

Sustainable Water Network (SWAN)

Response to the Public Consultation on the Draft Marine Strategy Framework Directive (2008/56/EC) Article 17 Report

Update of the Assessment (Article 8), Determination of Good Environmental Status (Article 9) and Environmental Targets (Article 10)



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1 Introduction to SWAN and this Submission

The Sustainable Water Network (SWAN) is an umbrella network of twenty four 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 since 2005. SWAN member groups are listed in Appendix 1.

SWAN welcomes the opportunity to respond to this public consultation on the draft MSFD Article 17 Report, which includes the update of the assessment (Article 8), determination of good environmental status (Article 9) and environmental targets (Article 10). We thank the MSFD team in the Department of Housing, Planning and Local Government (DHPLG) for inviting us to participate in the national MSFD steering group since it reconvened in April 2019 for the second MSFD cycle. We would like to take this opportunity to acknowledge the hard work of all the members of the DHPLG Marine Environment team and of the MSFD steering group in producing this report and the underlying descriptor assessments sheets with limited time and resources.

In the course of the MSFD steering group work, SWAN Policy Officer Cormac Nolan has had the opportunity to raise and discuss issues prior to this document becoming public and we would like to acknowledge that his input during the process was welcomed and given due consideration. Notwithstanding this, we put forward the points in the following pages as significant concerns identified by SWAN, on full consideration of the draft report and in consultation with members.

This submission comprises of three parts:

- Overarching points - issues relating to more than one descriptor or the document as a whole.
- Descriptor specific and technical points, which includes comments on specific targets, definitions and assessment.
- Points on improving the public consultation process for the next stages.

2 Overarching Points

1. The document in general lacks ambition and seems to do the minimum to satisfy the exact wording of the directive. In doing so it fails to be sufficiently progressive and there is little sense of the serious findings of the IPBES (2019¹) or IPCC Oceans and Cryosphere (2019²) reports or the urgency of the Climate and Biodiversity emergencies declared by Ireland. An example of this can be seen in the climate change section of the introduction. Indeed the directive places almost negligible obligations on member states to include climate change in their strategies but the subsidiarity principle means that the directive should be considered a bare minimum and Ireland should use this as an opportunity to go further in identifying the impacts of climate change on its marine waters. More resources must be allocated to the MSFD process in order to address these issues.
2. Overall, many of the assessments appear to be more optimistically presented than the evidence should suggest. This manifests as the authors leading with the elements that are in GES for given descriptors, even when these are in the minority compared to the unknown or “not compatible” elements e.g. Descriptor 3 commercial Fish and Shellfish. This is not a clear and objective way of presenting information and can sometimes require the reader to make their own deduction on the true state. This approach may be fine for the official report to the EU – where the focus is on the proportion attaining GES - but plain English and straight talking is needed in the public document. An example of this is table 2 (pg. 15), which uses various shades of blue to depict the overall “compatibility with GES” of the 11 descriptors rather than using a diverging colour set (green -> red) to properly highlight those that are failing.
3. For many pressures it is difficult, sometimes impossible, to be certain that all impacts have been accurately considered. For example, the effects of aquaculture are spread across multiple descriptors: introduction of non-indigenous species in D2, seafloor integrity under cages/trestles in D6, eutrophication in sheltered bays in D5, contaminants from antibiotics in D8, dredging for seed material also in D6 etc. On the last point in particular it is extremely difficult to ascertain whether dredging for aquaculture was included in the seafloor integrity assessment. The directive requires “an analysis of the predominant pressures and impacts, including human activity, on the environmental status of [Ireland’s marine] waters” which (inter alia) “covers the main cumulative and synergetic effects”. However, because pressures are addressed in a fragmented way

¹ IPBES (2019): Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. IPBES secretariat, Bonn, Germany. 56 pages.

² IPCC, 2019: Summary for Policymakers. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)].

across descriptors it is not clear whether such an analysis of the cumulative impacts was conducted. For the public to make informed comments on these assessments, this impacts analysis needs to be clearly presented. SWAN suggests improving the accessibility of this document by including a “pivot” of the pressures and descriptors, i.e. have one view that takes a descriptor-centric aspect as in the present document and one view that takes a pressure-centric aspect, showing in one place how all the impacts of each activity were included. Similar to the ICES approach in Figure 1 below but covering all human activities listed in Table 2b of Commission Directive 2017/845.

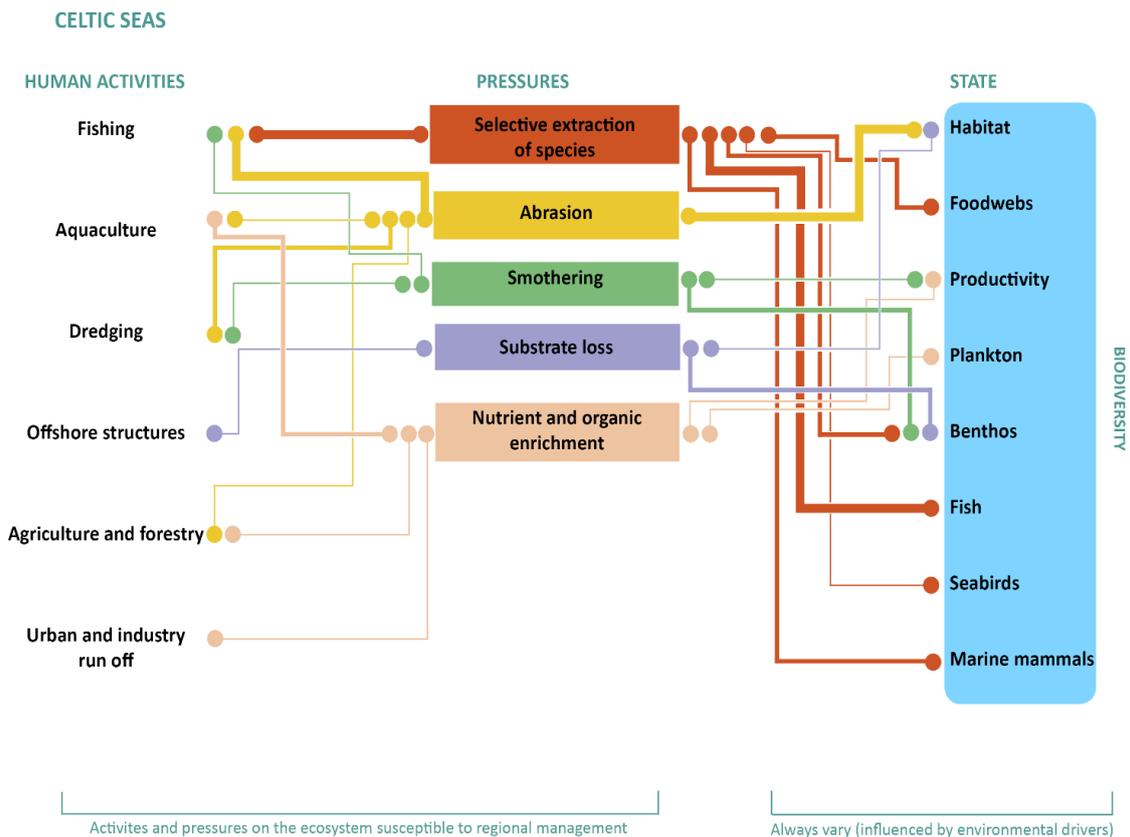


Figure 1: ICES overview of the links between human activities, pressures and state in the Celtic Seas. An appropriate way to depict how human activities have been included in an assessment.

- Art. 8 of the directive requires “an economic and social analysis of the use of [Ireland’s marine] waters and of the cost of degradation of the marine environment.” However, no analysis of the cost of degradation of the marine environment is presented. Rather, “the costs incurred by society in avoiding degradation of the marine environment”, including “the costs associated with the various existing monitoring, prevention, avoidance and mitigation measures” are considered. This is not what is required by the directive, is overly simplistic and doesn’t address the costs of damage to our marine environment. In the final sentence of the section it is conceded that “Further consideration is needed for the cost of degradation calculations”. When will this be done? It would not be acceptable to delay this until the next MSFD cycle in six years’ time. The evaluation should include studies on the benefits of restoring degraded marine environments, such as the benefits

of rebuilding fish stocks outweighing the costs³ and that ending overfishing would mitigate climate change⁴.

5. As far as we can tell, all eleven descriptor assessments are based solely on official national or international datasets. No academic studies, eNGO datasets, or citizen science were included. We believe that some important supplementary sources of data are being overlooked, for example Coastwatch survey data for D10 Litter or Irish Whale and Dolphin Group cetacean records for D1 Biodiversity or D11 Underwater Noise.
6. There should be a separate and clearly understandable table that sets out, in one place, the definitions of GES, the targets and the key assessment results. The table should highlight any changes since the 2013 assessment.
7. Some descriptors have presented conclusions along the lines of "*no thresholds exist or have been proposed but just 0.0X% of the overall MSFD area has been impacted therefore GES is achieved*". Ireland's MSFD area is massive so almost any issue can be made to look insignificant by expressing it as a proportion of the entirety of our marine waters. This approach is misleading and should not be used in the absence of proper thresholds. If such percentages are to be reported, they should be expressed in relation to the area or habitat in which the impact is likely to occur, not the entire MSFD area.
8. Regional coordination/collaboration is addressed solely through OSPAR. Collaboration at OSPAR level is important but SWAN would also like to see evidence of other collaboration, particularly the bilateral work with Northern Ireland on cross-border issues.
9. On trends based targets: Trends provide an easy solution to a perceived lack of information but they are insufficient to guide significant improvements in environmental quality. The use of trends should be seen as an interim option until the evidence base supports the establishment of more quantitative environmental targets.

³ Sumaila, *et al.* (2012). Benefits of Rebuilding Global Marine Fisheries Outweigh Costs. PloS one. 7:e40542. 10.1371/journal.pone.0040542.

⁴ Sumaila & Travis (2019) Ending overfishing can mitigate impacts of climate change. UBC Working Paper #2019 - 05

3 Descriptor Specific and Technical Comments

3.1 Descriptor 1 Biodiversity

The assessment of Ireland's whole marine biodiversity is a monumental task and it should be acknowledged that this D1 assessment is a significant improvement over the previous cycle. The species groups considered in this assessment were prescribed in the Commission's amending directive 2017/845 as birds, mammals, reptiles and non-commercially-exploited species of fish and cephalopods. The species that have been included in the current D1 assessment have been assessed comprehensively. Notwithstanding these improvements it is unfortunate that the assessment focuses so much on higher trophic guilds (predators): Three common bird species, a turtle, a dolphin, a porpoise and two seal species, along with 56 by-caught fish species.

SWAN accepts that this species lists may fulfil the amended directive but does not believe that it provides a complete assessment of Ireland's marine biodiversity. SWAN recommends that the addition of some primary producers such as seaweed and plankton would be an immediate improvement. Plankton was mentioned as being assessed in D4 food-webs but the plankton results did not factor into the final D1 biodiversity assessment. At a minimum the plankton findings of D4 should be added to the integration of D1.

The final assessment of D1 is that *"in the main biological diversity is considered to be compatible with GES"* even though the overwhelming majority of marine species remain unassessed and therefore unknown. Even considering only those groups prescribed by the commission and assessed in the current document, 17 species have achieved GES while 18 have not and 25 are unknown. SWAN therefore suggests changing the key message to "GES partially achieved" and providing more information on how the aggregation/integration of different species results was undertaken.

3.2 Descriptor 2 Non-indigenous Species (NIS)

The D2 assessment only considers the number of new introductions of non-indigenous species (D2C1) but **not** the abundance and spatial distribution of already established invasive species (D2C2) or the spatial extent of the broad habitat type which is adversely altered due to NIS (D2C3). The key message for D2 states *"The current state of the Irish marine environment with respect to the numbers of NIS newly introduced via human activity into the wild from 2013 to 2018, is compatible with GES."* However, the assessment only considers the introduction of new NIS and not the impacts of already established invasive species. SWAN therefore does not agree with the overall D2 assessment and recommends that the secondary criteria (D2C2 and 3) are evaluated and appropriate targets for them developed.

The only target (D2T1) is not SMART. It is based on trends only.

3.3 Descriptor 3 Commercial Fish and Shellfish

This D3 assessment is an improvement on the last MSFD round but there are some issues remaining. By leading with the positives, the key messages and conclusion are overly optimistic. Yes there have been improvements in stock biomass and fishing mortality but not nearly fast enough. The 2013 targets for D3 laid out in the first MSFD cycle (i.e. the CFP targets) have been missed in 2015 and 2020. Now in this current document any mention of future time-bound targets have been removed. Targets need to be time-bound to be effective.

From seeing the full assessment sheet SWAN is aware that the list of stocks included in the assessment is fairly comprehensive BUT the information included in the public consultation document (i.e. the summary sheet) is not sufficient for the reader to be reassured of this. Have stocks with proxy reference points been included for example? SWAN recommends that the list of stocks be included as an annex to the report.

3.4 Descriptor 4 Food-webs

SWAN acknowledges that this is an extremely difficult descriptor to assess comprehensively and that it is arguable whether D4 could even be considered as achieving GES until all other descriptors are also in GES. The summary addresses the difficulty in assessing this descriptor, admits the limitations of the methods used, and returns a clear key message: it is not known if GES is achieved but there have clearly been changes in the food-webs. New work has progressed this assessment since 2013 but far more remains to be done because D4 is now one of the least developed descriptors. A clear roadmap needs to be developed to identify the gaps, the needed development, and most importantly how the relevant government departments and agencies will collaborate to improve the assessment, the targets and ultimately the measures.

Further points:

- Climate change really needs to be added as a driver/pressure, especially given that this assessment focuses on anthropogenic pressures on plankton and fish stocks (e.g. northward shift of species as ocean temperatures rise).
- The targets are not specific or time-bound.
- The target states "not adversely affected due to anthropogenic pressures", should this not include climate change?
- Secondary criteria D4C3 and D4C4 were not included but shouldn't they be considering there have been ecological changes identified in the food-web and it cannot be proven that D4 is in GES? Member states should use all the primary criteria in each descriptor but are required to use secondary criteria if the primary ones indicate a problem.

3.5 Descriptor 5 Eutrophication

One major issue of concern to SWAN is the approach taken in the first sentence of the conclusion *"Overall, in terms of extent, the proportion of Ireland's maritime area that is classified as a problem area with regard to eutrophication is small (0.05% of the MSFD area) and restricted to estuarine and nearshore coastal waters"*. This is a misleading minimisation of the potential impacts of eutrophication. The whole nearshore coast (i.e. the potential problem areas) could be eutrophic and the percentage in the conclusion would still probably be in single digits even though the problem would be catastrophic for our marine environment. A more meaningful metric would be the percentage of the potential problem areas identified under the WFD that are or have been eutrophic.

Otherwise D5 has acceptable GES definition and targets; adequate OSPAR and WFD Monitoring and WFD thresholds. Overall a good level of detail is presented in this summary. The small map is a prime candidate for a link to an interactive version of the Marine Atlas.

3.6 Descriptor 6 Seafloor Integrity

There are two broad parts of D6 as set out in amending Commission Directive 2017/845: physical loss of seafloor habitat and physical disturbance of seafloor habitat. Physical loss is well covered and is deemed as achieving GES due to the indicator metric falling well below any potential threshold values. Physical disturbance has a well-developed indicator as well but the results have not been integrating with those of physical loss when making the overall GES assessment of D6.

Physical Disturbance

The OSPAR BH3 seafloor disturbance indicator is used to address the physical disturbance aspects of D6. The BH3 indicator *"showed disturbance to be widespread, occurring to some degree in 64,865 km² in Irelands waters in OSPAR Region III, this represents 13.29 % of Irelands MSFD area."*

However, BH3 does not cover all of the Irish MSFD area and the key message also states that *"as this assessment is currently limited to OSPAR Region III it is not possible to determine compatibility with GES in the overall MSFD area."*

Despite raising serious concerns in a very large portion of the MSFD area, this indicator is **not** being used as conclusive evidence that the widespread use of mobile bottom contacting fishing gears is leading to the failure to achieve GES in D6.

There are a number of other limitations to BH3 that mean it is underestimating benthic disturbance - small inshore vessels are not included, neither are any Spanish vessels (data not released), and it is likely that vessels dredging for aquaculture seed are not included either. Despite these limitations, SWAN is satisfied that BH3 is the most appropriate available method to

assess benthic disturbance. However, rather than concluding "it is not possible to determine compatibility with GES in the overall MSFD area" SWAN strongly recommends using the precautionary approach and changing the benthic disturbance conclusion to "GES unknown but unlikely to be have been achieved".

3.7 Descriptor 7 Hydrodynamics

Similar to D5, one major issue of concern for SWAN is the "small percentage of the MSFD area that is impacted" approach that has been taken in this descriptor. The conclusion states:

"The permanent alteration of hydrographical conditions during the period 2014 to 2018 is limited to 0.109 % of the Irish Marine Strategy Framework Directive area. The impact from these alterations was localised with respect to hydrographical conditions and the short-term water quality impacts experienced during the dredging and disposal activities. The adverse impacts on the marine ecosystems are minimal from the very limited hydrographical changes which have occurred."

This is misleading. Ireland's MSFD area is extensive so almost any issue could be made to look insignificant by expressing it as a proportion of the entirety of our marine waters. No thresholds exist for this descriptor nor have any been proposed so it is impossible for the reader to judge whether this percentage is acceptable. SWAN considers that 533km² of seafloor impacted by dredging and a doubling of the disposed material to 1.36 million tonnes in just three years (2014 – 2017) could indeed be significant and doesn't agree that it is 'minimal'.

The impacts of dredging and disposal are quite localised but can have large impacts on nearby sensitive benthic habitats. To properly evaluate this descriptor assessment, a map showing the location and magnitude of the dredging activity overlaid on the surrounding benthic habitat types is essential and should be added to the report. This might have been covered in D7C2 (spatial extent of each benthic habitat type adversely affected due to permanent alteration of hydrographical conditions) but that criteria was excluded from the assessment as it is secondary. SWAN therefore recommends that the secondary criteria for this descriptor (D7C2) should be assessed and appropriate thresholds be proposed.

3.8 Descriptor 8 Contaminants

Acceptable GES definition, targets and thresholds. Overall a good level of detail presented in this summary. No major comments other than the target on biological effects is limited to only imposex in dog whelks.

3.9 Descriptor 9 Contaminants in Seafood

No comment.

3.10 Descriptor 10 Marine Litter

The conclusion of the D10 assessment seems overly optimistic. The key message states *"The amount of litter on coastlines recorded through the beach litter surveys has decreased during the period 2013 to 2018, indicating Descriptor 10 is compatible with the 2013 characteristics of GES."* Macro litter on the coast has decreased, which is a positive sign, but there are two other major strands of this assessment – micro-litter and litter in the water column – that cannot be assessed. Further, the coastal macro-litter data comes from OSPAR monitoring. However, there are just four beaches in the whole country included in this monitoring and this fact is not mentioned in the consultation document. Could citizen science data, such as Coastwatch annual surveys, not be used to supplement this?

SWAN recommends that sampling effort needs to be clearly outlined in the methods and that the conclusion for this descriptor be changed to "GES partially achieved".

[On the still to be added benthic litter data, there is a Marine Institute study that shows the Irish Ground Fish Survey does not have the statistical power to accurately detect changes in benthic macro-litter in the short to medium term (a 40-50% change may be detected in 10-15 years)⁵.]

3.11 Descriptor 11 Introduction of energy (including underwater noise)

Key message from the public consultation document: *"The level of impulsive underwater noise causing activities within Irelands designated Marine Strategy Framework Directive area were low overall during the assessment period of 2016-2018. The current state of the Irish marine environment is considered compatible with Good Environmental Status for spatial distribution, temporal extent, and levels of anthropogenic impulsive sound sources."*

D11 is deemed to be compatible with GES based solely on one criteria, impulsive noise. Continuous low-frequency noise was not assessed at all even though it is a primary criteria. Surely this descriptor should be deemed "unknown" or at best "partially compatible" since one of the two primary criteria remains unassessed and there is no agreed or proposed threshold for the one that is?

The impact section states there is *"considerable knowledge of the impacts of impulsive underwater noise on a selected number of individual marine species... like changes in behaviour and/or death"* but that *"the potential impacts of underwater noise on animal populations and/or ecosystems have*

⁵ Moriarty, M., et al., Spatial and temporal analysis of litter in the Celtic Sea from Groundfish Survey data: Lessons for monitoring, Marine Pollution Bulletin (2015), <http://dx.doi.org/10.1016/j.marpolbul.2015.12.019>

yet to be developed.” The current advice document from TG Noise is quoted that “[underwater noise] is a relatively new topic, and at this stage, with the knowledge and information available, Member States should not expect to have full understanding of impacts of noise on populations and ecosystems in the near future, and defining internationally agreed threshold values is therefore difficult”.

This is even more reason to take a precautionary approach in the assessment of this descriptor. Declaring it as achieving GES despite not knowing the impacts on populations or ecosystems while only having data on a subset of the potential noise inputs is not responsible. SWAN recommends rewording the key message and conclusion to take a precautionary approach for this assessment.

The map showing impulsive noise in 2017 is a good start but a link to the Marine Atlas showing spatial data for other years, seismic survey license areas, oil and gas license areas, established shipping routes, military operations etc. would begin to show a more complete picture of the introduction of anthropogenic noise into the marine environment.

4 Improving the Public Engagement Process

Our response in relation to the public consultation and engagement on this important step in MSFD implementation is as follows:

1. The consultation period has been far too short and not enough public engagement events were planned. The timing of the release, five days before Christmas, was not ideal (although we understand the reason that it had to be published before the end of the year). Furthermore the short time between the end of the consultation deadline and the deadline for submission of the final assessment report to the EU Commission, calls into question the degree to which the consultation responses can be meaningfully considered and incorporated into the final assessment. This undermines the legitimacy of the consultation process.
2. The public consultation document falls between two stools. The original plan was to have a ~30 page document that included a two page summary of each descriptor and an openly accessible link to the full assessment sheets should the reader wish to delve deeper. As written now, with long summaries and no access to the underlying details, it is likely that the casual reader will be overwhelmed with detail and the informed reader will be left needing more. Ideally the reader should be able to choose the level of detail at which to engage. A good example of this is the UK Marine Online Assessment Tool, which was used for the recent UK public engagement process (<https://moat.cefas.co.uk/>).
3. Further to that point, Ireland’s already existing online Marine Atlas could have been utilised to better effect during the consultation processes by linking the reader to zoom-

able and overlay-able maps of descriptor data and results (e.g. seismic survey transects, eutrophication events or dredged areas).

4. Ultimately, this process is 'setting the scene' for the programme of measures and informing decision-making in a whole host of other marine areas. For example, under the Marine Spatial Planning Directive (MSP) the impacts of human activities and the ecosystem approach to managing them is informed by the MSFD. Therefore it is vitally important to have as accurate a picture as possible of the ongoing pressures, activities and impacts on the marine environment. The numerous and varied marine stakeholders in Ireland are both the 'eyes on the ground' and the 'sounding board' for this. They will know the new and emerging issues and they will know whether or not a technical assessment of their area rings true. In this regard a thorough public engagement process should help, not hinder, the assessments. Therefore the public engagement for the monitoring programs and program of measures in cycle two need to be significantly improved.
5. SWAN recommends the following in order to improve on the current consultation:
 - a. Because the current assessment forms the basis for the marine strategy for Ireland and in particular the programme of measures, in addition to being an integral part of the MSP, a final report should be published incorporating consultation input and clearly setting out the pressures and impacts of human activities on the marine environment and the costs of the resulting degradation. This document should also then form the basis of a transparent and meaningful engagement on subsequent steps in the second cycle of MSFD implementation.
 - b. The above document should also describe the consultation responses received, which were incorporated and which were not, and the reasons why (i.e. article 19 report).
 - c. In order to deliver meaningful public engagement in the monitoring programme and, crucially, the programme of measures of cycle two, SWAN strongly recommends that the Department retain the services of specialist public engagement experts to assist in designing a stakeholder / public engagement programme.

Appendix I: SWAN Member Organisations & Board of Directors

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

SWAN Board of Directors:	
Mark Boyden, Chair	Coomhola Salmon Trust
Mindy O'Brien, Vice Chair & Company Secretary	Voice of Irish Concern for the Environment (VOICE)
Karin Dubsy, Director	Coastwatch
David Healy, Director	Friends of the Irish Environment
David Lee, Director	Cork Environmental Forum
Elaine McGoff, Director	An Taisce
Ignatius Egan	Carra Mask Corrib Water Protection Group
Gerry Siney	River Shannon Protection Alliance