

Sustainable Water Network (SWAN)

- Response to Consultation –

Marine Strategy Framework Directive Programmes of Measures



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1 INTRODUCTION TO SWAN

The Sustainable Water Network (SWAN) is an umbrella network of 26 of Ireland's leading environmental NGOs, national and regional, working together to protect and enhance Ireland's aquatic resources through coordinated participation in the implementation of the Water Framework Directive (WFD), the Marine Strategy Framework Directive (MSFD) and other water-related policy and legislation. SWAN member groups are listed in Appendix 1. SWAN has been actively engaged in Marine Strategy Framework (MSFD) and other water policy implementation at both national and River Basin District (RBD) level since 2004, representing the environmental sector on WFD River Basin District (RBD) Advisory Councils, the South Eastern RBD Management Group, The Irish Water Stakeholder Forum and other water policy-related fora. In 2013 SWAN published the report *The Marine Strategy Framework Directive in Ireland: Requirements, Implications & Opportunities for Environmentally Sustainable Management of Our Marine Waters*¹ and has also submitted responses to the DECLGs three previous public consultations on the MSFD^{2,3,4}.

2 INTRODUCTION TO THIS SUBMISSION

SWAN welcomes the opportunity to comment on the draft Programme of Measures (PoMs). The introduction of the Marine Strategy Framework Directive presents great challenges and opportunities for the sustainable management and conservation of Ireland's marine environment. The aim of the Directive is to achieve good environmental status (GES) for our marine waters, defined as '*ecologically diverse and dynamic oceans and seas which are clean, healthy and productive.*'

The introduction of the Marine Strategy Framework Directive highlights the fact that effective protection of the marine environment will require integration and coherence in marine management. The Directive presents an opportunity to ensure that future economic development in Irish marine waters is undertaken in accordance with a science-led ecosystem approach. This is an opportunity which must be grasped to ensure that a healthy and productive marine environment can sustain economic and social benefits for future generations of Irish people.

At the same time the Directive will challenge the Irish state as its effective implementation will require the commitment of financial resources to marine science research and maritime protection in an era of austerity and resource constraints. It is important that a minimalist approach is avoided in the implementation of the Directive. In that regard, the costs associated with taking measures to achieve GES should be seen as astute investment for the future.

The following submission includes comments on the draft measures in addition to measures which SWAN proposes should be taken in order to achieve the requirements of the Marine Strategy Framework Directive in Ireland. These comprise both specific MSFD implementation recommendations, in addition to broader recommendations aimed at setting in place the integrated governance framework necessary for the Directive's successful implementation. That framework would facilitate the implementation of the appropriate concrete measures which are required in order to protect the marine environment, meet MSFD targets and secure the marine resource-base.

¹ Brady E., Dubsky K., Freeman N., Lewis S. and O'Brien S. (2013) *The Marine Strategy Framework Directive in Ireland: Requirements, Implications & Opportunities for Environmentally Sustainable Management of Our Marine Waters.*¹

² SWAN (2013) Irelands Marine Strategy Framework Directive preparation phase. Response to public consultation.

³ SWAN (2014) Irelands Marine Strategy Framework Directive Article 19 Report, initial assessment, GES, targets and indicators. Response to public consultation.

⁴ SWAN (2014) Irelands Marine Strategy Framework Directive monitoring programme. Response to public consultation.

SWAN welcomes the opportunity to put forward our recommendations for inclusion in the PoMs. We hope that these recommendations will help to inform the PoMs and ultimately decision-making regarding MSFD implementation.

However it must be noted that this document only outlines some recommendations and is by no means to be considered a fully comprehensive description of what SWAN believes should be in the PoMs or a full critique of the proposed measures. A full and effective consideration of all possible measures required to reach GES – by SWAN and other stakeholder groups – is a complex exercise and one that would require much more than a short consultation exercise, run in tandem with another major consultation and over the Christmas period. Rather, to be effective this should comprise a comprehensive public engagement strategy such as SWAN has been recommending since our first submission on the MSFD in 2013.

It should also be noted that in order to achieve GES the PoMs must be based on a robust and strictly compliant initial assessment and comprehensive monitoring programme. In this context it is important that all issues raised by SWAN in the previous two consultations be addressed. It is clear to SWAN that at this point in time, the majority have not.

3 Comment on the Summary

3.1 What is the purpose of this consultation

This section states that

'We are not seeking feedback on Ireland's characteristics of GES, environmental targets and monitoring programmes. These were the subject of previous public consultations and are not covered under the scope of this public consultation.'

However, there is an apparent contradiction here. SWAN was previously informed that some of the stakeholder input to the previous consultations would be taken into account, not at the time it was submitted, but at the PoMs consultation stage as it was perceived to be more relevant at this stage. However, now stakeholders are being informed that this earlier input is *'not covered under the scope of this public consultation'*. This begs the question, at which point can stakeholders expect to receive a response to these matters? Furthermore, this restriction runs counter to the integrated approach required by the Directive. The initial assessment and setting of environmental targets are intrinsically linked to the selection of measures. As each specific measure is designed to achieve a target and each measure is linked either direct or indirectly to a specific target it is very difficult to comment on the measures in isolation if the target is inadequate.

3.2 How long is the period of consultation

This section states that

'Public consultation on Ireland's draft Programme of Measures will commence on 27th November for a period of 9 weeks. Submissions on the draft Programme of Measures will be accepted between 27th November 2015 and 29th January 2016 inclusive.'

The timing of the consultation period was not ideal and limited input. The start of the consultation period overlapped for three weeks with another DECLG important public consultation on Significant Water Management Issues, which then led almost immediately into the Christmas holiday period. This places considerable strains on the already limited capacity of SWAN members, many of whom are fully run by volunteers or have no more than one staff member and restricts SWANs ability to engage in a

full review and critical analysis of the PoMs. SWAN realises that there is a deadline of March 31st for Ireland to report the PoMs to the Commission however this should not excuse the poor timing of the consultation. This also raises the question as to whether there will be sufficient time after the end of the consultation to review and incorporate stakeholder feedback.

3.3 What will happen to the feedback I submit

This section states that

'All comments received within the timeframe of this public consultation period that relate to Ireland's draft Programme of Measures will be assessed. The assessment of these comments and feedback will be used during the finalisation of the Programme of Measures.'

We welcome that *'feedback will be used'*. As stated above this raises the question as to whether there will be sufficient time after the end of the consultation to review and incorporate stakeholder feedback and how exactly it will be 'used'. Based on experience from the previous two consultations it is unclear how SWAN feedback has been used. It would appear that feedback may have been assessed and responded to. However it is less clear how any of SWAN's feedback influenced final documents, apart from a reference on page 51 of the Monitoring Programmes Responses to Submissions document to *"... a more detailed examination of knowledge gaps and data issues.."* on foot of SWAN's submission on the Initial Assessment,

From reading that document, the impression given is that the only stakeholder responses which elicited clear action in terms of amending the programme were other government departments (e.g. in response to DECNR: *"Corrected text has been applied ..."* and *"Correction acknowledged and text incorporated into Article 11 Monitoring Programme documentation"*)

While the Department states in its response document to the Monitoring consultation that *"Non engagement by SWAN members is disappointing as the DECLG is endeavouring to gather the broadest possible inputs"*, the lack of any concrete actions in response to SWAN's submission to the monitoring would seem to confirm members reservations about the meaningfulness of the consultation exercise and the lack of effect NGO stakeholders' submissions have on final programmes.

Responses to consultations takes considerable time and effort and some SWAN members are hesitant to commit resources to this process as they feel their previous input has been ignored and not considered valid.

3.4 What consultation have you participated in to date

In this section we welcome that for the monitoring programme *'This report included updates in relation to further development work associated with targets and indicators since the reporting of the Initial Assessment.'* It would be extremely useful that if for each stage of the process that any changes would be indicated and that the public be notified of any updates by means of, for example, a progress report.

3.5 Where can I find more information

This section provides a link to the DECLGs website which includes basic information on the MSFD. SWAN would like to see a fully comprehensive dedicated website for the MSFD aimed at the public.

4 Comment on the Introduction

4.1 Who is the competent authority for the MSFD

This section states that

'Other government departments and agencies assist the DECLG with the implementation of the MSFD.'

Although the document provides a list of these agencies, the information on their relevant roles and responsibility in the context of marine management and MSFD implementation should be provided also.

4.2 What has happened to date?

In terms of the consultation document itself, in order to make the consultation relevant and understandable to stakeholders and the public, it is vital that it sets out the context in which the development of the MSFD PoMs is taking place, both in terms of the earlier phases of MSFD implementation and the wider marine management landscape in which MSFD implementation is taking place. This section in the draft PoMs only lists the stages that have been 'completed'. This section needs to include a progress report on the MSFD implementation process to date including an update (if any) on the two earlier stages of implementation and also how gaps and weaknesses in these have been or are proposed to be addressed. This ties in with section in the summary 'What is happening now' where it just mentions the current consultation however it would also be useful to include other information. There is surely other MSFD work being done at the moment besides the PoMs consultation?

4.3 Irelands Marine Protected Area Network

This section states that

'Ireland's existing network of Marine Protected Areas (MPAs) will play a significant role in supporting the achievement of a number of the GES characteristics and targets set out in this Strategy – in particular for Descriptor 1 (Biological Diversity) and Descriptor 6 (Sea-floor Integrity). The MPA network forms an integral element of the proposed programme of measures for GES, contributing to the Directive's requirements to put in place spatial protection measures which contribute to a coherent and representative network of MPAs. Currently, the Irish MPA network includes Natura 2000 sites designated under the Birds Directive (92/43/EEC) and Habitats Directive (2009/147/EC), as well as sites designated under OSPAR.'

There is a paucity of easily accessible information on Ireland's existing network of MPAs. There is no information about these sites on the DECLG website. The NPWS provides a list of 19 Natura sites that are OSPAR MPA's. There is no consolidated information on these sites available to the public. A dedicated report on Ireland's current network MPA network which includes information on their current conservation objectives and status and management measures in place to reach or maintain that status needs to be published. This should also include how these sites contribute to a coherent and representative network of MPAs. Detailed information on each of these MPAs, other than a list of the Natura sites, is not available from OSPAR either, so we do not know what 'as well as sites designated under OSPAR' means.

The document states that these sites 'cover predominant habitats, special habitats and species'. The MSFD stipulates that the Programme of Measures to be introduced to achieve or maintain Good Environmental Status of marine waters must include

'spatial protection measures, contributing to coherent and representative networks of marine protected areas, adequately covering the diversity of the constituent ecosystems.'

While the Article gives the example of SACs under the Habitats Directive or SPAs under the Birds Directive as spatial protection measures, it cannot be argued that these types of spatial protection measures alone adequately cover the diversity of the constituent ecosystems. The EU Habitats and Birds Directives are limited in the range of species and habitats which they protect, and only those species and habitats which are rare or endangered are given protection and do not adequately cover the diversity of their constituent ecosystems. Therefore, under no circumstances can the EU Habitats and Birds Directives be considered solely as representative of constituent ecosystems. There is currently no legal basis in Ireland which allows for the establishment of ecologically coherent and representative networks of marine protected areas since SACs and SPAs established under the Habitats and Birds Directives only apply to certain species or habitats which are rare or endangered, and this must be addressed in the PoMs.

Ireland also has a commitment to establishing MPAs under the OSPAR Convention. In that regard, there is currently no legal basis for the establishment of MPAs under either the OSPAR Convention or the MSFD. Ireland has communicated a number of SACs established under the Habitats Directive to the OSPAR Commission as the State's contribution towards the establishment of the OSPAR MPA Network. It is worth noting that the requirements for MPA under OSPAR lack the same ecological requirements as the MSFD. A Marine Protected Area under OSPAR is defined as

'an area within the [OSPAR] maritime area for which protective, conservation, restorative or precautionary measures, consistent with international law have been instituted for the purpose of protecting and conserving species, habitats, ecosystems or ecological processes of the marine environment.'

While it may be sufficient to utilise the Habitats and Birds Directives for the purposes of designating MPAs for the OSPAR network, the use of these legislative instruments will be insufficient to meet the requirements of Article 13(4) of the MSFD. The Habitats and Birds Directives, while a valuable and integral management tool for achieving GES, have not delivered adequate conservation for the priority marine habitats in Ireland. It is therefore crucial that Ireland follow the example of the UK and Spain who have established a legal basis in their domestic law for the provision of Marine Protected Areas which meet the requirements of the MSFD for ecologically coherent network of MPAs. These spatial protection measures need to include marine reserves, including no-take zones, which act to protect not just species or habitats at risk, but also the general functioning of the ecosystem as a whole. This must include marine reserves to protect the spawning, nursery and feeding areas of fish to ensure that stocks can return to a sustainable level. It is vital that the designation of such MPAs be conducted on the basis of objective scientific criteria with regular monitoring, to ensure that conservation objectives take account of dynamic factors affecting the marine environment such as climate change and ocean acidification.

We are disappointed with the lack of progress in Ireland's MPA network and that this important element of reaching our MSFD objectives was only given two paragraphs in the draft PoMs. The paragraphs conclude with

'As part of the programme of measures we intend to develop a national strategy for the creation and management of Ireland's network of MPAs.'

SWAN would welcome a much needed national strategy for the creation and management of Ireland's network of MPAs however one of the major shortcomings of the draft PoMs is that this strategy should have formed an important part of the PoMs. The strategy should have already been developed and included in the PoMs which should have included a progress report on the development of legislation to give full legal protection to MPA's. This strategy needs to be developed as a matter of urgency.

5 Comment on the overall draft strategy across all Descriptors

Article 13 (7) of the Directive requires that the PoMs must clearly indicate how the measures are to be implemented and how they will contribute to the achievement of environmental targets. SWAN does not believe that this has been done adequately.

The EC Common Implementation Strategy⁵ for the PoMs states that

'The Programme of Measures should contain:

- 1 – An overview of the existing measures with reference to their original publication;*
- 2 – A short analysis of the contribution of existing measures to achieving the environmental targets and GES (baseline) and the gap that needs to be addressed (gap analysis);*
- 3 – A list of new measures, including a summary:*
 - Category 2.a: if described elsewhere, brief details with reference to document containing exhaustive description (e.g. WFD PoM), if not a full description (ref. chapter IV.3);*
 - Category 2.b: full description (ref. chapter IV.3);*
- 4 – justification for exceptions where no measures will be taken. '*

Furthermore it requires that

'The summary for the new measures should contain

- Method for selecting measures;*
- Implementation (e.g. by legal, policy, socio-economic and financial instrument), including overview of co-financed measures (art. 22) where relevant;*
- Identification of spatial protection measures and the purpose for which they are put in place (e.g. contributing to coherent and representative networks of marine protected areas art. 13.4);*
- Cost-effectiveness and/or cost benefits of the measures (how it has been taken into account?) and sustainability (art. 13.3);*
- Overall coordination or input to other EU legislation and policies (including international agreements);*
- Overall regional coordination including possible impacts on the waters of other countries (art. 13.8);*
- Public consultation information.'*

It is quite clear that the draft PoMs fulfils neither the full requirements of Article 13 (7) of the Directive nor the CIS guidance especially in relation to the gap analysis of existing measures and the summary of new measures. The draft PoMs is essentially a list of mostly existing measures under other legislation that is envisioned will contribute to achieving GES of our waters by 2020. While we agree that it is entirely relevant that these measures are included they are, as presented, very vague. For example the very first measure M1 is

'Continue to apply the Natura Directives and associated national regulations...'

Although the State is only required to provide a summary document to the public for consultation, what has been provided is not comprehensive enough to provide for any real evaluation. It would be more useful to have access to and be consulted on a more thorough detailed report and given sufficient time to engage fully on this. Most of the measures give no indication on how they are to be implemented and the reliance on the assumption that they are already being implemented effectively and thus will enable Ireland to achieve GES across all the descriptors is of extreme concern to SWAN, who would robustly challenge that assumption. If the measures which are proposed, most of which

⁵ EC (2014) Common Implementation Strategy - Programmes of measures under the MSFD recommendations for implementing and reporting.

already exist, were adequate to reach GES, then should Ireland not already be at, or close to, GES? As this is not the case then it is clear that the MSFD programme of measures must involve additional work:

1. full implementation/enforcement of existing measures and
2. the addition of necessary new measures identified via a gap analysis.

It is SWAN's firm position that we cannot proceed with 'business as usual' if we are to reach the objectives of the MSFD and achieve GES.

6 Biodiversity Descriptors 1, 4 and 6

6.1 How will measures proposed contribute to achieving/maintaining Good Environmental Status for Descriptor 1, 4 and 6

This section states that

'Descriptors 1, 4 and 6 encompass a wide range of biological and ecological elements including species (fish, birds, and marine mammals), marine habitats (water column and seabed) and their constituent biological communities. Given the scope of the biodiversity-related Descriptors, the potential human activities influencing the status of the biological elements is broad and can be aligned with many commercial sectors (e.g. fishing, aquaculture, infrastructure, shipping, tourism).'

Despite this opening statement the 'targets' for the three biodiversity descriptors are all fisheries targets with only exception for marine gastropods. There needs to be a detailed explanation on how all the proposed biodiversity measures will contribute to achieving/maintaining GES using just these environmental targets to guide progress. SWAN believes that this approach is inadequate.

6.1.1 Natura Directives

This section states that

'For each designated area the Directives require site-specific Conservation Objectives to be set for the species and habitats of interest and subsequent management to ensure those objectives are achieved. Management measures taken to achieve the Conservation Objectives within Natura 2000 sites will make a significant contribution towards the achievement of GES with respect to Descriptor 1, 4 and 6.'

However the latest Natura data sheets from the NPWS⁶ show that although site specific conservation objectives exist there are no management plans in place or under development for any of the Natura/OSPAR MPA sites. These management plans which include the measures to reach those objectives must be developed and included in the PoMs and stakeholders must be given the opportunity to input into their development. This should apply to all marine Natura sites not just those listed as OSPAR MPAS. . It is wholly inadequate that such management measures are not included in the draft PoMs for discussion.

6.1.2 Fisheries management

⁶ www.npws.ie/protected-sites

There are a number of measures listed to address Descriptor 1 and 4 targets via implementing the revised Common Fisheries Policy (CFP). The draft PoMs document states that

'The main management measures to address Descriptor 1 and 4 targets for marine fish communities are delivered through the revised Common Fisheries Policy (CFP) which came into force in January 2014 and is expected to lead to a reduction in overall fishing pressures on both target and non-target fish species. This reduction will largely be achieved by setting annual total allowable catches and fishing effort restrictions.'

However last month the EU Fisheries Ministers set fishing limits for some stocks above ICES advice. The environmental targets set in the PoMs document also heavily rely on 'fishing the fish community equal to or below F_{MSY} ' but the use of MSY in fisheries management has been called into question⁷. The proposed measures in the PoMs relating to the CFP rely heavily on the successful implementation of the revised CFP. In order for these measures to contribute to achieving and maintaining GES there must be adequate enforcement. The PoMs measures need to specify how this will be achieved. This is particularly a problem in the inshore and coastal areas. While some regulations are effective and well publicised and implemented, like sea bass fishing controls, too often laws are ineffective due to lack of enforcement.

6.1.3 Water Framework Directive

A number of measures in this section are in relation to the WFD and the section states that

'All quality elements included in WFD assessments are subject to management measures to protect ecosystems in coastal and transitional waters and will collectively positively contribute to achieving GES with respect to Descriptor 1, 4 and 6, while simultaneously addressing elements of other Descriptors.'

However coastal waters were almost completely neglected in the last RBM plans; monitoring was delayed and there were no new dedicated measures proposed for the coastal zone. The RBM Plans as they apply coastal waters are ineffective and the draft SWMI does nothing to indicate that there are plans to address this. There is little mention of coastal water issues or the need to integrate the implementation of the MSFD with the WFD in the draft SWMI report. A dedicated section covering this issue should be added to the PoMs detailing measures of how this will be done. An integrated approach to the coastal zone is needed; historically this area has fallen between the cracks of overlapping competence. To achieve cross compliance of WFD/MSFD, good baseline data for determination of GES in this area of overlap is needed and decisions regarding measures will require integrated coastal zone management, including harmonisation of agencies and resources.

6.1.4 Marine Licencing and Consenting

The PoMs draft states that

'Marine licencing and consenting measures are in place to ensure sustainable development with respect to the environment. Under the licencing and consenting measures, provisions are put in place to support a framework for systematically identifying and assessing the potential environmental consequences of proposed projects and plans based on the condition and sensitivity of ecosystem elements, with any adverse impacts, including cumulative effects, being avoided or mitigated before consent can be given under the relevant legalisation. The main marine licencing and consenting measures that will make a positive contribution towards the achievement of GES include the EIA and SEA directives and associated national regulations as set out in Ireland's legalisation for the foreshore, aquaculture and land planning.'

⁷ <http://eatenfishsoonforgotten.com/>

Again the PoMs are relying on existing measures to be fully implemented. It the experience of SWAN and SWAN members that this is resolutely not the case. For example, compliance in the planning, development, licencing and regulation of aquaculture is not being fulfilled and Ireland has failed to properly address our environmental obligations during the aquaculture planning process (ECJ case C418/04). The planning and regulatory system for aquaculture is deeply flawed and is not adequately addressing this pressure in terms of its impacts on MSFD targets. While the draft National Strategic Plan for Sustainable Aquaculture Development⁸ (NSPA) states that '*Planning, licensing and regulation of the sector ensures full compliance with relevant European and National legislation, including.....legislation seeking to achieve and maintain good environmental status of coastal and marine waters (Water Framework Directive, Marine Strategy Framework Directive).*' SWAN does not believe this to be the case and would robustly challenge it. According to the most recent EPA Environment Assessment Report⁹ '*aquaculture and fisheries measures implemented nationally should be monitored and reported on to ensure that they bring about measurable improvements in the conservation status of species and habitats and in the provision of ecosystem services*'. The monitoring programme is based on risk assessments from 2005 which as it stands is inadequate because the NSPA SEA states that in relation to finfish aquaculture they 'do not specifically deal with risk to the wider water body as a whole' (SWAN's emphasis) with shellfish monitoring confined to human health issues.

It is also of concern that, the NSPA SEA states that '*as a consequence of the lack of distinct information pertaining to the wider impacts of aquaculture activities on water bodies, at the time of the risk assessments in 2005, and acknowledging that aquaculture activities have inherent risks associated with them, all water bodies having licensed aquaculture activities were classed as 2a - probably not at risk but there is insufficient information to class as not at risk.*' It is vital especially with the proposed increase in aquaculture that all current and proposed sites must undergo risk assessment on a regular basis. Secondly, it is vital that DAFM liaise very closely through dedicated integrated marine governance structures with DECLG, other Departments State Agencies and stakeholders to ensure that any aquaculture or other activities proposed in the NSPA is in line with MSFD environmental objectives for the coastal waterbodies in question. Currently such integration and close liaison is not taking place.

Further matters of concern regarding aquaculture licencing as it relates to the achievement of MSFD targets in relevant waters:

- There is no monitoring of the environmental impacts of shellfish aquaculture so no enforcement of licence conditions is possible where operations are licensed. Where no license exists, the operator can continue under Article 94a as if a license were in place, so that neither monitoring nor enforcement is carried out.
- All applications for licenses refer to blanket appropriate assessments for waters and do not require a re-assessment of the site. This results in individual applications not being considered in terms of the cumulative impacts in a water body. This needs to be related to effective implementation of the EIA Directive.
- The Environmental Impact Assessment for the proposed Salmon farms in Galway Bay did not adequately assess the negative impacts that could result and this was highlighted by State Agency IFI who also stated that '*the present proposal does have the potential to pose a risk to wild salmonid stocks in the vicinity of Galway Bay*'..¹⁰

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<http://www.agriculture.gov.ie/customerservice/publicconsultations/consultationonnationalstrategicplanforsustainableaquaculturedevelopment/>

⁹ EPA (2012) Ireland's Environment, An Assessment. Environmental Protection Agency

¹⁰ IFI (2011) Submission by Inland Fisheries Ireland on the Environmental Impact Statement for a Deep Sea Fish Farm Development in Galway Bay. Inland Fisheries Ireland.

- Treatment of fish kill waste; its management and disposal, represents a potential threat for aquatic environments which is not currently addressed in the current regulatory system.
- An Taisce are the only statutory environmental NGO consultee for aquaculture licencing. They receive no funding in order to fulfil this role which could be a full time job with the increased production proposed. Other NGOs who are not statutory consultees are finding it virtually impossible to get early notice of licence applications as they are not on the web, there is no local site notice and often the local papers where an application is advertised is not the one read locally – e.g. a recent Lough Swilly case in which the application was published in a newspaper with an extremely small circulation and readership.
- EMFF grants can only be accessed for operations and sites which have a full aquaculture licenses. The majority of operations are in Natura 2000 sites and able to run without license if they had a previous license based on article 194A of the Act - pending government work on appropriate assessments and decision making
- In the absence of effective regulations for finfish aquaculture it appears to SWAN that ‘proxy regulation’ is being carried out by the Aquaculture Stewardship Council. This situation is unacceptable since a food accreditation standard is obviously completely different from environmental regulation. Even on its own merits SWAN members are extremely unhappy with inaccurate accreditation by ASC of Irish farmed fish, leading to an unfounded green image for farmed fish.

The current planning regulatory system is not fit for purpose in terms of assessing and controlling aquaculture impacts on MSFD targets.

6.2 Marine Protected Areas

SWANs concerns over the lack of current consolidated available information on MPA network, the lack of management plans for our marine Natura sites, the lack of designation/legal protection of MPAs to meet MSFD objectives and the lack of a MPA strategy has been discussed in section 11 and applies to this section on biodiversity also. In addition to those comments SWAN would like the following recommendations for inclusion in the final PoMs.

6.3 Measures for these descriptors in the final PoM must include the following

In addition to the comments above SWAN would like the following recommendations for inclusion in the final PoMs.

National legislation must be enacted which provides a legal basis for the establishment of an ecologically coherent network of MPAs meeting the requirements of Article 13(4) of the MSFD, to provide the legal basis for the designation, and effective management of sites. For example the UK developed the Marine and Coastal Access Act to enable the designation of a network of Marine Conservation Zones.

Identify the full range of representative features in the marine areas (habitats, species, communities and ecological processes) in compliance with Regional Seas Conventions lists.

Determine the gaps for an ecologically coherent network. An ecologically coherent network of MPAs needs to adhere to strict principles if it is to achieve coherence. We believe the following principles, that build on OSPAR ones, should be followed as a minimum:

- Representivity – MPAs must represent the full range of habitats and species in the marine area.
- Replication – MPAs for each broad scale habitat need to be replicated throughout each biogeographic region.
- Adequacy – the amount that is protected for each representative broad scale habitat should not be less than 30% of that feature, and for rarer features that percentage should be much higher (up to 100% for rare habitats such as seagrass beds and maerl). This measure can be carried out by looking at species-area curves. This was used to identify how much surface area of different representative habitats was required to be protected to 'capture' the vast majority of constituent species within the UK MPA network. This science is not new, and allows nature conservation advisors to tell governments on how much of representative habitat space needs to be protected in order to allow a significant proportion of the seabed to recover its natural range and climax status of marine species and habitats. For European Marine Sites alone the EC recommends protection of 20-60% of the listed habitats and species in their waters.
- Viability – sites should primarily be large in order to be viable in protecting the majority of life-history stages of constituent species within the MPA boundary and to ensure that 'edge effects' of potentially damaging activities don't impinge on feature condition inside sites. Additional buffer zones will help ensure this protection.
- Connectivity – sites should be not more than 80 km apart, and ideally should be no more than 50 km apart.
- Best *available* evidence – should be used. A lack of detailed information on broad scale habitat or species distribution should not be a reason to delay designation of a network of sites.
- Favourable condition – sites should be selected based on representation of all broad scale habitats, but those areas in more favourable condition should be prioritized where there is choice. This is particularly important for vulnerable, rare or threatened species.
- Mobile species – sites identified as important for key life stages of mobile species, such as feeding, breeding, and spawning and nursery grounds should also be selected.
- Vulnerable Marine Ecosystems – to deliver on Descriptor 6, it is additionally important to protect Vulnerable Marine Ecosystems (VMEs) from physical disturbance such as bottom fishing in all EU marine waters (within and beyond MPAs).

Identify sites to fill these gaps for an ecologically coherent network). These should consist of a mix of sites under different frameworks in order to fully mobilise the potential of the MSFD and deliver wide-ranging benefits:

Additional N2000 sites to completely fulfil obligations under the Habitats and Birds Directives, including designations in all areas up to the offshore limit of Irish jurisdiction.

Regional Seas Convention Sites (OSPAR) to cover regionally listed habitats and species not covered by EU legislation, as well as to include ecological processes as designation criteria. Under the MSFD PoMs, new sites need to be designated to protect a range of habitats not covered by other sites such as *Zostera* and maerl beds, burrowing megafauna communities, along with a range of species including seahorses, European eel, cod, orca, sperm whale, sharks and rays as well as many other crustacean and invertebrate species. Regional Conventions also provide the legal and technical tools to designate MPAs in areas beyond national jurisdiction, to which the EU is committed.

Other international agreements such as Ramsar sites, Man and Biosphere Reserves, Convention on Migratory Species of Wild Animals.

National Sites to cover nationally important habitats and species.

Designate sites. The designation of Marine Protected Areas needs to be conducted on the basis of objective scientific criteria with regular monitoring, to ensure that conservation objectives take account of dynamic factors affecting the marine environment such as climate change and ocean acidification. Sites should be designated for representative habitats and species relevant to national marine biodiversity, but Sub-features may also be listed in the designation. It is important to provide national sub-feature designations because different EU Member States have different features.

Include a conservation objective for each site in the designation order, ideally with its contribution to the wider GES objective. The latter may vary from achieving Favourable Conservation Status under the Habitats Directive, to Recovery under the CFP's Fish Stock Recovery Area. Recovery of most MPAs will be essential if GES is to be achieved, particularly for seabed habitats where bottom trawling has historically occurred, even at irregular intervals.

Ensure MPAs are well managed. Paper parks will not achieve GES. All current MPAs should have some management by 2015 – at least in regard to protection of known fragile habitats and species, including sea grass beds, biogenic reefs, known fish and shellfish spawning and nursery areas. The piloting of management measures and their enforcement, needs to be well recorded and publicized with adequate reporting and feedback mechanisms to learn, improve and adapt, as both our ecosystems and uses are changing.

MPAs must be effectively and well managed to:

Manage/halt all damaging activities in existing and future MPAs. Achieving MSFD biodiversity descriptors will require existing management measures to be strengthened in some cases and for new management measures to be adopted in other sites. For instance stronger measures are needed to protect seafloor integrity and halt bottom trawling in all MPAs. Other measures could include seasonal or real-time closures if by-catch rates are above certain threshold, or control of recreational fisheries through licensing.

MPAs must strive for biodiversity recovery. Reducing the ability of ecosystems to achieve climax community status by allowing persistent, chronic damaging events such as occasional unregulated bottom trawling reduces the complexity of seabed habitat. This then reduces the ability of a number of vulnerable species to recruit onto the seabed, and contribute their unique ecological role and productivity. For example, bottom trawling has reduced the capacity for filter feeding on the seabed by removing most sponges, corals and bryozoans. Thus the filter-feeding and nutrient uptake role of these elements is lost.

Implement Article 6(2) and 6(3) of the Habitats Directive correctly. Potentially damaging fishing activity, in particular, must be considered as a "project or a plan" under the must be stopped if it has a likely significant effect on a site. It should only be licensed if an Appropriate Assessment proves the fisheries will not have an adverse effect on the integrity of the site or the conservation status of its habitats and species.

Implement Article 11 of CFP which facilitates the introduction of technical measures to manage and restrict fisheries in protected areas.

Buffer zones should be set up to protect boundary areas of sites, sediment resuspension and transport into the site, and features and to prevent encroachment.

Whole sites, and NOT just features, should be protected from the most damaging activities. This is a key description of ecosystem-based management. Current EU MPA legislative frameworks are reductionist to protection of 'features', yet elements of the marine environment do not act in isolation. Measures should protect entire sites where possible, and where habitat linkage can be assumed between designated features, particularly where legislation allows this (e.g. site integrity clauses in the Habitats Directive).

The network and wider seas: measures to meet the "network component" and linkages at regional scale will be crucial to meet other MSFD targets (e.g. climate adaptation for species). It will also be necessary to adopt other non-spatial measures applicable inside and outside of MPAs to target certain pressures at a larger scale than individual MPAs.

Monitor: all sites will need monitoring to assess whether we are achieving the biodiversity descriptors. In particular unless we monitor reference areas we cannot gauge the impact of human activities in the wider seas. In Ireland with its complex long coast, knowledgeable citizens should be an integral part of inshore MPA research and monitoring, with adequate support.

Provide agencies with necessary powers and duties. New powers and duties may need to be provided to marine agencies, both fisheries regulators and conservation agencies, to ensure they are able to manage MPAs effectively. For example in the UK a new agency, the Marine Management Organisation, was established and the Sea Fisheries Committees had their powers and duties changed along with their name to the Inshore Fisheries and Conservation Authorities.

Vulnerable Marine Ecosystems must be protected from bottom trawling.

Marine Protected Areas need to include marine reserves, including no-take zones, which act to protect not just species or habitats at risk, but also the general functioning of the ecosystem as a whole.

Marine Reserves are needed as part of a network to enable improved recovery of all areas of the ecosystems, allow quicker recolonisation and provide a higher protection level to most vulnerable areas. They will also be vital to gauge the impact of different human activities on a wide range of features. At the 5th World Parks Congress in 2003 the recommendation was made that *“these networks [of MPAs] should include strictly protected areas that amount to at least 20–30% of each habitat”*, which SWAN agrees is essential to achieve GES. Attempting scientific assessment of the current state of the marine environment without being able to refer to a suite of sites where a wide range of habitats are fully protected is a fundamental failure of management. Marine Reserves will allow all levels of the ecosystem, and their connected constituent parts to achieve something approaching climax community states, allow us to understand more natural relative abundances of species, and to observe natural rates of community change with markedly reduced human impact.

The designation process for Marine Protected Areas must take account of local knowledge and must facilitate a ‘bottom-up’ approach engaging local stakeholders. Inshore fishermen and other stakeholders need an easily accessible process they can use to put their proposals for MPAs and management measures forward and have them dealt with in a timely fashion. Proposals need to be considered on merit and given reasoned legally enforceable approval, or rejected within set time. An appeal mechanism must be available. Where insufficient information is an issue, the decision may be for further research, with access to funds set out and/or for a pilot MPA.

Create better fora to facilitate structured dialogue on MPAs, designations, management, monitoring and review. These fora for stakeholders, policy makers, enforcement agencies and environmental groups need to be appropriate for each MPA network level from international to local and linked.

Marine Protected Areas must, as well as enjoying legal protection, be subject to adequate maritime surveillance and enforcement to ensure that their ecological integrity is safeguarded.

Assess the social and economic benefits of MPAs. An economic and social analysis of the use of the marine resource and the cost of its degradation is also required in considering proposed Programmes of Measures: Cost effectiveness and cost benefit analyses of measures, in addition to an analysis of their socio-economic impacts. We believe it is essential that such assessments must calculate the social and economic benefits of MPA networks too, which run into billions of Euros and are likely to far outweigh any costs. These benefits range from ecosystem services of carbon and nutrient cycling to direct economic benefits from diving and angling and re-stocking fisheries. A number of exemptions from the requirement of meeting GES are also provided for, including overriding public interest and where the costs of the measures *‘would be disproportionate taking account of the risks to the marine environment and provided there is no further deterioration’*.

It is of crucial importance that socio-economic analyses conducted at all stages of implementation are comprehensive and include the value of the ecosystem services provided by a healthy marine environment, in addition to the environmental and resource costs of environmental degradation resulting from the non-implementation of measures.

These must be incorporated in any cost benefit analysis, but most particularly into any assessment of disproportionate cost which may result in a derogation from the obligation of GES being applied. This is crucial in order to avoid the risk of marine management decisions which are disproportionately in favour of economic activities which threaten the integrity of the marine ecosystem.

7 Non Indigenous Species –Descriptor 2

7.1 How will measures proposed contribute to achieving/maintaining Good Environmental Status for Descriptor 2

This section begins by stating

'There is currently limited information on the presence and impacts of NIS in Irish marine waters and so it difficult to assess if the Good Environmental Status target for this Descriptor is presently being met. Although knowledge on the distribution of many NIS in Ireland is limited, expert observations suggest that the number of NIS arriving in Ireland continues to increase. Ireland is endeavouring to improve its understanding of the presence, distribution and impact of NIS in Irish marine waters through a variety of programmes.'

A vague mention of 'a variety of programmes' is not useful here. SWAN requests that the final PoMs document provides full information on what these programmes are. There is no specific measure/measures given to improve this understanding and this should be included.

The document also states that

'Descriptor 2 measures focus on the prevention and management of the introduction and spread of NIS through regulation and awareness of the sources and pathways of contaminants entering the Irish maritime area. The implementation of measures that licence the cultivation of shellfish, control the movement of aquaculture species, and enforce the use of alien and locally absent species in aquaculture are achieved through the application of a wide variety of legislative tools.'

However it is unclear who/ what agencies have responsibility for action to control or eradicate invasive alien species. there is still no single guiding policy or legislation dedicated to invasive species in Ireland¹¹ and the EU has stated in an assessment that 'The provisions for management of invasive species (in Ireland) are divided between several different Acts that are focused on different policy areas with relevance to the problem'¹².

The measure 'The implementation of the Regulation (EU) 1143/2014' is vital and an update on the progress of this needs to be provided with details on how it is to be implemented.

IAS are of growing concern as they are spreading and have an adverse effect on biological diversity, ecosystem functioning, socio economic values and/or human health. The OSPAR Quality Status Report provides a detailed list of NIS and highlights the necessity of the OSPAR countries to ratify and implement the International Maritime Organisation (IMO) Ballast Water Management Convention (BWMC) and to assess the risk of new species introduction.

7.2 Measures for this descriptor in the final PoM must include the following

Prevent new invasions, detect and remove recently-introduced species, do not allow established non-indigenous species to spread further, and keep their population trends either stable or in decline.

Address activities that form pathways for the introduction of non-indigenous species in the

¹¹ Turner, S., 2008. The control of invasive alien species. A review of legislation and governance for Ireland and Northern Ireland.

¹² EC (2011) A comparative assessment of existing policies on invasive species in the EU member states and in selected OECD countries. European Commission DG Environment

marine environment, i.e. ballast water of freighters, fouling of ships, 'hitchhiking' of non-indigenous species with goods transported for trade, tourism and aquaculture.

- Fully implement the new EU Regulation on invasive alien species and ensure its coherence and appropriate synergy with the MSFD.
- List the Pacific oyster as an invasive aquatic species and subjected to strictest controls when used in aquaculture. An immediate halt to their use in sites where they have begun to spread into the surrounding ecosystem (Loughs Foyle and Swilly) should be accompanied by a removal plan in consultation with local stakeholders.
- Ratify the IMO Convention for the Control and Management of Ships' Ballast Water and Sediments. The entry into force of the Convention is of uttermost importance.
- Encourage the Member States to develop national lists of invasive alien species, and to appoint independent experts for the Scientific forum
- Foster collaboration with global, regional and sub-regional organisations, to address the transboundary aspects of IAS and facilitate regionally coordinated measures and monitoring programs.
- Establish and appropriately link national and regional inventories (continuously being populated and kept up-to-date) of NIS, to underpin comprehensive, coordinated, consistent and effective management actions.
- Create lists of high risk IAS on a regional basis. The lists should be precautionary, based on regional assessments with considerations to both regional environmental conditions as well as exposure to human high risk activities, such as shipping, aquaculture, etc. In doing this a long term perspective must be taken, given that in many cases negative effects caused by IAS appear after a considerable length of time (in some cases up to 50 years).
- Ensure that marine organisms are sufficiently represented in the list of invasive alien species to be adopted by the European Commission in 2016.
- Include data collection on marine NIS in the new data collection framework regulation that is currently under revision.
- Undertake management actions that do not focus solely on one vector of for these IAS (even if completely successful, will not stop the invasions) but take into account all vectors. Undertake prevention, eradication, control or management of invasive alien species taking into account climate change/environmental changes.
- Set up an early warning system that will facilitate the rapid identification and early notification of NIS, as well as the mapping of their spread between and within the European Regional Seas, thus enhancing the accuracy of selecting NIS of management consequence. This system should also provide comprehensive information on the principle pathways and vectors of NIS and facilitate the definition of the most invasive species to provide target lists for monitoring.

- Establish and adopt a standardized method (e.g. further testing of the bio-pollution index applied by HELCOM could be a step to the right direction) to classify the impacts of invasive alien species on native species, communities, habitats and ecosystem functioning.
- Regarding aquaculture, use only closed systems to culture non-established exotic/non-native species so that no fingerling /mature fish or parasites/diseases spread from the system. Establish regulation to ensure the disinfection, correct treatment and disposal of their effluent water.
- In the context of IAS, genetic depletion caused by introduction of alien populations should also be included; these can also comprise traits of invasiveness, often connected to e.g. stocking of fish and populations used in aquaculture.
- Give sufficient consideration to ballast water as a pathway for the introduction of invasive alien species in the marine environment, by identifying it as a priority pathway and adopting an Action Plan to prevent the introduction of new organisms.
- Provide funding for research to address research needs and close the knowledge gaps related to IAS, including: effects by IAS on ecosystem services and health; risk assessment methods that take into account the high degree of uncertainty that is typical of data in relation to IAS; criteria for assessing the invasiveness of a species taking into account the quality of available data; predictive habitat and/or niche modelling in order to establish potential areas of new introductions in order to put in place control measures; research on the NIS life cycles to provide a better understanding of the biological characteristics that favour or not the arrival, establishment, spread and impact of NIS would help us to predict future invasions and to suggest management measures to mitigate their impact; etc.
- Improve information and communication to the public on possible impacts of IAS, also including health considerations as well as exchange of information between Member States.
- Strengthen, promote and support citizens' science initiatives with regards to monitoring of NIS or reporting historical information through national, regional, and European networks as a means to overcome the difficulties related to tracking the onset of biological invasions.

8 Commercial exploitation of fish and shellfish Descriptor 3

8.1 How will measures proposed to contribute to achieving/maintaining Good Environmental Status

This section states that

'The MSFD requires member states to evaluate the impacts of fishing on commercial fish and shellfish stocks in their Assessment Areas. In fisheries assessments, the loss of fish from a stock through fishing activities is referred to as fishing mortality, while the fish within a population or stock capable of reproducing is termed the "spawning stock biomass" (SSB). The assessment of Good Environmental Status(GES) of commercial fish

stocks is based on whether stocks are fished at, or below, MSY - the largest long-term average catch that can theoretically be taken from a species' stock and whether their SSB is within the range of biomasses that can sustain MSY.'

Based on the above, therefore an assessment of stock status is necessary in order to reach the environmental targets to guide progress towards achieving GES. However the document then goes on to say that

'The current status of fish and shellfish stocks in terms of their contribution to the achievement of GES cannot be fully determined because a number of stocks have not been evaluated against specific MSY reference points.'

'Development of shellfish stocks is on-going'

The draft PoMs need to set out what is being done to address this gap and also to provide information on what these stocks are. This information is much too imprecise to stimulate any specific stakeholder response.

'The main management measures to address targets for Descriptor 3 are delivered through the revised Common Fisheries Policy (CFP) which came into force in January 2014. The fundamental objective of the CFP is to ensure living marine fish resources (stocks) are exploited at levels that restores and maintains populations of harvested species above levels that can produce the maximum sustainable yield. The implementation of the CFP is expected to lead to a reduction in fish mortality rates, with the reductions for the major fish stocks and fisheries being largely achieved through multi-annual plans. These management plans take into account the complexity of the interactions between fish stocks, while setting stock management targets in terms of fishing mortality and the total allowable catch. Multi-annual plans¹³ are further supported by fishing effort restrictions including the management of the capacity of the sea-fishing fleet and technical measures to reduce impacts on sensitive species and juvenile fish.'

The measures as listed are far too vague, the PoMs should include the full detail of all CFP measures with a timeline for implementation and full details on how the measures will be enforced.

8.2 Measures for this descriptor in the final PoMs must include the following

- Set fishing limits for all commercially exploited species below FMSY (FMSY should be a limit rather than a target reference point – and in order to ensure that the limit is not exceeded, Member States should aim at a fishing mortality below FMSY).
- In mixed fisheries, base management on the most vulnerable stock.
- Improve scientific knowledge on stock status, composition and exploitation rates that lead to sufficiently robust baseline data allowing the assessments of full indicators instead of proxies in the near future.
- Set transparent criteria for the allocation of access to fishing resources (quota or days at sea), and include environmental criteria to incentivise best environmental practice and low impact fisheries.
- Reduce by catch of non-target species and sexually immature fish through gear

limitations and adjustments, (temporary) area closures, and other technical measures and include these measures in regional discard- and management plans.

- Include all Member States with a fishing interest in a region in the development of regional management plans.
- Adjust fishing capacity of the fleet to available fishing opportunities.
- Ensure sufficient control and enforcement.
- Collect and make publicly available full real time information on boat movements including shellfish harvest vessels and areas openings and closures to fishing for shellfish.
- Restrict large fishing vessels fishing within the 1 mile limit which impact on nursery areas. Small inshore fishermen, in addition to environmental groups would like this activity restricted. This area is the most productive nursery and spawning area for biodiversity and fisheries is most at risk. It is targeted by both the entire inshore fleet (c. 2000 vessels) pushed to margins and more damagingly by offshore fleet boats over 15m (c 200) in operations such as pair trawling , dredging for seed mussel, scallops and non-quota species. These areas in total should really constitute a continuous mile MPA/SAC around the coast allowing only artisanal and sustainable fisheries operations. Heavy trawling, passive and tangle nets should be excluded from this area as most damaging in terms of by catch and stock recovery.
- Landings and discards need to be handled in such a way that they don't negatively impact on WFD requirements. This requires integration with the Harbours Directive. The introduction of the Landing Obligation signals the need for closer monitoring of the inshore sector with the discards of the wild fisheries formerly dumped at sea now to be brought to land within the WFD area. Without reception facilities at most ports for oil, debris etc. and now the burden of receiving discards, the overlapping obligations of WFD and CFP become of increasing importance and create a case for converging interests and synergies to collect baseline biodiversity and fisheries management data, resourced jointly by DG Mare and DG Env; DAFM and DECLG. SWAN members, the Irish Seal Sanctuary (ISS), has long made the case for Fully Documented Fisheries and proposed this as an opportunity more than a problem. An integrated approach to the coastal zone is needed; historically this area has fallen between the cracks of overlapping competence. To achieve cross compliance of WFD/MSFD, good baseline data for determination of GES in this area of overlap is needed and decisions regarding measures will require integrated coastal zone management, including harmonisation of agencies and resources.

9 Eutrophication Descriptor 5

9.1 How will measures proposed contribute to achieving/maintaining Good Environmental Status for Descriptor 5?

This section states that

'To contribute towards achieving/maintaining GES for Eutrophication, measures listed under Descriptor 5 focus on directly reducing nutrient levels, and

minimising or preventing the eutrophication effects that can arise from elevated nutrient levels. Given that most of the activities that cause eutrophication are either terrestrial in nature or take place in the coastal zone, it is considered likely that the measures taken under the WFD and its related Directives will collectively constitute the greatest contribution to achieving and maintaining GES targets for eutrophication across Ireland's marine waters. The implementation of measures taken through River Basin Management Plans developed under the WFD,....., will play a key role in achieving cuts to nutrient loading.'

And also that '*Currently Ireland's marine waters are not significantly affected by eutrophication*'. Measures are included from the Nitrates Directive and the GLAS scheme and the document states that the measures '*will ensure that the situation is maintained and that any arising problem areas continue to be reduced or eliminated*'

However 87.5% of nitrogen and 42% of phosphorus in Ireland's marine waters come from agriculture and the Agriculture Catchments Project has failed to provide evidence to support the argument that the proposed agricultural expansion under 'Food Harvest 2020' and now 'Food Wise 2025' can be reconciled with the need to reduce agricultural impact on water and meet WFD/MSFD targets. SWAN is concerned about the weaknesses of the current regulatory measures under current conditions, not to mention with the additional 300,000 cows envisaged under Food Harvest 2020.

A nutrient management plan is required for all farmers in the new Agri-environmental scheme GLAS¹³ (Green, Low-Carbon, Agri-Environment Scheme) but these do not include any nutrient input limitations beyond current regulations (the GAPP regs). In fact, Teagasc have stated that they will be advising farmers to increase P levels on soil which is below Soil P 3, to bring it up to this level for optimum productivity, so this requirement could actually add to the net amount of P being added to catchments.

This section also states that

'Measures identified under the Urban Waste Water Treatment Directive (91/271/EEC) will control the sources of nutrients from inadequate collection and treatment of urban wastewater discharges, which is a key potential source of nutrients (phosphorus and nitrogen).'

However the a latest UWWT report¹⁴ shows that 15 large urban areas did not meet the UWWTD Directive requirement to either provide secondary treatment or infrastructure to reduce nutrients and did not meet nutrient quality standards, with Ireland's largest waste water treatment plant at Ringsend in Dublin, which serves a population equivalent of over 1.7 million failing to achieve the UWWTD standards. Furthermore, only 24% of the total waste water load (in p.e.) from the 33 large urban areas discharging to designated sensitive areas met all relevant nutrient quality standards for phosphorus and nitrogen effluent quality.

There is also significant non-compliance with the statutory timelines specified in waste water discharge licences for completion of improvement works: Waste water discharge licences include a requirement to carry out infrastructural improvements within certain timeframes where they are necessary in order to improve waste water discharges and reduce environmental risks.

¹³ <http://www.agriculture.gov.ie/farmerschemespayments/glas/glastranche1/>

¹⁴ EPA (2015) Urban Waste Water Treatment in 2014. Environmental Protection Agency.

Approximately 54% of the improvement works due between 2009 and 2014 were reported as outstanding.

The report also found *inter alia* that nine large urban areas did not meet the requirements of the directive to provide the requisite secondary treatment or equivalent treatment:

- Three of these sites should have been compliant by 31 Dec 2000 (Killybegs; Ringaskiddy/Crosshaven / Carrigaline; Arklow);
- At least four should have been compliant by 31 Dec 2005 (Cobh; Clifden; Youghal; Passage West/Monkstown);

In the context of this current unsatisfactory situation and the existence of the open European Court of Justice case against Ireland regarding the UWWTD¹⁵, and the later infringement case 2013/2056, provision of secondary or equivalent treatment for these areas and wider compliance with the UWWTD remains to be addressed as a matter of the utmost priority

The significance of this pressure is of even more concern in the context of Irish Water investment targets and priorities. SWAN has identified significant weaknesses in these in our submission on Irish Water's 25 years Water Services Strategic Plan, (WSSP). Firstly, the deadline for full compliance with the UWWT Directive has been extended out to 2040 in the WSSP and the target is 90% of the population (p.e.) to be served by compliant UWWT plants by 2021. 10% p.e. still represents a large number of small-medium discharges non-compliant with the UWWT Directive over the next 15 years.

The Waste Water Discharge (Authorisation) Regulations of 2007 are an improvement on historical non regulation of local authority discharges. However SWAN has concerns regarding this licensing system which is circumscribed by a legacy of poor infrastructure investment in waste water treatment, leading to the regulator being in the invidious position of issuing licenses to certain untreated wastewater discharges regardless of the impact on the aquatic environment, on the basis that the discharge cannot go unlicensed, but yet cannot be treated to the requisite standard for the time being, pending investment.

There are some particularly notable and unacceptable cases of raw sewage being discharged into sensitive environments. There is a raw sewage outfall onto a rocky beach at Doldrum Bay on the south side of Howth, which serves about 80 houses. When the Ringsend sewage treatment plant received its discharge licence in July 2010 one of the conditions was that the Doldrum Bay untreated outfall be ended by 31st December 2011. This condition has not been complied with and now SWAN is aware that Irish Water may intend to seek a reviewed licence to allow raw sewage outfall to remain as is. This discharge is occurring within the Howth coast SAC and into the North Dublin Bay MPA area which is a designated SAC, SPA and UNESCO Biosphere reserve.

In light of the above shortcomings in the basic measures under the WFD to address eutrophication from municipal sources it is important that the PoMs does not rely solely on these measures to reach GES for this descriptor.

¹⁵ Case C316/06: JUDGMENT OF THE COURT (Fifth Chamber); 11 September 2008; (Failure of a Member State to fulfil obligations - Environment - Directive 91/271/EEC - Pollution and nuisance - Treatment of urban waste water)

9.2 Measures for this descriptor in the final PoM must include the following

Reduce agricultural run off

- Increase financial support for low nutrient-surplus agriculture and nutrient-balanced fertilization practices, especially in sensitive catchments, including through locally targeting agri-environment schemes
- Set up a target for the proportion of organic farming, amounting to no less than 20 percent of arable land to be organically farmed by 2020. The aim should be to reach 100 percent organic farming by 2050.
- Work towards CAP subsidies which incentivise low nutrient farming in the CAP mid-term review.
- Put into place and enforce binding legislation for nutrient balanced fertilization for all farmers
- Introduce mandatory nutrient management plans for all farms.
- Maximum permitted levels of nutrients applied to land should be set as using nutrient loss risk assessments which take account of critical source pathways and ecological impact on water.
- Increase farm inspections.
- Cross compliance inspections by the Department of Agriculture, Food and the Marine should be subject to independent audit.
- Fence off livestock access to water courses.
- Provide for increased levels of on-farm support and advice from ecologically qualified advisors.
- Prohibit application of nutrients in excess of crop need.
- Application of nutrients on soil of Teagasc Soil Phosphorus Index 4 under certain circumstances should be removed.
- Prohibit spreading of manure or other fertilisers on unimproved land.
- Introduce permit procedures for drainage and ditching operations in the agricultural landscape to restrict drainage operations, with the purpose to maintain nutrient traps in the agricultural landscape. Phase-out subsidies for ditching and drainage operation in agricultural landscape areas.
- Distances from watercourses and lakes for spreading of animal waste (slurry) should be increased to a minimum of 15-30 m, depending on soil type and slope

Intensive livestock production

- Combine crop production and animal husbandry, thus allowing for nutrients recycling at farm/regional level.
- Limit livestock density to maintain a balance between area of farmland available in order to guarantee sustainable use of produced manure /nutrient-balanced fertilization.

Ensure nutrient removal from waste water

- **Introduce ambitious targets – beyond those set out in the Irish Water Water Service Strategy Plan (WSSP) to upgrade waste water treatment facilities** to phase out the discharge of nutrients to the wastewater, and instead to separate clean nutrients as a resource to be used as fertilizer.

Implement the Clean Ship concept

- Reduce NO_x emissions from ships and introduce stronger restriction for NO_x-emissions in sea areas sensitive for eutrophication.
- Introduce mandatory requirements for cruising ships to leave its waste water at reception facilities in cruising ports, when such installations have been constructed.
- Introduce No-Special-Fee systems in ports within sea areas sensitive for eutrophication, to support and motivate ships to dispose of waste water, garbage etc. in harbour reception facilities.

Implement nutrient-balanced aquaculture

- Have guidelines for nutrient loads and mapping of areas that can sustain aquaculture operations.
- Compensation measures – if applicable – must be science based and have effect in close vicinity of operations.
- Demand nutrient budgets for all operations, requiring a nutrient balanced process.
- Prohibit open cage systems in or near protected areas or in areas affected by eutrophication.
- Limit the size /numbers of individuals/trestles held in individual farms in accordance with nutrient load thresholds for the area

10 Hydrographical conditions – Descriptor 7

The section on the biodiversity descriptors in the PoMs draft states that

'In the offshore environment, Ireland has few economic sectors that undertake activities that could lead to hydrographical alterations. Effects of coastal activities on hydrographical conditions are likely to be highly localised. Any current impacts on coastal waters are not thought to be significant. Overall, the sources of possible hydrographical modifications that are present are at relatively low levels and any impacts are expected to remain localised.'

and

'It has not been possible to assess whether the GES target for Descriptor 7 is currently being met for anthropogenic effects on hydrographical processes and impacts on marine habitats and communities due to insufficient data and lack of established methods.'

Firstly due to insufficient data and lack of established methods we cannot be in a position to say that any impacts on coastal waters are not thought to be significant and secondly even if these effects are highly localised and not wide spread this does not mean that localised effects should be dismissed as many habitats and species are highly localised in nature.

Another worrying aspect in relation to the proposed measures is again the reliance on existing measures and the presumption that they are being effectively implemented.

'The achievement of GES for this Descriptor rests on having adequate regulatory regimes in place to control and manage human activities, so that significant hydrographical changes do not occur. The measures presently outlined for Descriptor 7 are considered sufficient to achieve and maintain this objective.'

11 Contaminants – Descriptors 8 and 9

11.1 Measures for this descriptor in the final PoMs must include the following

For land-based -including diffuse -sources:

The handling of chemicals and products in society must be based on the Precautionary Principle, which means that:

- Substances with unknown or insufficiently known properties must be classified and handled as dangerous until the opposite is proven.
- Substances that are persistent, bio-accumulative or hazardous/toxic in another way must phase out quickly and replaced by alternative substance.
- Special care is required for population groups with increased vulnerability for exposure such as children, pregnant women, industrial workers and “hot-spot” communities.
- Hazardous substances must be replaced by less hazardous ones or other technology (the Substitution Principle)

Modernise certain industrial processes in the chemical industry, such as shifting to mercury-free catalysis in the chlore-alkali sector, in order to reduce methyl mercury in seafood.

Systematically inspect and report risk to fish and fish products through the EU Rapid Alert System for Food and Feed (RASFF).

For sea-based sources:

Ban environmentally harmful antifouling paints with toxic, long-lived or bio accumulative substances in favour of alternative mechanical methods or biologically active antifouling agents.

Phase out old two-stroke engines which release one third of their fuel unburned into the water or require them to be run on the less toxic alkylate petrol.

Set high standards to reduce emission of contaminants from offshore oil and gas platforms, through the setting of stricter emission levels for discharge of produced waters (a mixture of hydrocarbons and water) and drilling fluids.

Only allow removal of contaminated sediments when activation and further dispersal of hazardous substances can be prevented. Dumping of polluted sediments should not be allowed at sea, but be appropriately treated and reused or disposed in confined facilities.

Ban dumping of ammunition at sea and retrieve already dumped ammunition.

Ban lead and other heavy metals in ammunition that may be dispersed into the marine environment. Military activities must be placed under the same environmental requirements.

Prohibit the use of lead in fishing weights, both in commercial and recreational fisheries.

Set strict limits to the use of active substances in aquaculture, including etoxyquin used as antioxidants in fish feed, or teflubenzuron as parasite pesticides.

Ratify and implement the HNS Convention International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea.

Appoint suitably qualified environment officers for harbours and review the composition of each Harbour Board so as to include adequate environmental expertise and interests

A dedicated harbour area monitoring programme, based on the Blue Flag scheme, should be introduced which ranks harbours by water quality and ecology, and gives recognition for excellence.

12 Marine Litter Descriptor 10

12.1 Measures for this descriptor in the final PoM must include the following

- Foster collaboration with global, regional and sub-regional organisations, to address the transboundary aspects of marine litter and facilitate regionally coordinated measures and monitoring programs.
- Implement and fully enforce the 'general prohibition' on waste discharge from ships to the sea (IMO's Annex V of MARPOL 73/78).
- Implement ambitious waste management policies as a priority, in order to reduce waste production and move towards a circular economy.
- Promote economic instruments that support the full implementation of the waste hierarchy, such as extended producer responsibility, pay-as-you-throw schemes and the taxation of resources where appropriate.
- **Lead work on an EU level ban on plastic micro beads** in personal care products, and move towards using alternative materials in other applications where micro beads are currently used.
- **End the use of single-use products**, in particular plastic items such as carrier bags and disposable cutlery and bottles wherever possible.
- **Introduce ambitious targets – beyond those set out in the Irish Water Water**

Service Strategy Plan (WSSP) to upgrade waste water treatment facilities to tackle sewage related items, and work towards ending the input of marine litter through storm water overflows. Increase current levels of state funding for water services if necessary to achieve this

- **Charge higher fines for litter offences** on land and at sea.
- **Implement extended producer responsibility schemes** and compulsory marking for fishing gear and aquaculture gear, to end gear dumping and minimise the presence of ghost nets in European seas. This should be readable by the public.
- **Introduce a 'deposit-on-return' system** for drinks containers should be introduced, which has been shown internationally to control drinks container litter.
- **Encourage fishing for litter initiatives** following the KIMO model, with fished waste accepted at all EU ports and harbours as part of the 100% indirect fee system.
- **Develop harmonised and regionally coordinated monitoring schemes** for marine litter and its impact.
- **Provide funding for research to close the knowledge gaps** related to marine litter: including sources, pathways, and effects on ecosystems and organisms.
- **Promote beach clean-ups and educational programmes**, to increase public awareness of marine litter.
- **Include citizen science** in litter monitoring.
- **Ban the use of plastic dollies** in bottom mussel aquaculture dredging and **mussel stockings** in long line systems and replace with natural materials

13 Underwater noise – Descriptor 11

13.1 Measures must

Address underwater noise at source

Shipping:

- Promote and apply the IMO Guidelines for the Reduction of Underwater Noise from Commercial Shipping to Address Adverse Impacts on Marine Life.
- Develop, via IMO, goal-based standards for reducing the noise levels of new ships.
- Set up actions to identify the noisiest existing ships and apply appropriate quieting technologies.
- Set up actions and give incentives to ensure the environmental benefits, including reductions in underwater noise, as a result of slow steaming are maintained.

Seismic surveys:

- Use the lowest possible source levels and reduce the number of surveys undertaken to the minimum possible by avoiding overlap and duplication in surveys.
- Only grant licenses to operators that clearly demonstrate that using alternative technologies to reduce source levels has been explored.
- Compile a register of all seismic data. Data sharing of the seismic survey after 2 to 5 years shall become a condition for licensing.

Industrial construction activities (e.g. pile driving):

- Set noise limits, such as the ones set by Germany which have proven to be effective as a starting point for developing noise reduction technologies.
- Encourage alternative technologies throughout planning and licensing, e.g. floating and gravity based wind turbines instead of pile driving.

Identify and designate exclusion zones where intense sound production is prohibited

- Make particularly biologically diverse and important areas off-limits to loud noise sources, including seismic and military sonar, through protection measures for at-risk species, such as time-area closures.

Implement a precautionary and practical approach, setting targets within the MSFD for an improving trend in underwater noise pollution

- Set noise limits to require all developments to use best environmental practices and technologies.
- Apply Strategic Environmental Assessment and Environmental Impact Assessment to all plans and activities likely to generate significant underwater noise pollution. These assessments should include public participation and develop a consistent and unified procedure addressing the specific nature of underwater noise including long distance propagation. Available guidelines, such as the '*Guidelines to address the impact of anthropogenic noise on cetaceans in the ACCOBAMS area*', should also be utilised.
- Establishing a transparent and comprehensive register of intense sound sources (as recommended by TSG noise), including military sources to the extent possible as well as activities in the planning stage.

14 Public participation

One of the core requirements of the Directive is the 'early and effective' participation of interested parties in its implementation. This participatory process is a key element in the adaptive management framework which is to be applied throughout the implementation of the Directive. Such participation is vital as it facilitates the process of active learning amongst decision-makers and stakeholders through the continual monitoring, analysis and reporting cycles required by the Directive. It also contributes to more successful, enduring and sustainable solutions and outcomes through early identification of public concerns; improved accountability and transparency in decision-making; a wider acknowledgement of the legitimacy of decisions

taken and increased public support for, and engagement in, the outcomes and management decisions made.

Consequently, the quality of such participation will be very important in ensuring the effectiveness of the Directive in achieving its goal of GES.

Effective public participation processes must be built on the essential building blocks of public awareness and access to information. In addition, whilst not adequate on their own, rudimentary public consultation exercises also form a useful initiation point for the next stage: Full stakeholder engagement. It is therefore useful to make specific comments and recommendations on these also.

As has been communicated to DECLG during two SWAN consultation responses and a meeting with the Department in September 2014, effective public participation has not been delivered in either of the first two stages of MSFD implementation in Ireland. Furthermore, even basic public consultation has been wholly inadequate, with the Initial Assessment finalised before the public consultation and with no formal response to SWAN's submission on the Monitoring Programme, indicating which if any of our submitted recommendations were addressed. It is SWAN's position that this is entirely unacceptable and that it is vital that the Department addresses this as a matter of the utmost priority in two ways:

1. In the short term, as part of the public engagement programme on the draft PoMs itself in order to deliver effective participation in developing the PoMs;
2. In the medium term, with a dedicated programme of ongoing public participation measures, to be set out in the PoMs, as a cornerstone of the PoMs

It is in this context that we make the following recommendations.

14.1 Public awareness

It is important to note that the indicative list to be taken into account when formulating the PoMs includes '*Communication, stakeholder involvement and raising public awareness*' (Art. 13(1) Annex VI) since this is the basis for further public participation initiatives. It will be extremely challenging to involve the public, or even more engaged stakeholders, and thus deliver effective public participation in the implementation of the MSFD with current extremely low levels of awareness of the Directive and associated complex marine management issues. This must be addressed as a matter of urgency with a dedicated programme of proposed public participation measures within the PoMs:

14.1.1 Measures in the final PoMs must include the following

- **Promote ocean literacy.** We need to raise public awareness and first-hand experience of marine ecosystems, as well as understanding of risks and pressures associated with different uses. The goal is to have a high level of informed public participation in decision making and consequently buy in to actions which lead to 'Good Environmental Status' of our seas.

- **A public awareness campaign** highlighting Ireland's marine environment, its benefits, the issues posing a threat, the MSFD and its implications should be conducted nationwide, involving social media, local media and community groups and NGOs.

14.2 Access to information

Access to information is a necessary prerequisite for effective participation in the implementation of the Directive. However, there is currently insufficient information publically available to enable such participation especially in this PoMs phase. This needs to be rectified as a matter of urgency with the proactive, timely dissemination of the necessary relevant information to interested parties.

The information must include access to regular updated information on the state of the Irish marine environment and access to all information pertinent to each stage of the implementation of the Directive.

There is also a special requirement in Article 13 that MSs '*make publicly available*' by 2013 relevant information regarding the '*coherent and representative network of marine protected areas*' required to be included as a spatial protection measure, in the Programme of Measures. This has not been done and should be done as soon as possible with a view to supporting and informing comprehensive stakeholder engagement on this important element of the PoMs regarding the designation of these sites.

Both the DECLG and the Department of the Taoiseach should make available on a **publicly accessible internet portal all information in relation to the implementation of the Marine Strategy Framework Directive**, in addition to *Harnessing Our Ocean Wealth*. This shall include updated, accessible information on the current state of the marine environment in addition to all work outputs of the Marine Coordination Group and the Technical Working Group on the MSFD.

All relevant information regarding the '*coherent and representative network of marine protected areas*' must be made publicly available in order to inform stakeholder participation in site designation.

14.3 Public consultation and active stakeholder involvement

Public consultation

In support of the requirement for , 'early and effective' participation by interested parties in its implementation, Member States are obliged under Article 19(2) of the Directive to publish and make available to the public for comment, summary draft documents for all key stages of MSFD implementation, including the PoMs.

However, the publication alone of these summaries with opportunity for public comment comprises consultation only and does not fulfil the legal obligation in Article 19(1) for 'effective' participation. While the consultation process will inform the participation process, the former cannot fulfil the requirements for the latter. A one-off process of consultation at the time of publication of summary documents on the Marine Strategies will not fulfil the requirements of the Directive.

In terms of the consultation itself, best practise should have been followed:

- All consultation documents and background resources must be actively disseminated and should be made readily available in an accessible format, with adequate time provided for stakeholders to respond meaningfully.

Active stakeholder involvement

The early and effective participation of interested parties is stipulated by the Directive and it is also an integral element of the adaptive management approach to the attainment of GES mandated by Article 3(5) of the Directive and must not be abrogated. In addition, 'stakeholder involvement' is specifically cited as one of only eight selected indicative measures which are set out in Annex VI and must be taken into consideration in the drawing up of the Programme of Measures.

While what is meant by '*effective*' is not defined by the Directive the key features of an effective public participation programme is well established in international best practise and comprehensively set out in the literature and in submissions from SWAN to DECLG in relation to the Water Framework Directive.

A formalised support network is necessary to facilitate the on-going public participation requirements of the Directive. Experts in the provision of public participation processes should be employed to design an appropriate framework for such public participation to ensure that the process is effective and enjoys widespread public confidence. In due course, consideration should be given to amalgamating the public participation process required under the MSFD with the public participation processes which is required under the Maritime Spatial Planning Directive once their respective legal bases are established. This could help to maximise synergies and efficiencies throughout these processes. Stakeholder participation is vital for successful management of marine ecosystems and must be included in all stages of the process, particularly in Maritime Spatial Planning, both pre and post implementation.

Ireland is coming close to the deadline of March 2016 for the reporting of the development of its Programmes of Measures. Despite this, it is imperative that the DECLG engage in a meaningful process of public participation in determining the final content of the PoMs before these are submitted to the EU Commission in Brussels. This should occur even if this means a further delay in the final submission to the Commission. To do otherwise would be to abrogate one of the central requirements of the Directive. While it may not be possible to have the above recommended public participation programme fully operational in time, this should not stop the facilitation of meaningful active involvement in this phase, nor the inclusion of provisions and proposals for its development in the draft PoMs.

Statutory Stakeholder Advisory/Management Councils may provide an appropriate forum for such public participation, although a final decision on the appropriate public participation bodies would have to be taken in consultation with independent expertise on public participation processes in marine management. Such Advisory Councils would include representatives of local communities, recreational users, scientific experts, environmental NGOs, commercial interests and others with an interest in the marine environment. It is vital that whatever stakeholder bodies are established, there must be clarity as to the role of such bodies, the role of their members and the mechanisms available to influence decisions. Smaller, bay-scale coastal zone stakeholder groups may be the appropriate scale for certain decision-making and citizen engagement (e.g. coastal monitoring) especially in synergy with ICZM processes if/when they are established, but again this must be decided in consultation with relevant experts.

An effective and meaningful public engagement programme requires ongoing support and a formalised support network, with dedicated staff, to facilitate the on-going public participation requirements of the Directive.

It is crucial that systems and structures of marine governance themselves are receptive to public proposals for action in relation to implementation which emerge as a result of public participation processes. Whilst the fragmented nature of the marine administrative and regulation remains, it is vital that where an agency or arm of government is tasked with delivery it can command the genuine and significant collaboration of others government agencies/Ministries where their participation is necessary to complete the task. Otherwise the

public authority leading the public participation programme may be stymied from responding to the results of a public participation process by the lack of action on the part of other government departments, leading to a breakdown in trust. See the governance section below for more on governance reform.

The early and effective participation of interested parties in the implementation of the Directive as provided under Article 19(1) must remain a separate and additional exercise building on the consultation process provided under Article 19(2).

A programme for public participation and active stakeholder engagement in MSFD implementation should be developed by experts and implemented as soon as possible. This should include:

- a firm commitment from relevant decision-makers to **allow stakeholders involved to meaningfully influence outcomes;**
- the identification and inclusion of all stakeholders and the parameters of engagement;
- the use of appropriate means and techniques, of involving all interested parties, including specially trained professionals;
- the initiating of public involvement as early as possible, including planning ahead to ensure that stakeholders have the capacity to participate when the opportunity is provided.

The draft Programmes of Measures must not be finalised until a comprehensive process providing for the effective participation of interested parties has been conducted in accordance with Article 19(1) of the Directive

Dedicated staff should be appointed to facilitate and provide ongoing support for public participation in MSFD implementation.

IMMEDIATE RECOMMENDATION in relation to public participation in the PoMs

consultation / development

It is clear that a full and comprehensive programme of effective public participation including formal stakeholder structures etc., as recommended above cannot be delivered during the development of the current PoMs due to the now advanced stage of MSFD implementation and the time needed to develop such a programme. However, it is important that a public engagement programme tailored to current constraints by an independent expert is designed and delivered in order to inform the final PoMs report before its submission to the Commission. It is SWAN's view that the current consultation is inadequate and does not constitute effective or meaningful public engagement. This not least due to

- the vagueness of the consultation document and lack of specific information
- the complexity involved in developing an integrated programme of marine measures,
- the unsuitable consultation period

15 GOVERNANCE

The Directive calls for ecosystem based marine management. Thus the regulation of activities affecting the marine environment should encompass the totality of human activities in the marine environment, and be based on a sound scientific evidence base which respects the necessity to protect the integrity of marine ecosystems. One of the key issues for the successful implementation of the Marine Strategy Framework Directive Programmes of Measures will be marine governance. The current fragmented and uncoordinated regulation of the Irish marine

environment must be replaced with more effective integrated governance and implementation of measures, both to fulfil the requirements of the Marine Strategy Framework Directive and to ensure the viability of the proposals contained in *Harnessing Our Ocean Wealth*, in terms of environmental as well as social and economic sustainability.

To achieve such a holistic system of governance will require new institutional arrangements and regulatory tools as well as new forms of cooperation with neighbouring jurisdictions.

15.1 Review of marine management

A full review of marine management must be included as a key measure in the PoMs. At present a diverse range of government agencies and departments have a remit in marine management measures and assessment. The Irish marine management is highly fragmented both in terms of the regulatory tools available and the authorities responsible for their implementation. The current regulatory system has been severely criticised both in terms of its ability to stifle economic investment and its failure to adequately protect the marine environment.

To address the current inadequate fragmented system, and to deliver integrated MSFD implementation and marine governance which has a participative, ecosystem approach to marine management at its core, a full review of marine management should be included as a key measure in the PoMs.

In the interim, establish an interdepartmental MSFD interdepartmental MSFD unit / Working Group to oversee implementation in the short term to act as a coordination hub in order to deliver an integrated monitoring programme and indeed, integrated MSFD implementation.

Appendix:

SWAN Member Organisations & Board of Directors

SWAN National Groups		15.1.1.1 SWAN Regional & Local Groups	
1.	An Taisce	16.	Carra Mask Corrib Water Protection Group
2.	Bat Conservation Ireland		
3.	Birdwatch Ireland	17.	Cavan Leitrim Environmental Awareness Network
4.	Coastwatch Europe Network		
5.	Coomhola Salmon Trust Ltd.	18.	Celebrate Water
6.	Eco-UNESCO	19.	Cork Environmental Forum
7.	Friends of the Earth	20.	Longford Environmental Alliance
8.	Friends of the Irish Environment		
9.	Irish Doctor's Environmental Association	21.	Macroom District Environmental Group
10.	Irish Peatland Conservation Council	22.	Save Our Lough Derg
11.	Irish Seal Sanctuary	23.	Save Our Lough Ree
12.	Irish Water and Fish Preservation Society	24.	Save The Swilly
13.	Irish Whale and Dolphin Group		
14.	Irish Wildlife Trust	25.	Shannon Whale & Dolphin Foundation
15.	Voice Of Irish Concern for the Environment (VOICE)	26.	Slaney River Trust

SWAN Board of Directors:	
Mark Boyden, Chair	Coomhola Salmon Trust
Mindy O'Brien, Vice-Chair	Voice of Irish Concern for the Environment (VOICE)
Geoff Cooper, Director	Irish Water and Fish Preservation Society
Karin Dubsky, Director	Coastwatch Europe
David Healy, Director	Friends of the Irish Environment
David Lee, Director	Cork Environmental Forum
Elaine Nevin, Director	EcoUNESCO
Joachim Schaefer, Director	Cavan Leitrim Environmental Awareness Network

