend data show the status of the cuckoo ray is deteriorating?</p>	<p>The status of a selection of elasmobranchs has been reported under Descriptor 1 and Descriptor 3. The choice of species is related to the state of knowledge and the ability of our monitoring programmes to sample the stocks/species. In the future, Ireland is planning to initiate reporting at the functional group level in addition to single species level, which will cover an assessment of all main elasmobranch species in the Irish Assessment Area. As stated in the (Species) Reporting Sheets, the assessment of trends in status for D1 (distribution, biomass and condition) is limited by the short time series of our monitoring programme compared to the exploitation history of fish stocks and communities. We currently have less than 10 years of survey data that can feed into our assessment. We can therefore report on recent trends, but cannot make inferences in relation to where we are in respect of contribution to GES.</p> <p>We refer to the stable condition of cuckoo ray in relation to the indicators used for distribution range and patterns (D1.1) and condition (D1.3). The assessment of population size trends is based on ICES advice and states that population size is reducing (see http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreportingSheets/).</p>
MSFD_IA_007	Marine biodiversity has declined dramatically in Irish waters since the advent of industrial fisheries. The loss	

Submission & Comment Code	Comment	Response
(C63)	<p>of biomass at the top level of the food chain has had a cascading effect throughout the ecosystem. This is having profound effects of [on] the livelihoods of fishers, our ability to cope with a changing climate as well as the intrinsic value of our natural heritage. It is cheerfully stated that many of our fish species, including some critically endangered sharks and rays, are in a 'stable' condition. 'Stable' at a very low level is on the verge of catastrophe and is not a status with which we should be content. The report acknowledges the severely poor state of knowledge regarding the status of key marine habitats. This is not acknowledged, but can also be applied to, the many non-commercial fish species including the sharks and rays. At a minimum a target must be set therefore to objectively assess these features from a purely conservation point of view and accepting that they are likely to be depleted, or structurally compromised, for a long time period. In other words, the baseline for 'healthy' should be prior to industrial fishing and trawling in particular.</p> <p>Figure 3.2 [of the Article 19 Report] speaks volumes about the likely poor state of marine habitats and food webs as little survives the trawl. Trawling has compromised the seabed where it has occurred and therefore these areas must be assessed as of 'poor' status, at least until there is evidence to show the opposite.</p>	See response to MSFD_IA_007 (C63) under Descriptors 1, 4 & 6 above.
MSFD_IA_003 (C37)	Descriptor 3 'commercially harvested fish and shellfish' completely omits commercially harvested shellfish from the executive summary, but covers seaweed which is at present a minnow in terms of commercial harvest	Descriptor 3 (commercially harvested fish and shellfish) covers 38 fish stocks and 14 shellfish stocks in the Irish Assessment Area. In the Article 19 report these stocks are dealt with under the heading <i>Commercial Exploitation of Fish and Shellfish</i> . In addition, the status of commercial and non-commercial fish species

Submission & Comment Code	Comment	Response
	value.	is reported under the biodiversity Descriptor 1 heading “fish species”. The stocks assessed under Descriptor 3 are all the main Common Fisheries Policy (CFP) stocks exploited in the Irish Assessment Area and a number of additional shellfish stocks that are not covered under the CFP. Linking GES to a list of species at this stage would mean that harmonisation with the reform of the CFP and a newly evolving Data Collection Framework (DCF) (now known as the Data Collection Multi Annual Programme) could not be guaranteed.
MSFD_IA_008 (C73)	<p>In relation to commercially exploited shellfish species, the respondent believes that the omission of the native mussel (<i>Mytilus edulis</i>) from this assessment of commercial stocks is a significant weakness which must be addressed.</p> <p>Information on the status of mussel stocks are vital given that it is a commercially highly significant shellfish species for Ireland and must be recognised as such.</p>	The Descriptor 3 assessment followed recommendations that reporting should focus upon species that fall under the Data Collection Framework. The species that were selected for the Descriptor 3 assessment were those that are widely fished around the Irish coast by both national and international fleets. These trans-boundary species include crabs and lobsters. Mussel beds of commercial interest are largely confined to small beds in the coastal waters of the Irish Sea (with the exception of Castlemaine Harbour, Kerry) and as such are probably not the most suitable for the assessment of environmental status at the scale of Ireland's Assessment Area. The mussel seed fishery is assessed under the Habitats Directive where appropriate.
MSFD_IA_003 (W-C14)	Why does reporting under Descriptor 3 not include mussels? The omission of one of the most commercially important species from the current assessment may call into question the adequacy of the Initial Assessment.	
MSFD_IA_008 (C70)	The respondent is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-plastics is to also to be welcomed in the definition of GES for marine litter.	Noted.

Submission & Comment Code	Comment	Response
MSFD_IA_007 (C67)	The respondent is delighted that the end of overfishing may be in sight and that fish stocks are to be rebuilt and fished sustainably from 2020. We are satisfied that the definition of GES and the targets set are appropriate and are to be welcomed.	Noted.

3.1.4 Descriptor 5

Submission & Comment Code	Comment	Response
MSFD_IA_001 (C07)	There is inadequate substantiation of the claim made in relation to nutrient management, including from agriculture, in the summary report: <i>“Overall, the present situation with regard to nutrient enrichment within Ireland’s Assessment Area is considered to be good, with nutrient enrichment events reduced to a level that could be considered to be indicative of Good Environmental Status”.</i>	This statement is based on the systematic assessment of the criteria and indicators given in the Commission Decision (2010/477/EU). This assessment indicated that the targets for Ireland’s Assessment Area were met, with the exception of some targets for a small number of inshore coastal areas which comprise considerably less than 1% of the total MSFD Assessment Area.
MSFD_IA_001 (C08)	International comparison is required on the extent and impact of “dead zones” in Irish waters. Follow up is needed on the University of Virginia (2008) report identifying dead zones internationally and providing Irish context: http://www.sciencemag.org/content/321/5891/926 .	The claim by Diaz and Rosenberg (2008) of hypoxic ‘dead zones’ in Irish waters in their 2008 article published in Science magazine was rebutted by the Environmental Protection Agency in a letter sent to the Senior Editor of Science Magazine. This response was followed by the publication of a scientific paper in the Marine Pollution Bulletin (O’Boyle et al., 2009) which clearly showed the absence of hypoxic and anoxic conditions in Irish estuaries and coastal waters. Oxygen levels in Irish waters continue to compare more than favourably with other comparable locations (see the latest Water Quality in Ireland report 2007-2009 and material presented in the Initial Assessment documentation - http://www.environ.ie/en/EnvironmentWater/WaterQuality/Marine/PublicConsultat

Submission & Comment Code	Comment	Response
		ions/MSFDReportingSheets/).
MSFD_IA_001 (C09)	The only location identified for concern in the main report Section 6.4 is Kilalla Bay, Co Mayo/Sligo. The continuing scale of sea lettuce growth in Clonakilty and Courtmasherry Bays in Co. Cork highlights the effectiveness of nutrient management measures in Ireland.	Killala Bay, Co. Mayo was identified in Section 6.4 of the report as the only coastal water body to have experienced elevated levels of organic matter enrichment during the assessment period. (We have assumed the comment meant to say ineffectiveness of nutrient control measures, and have provided a response based on this assumption). The issue of opportunistic macroalgae (i.e. sea lettuce) is being addressed through the implementation of the EU Water Framework Directive. In some areas, the presence of excessive amounts of sea lettuce has resulted in a moderate or worse ecological status classification. In such cases, programmes of measures will be required to improve the status of these waters.
MSFD_IA_001 (C11)	Nutrient Enrichment: <i>Annex V (11) of the Directive states the 'Need to include, as part of the initial assessment provided for in Article 8, an assessment of major changes in the environmental conditions as well as, where necessary, new and emerging issues'. Major issues at plan or programmes stage have not been addressed.</i>	Annex V refers to monitoring programmes. A specific requirement of the monitoring programmes is for Member States to provide information on "the ability of the monitoring programmes to identify major changes in the environment (Annex V.11) and on the ability of the monitoring programmes to identify new and emerging issues (Annex V.11)". The issue raised by the respondent will therefore be addressed during the development of Ireland's monitoring programmes which is currently underway.
MSFD_IA_001 (C19)	Meeting the Requirements of the Directive: It is submitted that the summary report submitted makes unwarranted "tentative" conclusions on two key issues of commercially exploited fish and nutrient running off into marine waters which are not supported by the level of evidence required in the main report. [It was assumed for the purposes of responding to this query, that the submission was referring to The	The response provided here deals with the nutrient part of the submission. See Descriptor 3 above for a response on commercially exploited fish. Please refer to the responses above under MSFD_IA_001 (C07), MSFD_IA_001 (C08), MSFD_IA_001 (C09), MSFD_IA_001 (C11). Please also note the nutrients technical reporting sheet completed– see http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultat

Submission & Comment Code	Comment	Response
	<p>Executive Summary. The following had been stated for nutrients:</p> <p>Nutrients, predominantly as nitrogen and phosphorus, find their way into the sea from a variety of sources, most commonly from agriculture, wastewater treatment discharges and from unsewered domestic or industrial properties. The presence of excessive or unnatural levels of nutrients (eutrophication) can cause the proliferation or accelerated growth of nuisance seaweeds or plankton blooms.</p> <p>The levels of chlorophyll (a measure of phytoplankton density), opportunistic seaweeds, dissolved oxygen and organic matter in coastal waters currently meet the standards required under the Water Framework Directive.</p> <p>The levels of nitrogen, phosphorus and organic matter in Ireland's coastal waters have decreased in recent years and it is unlikely that nutrient enrichment issues extend to offshore waters.</p> <p>Overall, the present situation with regard to nutrient enrichment within Ireland's Assessment Area is considered to be good, with nutrient enrichment events reduced to a level that could be considered to be indicative of Good Environmental Status.]</p>	<p>ions/MSFDReportingSheets/.</p>
MSFD_IA_001 (C10)	It is not clear if the nutrient management targets set out have been reconciled with the beef and dairy production increase targets under the government	The MSFD_IA_007 comment is seeking specific controls on a single business sector. Any measure such as this will not be determined until the programme of measures has been developed and additional measures have undergone impact

Submission & Comment Code	Comment	Response
	supported Food Harvest 2020.	assessment (including cost benefit and cost effective analysis) (article 13.3).
MSFD_IA_007 (C68)	<p>The respondent is concerned that the analysis has shown that the current status of nutrient enrichment is '<i>consistent with GES</i>'. While it is likely that eutrophication at sea is not an issue during normal climatic conditions it was seen as recently at 2012 that we can no longer rely on conditions being normal. That summer saw a prolonged wet period that resulted in elevated E. coli contamination of bathing waters and the likely promotion of a 'red tide' algal bloom across the western seaboard. The EU Nitrates Directive and Good Agricultural Practice Regulations are not sufficient safeguards to preventing the run-off of farm-based effluent. This must also be seen in the light of the Food Harvest 2020 expansion plan which will see increase levels of effluent from this source.</p>	<p>The existing set of targets and associated indicators which make up Descriptor 5 are related to the particular reference condition for that element, e.g. a nutrient parameter or phytoplankton biomass parameter. This means these targets and indicators are sensitive to change and will detect the influence of increasing anthropogenic pressures.</p> <p>Climate change will modulate the timing and input of nutrients to the marine environment. However, the potential for this must be interpreted in the context of decreasing inputs of nutrients as indicated in the initial assessment (i.e. a 45% and 20% reduction in national loadings of phosphorus and nitrogen, respectively).</p> <p>The issue of the 2012 red tide event of the northwest coast of Ireland is complex and needs further research before a cause can be attributed.</p>
MSFD_IA_008 (C70)	<p>The respondent is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-plastics is to also to be welcomed in the definition of GES for marine litter.</p>	Noted.

3.1.5 Descriptor 7

Submission & Comment Code	Comment	Response
MSFD_IA_001 (C15)	The impact of large scale wind energy and future development of wave and tidal energy needs to be assessed.	In the development of monitoring and measures under the relevant descriptors (1, 6, 7 & 11) the potential pressures to achieving GES on the scale set out in the Directive caused by this activity will be addressed.
MSFD_IA_002 (C25)	<p><i>"At present, all coastal and offshore activities with the potential to alter hydrographical conditions are of a scale that is unlikely to cause adverse effects, although some localised effects may be present. It is very difficult to establish and quantify overall hydrographical impacts across the Irish Assessment Area and our current level of knowledge has not allowed a reliable evaluation of any changes that may have occurred to date".</i></p> <p>This statement does not present any supporting documentation for these vague findings or other evidence. In addition, there is no presentation of specific information regarding energy harvesting from the foreshore, from whatever source, be it oil/gas, wind or tidal.</p> <p>The respondent requests that evidence supporting this statement be supplied by the responsible government departments and that the absence of information be addressed, as a matter of urgency and prior to this directive being implemented.</p>	<p>Chapter 7 of the Initial Assessment Report details the methodology used to determine our assessment of hydrographical conditions within the Irish Assessment Area, and is summarised from a detailed technical assessment undertaken which can be located on the DECLG website (http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDReportingSheets/). The Irish foreshore licence database was interrogated for consents permitting activities that could potentially lead to changes in hydrographical conditions. Information in relation to current oil, gas and renewable energy activity, together with indicators of future plans, were sourced from the document <i>"Harnessing Our Ocean Wealth – An Integrated Marine Plan for Ireland"</i>. In addition, linkages were made with the Water Framework Directive Article V Characterisation reporting, which also assessed hydromorphological pressures within transitional and coastal water bodies.</p> <p>The level of pressures is also summarised in Chapter 7. Some coastal areas have been identified as having reduced hydromorphological quality which has led to deterioration in ecological quality. The combined spatial extent of these locations corresponds to substantially less than 1% of Ireland's Assessment Area. Chapter 7 also acknowledges that although the offshore environment has few economic sectors which could lead to hydrological alterations, an exception is that the oil, gas and renewable energy industries will expand their operations in the future. In this context, the Department of Communications, Energy and Natural Resources, with input from SEAI, have prepared an Offshore Renewable Energy Development Plan (OREDPA) which describes the policy context for development of offshore wind, wave and tidal stream energy in Irish waters for the period to 2030. A Strategic Environmental Assessment has been undertaken, evaluating the likely significant environmental effects of implementing the plans to develop offshore renewable (offshore wind, wave and tidal) energy in</p>

Submission & Comment Code	Comment	Response
		<p>Irish waters. The OREDP has recently been published (February 2014) (http://www.dcenr.gov.ie/NR/rdonlyres/836DD5D9-7152-4D76-9DA0-81090633F0E0/0/20140204DCENROffshoreRenewableEnergyDevelopmentPlan.pdf).</p> <p>It is acknowledged within Chapter 7 of the IA that Ireland has information gaps, specifically in relation to environmental impacts of activities which generate hydromorphological changes. Ireland is currently developing methods to expand baseline data to support the future establishment of targets and indicators.</p> <p>Under the WFD, Member States are required to manage hydromorphological change as a result of human activity to prevent ecological deterioration in transitional and coastal (TraC) waters. However, the lack of data describing the interrelationship between hydromorphological change and ecological status has prevented the development of an evidence-based tool for assessing change. As an alternative, Ireland and the UK have developed a risk-based assessment tool, TRaC MiMas, which assesses the carrying capacity of a system in terms of activities that cause morphological change and thereby impact negatively on ecological status. Results from this WFD assessment will complement MSFD reporting for Descriptor 7.</p>
MSFD_IA_004 (C48)	<p>As recognised in the Marine Renewable Energy Action (Forfas/Department of jobs, Enterprise & Innovation, July 2013) Ireland's ocean territory, at approximately ten times the size of the land area, is an excellent potential source of energy. The Plan states "<i>.... the prospect of more stringent EU-wide targets post 2020 are set to open opportunities for offshore renewable energy to contribute not only to Ireland's energy needs but could also, along with resources from other European Atlantic seaboard countries, become a very important future energy/electricity source for Europe.</i>" We note that the development of even significant</p>	Comments noted.

Submission & Comment Code	Comment	Response
	generation capacity offshore would occupy a very small proportion of the total sea area covered under the MSFD - < 1%.	
MSFD_IA_004 (C49)	<p>As with the development of large projects on land, the potential arises to put pressure on environmental media and ecosystems as result of the activities associated with the renewable energy industry.</p> <p>The main pressures are identified in the Initial Assessment Report as: physical loss; contamination by hazardous substances and underwater noise.</p> <p>IWEA believe that as experience with on-shore projects has demonstrated the application of a technically and scientifically sound framework within which the assessment of impact of any of these pressures is central to the successful and environmentally sustainable development of off-shore projects.</p> <p>We would suggest that it is only within such a framework that the development of off-shore wind can properly take place which achieving Good Environmental Status – GES – for Irish marine waters. In the case of underwater noise, IWEA note that both GES Targets and Indicators are under development and would welcome to opportunity to comment further</p>	<p>The OREDP SEA and AA overall conclusion found that it would be possible to achieve the high scenario of 4,500MW from offshore wind (and 1,500MW from wave and tidal devices) without likely significant effect on the environment. In addition the cumulative assessment found that greater levels of development could be accommodated within assessment areas without significant adverse effects on the environment. However, a route to market is key¹, as will be the implementation of Plan Level Mitigation Measures and suggested Project Level Mitigation Measures, which are also included within the OREDP.</p> <p>The DECLG's Maritime Area and Foreshore Amendment Bill aims to provide a streamlined development consent process, to include both the onshore and offshore elements of strategic infrastructure projects, with An Bord Pleanála as the consent authority. It is within this framework that our marine area is intended to be protected, while also allowing for offshore wind developments.</p> <p>GES targets and indicators for Descriptor 11 are currently under consideration, and an opportunity to further comment will be possible as the consultation with the public and stakeholders takes place under Articles 11 and 13.</p>

¹ P.19. Department of Communications, Energy and Natural Resources. 2014. Offshore Renewable Energy Development Plan. A Framework for the Sustainable Development of Ireland's Offshore Renewable Energy Resource. 56pp.

Submission & Comment Code	Comment	Response
	on their development.	
MSFD_IA_004 (C50)	<p>Although the initial Assessment Report, GES Targets and Indicators is not of immediate or direct relevance to the development of off-shore wind, in establishing a framework for the protection of marine environmental quality, it will form a significant part of the assessment of projects in the future. Given the potentially significant contribution that off-shore wind can make to meeting, and exceeding Ireland's renewable energy targets, IWEA suggest that the specific requirements of the industry in construction and operating off-shore wind energy projects, be taken into account in the further development of GES Targets and Indicators.</p>	
MSFD_IA_008 (C74)	<p>"some targets are limited to very marginal elements of the descriptor, without a statement of the limitations of this or how it will be addressed:</p> <p>The operational target for this [Descriptor 7] descriptor is inadequate and vague, especially given that it is not accompanied by any state-based or quantitative target:</p> <p><i>'All developments that may give rise to significant permanent changes in the hydrological regime of currents, waves, or sediments must comply with existing regulatory regimes and guidance should be followed to ensure that regulatory assessments are undertaken in a way that ensures the full consideration of any potential impacts, including cumulative effects at the most appropriate spatial scales to ensure that GES is not compromised.'</i></p>	<p>Compliance with existing regulatory regimes (European Directives, National Regulation) and guidance is a European-wide approach towards developing targets for Descriptor 7. Significant improvements have been made in Ireland and at a European level to improve upon the regulatory regime which will have a bearing on Descriptor 7. This includes:</p> <ul style="list-style-type: none"> -A new planning and consent architecture for development in the marine area i.e. General Scheme of Maritime Area and Foreshore (Amendment) Bill 2013; -Reform of EIA Directive currently underway at a European level; -SEA Directive and Regulations; -Revised Birds and Natural Habitats Regulations 2011. -Water Framework Directive, etc. <p>Ireland has utilised the information sharing facilitated by OSPAR on existing methodologies and future developments for determining GES, environmental targets and indicators. The non-binding OSPAR 'Advice Documents' use the</p>

Submission & Comment Code	Comment	Response
	<p>A target which references compliance with current regulations is not acceptable, since targets must in the first instance be science-based and thus must not presume the current regulatory framework sets adequate levels of protection, without a full and robust analysis to support this. It is not made clear what 'guidance should be followed' and how this will be ensured. Past and current ECJ cases indicate clearly that Ireland does not have a very good record of compliance with environmental legislation; therefore, without additional operational targets to secure increased compliance, this target is almost meaningless.</p>	<p>benefit of OSPAR expertise to set out common approaches for expressing GES and potential methodologies for developing targets and indicators. The OSPAR countries implementing the MSFD have collectively analysed and shared their emerging GES determinations and associated targets and indicators through the creation of an inventory of emerging national proposals including for Descriptor 7. Ireland has participated in OSPAR's Environmental Impact of Human Activities Committee (EIHA), which produced an Advice Document (http://www.ospar.org/documents/dbase/publications/p00583_advice_document_d7_hydrographic_conditions.pdf) for Descriptor 7. Ireland has also participated in EU coordination through the EU Common Implementation Strategy (CIS) process. It is through this process, that further more detailed targets will be proposed for adoption by Member States.</p> <p>The development of further measures beyond the existing instruments is subject to an assessment including economic assessment (Article 13.3).</p>

3.1.6 Descriptors 8 & 9

Submission and Comment Code	Comment	Response
MSFD_IA_008 (C26)	<p><i>'The ability to determine actual biological effects of elevated concentrations of synthetic contaminants is presently very limited and is currently restricted to observations of the disruptive effects of tributyltin (TBT) compounds on the sexual development (imposex) of dogwhelks (a sea snail).'</i></p>	<p>This is the only measured biological effect detected in Irish waters that be unambiguously causally linked to a synthetic contaminant (TBT). See comment below in response to MSFD_IA_008 (C75).</p> <p>More information in section 2.4.15 of the reporting sheet available online at http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultat</p>

Submission and Comment Code	Comment	Response
	This section similarly lacks substantive information.	<p>ions/MSFDRreportingsheets/.</p> <p>Giltrap <i>at al.</i> in press will provide more information:</p>
MSFD_IA_002 (C27)	<p><i>"At this time there is no internationally agreed definition of what constitutes an acute pollution event. For the purposes of the present reporting Ireland has provisionally defined a significant acute pollution event as an incident in which the use of substantial Irish Coast Guard (IRCG), Local or Port Authority resources are required to react and achieve a successful outcome. Acute pollution events in Irish waters usually originate from fishing, shipping or military vessel activity. Between the period 2006 and 2011, five separate acute incidents were reported in Irish waters. These events were mostly inshore and taken together covered less than 1% of the Irish Assessment Area."</i></p> <p>In the exploration and extraction processes for oil and gas, major factors have been ignored should difficulties arise. Minister Leo Varadkar, Department of Transport, Tourism and Sport, stressed concerns issued the Fisher Report 'Irish Coast Guard Value For Money Review April 2012' http://www.transport.ie/upload/general/13550-IRCG_VALUE_FOR_MONEY_REVIEW_APRIL_2012-0.PDF</p> <p>'There is concern amongst the Irish Coast Guard (IRCG) management team that some aspects of the Regulations, and IRCG's ability to comply with those Regulations, pose inherent implications for the State. Senior managers in IRCG consider that IRCG's preparedness and response capability is below that expected by international best practice. The current</p>	<p>Petroleum Affairs Division (PAD), Department of Communications, Energy and Natural Resources in conjunction with the Commission for Energy Regulation have overall responsibility for the exploration and extraction process around the Irish Coast. Oil Spill Contingency Plans and Emergency Procedures Documentation are supplied to the Department of Transport Tourism and Sport.</p> <p>Ireland has in place a draft National Contingency Plan, together with Oil Spill National Stockpiles located at 3 strategic locations around the Country.</p> <p>The Irish Coast Guard have a contract with Canadian Helicopters Cooperation (CHC) to provide helicopter assistance and sampling as the need arises around the Irish Coast and in the Irish Economic Zone (EEZ).</p> <p>The Irish Coast Guard have a Memorandum of Understanding with the Department of Defence to utilise the Irish Air Corps for Pollution Patrols around the coast.</p> <p>In the event of an acute pollution event Ireland has in place arrangement with Oil Spill Response Ltd (OSRL) to provide extra equipment and/or technical expertise if required.</p> <p>Ireland is also a signatory to the Bonn Agreement - providing for mutual aid between Member States in the event of major pollution incidents around the Irish Coast.</p> <p>The Irish Coast Guard in cooperation with the Local Authorities would manage an</p>

Submission and Comment Code	Comment	Response
	<p>single-person structure of the POL/SALV Branch increases those risks as it is highly unlikely that IRCG would be able to effectively and efficiently respond to a major shipping casualty or pollution incident without recourse to significant external resources at very high cost.</p> <p>There is further concern that this lack of preparedness and ability to respond may have significant financial implications for the State, in that contributions that may be expected from external funds may not be payable. There are also significant risks to the environment of the State as a result of this inability to effectively respond, particularly in coastal areas, and this may also have significant social impacts as it may affect the livelihoods of the residents of the coastal areas affected.'</p> <p>In the same report in section 4.5.2 '4.5.2 Pollution response performance Ireland has ratified the IMO MARPOL Convention and the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 [OPRC]. This latter convention requires the development and implementation of a National Contingency Plan [NCP] for pollution incidents and the responsibility for this plan is delegated to Irish Coast Guard (IRCG)....</p> <p>There is concern amongst the IRCG management team that some aspects of the Regulations, and IRCG's ability to comply with those Regulations, pose inherent implications for the State. ... the respondent requests comment on this most serious discrepancy.</p> <p>At the consultation workshop held 11 November 2013, comment was made by a DOE representative that the Irish Coastguard were in the position to manage any</p>	<p>acute pollution event under the Major Emergency Framework Document.</p> <p>The Irish Coast Guard have in place arrangements and resources to manage an oil spill around the Irish Coast.</p>

Submission and Comment Code	Comment	Response
	difficulty that may arise from a potential oil spill. This is clearly not the case.	
MSFD_IA_008 (C70)	The respondent is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-plastics is to also to be welcomed in the definition of GES for marine litter.	Noted.
MSFD_IA_008 (C75)	<p>Given that the GES for this descriptor is that:</p> <p><i>'Concentrations of contaminants in the marine environment (i.e. in water, sediment and biota) are within agreed levels and adverse effects on organisms, populations, communities and biological processes do not occur.'</i></p> <p>The targets set in relation to these adverse impacts on biology are limited in the extreme. Whilst there is value in monitoring TBT in gastropods, to track expected decline, the EU ban on the use of TBT-based antifouling chemicals which came into effect in 2008, makes this one of the less relevant persistent contaminants.</p> <p>Secondly, the target regarding acute pollution events states that <i>'impacts on biota affected by the pollution is minimised through appropriate risk-based approaches'</i>. Again this is excessively vague and does not provide a trend-based or quantitative target against</p>	<p>Target 8.1 covers concentrations of contaminants and includes sediment, water and biota. This target addresses a broad range of parameters by reference to OSPAR and WFD.</p> <p>We concur that TBT is declining following measures (Wilson <i>et al.</i> in prep), although whether it is one of the less relevant chemicals is a moot point given that effects are still evident in the Irish environment. However, target 8.2 on biological effects (as required by Commission Decision 477/2010/EU) is limited to assessment of TBT-specific biological effects at this stage, reflecting the state of development of effects monitoring and assessment tools and their ability to distinguish clear contaminant-specific cause-effect relationships. TBT-related effects, especially imposex in gastropods, are contaminant-specific and sensitive and consequently good indicators. It is more challenging to make other cause-effect judgements based on other biological effects tools (for example Ethoxyresorufin-O-deethylase - EROD) as other factors may affect the biological responses. For these reasons the only biological effects monitoring currently adopted by OSPAR is TBT-related biological effects (OSPAR 2010). A wide range of biological effects tools have been proposed as part of an integrated assessment methodology (Davies & Vethaak, 2012) but implementation of this is in pilot phase and it is not currently part of the OSPAR core monitoring. Ireland will review and amend this target to include additional effects indicators if adopted</p>

Submission and Comment Code	Comment	Response
	which progress towards GES can be measured.	in the OSPAR Co-ordinated Environmental Monitoring Programme (CEMP), and as deemed suitable. This will take account of the outcomes of the recent Sea Change funded project on integrated chemical- biological effects monitoring (ref: Giltrap <i>et al.</i> in press)
MSFD_IA_003 (C40)	Microbiological pathogens are covered although we could not establish where they feature in the Directive – apart from Annex III. So perhaps this could be explained. The conclusion that occasional illness outbreaks are linked to microbes described earlier as infectious agents may need to be qualified in light of known PSP and other plankton bloom associated poisons.	<p>The Microbial pathogens reporting sheet was provided by the Commission to facilitate the reporting on biological disturbance through the introduction of microbial pathogens into the marine environment, within the scope of the Initial Assessment, Article 8b, and Annex III Table 2. See completed reporting sheet here (http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreportingSheets/).</p> <p>Illness due to consumption of shellfish containing phytoplankton biotoxins is not covered by this reporting sheet. Phytoplankton biotoxins are not incorporated for example in Descriptor 9 or Descriptor 5 as there is no evidence for a link between toxic phytoplankton occurrence/ biotoxin levels in Irish waters with anthropogenic pressures such as nutrient enrichment. Thus, toxic phytoplankton occurrence/biotoxin levels are unsuitable as indicators/targets for GES. This is in line with the conclusions of MSFD Task Group on D9 (Swartenbroux <i>et al.</i> 2010)</p>

3.1.7 Descriptor 10

Submission & Comment Code	Comment	Response
MSFD_IA_003 (C41)	<p>Comment: Too few targets:</p> <p>This initial Irish Government Article 19 report to the EC in 2012 proposed Good Environmental Status, Targets</p>	Targets are based on the information available at the time of development of the IA. This is specific from member state to member state.

Submission & Comment Code	Comment	Response
	<p>and Indicators for the Marine litter descriptor as tabulated below [refers to Appendix A page A4, within their submission]. The Good Environmental Status we want to reach is contained in the last phrase (our underline)</p> <p><i><u>“The amount of litter, and its degradation products (including small plastic particles and micro plastic particles), on coastlines and in the marine environment is ... at levels which do not result in harmful effects to the coastal or marine environment”.</u></i></p> <p>The present government document has only two litter targets set to reach GES: a general one to reduce the number of visible items of different types of litter on the shore, and a very specific one to reduce litter levels in fulmar stomachs. The indicators to be used to see whether we are reaching these targets are time trend data for the litter types monitored and analysis of composition, spatial distribution, and where possible, source.</p> <p>Our Spanish Coastwatchers looking at the same directive see Spain divided into 5 regions with GES and targets adapted to these regions. In the Spanish Art 19 report there are 8 targets which involve implementation of the Marine litter Descriptor for the Northern area of Spain, which is shared with Ireland in OSPAR. Some targets are specific to get the necessary litter impact data. ENV TARGET A1.4 sets out reduction in marine litter found ingested by marine life and entanglement. ‘Marine life’ was left general as the indicator species research is still ongoing.</p>	
MSFD_IA_003 (C42)	<p>Target re-wording:</p> <p>We would like to see a tighter wording of the first target</p>	<p>We have not committed to a quantitative reduction in marine litter targets until the information on pathways and our control over them is available.</p>

Submission & Comment Code	Comment	Response
	<p>in anticipation of new litter types arising. Also a qualification might need to be spelled out, that some types of rare litter – like wax or tar balls don't have to be reduced further, but shouldn't rise. This would be in line with targets in several other countries.</p> <p>So we propose to reword from: Reduction in the number of visible items within specific categories/types on coastlines.</p> <p>To: <i>A set reduction in the number of visible items in specified litter categories and no rise in any category of marine litter.</i></p>	<p>Work is on-going at OSPAR level (Marine Litter Regional Action Plan) and at EU level and in several research projects to address this issue.</p>
MSFD_IA_003 (C47)	<p>Targets for achieving results:</p> <p>As noted in the Hamburg OSPAR meeting November 2013, reductions and elimination of some litter types can be achieved by a mix of guidance and decisions, e.g. legally binding elimination requirements for specific items. These could be national or OSPAR level agreements. If the latter they should then be integrated into national targets. Either way, we need litter and waste management law and guidance in one place and knowledge how it is being enforced and results.</p>	<p>An OSPAR Marine Litter Regional Action Plan (ML-RAP) is under development and Ireland is actively contributing to this process and also working at EU level on the issue with the European Commission (Technical Working Group-Marine Litter).</p>
MSFD_IA_003 (C89)	<p>Relevant indicators from the wider waste and sewage management sector, our waste management plans and waste prevention programs under the Waste Framework Directive should be cross referenced to the marine litter indicators. Addressing one product or material as marine litter may have a win win results if the product is a problem on land and at sea.</p>	<p>See response under MSFD_IA_003 (C47)</p>
MSFD_IA_003 (C43)	<p>New Targets:</p>	<p>The level at which the Directive is being implemented (regional level) means that the development of specific localised indicators will lead to problems with</p>

Submission & Comment Code	Comment	Response
	<p>We agree that in above table [refers to table with proposed D10 targets] the '<i>analysis of its (litter) composition, spatial distribution and, where possible, source</i>' (currently part of the proposed indicator cell) are very important but are missing the link back to a target. We therefore suggest to insert a matching target which would facilitate early detection of new types and sources of litter and provide a measure of progress towards or maintenance of GES.</p> <p><i>To produce a regularly updated spatial distribution and source understanding of marine litter on our coast.</i></p> <p>The indicator would then have an own cell and be slightly tweaked to 'Annual reference sites as well as national 3 year cycle analysis of litter composition, spatial distribution and, where possible, source.</p>	<p>intercalibration of the GES assessments between member states. The OSPAR Marine Litter Regional Action Plan (ML-RAP) is under development and Ireland is actively contributing to this process and also working at EU level on the issue with the European Commission (Technical Working Group-Marine Litter).</p>
MSFD_IA_003 (C44)	<p>New Targets:</p> <p>It is essential that we get broad public participation in implementing this directive. Fulmar stomachs may be useful as a statistic (if we find enough dead fulmars) but means too little to get public buy in. One would be surprised if 1% of the Irish coastal population knows what a fulmar even looks like.</p> <p>Therefore further more public participation oriented targets are needed to link to what people care about. Coastwatch used the plastic bag count data and real ingestion problem by sea turtles and seals as effective means of getting people to consider the plastic bag tax, which our government then successfully introduced as the first country in Europe. We lobbied but with a single producer focus on can six pack holders and achieved an industry (Hi-cone)</p>	<p>See response under MSFD_IA_003 (C43)</p>

Submission & Comment Code	Comment	Response
	<p>manufacture switch to biodegradable plastic and cardboard. Similarly here the litter targets and indicators could be a mix of:</p> <ul style="list-style-type: none"> - widespread litter proposed by the public - and specific stakeholder oriented targets. <p>Some targeting the fishing sector we would like to see included in a first set of targets are -</p> <p>1. <i>Entanglement risk plastics in birds nest within 1 km of harbours</i>: A progressive reduction to <5% of nests containing any such plastics by 2020. Harbour users and fishermen would be far more likely to make an effort to cut and collect twine, net and packing straps if there was a well-publicised annual report with coastal bird nest photos, chick entanglement, death and rescue. Entanglement is a public engagement indicator.</p> <p>2. <i>No manmade fibres dolly rope (used as protection on the underside of nets) used on any nets or boats in Irish waters.</i></p>	
MSFD_IA_003 (C90)	<p>Macro Litter:</p> <p>An integrated litter information, prevention, monitoring and clean up action approach is needed. The present position is that we have several monitoring and clean up schemes which run in parallel with various and no data gathering elements which are not shared. The schemes we are aware of are listed below:</p> <ul style="list-style-type: none"> (i) OSPAR beach monitoring with clean ups and detailed information. (ii) Coastwatch monitoring where specific litter types and dumping black spots are recorded and a selection 	See response under MSFD_IA_003 (C43). Also, we are exploring the opportunity of working with the voluntary and NGO sector and the EEA on the use of quality controlled methodologies for public involvement in the monitoring of beach litter.

Submission & Comment Code	Comment	Response
	<p>is later targeted in follow up work ranging from source prevention to clean ups.</p> <p>(iii) Coast care group set location clean ups, with 'sacks filled' information available for some.</p> <p>(iv) A range of bathing season litter clean up schemes focussed on bathing beaches, run by local authorities from life guard clean up hours pre &/or post bathing duty to separate litter picker arrangements.</p> <p>(v) Harbour waste management which should have some data generated as waste is removed</p> <p>(vi) Other: a range of pop up activities have come to our attention – from sporadic river clean ups to individuals just cleaning on their own off their land, to once off clean ups organised by clubs or fishermen.</p> <p>While these initiatives are great and all may be used as indicator of public concern, the range and quality of data gathered varies greatly. There is scope for far more data gathering with clear standards and objectives as to which indicators they are to feed into. The data which is gathered needs to be made available more timely, in easily findable and understandable format. This foundation is essential to have informed discussion and decision making on waste prevention, future monitoring and most effective clean ups.</p> <p>We propose and would be willing to help organise one All Ireland Litter summit in April 2014 to encourage data gathering and create an integrated litter monitoring scheme. This would aid delivery of the monitoring programme which governments are planning to fulfil MSFD obligations.</p> <p>Planning and field work on inter-calibration of data gathering methods are required. This should start as soon as possible with inter calibration fieldwork also</p>	

Submission & Comment Code	Comment	Response
	<p>part of the Litter Summit (see above).</p> <p>The creation and formal launch of a Good shore Forum, like the NI Good beach forum, for all stakeholders to report on activity and results to ensure that data is shared, the data bank is fed, and up to date is used.</p> <p>Some Detail on shore litter data in Ireland and challenges with integration and presenting same is provided in Annex 1 [of this submission].</p>	
MSFD_IA_003 (C94)	<p>As the directive is now being rolled out, a positive public feedback loop should be created as soon as possible. This requires planning and is a key to full implementation of the directive. We have seen how not involving the public adequately in the Birds and Habitats Directives has led to distrust and lack of understanding. A new way is needed. Targets adopted with citizen participation and indicators which are understood by citizens and where possible user friendly, would make public participation - a directive requirement – easier and more productive.</p> <p>E.g. some sea birds nest are associated with harbours, which can also be a hot spots of entanglement and ingestion litter. If stakeholders understand, are involved, see correct, fair reporting and get positive feedback for action to prevent/avoid/reduce this littering, they will make a conscious effort. A project which links harbour users to bird nest monitoring would be very useful (see Coastwatch 2001 report of Ireland Wales Interreg Harbour project, which saw such scheme emerge in Dunmore East)</p>	<p>Stakeholder engagement and the overall issue of ocean literacy amongst the wider public is subject to formal structures of the Directive and on-going research in Ireland and at EU level.</p> <p>The development of specific localised targets at a scale below that at which the Directive is being implemented is not appropriate.</p>

Submission & Comment Code	Comment	Response
MSFD_IA_003 (C86)	<p>Indicators:</p> <p>The headline indicator to match the amended target ‘<i>A set reduction in the number of visible items in specified litter categories and no rise in any category of marine litter.</i>’ could be:</p> <p><u>The composition of (a set progressively larger volume and number of) litter items from anthropogenic sources would not be harmful to biodiversity or human health.</u> This would drive the Green Product initiative referred to above and would see the phasing out of polystyrene as now used.</p> <p>Under the headline indicator one would set out standards for a range of specific products and materials as already proposed by OSPAR. E.g. a plastic bottle count. It is important that reason why a products is decided upon is clear. e.g. - widespread presence, on the rise, harmfulness, alternatives. Also we need to have clarity what count is considered GES. Maps 1a and b below [refers to maps in the submissions] indicate shore quality by bottle counts. In map 1a 7% of the shore was dirty with >100 bottles present. When the dirty category is re defined to sites with more > 30 bottles/500 m survey unit , 17% of shores were dirty.</p>	See response under MSFD_IA_003 (C43) and MSFD_IA_003 (C90).
MSFD_IA_003 (C46)	<p>All Ireland Approach:</p> <ul style="list-style-type: none"> - With drift currents and winds moving litter around our island, we urgently need practical cooperation in litter prevention and management. - We see shared litter targets and plans for Lough Foyle and Carlingford executed by the Lough Agency an immediate priority. 	Work on the implementation of the Directive takes place at an international and trans-boundary level. Where the pressures are trans-boundary (whether all-island or further afield) coordination of measures takes place at that scale as well. This addresses this point.

Submission & Comment Code	Comment	Response
	<p>- As NI initiated their Good Beach Forum 4 years ago and passed a Marine Litter Strategy in 2013 a lot of work is already done to share with the republic. We recommend a discussion workshop with stakeholders N and S to explore whether the NI scheme may be rolled out All Ireland, with some tweaking and extras for the south or a separate strategy designed to dovetail with NI. Either way Coastwatch strongly recommends the NI marine litter Strategic goal on information and education.</p>	
MSFD_IA_003 (C45)	<p>We need to move quickly towards (i) less litter and (ii) less harmful litter, bearing in mind the MSFD wording: <u>is ... at levels which do not result in harmful effects to the coastal or marine environment.</u></p> <p>For some materials, substitution would achieve more than an impossible attempt to clean up – e.g. polystyrene beads or micro beads in beauty products. A target which reflects this could be along the following lines (final wording to be legally vetted)</p> <p><i>Introduction of a Marine Litter Risk Assessment: To have all materials to be used in the marine environment or likely to end up there given present controls, subjected to a Marine litter risk assessment, which must be passed before use is permitted. This is in line with the OSPAR “lifecycle analysis for new materials/items/activities should include marine litter”</i></p> <p>There is an opportunity to start this process for some materials now. The European Commission has initiated a pilot ‘Green Products Initiative’ as part of the EC Building the Single Market for Green Products. It aims to develop select Product Environmental Footprints (PEF). The pilot includes food packaging</p>	See answers above. This is a proposed measure that we are not inclined to agree to at this early stage without the completion of the full assessment requirements under the Directive (Article 13)

Submission & Comment Code	Comment	Response
	<p>and thermal building materials.</p> <p><i>We urge that the pilot opportunity is used to develop product criteria for polystyrene fish boxes and hot food/drink packaging and to include the marine litter risks in the environmental performance criteria of the products as one model step.</i></p>	
MSFD_IA_002 (C28)	<p>"Marine litter is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine or coastal environment. It consists mainly of very slowly degrading waste items such as plastic, metals and glass. It can have damaging ecological and economic effects on the seabed, in the water column and on the seashore".</p> <p>The Oxford English Dictionary refers to 'litter' as- trash, such as paper, cans, and bottles, that is left lying in an open or public place...</p> <p>We have noticed that the use the word 'litter' is not exclusive to Irish Government Departments, UK Government also applies it, however, to describe 'persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine or coastal environment' as litter is a gross misuse of the term and utterly misleading. These waste materials pose an annoyance at their very least influence and, certainly could be detrimental to livelihood and public health at worst.</p> <p>The use of the word 'litter' minimises the impact that the production of vast quantities of industrial waste has on marine habitats.</p> <p>There is no mention in this report of solid waste</p>	<p>The stated definition "Marine litter is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine or coastal environment" was proposed by the United Nations Environment Programme (UNEP) (http://www.unep.org/regionalseas/marinelitter/publications/docs/anl_oview.pdf). It was subsequently used by OSPAR in their Guideline for Monitoring Marine Litter on the Beaches in the OSPAR Maritime Area (http://www.ospar.org/documents/dbase/decrecs/agreements/10-02e_beachlitter%20guideline_english%20only.pdf) and by the MSFD expert group on Marine Litter in their Task Group 10 Report Marine litter (http://ec.europa.eu/environment/marine/pdf/9-Task-Group-10.pdf). It has accordingly been adopted by Ireland and other Member States for the purposes of the MSFD assessments.</p>

Submission & Comment Code	Comment	Response
	produced via exploratory and commercial oil and gas extraction processes.	
MSFD_IA_008 (C76)	In relation to Marine Litter, it is reported that current status cannot be assessed due to knowledge gaps and that coastal litter surveys are currently conducted on only four stretches, four times a year. This is wholly inadequate in terms of providing a complete and representative picture of marine litter nationally. SWAN member organisation Coastwatch has many years' experience of national coastal surveys including for litter and SWAN believes data from these comprehensive national surveys should be included. Whilst it is not suggested that data from this would completely fill the gap, it would contribute towards a fuller picture of the status of this descriptor.	<p>In terms of the monitoring used in the IA it was referenced to the standardised OSPAR methodology for this activity. The four beaches used in Ireland form part of a larger network of beaches in the North East Atlantic that contribute to the assessment of marine litter across the whole region.</p> <p>We are exploring the opportunity of working with the voluntary and NGO sector and the EEA on the use of quality controlled methodologies for public involvement in the monitoring of beach litter.</p>
MSFD_IA_008 (C70)	The respondent is not in a position to critique the GES definitions for all descriptors and so no comment should not be interpreted as agreement. GES for biodiversity, commercially exploited fish, eutrophication, sea-floor integrity and contaminants seem sensible and in line with definitions from Annex I of the Directive. The inclusion of micro-plastics is to also to be welcomed in the definition of GES for marine litter.	Noted.
MSFD_IA_008 (C77)	The targets set for marine litter are inadequate and impractical, respectively. The first target, ' <i>A reduction in the number of visible litter items with specific categories/types of coastlines</i> ' is not specific enough and whilst trend based targets are acceptable in the interim, this should at least set a target for a % reduction over a defined amount of time. In addition, it should give an indication of the distance of coastline that should be surveyed to assess progress towards GES.	Work is on-going for the development of an OSPAR ML-RAP that will address this issue in 2014/2015.

Submission & Comment Code	Comment	Response
	The second target is impractical, not cost-effective and of limited use [as] an indicator. Examining the contents of fulmars stomachs is time consuming and such surveys would yield extremely small sample sizes from which to extrapolate findings regarding national levels of marine litter.	
MSFD_IA_003 (C91)	Given that Ireland was the birth place of the Coastwatch survey as a citizen science project long before that term became so fashionable, and government and local government have provided support for the survey, it would be welcome if the Coastwatch data was acknowledged in the Irish report and made use of.	The intercalibration of monitoring methodologies as set out by Technical Working Group-Marine Litter recommends the use of the OSPAR marine litter methodology. This is supported by the development of citizen involvement technology by the EEA. The adoption of localised methodologies could only be considered if it could be demonstrated that it was intercalibrated to the OSPAR methodology.

3.1.8 Descriptor 11

Submission & Comment Code	Comment	Response
MSFD_IA_002 (C29)	<p><i>'Underwater noise is increasing as human activities in the marine environment continue to expand. Activities such as vessel movement (e.g. shipping, fishing, and leisure crafts) (Figure 10), seismic surveys (Figure 11), drilling, use of sonar, pile-driving, underwater explosions and dredging all contribute to levels of noise in the marine environment. With many offshore activities in the oil, gas and renewable sectors expected to increase in the future, levels of underwater noise are likely to increase accordingly.</i></p> <p><i>Many marine organisms, in particular marine mammals, rely on sound for navigation, communication and prey location. The introduction of additional noise from human activities holds the</i></p>	The statements quoted are directly from the Executive Summary of the Article 19 Initial Assessment report. The IA report constitutes a summary of an extensive Initial Assessment report to the European Commission which is available to view on the DECLG website. The summary report, by its nature, is shorter and contains less technical detail than the extensive report to the Commission. All statements within the IA report are based on current knowledge from experts in the field of underwater noise, or constitute knowledge sourced through European collaboration with the Technical Subgroup dealing with underwater noise, and based on research which was undertaken at a national level via the EPA STRIVE Programme.

Submission & Comment Code	Comment	Response
	<p><i>potential to disrupt these natural activities leading to adverse effects on individuals and populations. Information on the sources, magnitude, distribution and impacts of sound in the Irish marine environment is presently limited. Research currently being undertaken is intended to support the development of 'risk-based' noise monitoring programmes for Irish waters, incorporating the establishment of baselines and the determination of trends.'</i></p> <p>Again this statement is vague and lacking in supportive detail and information.</p>	
MSFD_IA_005 (C51)	<p>[MSFD] strategy largely ignores marine mammals and the pelagic environment and opts for easy-to-report on objectives linked to current monitoring programmes. Ireland does not currently have a comprehensive monitoring strategy for marine cetaceans. The only one source of impulsive noise that has been analysed in Irish waters, is seismic surveying. It is noted that future trends will depend on scenarios developed under the four Strategic Environmental Assessments (SEA) on oil and gas activity in Ireland's marine waters. No clear indication is given as to the effects of this survey technique on offshore cetacean populations? This will be imperative to achieve GES, especially if important cetacean habitats are to be the focus of offshore seismic surveying during critical periods. If current levels of surveying are high, will caps be introduced to limit the amount of survey and establish closed areas where there is high abundance of ballen [baleen] whales, those species most likely to be affected by this sound source. Additionally, no clear methods are presented as to how vessel density will be assessed in the future. A BACI (Before-After, Control-Impact) sampling framework (Stewart-Oaten 1986, Stewart-Oaten et al. 1992, Underwood 1992,</p>	<p>We are not sure what the respondent means by "It is noted that future trends will depend on scenarios developed under the four Strategic Environmental Assessments (SEA) on oil and gas activity in Ireland's marine waters". What the IA actually states in section 11.2 is "<i>Future trends are derived from the scenarios that were developed in four SEAs on oil and gas activity in Ireland's marine waters</i>", therefore statements on future trends were derived from this source (as the only source available at that time) for the purposes of the IA, they are not, however, dependent on this source.</p>

Submission & Comment Code	Comment	Response
	Stewart-Oaten 2003) could be helpful to structure site specific monitoring prior to licensing activities where data is lacking to assess the impact of a notifiable activity.	
MSFD_IA_005 (C52)	Consideration should be given to the impact of pile-driving as an important source of impulsive noise in the future especially as offshore wind farm developments are in planning stages. Studies elsewhere have found such developments can temporally and permanently displace small cetaceans.	The IA identifies that, at present, there is little information available on other impulsive sound generating activities such as pile driving, however it is recognised by the IA as a source of noise in the marine environment. Section 11.7 of the IA clearly identifies this as an information gap, and it is hoped that future work will address this gap, including, for example, collaboration at a European level with the MSFD Technical Subgroup on Underwater Noise regarding proposals for the development of a noise register, which would include pile driving as a source of impulsive noise.
MSFD_IA_005 (C57)	Provisions should be made to ensure that data on other sources of impulsive noise such as those identified, sonar, pile driving, acoustic deterrent devices and explosives can be collected in a usable format. These techniques are a justified sound source and are routinely used around the coast and it is negligent that we do not have data on such sources.	
MSFD_IA_005 (C53)	Impulsive and continuous noise sources identified in this assessment have been studied internationally and the effects on vulnerable marine species, especially cetaceans who are reliant on sound for navigating, foraging and communicating. Ireland has some of the most important waters for cetaceans across Europe with 24 species identified. Additionally, during the SCANS survey, the total abundance of Bottlenose dolphins (Annex II Species) measured in Irish waters was nearly 50% of the estimated 12,645 Bottlenose dolphins in the entire northeast Atlantic survey area, further highlighting the importance of our waters. It is imperative that any knowledge gaps are filled in the near future to ensure GES. (abundance and status of beaked whales, baleen & toothed whales)	The IA has identified several gaps in knowledge in relation to underwater noise in the Irish Assessment Area. Ireland is currently working in partnership with other member States through the MSFD Technical Subgroup on Underwater Noise. This process will ensure development of common methodologies and appropriate indicators to facilitate national and European coordinated monitoring of noise and identification of sources of noise. All studies and research of the effects on vulnerable marine species will be assessed <i>via</i> this collaborative process in order to develop a European wide harmonised approach towards minimising and/or eliminating impacts.
MSFD_IA_005 (C54)	Impulsive Sounds. This is an increasing trend and will require licencing to take into account cumulative effects on exposed cetacean populations as well as	The Department of Arts Heritage and the Gaeltacht have recently published the following guidance document " <i>Guidance to Manage the Risk to Marine Mammals from Man-made Sound Sources in Irish Waters</i> " (January 2014). The guidance

Submission & Comment Code	Comment	Response
	identifying critical areas and avoiding survey in these areas at these times. This will serve as cross compliance between the EU Habitats Directive and the EU MSFD.	deals with the potential or described direct effects on marine mammals (e.g. physical harm, detrimental changes to or interference with natural behaviour) of man-made sound arising from licensable plans or projects.
MSFD_IA_005 (C55)	Continuous noise may degrade the underwater sound habitat and affect marine organisms in a variety of ways. Discernible impacts are identified in scientific literature and cumulative effects are likely to impact cetaceans in certain areas. Masking can have implications for cetacean populations who rely on sound to communicate across large distances. It's imperative that trends are identified in order to assess if continuous noise is increasing or decreasing in critical areas.	See response under MSFD_IA_005 (C53)
MSFD_IA_005 (C56)	Published values in the scientific literature should be used as threshold levels that distinguish between sound and harmful noise levels for cetaceans found in Irish waters and as more up to date values come available these can reviewed. A decade of data on Ireland's underwater sound landscape monitored by US scientists (in Cornell) could inform assessment of its current status.	See response under MSFD_IA_005 (C54)
MSFD_IA_005 (C58)	Underwater noise is not monitored systematically by Irish authorities. A pilot monitoring program is needed to address this knowledge gap. Collaboration with transboundary states (UK,US & France) sharing the marine environment could address this information gap	Monitoring is addressed under article 11 of the Directive. This is not the subject of this consultation process.

3.1.9 Economic and Social Assessment

Submission & Comment Code	Comment	Response
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Submission & Comment Code	Comment	Response
MSFD_IA_008 (W-C18)	<p>Have the indirect value of ecosystem services been considered in the context of the MSFD ESA report? It is very important in the context of the ESA report that we consider the indirect value of ecosystem services provided by aspects of the marine environment. The respondent is concerned that as a nation we don't have the baseline on the indirect values of ecosystem services and consequently they may not be taken into account in cost effectiveness analysis conducted as part of the MSFD.</p>	<p>Please note a more detailed response to this comment can be found in the workshop report: http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/.</p> <p>There is work on-going at present where the Socio Economic Marine Research Unit in NUI Galway is attempting to estimate these indirect values of marine ecosystem services. It is hoped to have a report out relating to this work before the end of the year (2014). It is impossible to capture all of these values but where possible estimates will be compiled along the lines of the services identified in the TEEB (2010) report.</p>
MSFD_IA_008 (C85)	<p><u>Economic and social analysis, including the cost of degradation of the marine environment</u></p> <p>The MSFD requires that this stage of implementation include an 'economic and social analysis of the use of [marine] waters and of the cost of degradation of the marine environment.' The respondent welcomes the fact that an initial step has been taken in doing this analysis. However, it appears superficial and incomplete, probably understandably due to inadequate resources and lack of data. Serious knowledge gaps in relation to the monetary benefits of the goods and services provided by marine waters have been identified (COWI, 2010) and it is crucial that a comprehensive and accurate socio-economic assessment of the costs of environmental degradation and the benefits of eco-system goods and services is conducted as part of the Initial Assessment. Unfortunately, this analysis falls far short of such a comprehensive treatment. Given that the non-market ecosystem service value for a single bay alone (Galway Bay) has been estimated at €634 million annually and that the total value of Irelands marine ecosystem services could be greater than the value of the total of the marketed marine goods (Morrissey et</p>	<p>Again, there is very little to disagree with in this comment. Much work is still needed in the area of marine ecosystem valuation and there are indeed still serious knowledge gaps in relation to the monetary benefits of the goods and services provided by marine waters. As mentioned above, there is work on-going in NUI Galway to try and rectify this.</p> <p>Within the timeframe of the Initial Assessment it was not possible to develop estimates of the many indirect ecosystem service values provided by marine waters or was an attempt made to do so. In the context of the economic and social assessment, only the values of commercial marine economic activities were provided, as was recommended by the European Commission when using a marine accounts approach to the assessment. These do, however, have to be further aligned with the impacts each sector cause on related ecosystem services in future assessments. As pointed out, what was presented in the Initial Assessment was the main economic statistics associated with each marine activity. We agree that much work is still needed to relate this activity and in particular changes in the intensity of the activity to impacts on marine ecosystems.</p> <p>This is correct - estimates generated to calculate the cost of degradation using the Choice experiment approach represent a public willingness to pay to prevent degradation. And we agree that this is a subjective assessment, influenced by levels of awareness of the marine environment and the levels of public education and awareness initiatives in this regard. However, best practice was followed in coming up with these estimates. The economic concept of value can be</p>

Submission & Comment Code	Comment	Response
	<p>al., 2010) then the importance of properly valuing ecosystem good and services becomes apparent.</p> <p>The economic and social analysis is also quite inaccessible as it is not well presented or explained. Whilst some data and results are presented, there is no discussion or summary of the implications or significance of these. This serves to emphasise the necessity of a workshop approach to explain this complex element of the assessment, and to garner meaningful stakeholder input. In the context of these misgivings, the respondent offers the following comments, based on our best understanding of this analysis, as presented.</p> <ul style="list-style-type: none"> • There is no value for the ecosystem services provided by the marine environment calculated or presented. • The analysis should fully incorporate the indirect use values of a healthy marine environment (e.g. sustaining of food chains and nutrient cycling) in addition to direct use values. The analysis as presented does not do this. • The water accounts method: <ul style="list-style-type: none"> o Whilst the economic benefits and potential benefits of a number of sectors are well aired in this chapter, their impacts receive only brief mention. This does not present a balanced picture as the emphasis is on the economic value of each sectors' activity. o Whilst this is presented as an analytical method, little analysis is presented. It is rather a presentation of facts and economic statistics. • The methodology used to calculate the cost of degradation is not well explained. It appears that a 	<p>considered an 'individualistic' measure of value. The underlying idea is that economic activity increases individual's wellbeing and together individuals make up society. Crucially, each individual is assumed to be the best judge of how well off he or she is in a given situation. Furthermore, each individual's welfare depends not only on that individual's consumption of private goods and of goods and services produced by the government, but also on the quantities and qualities each receives of non-market goods and service flows from the environment. Thus, changes in individuals' welfare can represent a basis for assessing the economic value of changes in environmental goods and services. This was the logic followed in the assessment.</p>

Submission & Comment Code	Comment	Response
	<p>willingness-to-pay to prevent degradation has been used as a 'proxy' for the cost of degradation. Surely a more accurate assessment would be to firstly conduct an analysis of the ecosystem services value of a healthy marine environment and to then extrapolate the cost of losing this, for varying levels of degradation. It is the respondent's understanding that the figure, e.g. €521m for high level degradation, represents a public willingness to pay to prevent degradation, which is a subjective assessment, influenced heavily by levels of awareness of the marine environment and the levels of public education and awareness initiatives in this regard.</p> <ul style="list-style-type: none"> • The well-recognised deficit of data in this area for Ireland's marine waters should be acknowledged, the data gaps identified and an action plan set out to fill them. 	

3.1.10 Other Issues

3.1.10.1 Ocean Acidification

Submission & Comment Code	Comment	Response
MSFD_IA_001 (C02)	The report is disappointing, characterised by a failure to address the converging impact of anthropogenic greenhouse gas on increasing ocean temperatures and the ability of the ocean to absorb additional CO2 causing acidification. The report is significantly deficient in addressing the impacts of climate change	It is clear that the impacts of climate change and ocean acidification on marine ecosystems are a key concern and moreover these pressures will act in concert with other pressures on marine ecosystems (Ni Longphuirt et al. 2010, OSPAR 2010b). However, climate change and ocean acidification are not explicitly included as pressures within the MSFD and measures to address climate change/Ocean acidification are not within the remit of the MSFD (climate change

Submission & Comment Code	Comment	Response
	<p>on warmer ocean temperatures marine eco-system, the marine feeding chain and species migration.</p> <p>The report is significantly deficient in addressing the impacts of climate change on warmer ocean temperatures and acidification. While Section 8.4 of the main report sets out serious concerns on the impact of ocean acidification, the response in effective international action is not provided. Consideration on acidification in the summary report is cursory, merely concludes that more research is needed.</p>	<p>and OA are not included as pressures in Table 2 of Annex III of the MSFD). Moreover, it is not within the scope of the MSFD Article 8 initial assessment to address measures.</p> <p>Section 8.4 addresses Ocean Acidification summarising the information included in the relevant Reporting Sheet (http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDReportingSheets/). At present, there is no evidence for ecological impacts of OA in Irish waters although there is evidence for decrease in pH in waters of the Rockall Trough over two decades (McGrath <i>et al.</i> 2012). The concern expressed as to the ecological impacts of OA primarily reflects the results of a limited number of (though rapidly growing) experimental studies representing future OA conditions combined with model projections, recognising the uncertainty in predicting responses. Consequently, it is clear that more research and monitoring is needed globally in this relatively new field, as identified in a myriad of national and international reports (e.g. Hydes <i>et al.</i> 2013, Ni Longphuirt 2010, CBD 2009, Raven 2006). Ireland is working towards addressing some of the research needs with development of a substantive carbonate baseline dataset. (O'Dowd <i>et al.</i> 2011 i.e. Sea Change report).</p>
MSFD_IA_001 (C18)	<p>The concluding paragraph, in Section 13 of the main report, is unclear in its argument:</p> <p><i>"Ireland has one of the largest marine waters of EU Member States and it is essential that we take a pragmatic approach to implementing the MSFD. This will require a risk-based, but precautionary approach to developing monitoring programmes and any subsequent measures necessary".</i></p> <p>This fails to address the overriding requirement which the Directive necessitates in adopting an ecosystems approach as set on in paragraph 8 of the preamble. The report reveals a serious lack of understanding of the marine environment as integrated ecosystem dependent on stabilising and reducing anthropogenic</p>	<p>We do not agree that there is a conflict between the last paragraph of the report highlighted and requirement for implementation of an ecosystem approach. A pragmatic, risk-based and precautionary approach does not preclude implementation of an ecosystem approach</p> <p>With respect to the second part of the comment - The Initial Assessment required an assessment of the "current environmental status" based on existing data and the report addresses the issues required by the EC reporting sheets. Ocean Acidification is addressed as one of the identified topics in the EC reporting sheets and this is summarised in section 8.4 of the report. The following statement on p76 clearly highlights potential consequences on ecosystems from decreasing pH and increasing pCO₂. <i>"Although the overall impact of ocean acidification on marine life and ecosystems remains uncertain, there is concern over the vulnerability of key species, especially calcifying organisms and those that build biogenic reef habitats. These are important components of the food web in Irish marine waters and include primary producers, cold water coral reefs,</i></p>

Submission & Comment Code	Comment	Response
	C02 and other emissions, stabilising ocean temperature and acidification levels and understanding and protecting the complex interrelated chain of marine life.	<i>shellfish and crustaceans. Reduced abundance or a complete loss of these groups could have consequences for the integrity and functioning of entire marine ecosystems. The extent of impact is likely to be dependent on the ability of species to adapt to an unprecedented rapid change in ocean chemistry (Ní Longphuirt et al., 2010)."</i> Also see response to comment. MSFD_IA_001 (C02)

3.1.10.2 Blue Flag Beaches

Submission & Comment Code	Comment Content	Response
MSFD_IA_002 (C33)	Currently Seapoint and Killiney beaches carry the prestigious Blue Flag award. These awards have been a huge boost to local businesses, leisure groups and greatly benefit the local community. Good environmental status is essential to this continuing status.	Noted.

3.1.10.3 Aquaculture

Submission & Comment Code	Comment Content	Response
MSFD_IA_001 (C16)	The potential impact of future marine biomass cultivation of pharmaceutical, food nutrient or bio energy use needs to be addressed.	<p>The Fisheries (Amendment) Act, 1997 defines “aquaculture” as the “<i>the culture or farming of any species of fish, aquatic invertebrate animal of whatever habitat or aquatic plant, or any aquatic form of food suitable for the nutrition of fish.</i>”</p> <p>Biomass cultivation for the production of pharmaceutical, food nutrient or bioenergy comes under this definition. The licensing of aquaculture is the responsibility of DAFM and is carried out in accordance with the 1997 Act and subsequent amendments and regulations. Licence applications (new, renewal and amendments) are subject to procedures under this legislation, which includes screening for, and where necessary, the undertaking of Environmental Impact Assessments. In relation to aquaculture activities within, or that could impact on, the conservation objectives of <i>Natura</i> 2000 sites, Appropriate Assessment under Article 6.3 of the Habitats Directive will apply. Detailed information on the licensing process is available from:-</p> <p>http://www.agriculture.gov.ie/fisheries/aquacultureforeshoremanagement/aquaculturelicensing</p> <p>The obligation on Ireland under the MFSD is to have in place the necessary</p>

Submission & Comment Code	Comment Content	Response
		<p>measures to achieve or maintain by GES by 2020. The licensing and regulation of all activities effecting GES, including aquaculture, will be subjected to these requirements. MFSD requirements will be addressed in the development of the National Strategic Plan for Aquaculture and associated SEA, which will inform future MSFD assessments</p> <p>The assessment requirement under Article 8 of the MSFD does not extend to proposed or future licence applications, such assessments can be carried out under the licensing process once an application is received.</p>
MSFD_IA_001 (C05)	<p>There is a significant lack of evaluation of sea bed habitats in areas affected by aquaculture through faecal and fish feed nutrient overload on the sea floor.</p>	<p>The Article 19 document represents a distillation of the large amount of information that was submitted to the Commission as part of the Initial Assessment process. While nutrient inputs from aquaculture were not discussed in detail in this report, the information is available on the DECLG website as a series of more detailed (technical) reporting sheets which constitute the full Initial Assessment text submitted to the Commission. Organic enrichment impacts are addressed in the “pressures” sections of the individual technical reports for shallow sublittoral coarse sediments, shallow sublittoral mixed sediments, shallow sublittoral mud, shallow sublittoral coarse sediments, shallow sublittoral rock & biogenic reef and littoral sediments. Organic enrichment from fish farms was reported as a significant issue for the latter three habitat types. Concerns are also expressed in the reporting of the status of native oyster and seagrass beds. In addition, nutrient input from aquaculture is listed as a pressure of concern in the review of aquaculture as part of the economic and social analysis. It is also reported that there are currently measures in place to restrict the degree of impact from aquaculture activity.</p> <p>It is important to recognise that the Article 19 Report is a summary of Ireland's extensive Initial Assessment reporting which considers an area of almost 490,000km² and is not intended to be a detailed assessment of the seabed habitats under aquaculture sites.</p> <p>As mentioned above, aquaculture licensing is subject to various environmental assessments to address the issues mentioned above. In addition, the licensing authority DAFM has in place Benthic Monitoring Protocols for Offshore Finfish Farms (available at: https://www.agriculture.gov.ie/fisheries/aquacultureforeshoremanagement/)</p>

Submission & Comment Code	Comment Content	Response
		<p>which are required to be undertaken as a condition of marine finfish aquaculture licences. Allowable zones of effect were established within which certain levels of acceptable impact (thresholds) are defined.</p> <p>All marine fin fish licences are currently available online and measures are in place to make all other aquaculture licences available online as soon as possible. These are available at:- https://www.agriculture.gov.ie/fisheries/aquacultureforeshoremanagement/aquaculturelicensing/ .</p> <p>Further information on the location of licensed aquaculture sites in Ireland is available Ireland's Marine Atlas at:- http://atlas.marine.ie/</p> <p>The Dangerous Substances Directive (76/464/EEC, 2006/11/EC) transposed into Irish Law by S.I. No. 466 of 2008 (European Communities Control Of Dangerous Substances in Aquaculture Regulations 2008). In accordance with these Regulations, Environmental Quality Standards are set for substances used in the treatment marine finfish during the operation of Aquaculture and is available at:- http://www.agriculture.gov.ie/media/migration/fisheries/aquacultureforeshoremanagement/implementationforaquacultureofdangeroussubstancesdirective/2DSDEQSDec08%20230210.pdf</p> <p>Impacts on seabed habitats that are likely to have a significant effect on the Conservation Objectives of <i>Natura</i> 2000 sites are assessed as part of the Habitats Directive Appropriate Assessment Process.</p>
MSFD_IA_007 (C66)	The definition of GES and the targets set under this characteristic seem to be a sensible approach. However, it is unfortunate that existing measures have not prevented the establishment of the Pacific Oyster in a number of locations in Ireland. It is hoped that the good work of Invasive Species Ireland is not being compromised by commercial interests as they have not	The Pacific oyster (<i>Crassostrea gigas</i>) is included in Annex IV of Council Regulation (EC) 708/2007 concerning use of alien and locally absent species in aquaculture. Article 2(5) of the Regulation specifically exempts those species listed in Annex IV from the provisions of the Regulation, with the exceptions of Articles 3 and 4. Article 4 requires Member States to ensure that all appropriate measures are taken to avoid adverse effects to biodiversity, and especially to species, habitats and ecosystem functions which may be expected to arise, <i>inter</i>

Submission & Comment Code	Comment Content	Response
	<p>listed the Pacific Oysters as a potential or established threat despite the damage it has caused elsewhere in Europe.</p>	<p><i>alia</i>, from the spreading of these species into the wild.</p> <p>The exemption in the Regulation for the Pacific Oyster is justified on the basis that it has been in production for many years and has been moved from jurisdiction to jurisdiction.</p> <p>There is evidence indicating that <i>C.gigas</i> now recruits within some shallows of bays, e.g Lough Swilly. It has not, however, been demonstrated that the presence of <i>C. gigas</i> has resulted in ecological damage to marine communities within Lough Swilly.</p> <p>Also, of note, the OSPAR Recommendation 2013/4 on furthering the protection and conservation of <i>Ostrea edulis</i> in Region II of the OSPAR maritime area and <i>Ostrea edulis</i> beds in Regions II, III and IV of the OSPAR maritime area (http://www.ospar.org/content/content.asp?menu=000404000000_000000_000000) entered into force on 18th December 2013. The purpose of this Recommendation is to strengthen the protection of the threatened and/or declining <i>Ostrea edulis</i> in Region II of the OSPAR maritime area as well as <i>Ostrea edulis</i> beds in Regions II, III and IV of the OSPAR maritime area. This is in order to allow recovery of the species and the habitat it provides, to improve their status and ensure they are effectively conserved in the OSPAR maritime area. OSPAR Recommendations are not legally binding but are a commitment under Article 13 of the OSPAR Convention, available from:- http://www.ospar.org/html_documents/ospar/html/ospar_convention_e_updated_t_ext_2007.pdf</p> <p>Under COUNCIL REGULATION (EC) No 708/2007 of 11 June 2007 concerning use of alien and locally absent species in aquaculture (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:168:0001:0017:EN:PDF) Member States are required to take all appropriate measures to avoid adverse effects to biodiversity, and especially to species, habitats and ecosystem functions which may be expected to arise from the introduction or translocation of aquatic organisms and non-target species in aquaculture and from the spreading</p>

Submission & Comment Code	Comment Content	Response
		<p>of these species into the wild. Although Pacific oysters are listed in Annex 4 and are therefore exempt from many of the provisions of the Regulations such as risk assessments and quarantine, the general obligation outlined above stands.</p> <p>The provisions of aquaculture licensing legislation, see DAFM website https://www.agriculture.gov.ie/fisheries/aquacultureforeshoremanagement/ and as detailed above, apply to the Pacific oyster as per normal licensing procedures. This includes EIA screening and if necessary the preparation of an EIS and Appropriate Assessment under Article 6.3 of the Habitats Directive, as required. In particular, the Appropriate Assessment considers the potential ecological impacts of the relevant aquaculture activities on the Conservation Objectives of a particular site.</p>
MSFD_IA_001 (C12)	<p>A major extension of caged salmon breeding is proposed the first between Galway Bay and the Aran Islands and two others to follow. This has major issue on scale of nutrient source required for caged fish breeding, lice infestation and risk.</p> <p>The main report under Section 2.4 does not address the impact of lice contamination of wild salmon species.</p>	<p>The licensing procedures for aquaculture, and particularly finfish aquaculture, are described above. In addition to the Benthic Monitoring Protocol, there are protocols for:-</p> <ol style="list-style-type: none"> i) Water Column Monitoring, dealing with nutrient monitoring, ii) Sealice Monitoring and Control and a Strategy for Improved Pest Control, iii) Fallowing of Offshore Finfish Farms iv) Audit of Operations. <p>The assessment and monitoring of sealice is the responsibility of the Licensing Authority, in this case DAFM, and is not something that would be undertaken by an assessment at the level of the MSFD Initial Assessment. The Initial Assessment was the first substantial step in implementing the MSFD and subsequent implementation will be on a six year cycle. As pointed out in the IA, MSFD implementation is an iterative process by which the environmental status of our marine waters is evaluated every six years against our vision of GES. Ireland's IA Report, the reporting sheets submitted to the Commission and Ireland's Marine Atlas fulfils Ireland's obligations under the preparatory phase of the implementation of the MSFD Directive. The Commission Decision of 1st September 2010 on criteria and methodological standards on good environmental status of marine waters (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:232:0014:0024:EN:PDF) refers to the "abundance trends of functionally important selected groups/species" including "long-distance anadromous and catadromous migrating species" under Descriptor 4, Food Webs. Ireland, along with the other Member States and the</p>

Submission & Comment Code	Comment Content	Response
		<p>Commission, is well aware of the challenges of implementing the MSFD and the eco-system based approach to marine activities. This is particularly the case in relation to biodiversity and is recognised in Ireland's Initial Assessment where it is stated that "<i>Work on targets and indicators for the four remaining Descriptors (Biodiversity, Food Webs, Sea-floor integrity and Underwater noise/energy) is ongoing and likely to continue into the coming months and years at both a national and international level.</i>"</p> <p>Marine Institute Annual Sea Lice Reports containing results for all the sea lice inspections carried out are publically available and can be found at: https://www.marine.ie/home/services/operational/sealice/</p> <p>The assessment requirement under Article 8 of the MSFD does not extend to proposed or future activities.</p>
MSFD_IA_009 (W-C16)	Were the significant pollution events mentioned in the Initial Assessment summary report related to the reported mortality of over 100,000 fish at aquaculture facilities around the coast?	<p>Please note a more detailed response to this comment can be found in the workshop report: http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/.</p> <p>The significant pollution events mentioned in the Article 19 Report are limited to major spills or contaminations associated with sea-based vessels, and were not related to mortalities in aquaculture facilities. This is consistent with the definition and criteria in the Directive and Decision.</p>
MSFD_IA_001 (C20)	The immediate impact of major aquaculture expansion is not addressed which constitutes a major deficiency in view of scale and potential impact of the current aquaculture programme proposed by government.	<p>The assessment requirement under Article 8 of the MSFD does not extend to proposed or future activities. Such assessments are carried out under the licensing process described above.</p>
MSFD_IA_009 (W-C03)	Why was there a lack of reference in the Initial Assessment to specific environmental concerns in particular, the lack of reference to fish cages located in bays along the coastline and the impacts they have on ecosystems through, for example, the introduction of chemicals.	<p>At the assessment level of the Initial Assessment, dealing with an area of almost 490,000km² the pressures and impacts from aquaculture activities are adequately covered. The licensing and regulating of aquaculture activities is described above and is the responsibility of the licensing authority.</p> <p>No medicines or chemicals are used in the production of shellfish. All medicines used in finfish aquaculture in Ireland must be authorised by the Irish Medicines</p>

Submission & Comment Code	Comment Content	Response
		<p>Board (IMB) and require extensive evaluation of the environmental effect of such medicines before being permitted for use. The IMB provide information and guidance on authorised substances and how it should be used in a “Summary of Product Characteristic”, available from:- http://www.imb.ie/EN/Medicines/VeterinaryMedicines/VeterinaryMedicinesListing.aspx?query=EXCIS+10+MG%2fML+CONCENTRATE+FOR+SOLUTION+FOR+FISH+T</p> <p>Details of the substances used in Irish Aquaculture are described in “<i>Veterinary treatments and other substances used in finfish aquaculture in Ireland.</i>” available from:- http://oar.marine.ie/bitstream/10793/859/1/Veterinary%20treatments%20and%20other%20substances%20used%20in%20finfish%20aquaculture%20in%20Ireland%20Final%5B1%5D.pdf</p> <p>A monitoring programme on Veterinary Drug Residues farmed Fish is carried out in accordance with EU Directives annually and is coordinated by DAFM, see The National Control Plan for Ireland – 2012-2016 at http://agriculture.gov.ie/media/migration/publications/2012/MANCP20122016.pdf The results of this monitoring programme is available at http://agriculture.gov.ie/foodsafetyconsumerissues/veterinarymedicinesresidues/</p>

Submission & Comment Code	Comment Content	Response
MSFD_IA_009 (W-C13)	<p>Please note the more detailed comment can be found in the workshop report: http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/.</p> <p>The respondent stated that open salmon cages can often support up to 30,000t or seven million salmon in a single small area and given these levels of activity the facilities can act as important sources of waste and chemicals to the environment. Intuitively, due to dilution effects, levels of contaminants decrease considerably as you move further away from the cage sites. It was pointed out that we must be careful not to accept these “diluted” contaminant levels as being typical of our environment and indicative of good condition merely because they are “low” when compared to conditions closer to and underneath the cages.</p> <p>Concerns were expressed that methods commonly used for identifying potential impacts associated with pesticides used by the fish culture industry did not consider impacts to fauna that occurred during the application of the treatment and then immediately thereafter or until the chemical concentration had dropped below the accepted standards.</p> <p>The respondent expressed concern that despite Ministers and officials assurances, sealice monitoring results have not been made available on the Marine Institute website.</p>	<p>The Marine Institute Annual Sea Lice Reports containing results for all the sea lice inspections carried out are publicly available and can be found at: https://www.marine.ie/home/services/operational/sealice/</p> <p>In accordance with the EUROPEAN COMMUNITIES (CONTROL OF DANGEROUS SUBSTANCES IN AQUACULTURE) REGULATIONS 2008, Environmental Quality Standards are set for substances used in the treatment marine finfish during the operation of Aquaculture and is available at:- http://www.agriculture.gov.ie/media/migration/fisheries/aquacultureforeshoremanagement/implementationforaquacultureofdangeroussubstancesdirective/2DSDEQSDec08%20230210.pdf</p> <p>The use of both EQSs, and allowable zones (and periods) of impact are standard approaches used internationally in aquaculture regulation.</p>
MSFD_IA_001 (C13)	The main report under Section 2.4 does not address the impact of lice contamination of wild salmon species.	Addressed above.

3.1.10.4 Activities and pressures not covered under Descriptor responses

Submission & Comment Code	Comment	Response
MSFD_IA_001 (C14)	The scale and impact of deep sea drilling in areas covered by exploration licenses by DoENR [DCENR] is not addressed.	<p>The scale and impact of deep sea drilling was addressed in the Initial Assessment and is covered in our detailed Reporting Sheets for the habitats in which this activity is known to have occurred e.g. Upper Bathyal Sediment (see http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDReportingSheets/). This activity is also included as part of the Economic and Social Assessment (see ESA Activities Oil and Gas Exploration – Reporting Sheet).</p> <p>The Irish Offshore Strategic Environmental Assessment are available on the DCENR website http://www.dcenr.gov.ie/Natural/Petroleum+Affairs+Division/Irish+Offshore+Strategic+Environmental+Assessment+%28IOSEA+4%29/Irish+Offshore+Strategic+Environmental+Assessment+%28IOSEA%29+4+Home.htm.</p>

3.1.10.5 GES, Targets and Indicators – general comments

Submission & Comment Code	Comment	Response
MSFD_IA_010 (W-C05)	What is the process for determining if GES has been met? If one descriptor fails to achieve GES will it be a 'one out all out' scenario like the Water Framework Directive (WFD)?	This topic is the subject of intense debate at a European level but there has been no agreement at this stage as to how GES should be determined. The Commission are favouring the 'one out all out' approach. There are, however, strong arguments against this approach based on the spatial and temporal relevance of the various descriptors. There are views forming across Member States that adopting the 'one out all out' approach will not assist the Member States in achieving GES. These views are based on the past experience with the WFD where it was felt that this approach shifted the workload of Member States

Submission & Comment Code	Comment	Response
		from trying to achieve Good Ecological Status towards reporting and avoiding pilot infringements at European Court of Justice level.
MSFD_IA_003 (C88)	<p>Indicators: [below stated in the context of Descriptor 10 Indicators]</p> <p>The details set for a given indicator - who is to check/report what when why – should be contained in a guide document which should be drafted with public participation and reviewed as we learn more. With local authorities due to be given responsibility for the intertidal in the planned foreshore act amendments this year, such guidance would be of particular importance.</p>	This is set out in the directive (Article 5).
MSFD_IA_008 (C80)	<p>Recommendations on Knowledge/Information gaps:</p> <ol style="list-style-type: none"> 1. A full gap analysis for each descriptor should be published with an action plan for addressing the gaps. This should be done with the participation of stakeholders and should include a review of unpublished information. For environmental targets, this gap analysis should take into account the 'Indicative list of characteristics to be taken into account for setting environmental targets' set out in Annex IV of the Directive. 2. In the interests of transparency, the 'limitations of the assessment', due to data gaps should be clearly defined, as recommended by the Common Understanding document (EC, 2011) and an indication of the level of confidence/certainty be set out for the initial assessment; pressures & impacts analysis; GES and setting of environmental targets for each descriptor, relating this to the level of data deficit for each. 3. The precautionary principle should be applied when drawing conclusions from limited data and general 	Comments are noted. The resolutions on knowledge/information gaps are subject to a procedure not unlike that outlined by the consultee but agreed at EU level so the best use of research resources can be made across all member states.

Submission & Comment Code	Comment	Response
	<p>statements presenting an excessively positive picture of Ireland's marine environment should not be made, in the context of such considerable knowledge gaps (See further comments under the heading 'Excessively & inaccurately positive interpretation of data' below).</p> <p>4. Where there are gaps, these should be detailed and a strategy set out to fill them, including stakeholder participation</p> <p>5. Since, it is presumed that many of these gaps will be addressed with a new and much more comprehensive monitoring programme, due this June. The respondent proposes that a further consultation on the monitoring programme is vital. The basis of this consultation should be a transparent list of data gaps, what will be addressed by the monitoring programme and what will be addressed by specific funded research.</p> <p>6. Until these gaps have been filled the associated status, GES and targets should be assigned interim status only.</p>	
MSFD_IA_008 (C83)	<p>Recommendations for Setting Environmental Targets:</p> <p>1. The omission of targets for biodiversity, food-webs, sea-floor integrity and underwater noise must be addressed. If insufficient data exists, at the very least interim targets based on the precautionary principle should be set which also involve operational targets for filling data gaps, with a timeline and action plan for doing this.</p> <p>2. The environmental targets outlined in the report should be deemed to be interim only, until sufficient information is available on which to base them, until</p>	<p>Work is on-going at national, regional and EU level to address the data, information and guidance gaps that exist for these descriptors and others.</p> <p>Some of these outputs will match the timeline for the implementation of this cycle of the Directive. Others will be used in the next cycle of the Directive.</p> <p>Qualitative targets have been adopted where there is not adequate baseline data available to set an effective quantitative target. On-going monitoring programme development and research into knowledge gaps will allow development of more quantitative targets.</p> <p>Participation by stakeholders and the public in the implementation of the directive is set out in article 19 of the Directive.</p>

Submission & Comment Code	Comment	Response
	<p>gaps have been filled, targets have been established for biodiversity, food-webs, sea-floor integrity and underwater noise and until stakeholders have actively participated in the target-setting exercise.</p> <p>3. Qualitative, vague targets must be amended so as to set measurable specific targets and trend-based targets should as a minimum include % increases or decreases to be achieved and should ultimately be phased out as soon as possible, once sufficient data is available to support empirical state-based targets.</p> <p>4. A stakeholder workshop on target-setting should be held for stakeholders to facilitate public understanding of this exercise (or alternatively a number of workshops should be held on groups of descriptors, at which target-setting would be addressed).</p> <p>5. The targets for NIS, hydrographic conditions and contaminants should be refined to reflect the comments set out in this section [see comments under D2, D7 & D8]</p>	
MSFD_IA_008 (C82)	<p>Recommendations on the Initial Assessment:</p> <p>1. All assessments should be deemed to be initial assessments until an effective public participation exercise has been carried out and all sources of data have been mined.</p> <p>2. Where the 'cumulative and synergetic effects' of groups of pressures are unknown, this must be identified as a knowledge gap and an action plan put in place to address it, including an initial desk review of applicable international research on cumulative impacts, especially in the coastal zone.</p>	See response above under MSFD_IA_008 (C83)

Submission & Comment Code	Comment	Response
	<p>3. Engage with stakeholders in relation to assessing the status of descriptors, especially with those stakeholders likely to hold relevant data and for those descriptors for which data gaps mean there is no assessment of current environmental status.</p> <p>4. Shortcomings with regard to marine litter and commercially exploited shellfish species should be addressed as set out [above].</p> <p>In relation to Marine Litter, it is reported that current status cannot be assessed due to knowledge gaps and that coastal litter surveys are currently conducted on only four stretches, four times a year. This is wholly inadequate in terms of providing a complete and representative picture of marine litter nationally. SWAN member organisation Coastwatch has many years' experience of national coastal surveys including for litter and SWAN believes data from these comprehensive national surveys should be included. Whilst it is not suggested that data from this would completely fill the gap, it would contribute towards a fuller picture of the status of this descriptor.</p> <p>In relation to commercially exploited shellfish species, the respondent believes that the omission of the native mussel (<i>Mytilus edulis</i>) from this assessment of commercial stocks is a significant weakness which must be addressed.</p> <p>Information on the status of mussel stocks are vital given that it is a commercially highly significant shellfish species for Ireland and must be recognised as such.</p>	
MSFD_IA_008 (C84)	<p>Integration with the WFD & <i>Natura</i> 2000 legislation</p> <p>1. More detail on the process by which the current</p>	<p>The team preparing the MSFD Initial Assessment for biodiversity liaised closely with their counterparts in the Department of Arts, Heritage and the Gaeltacht who were preparing similar reports under Article 17 of the Habitats Directive and</p>

Submission & Comment Code	Comment	Response
	<p>assessment was informed by the WFD and Natura 2000 legislation should be included.</p> <p>2. Conservation status reports from the HD Article 17 report should be used to inform an updated interim assessment of biodiversity and targets from the National Biodiversity Plan should be considered in developing working biodiversity targets.</p>	<p>Article 12 of the Birds Directives to work towards complementarity between parallel national reporting processes. Both these Natura reports together with the National Biodiversity Plan represent important points of reference in developing future biodiversity targets and measures under MSFD. Relevant personnel involved in all these processes continue to work closely together via inter-departmental fora established to facilitate an integrated approach to MSFD delivery.</p> <p>Please also see the detailed reporting sheets which provide the full details in relation to how the Initial Assessment was informed by the WFD, and Habitats and Birds Directives.</p> <p>http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/PublicConsultations/MSFDRreportingSheets/</p>

3.1.10.6 Programme of Measures

Submission & Comment Code	Comment	Response
MSFD_IA_008 (W-C06)	<p>Please note the more detailed comment can be found in the workshop report: http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/</p> <p>Why will measures not be developed under the MSFD? The respondent noted that one of the shortcomings of the programmes of measures implemented by the WFD was a lack of integration between Government Departments and Agencies and stressed that, under the MSFD, inter-departmental and Agency integration must be carefully considered.</p> <p>The respondent indicated that if GES is to be a societal decision then society must be involved. She recommended that a proper public participation process is organised to facilitate societal discussions and bottom-up decisions involving stakeholders.</p>	<p>DECLG recognised that eventually the sectoral deployment of measures must be considered. There is reluctance at this stage due to questions of how this can be done effectively. From debates that are occurring among Member States there is common agreement that measures deployed must be effective. Each of the eNGOs has their own strong view of what measures should be implemented. DECLG noted that cost effectiveness and cost benefit of measures must also be considered. This is set out in Article 13.3 of the Directive. The ability to deploy monitoring across Ireland's marine waters and to deliver measures must be framed within Ireland's economic ability to do so. There must be a risk-based approach to the development of targets, indicators and measures initiated alongside an economic approach so that we do not extend beyond our ability to deliver. It is important to understand the effectiveness of measures so at the end of a reporting cycle a decision can be made as to whether the measure should be established, improved upon or abandoned.</p> <p>In relation to public participation, DECLG noted that the principle of access to environmental justice in Europe is very high on the agenda. Events such as this workshop and programmes such as the Celtic Sea Partnership are vehicles for encouraging a high level of participation from stakeholders. At a European level, there is an emphasis on selecting indicators that engage the public and provide an easy understanding of the importance of the marine environment. For example, a North Atlantic Marine Litter Action Plan involving the public has been developed to raise the public's awareness and understanding of what the oceans do for them.</p>

3.1.10.7 European Funding

Submission and Comment Code	Comment	Response
MSFD_IA_001 (C22)	There is clearly a range of major areas, particularly in relation to sea bed ecology and status that need further study in order to establish baseline data and that in view of Ireland's large marine area relative to its population and the importance of its marine waters relative to overall European North Atlantic environment that financial support as provided under Article 22 of the Directive should be sought.	<p>The consultee's comment is not related to the IA consultation process.</p> <p>There are several existing financial support instruments at EU level (EMFF, RDFs, LIFE, Horizon 2020) that may have an application to supporting the implementation of measures under the MSFD. This is the subject of on-gong research by the European Commission and a report is expected from this research by the end of 2014. Ireland had contributed to the research by stating our potential needs in terms of financial support under the directive.</p>

3.1.11 Public Participation

Submission & Comment Code	Comment	Response
MSFD_IA_001 (C23)	The provisions of Article 19 of the Directive on public and NGO consultation and participation are not addressed and have not been met in the process carried out so far.	The Department has actively engaged with SWAN, An Taisce and Coastwatch. In December 2012, The Department published an information leaflet, which was widely circulated.
MSFD_IA_002 (C30)	<p>While we welcome the availability of reports from various government departments, more accountability is required.</p> <p>The respondent is interested in the process of various agencies/ individuals commissioned to write reports on behalf of Government, those who oversee and assess those reports. Who is accountable and responsible for report findings and the implementation of those findings?</p> <p>Should report findings be inaccurate, misleading or</p>	<p>This comment is not related to the Initial Assessment.</p> <p>The consultee appears to be seeking a breakdown of the organisational structure of the Department and how it interacts with other agencies. Much of this is available on government websites.</p> <p>In terms of accountability the "competent authority" as set out in the Directive, is the Department of Environment, Community and Local Government.</p> <p>Beyond this, engagement with the representatives of the NGO pillar should help inform this consultee.</p>

Submission & Comment Code	Comment	Response
	false, are involved parties/ individuals responsible for presenting data penalised or fined?	
MSFD_IA_002 (C31)	The respondent notes the widespread use of consultants in various government departments. These same consultants are used by the oil/gas and wind energy industries to prepare environmental reports. We question the objectivity of any findings presented by consultants working with both government departments and private industry. A particular example of this is the consultancy group RPS who have prepared environmental reports for Providence Resources and Shell for the Kish bank and Corrib pipeline projects who also played a prominent role in assisting government departments and agencies at the recent workshop we attended.	Consultants are selected in accordance with standard procurement/tender rules. The work product, which is the subject of this consultation, was generated, to the greatest extent possible, by state experts, assisted by consultants, where necessary or expedient.
MSFD_IA_002 (C32)	More engagement with NGOs, community groups and the wider public is necessary, it is important to note the difference between public participation and public consultation.	The Department is aware of this and has taken the comment on board.
MSFD_IA_002 (W-C07)	How will industry be encouraged to be open under the MSFD and will there eventually be some form of obligation to be open, at a European level?	<p>With regard to industry involvement, a legislative instrument may have to be deployed to create some level of regulation around activities that contribute to the pressures in the marine environment. This is recognised as being an issue at a European level as a result of industry being strongly regulated in one Member State but not in another, creating an uneven playing field across Europe. This is an area where trans-boundary cooperation is necessary.</p> <p>The European Commission has funded several research projects on creating standard templates for stakeholder engagement including one for marine litter and one for the Celtic Seas. The World Wide Fund for Nature (WWF) has initiated a project, the Celtic Seas Partnership project, involving the UK and Ireland and all the stakeholders to develop a standardised template on how to engage various sectors that is transferable across all Member States and all Regional Sea Conventions. While some sectors are willing to engage, others are quite reluctant, but potentially, with regulation at the European level, all relevant sectors will engage and participate in the decision making process. There are ongoing</p>

Submission & Comment Code	Comment	Response
		activities to address the lack of sectoral involvement.
MSFD_IA_006 (C59)	I want to complain about the lack of promotion of a public awareness campaign in newspapers, radio and television to highlight that the DOE held a public consultation on MSFD in 2013. The MSFD has not been clearly explained to the public and there is little awareness of it. What is DECLG going to do to raise awareness and understanding about the MSFD in Ireland? How many submissions have been made to DECLG by the general public about the MSFD?	The Department has, at all times, published relevant information on its website, and where appropriate, this has been accompanied by a press release. Please refer to Table 1.1 .
MSFD_IA_007 (C60)	The respondent welcomes this overdue exercise which is an essential step towards rehabilitating the health of our seas. However, like all other Directives from the European Union the respondent is concerned that this crucial assessment stage has been a rushed endeavour and designed to be the bare minimum to avoid censure from the European Commission. With the launch of the 'Harnessing Our Ocean Wealth' plan in 2012 it seemed that protecting and restoring the health of the marine environment was finally a priority for Government. Unfortunately it seems that once again the natural ecosystem upon which all subsequent economic benefits derive is being seen as more of a hindrance to progress rather than an opportunity. Aspects of this assessment report largely continue in that vein. The respondent would take particular issue with the statement in the Executive Summary that states " <i>the results of the Initial Assessment indicate that the overall quality of Ireland's marine environment is good</i> ". As a statement to set the tone for the subsequent content of the report it is entirely misleading and seems designed to get Government authorities off the hook in terms of addressing the very real ecological problems that exist.	The Consultee is advised that this comment is not related to the content of the Initial Assessment. The timelines for implementation of the Directive are prescribed in Article 5 of the Directive and are not subject to adjustment by individual Member States.
MSFD_IA_008	It is the respondent's position that the current	It was confirmed that the Initial Assessment process is now complete and the

Submission & Comment Code	Comment	Response
(C78)	consultation process is fundamentally flawed since the public are being invited to comment on a document which has already been finalised. The network's misgivings in this regard were reinforced by the November 11th 2013 stakeholder workshop at which stakeholders were informed that the document on which comment was invited was the final document and no changes would be made to it, based either on the current consultation process or the outputs from that workshop. The respondent believes that this is wholly unsatisfactory and that it is not sufficient to simply publish stakeholder comments with responses. This must be accompanied by a willingness to amend the Initial Assessment based on input from stakeholders before the next stage of implementation (not in the next cycle in 6 years' time.) Without this commitment, the consultation is rendered almost meaningless.	<p>report as published will not be changed. However, should the public consultation identify a significant issue relating to the current Initial Assessment reporting, this will be notified to the European Commission.</p> <p>An integration process will require the development of a scheme whereby targets and indicators could be aggregated in such a way as to provide an indication of whether GES has been achieved or not. It is important to differentiate between assessing the components of GES (i.e. at the Descriptor level) and evaluating the achievement of GES itself which is a single overarching objective.</p>
MSFD_IA_008 (W-C01)	How will the feedback received at the workshop be incorporated into the Initial Assessment and is there an opportunity for stakeholders to input to the GES and Targets integration process?	
MSFD_IA_008 (C79)	<p>Recommendations on Public consultation process, public awareness & public participation:</p> <p>1. The Initial Assessment, GES and targets should be amended where necessary based on outputs from the current consultation which should involve follow-up dialogue with stakeholders on points raised.</p> <p>2. This assessment must be viewed as an interim assessment only until an effective, Aarhus-compliant public participation exercise is carried out. This should comprise at least a further 2/3 workshops with professional facilitators to tease out the details of each</p>	<p>Where it is considered that amendment to targets or indicators are useful for improving our definition of GES and our ability to achieve it, then this will take place following confirmation with the European Commission that amendment is possible.</p> <p>Public participation is an on-going process and further consultation will take place in relation to specific pressures and monitoring programmes and sectoral measures and on the overall milestones outlined under Article 5 of the Directive.</p> <p>Public participation in citizen monitoring is under development with the EEA and testing of the EEA Marine Litterwatch field monitoring tool will take place in 2014. As quality control and standardised monitoring models are developed for other descriptors the programme can be expanded.</p>

Submission & Comment Code	Comment	Response
	<p>descriptor and their knowledge gaps more thoroughly, to mine potential sources of additional information to fill gaps and to explore opportunities for collaboration in particular in terms of monitoring and awareness-raising.</p> <p>3. The opportunity for public participation in citizen monitoring should also be explored in preparation for the next phase of the Directive.</p>	
MSFD_IA_011 (W-C08)	<p>Why is there a lack of engagement from the DECLG with stakeholders? In particular he [respondent] drew attention to the Irish Marine Federation involvement in several stakeholder programmes including PISCES, the former Celtic Seas Partnership programme, and the Transnational Boundary Planning programme. The Irish Marine Federation hope to become involved in the Celtic Seas Partnership programme also. He suggested that there was a lack of interest from the DECLG in stakeholder programmes and asked whether the DECLG would become fully engaged in stakeholder programmes in the future.</p>	<p>DECLG are engaged in stakeholder programmes and are committed to engaging with the Celtic Sea Partnership. DECLG sit on the observer board for the project along with DEFRA in the UK and the European Commission.</p>
MSFD_IA_012 (W-C09)	<p><i>What is the composition of the marine regional implementation plan?</i> He [respondent] expressed his concern over the detail of the Atlas and some of the activities it displays. Brendan felt that the detail on, for example, the presentation of fisheries was optimistic. He observed that recommendations had previously been made that sustainable fisheries require observer regimes and fully documented fisheries. He inquired how the community and voluntary sector might engage and be kept informed in the monitoring and implementation process.</p>	<p>DECLG indicated that where information gaps occur, a measure to create better structures around how data is harvested and handled can eventually be initiated. DECLG referred to the sound distribution map as an example of where the quality of data can be improved, or structures around monitoring can be created. It was noted that, with regard to stakeholder engagement and raising the public's interest the issue of literacy on ocean issues is low in most Member States, the ownership of information ultimately will rest with the public. Taking litter as an example, the creation of the citizen scientist, the development of interface maps and the use of existing vehicles like the Green Schools initiative and the work carried out by An Taisce and Coastwatch will be used to raise awareness with the general public. One of the issues from the Government side is predicting where action will need to be taken in terms of legislative instruments. When this point is reached it is important that the relevant stakeholders are at a level of understanding and comprehension as to the reason for these legislative</p>

Submission & Comment Code	Comment	Response
		instruments.
MSFD_IA_013 (W-C11)	Where will the capacity to maintain Ireland's Marine Atlas lie and is it coordinated with atlas developments in other Member States? Is there the capacity to maintain the Atlas once the initial project is complete and transferred to the DECLG to run.	<p>A more detailed response can be found here - http://www.environ.ie/en/Environment/Water/WaterQuality/Marine/.</p> <p>It was advised that the Atlas is now hosted by the Marine Institute. A service-based model has been applied to Ireland's Marine Atlas which takes data directly from the data-owner's website. This places the responsibility on data owners to manage the currency of their data. Approximately 40 – 50 % of the Atlas is currently service based. The remainder of the Atlas is made up of static layers that don't require updating (i.e. layers included for reference or for context) and layers that are at risk of becoming obsolete. Short-term funding has been sought to maintain the Atlas, but future demands for spatial data to support marine management and planning is set to expand and the need for a marine atlas will grow.</p>
MSFD_IA_012 (W-C15)	There is a need to focus more on stakeholder (scientists and public) engagement rather than stakeholder awareness. There are two employment opportunities as recognised by the IWDG and by NPWS these are, 1) the use of the voluntary networks and 2) contractors employed by the marine protection agencies working as observers on board fisheries survey and industry vessels. We need to recognise this excellent work conducted by the under resourced MI and NPWS which has helped us on the road to recovery. Cost benefit analysis must highlight the importance of these employment opportunities and recovery must offset any expenditure incurred by employing observers.	<p>It was advised that the Initial Assessment did include an Economic and Social Analysis (ESA) of the use of Ireland's marine waters. The ESA is presented in chapter 12 in the Article 19 Report.</p> <p>It was noted that 1) public participation and 2) understanding what the community network can contribute to the MSFD were recurring topics raised during the workshop and constituted areas that needed to be further developed.</p> <p>These consultee comments are noted but do not relate to the IA consultation process.</p> <p>The spatial scale at which the directive is implemented is at regional level and development of strategies must address that.</p>

4 CONCLUSION & NEXT STEPS

Comments submitted through the Public Consultation process which specifically addressed reporting under the Initial Assessment for Ireland's marine assessment area, warranted no material adjustment to Ireland's Initial Assessment reports to the European Commission.

Current MSFD development work is focusing on the establishment and subsequent implementation of monitoring programmes for the on-going assessment of the environmental status of marine waters and the regular update of targets, which must be reported to the European Commission by the 15th October 2014. Current work is also considering the development of Programmes of Measures designed to achieve or maintain Good Environmental Status (GES) (required by March 2016 at the latest).

Many valuable comments were made as part of submissions received, which are specifically relevant to the establishment and implementation of monitoring programmes, and the development of Programmes of Measures. These comments are currently being considered as part of the development of recommendations for Monitoring Programmes for Ireland, and a further opportunity will be provided by way of public consultation on draft monitoring programmes at a future date.

Where it is considered that amendment to targets or indicators are useful for improving our definition of GES and our ability to achieve it, then this will take place following confirmation with the European Commission that amendment is possible.

Public participation is an on-going process and further consultation will take place in relation to specific pressures, monitoring programmes and sectoral measures, together with the meeting of the overall milestones outlined under Article 5 of the Directive.

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² Amendments in 2011 to Appendix 1, 3, 4, 8, 9, 10, 11, 12, 13, 14; 2012: addition of Appendix 16; [2013 revision updates main text].

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