

**Haverfordwest, Pembrokeshire,**

Climate Change, Environment and Rural Affairs Committee  
National Assembly for Wales  
Pierhead Street  
Cardiff  
CF99 1NA

9 February 2017

Dear CCERA Committee members,

## **INQUIRY INTO THE MANAGEMENT OF MARINE PROTECTED AREAS IN WALES**

Thank you for the opportunity to contribute to this inquiry.

### **Personal credentials**

I am a marine scientist and MPA management practitioner with over 30 years of unparalleled experience of UK marine nature conservation legislation and implementation at a practical level. This encompasses considerable experience in every aspect of science based marine conservation work from the design of survey, monitoring and impact assessment, through wet and dirty field implementation, to management planning and face-to-face engagement with stakeholders.

The length and breadth of my first hand experience of attempting to implement and deliver marine nature conservation gives me a unique, and arguably the most comprehensive perspective of MPA management of any relevant professional in Wales and a considerable amount to contribute to this inquiry.

*Further detail is included in Annex 1.*

The comments included herein are my personal professional views derived from extensive experience and knowledge and/or reliable source evidence. For the avoidance of doubt, my submission should in no way be construed as necessarily representing the views of any of the agencies for which I have previously worked.

### **General comments**

I was concerned the 250 word limit per question constraint imposed by the inquiry consultation response form would prevent me from providing much essential information. I consequently sought assurance from the Committee's clerk that a supplementary letter providing essential additional detail and identification of other issues would be acceptable.

I was pleased to receive the response: "we would be happy to accept any information you can provide for us, and of course any topic you want to include will be considered". I was further advised in a subsequent telephone conversation that it was unnecessary to complete the response form but that a letter was acceptable.

I submit my response in the form of this letter.

I have aligned my response with the questions in the consultation response form as far as possible. However:

- responses to several questions are equally applicable to others and should not be considered in isolation. Questions 3, 4 and 6 are particularly intertwined and responses to these three in particular must to be read with reference to each other;
- the precise scope of most of the questions are open to interpretation and several conflate multiple issues.

In consideration of the stated objectives of the inquiry it is necessary to provide introductory comment and context.

I also attach additional relevant supplementary documents.

Although the majority of the questions seek evidence-based responses, two (2 and 8) invite speculative responses and, potentially poorly informed, opinion.

At the risk of appearing arrogant, I am concerned that it will be extremely difficult for members of the public and third sector interests not professionally involved with MPA management, and without a network of relevant professional contacts, to make an informed, evidence-based, response to this inquiry. Even professional NGOs will struggle to make a fully informed response because detailed, factual, non-politicised, publicly available information on Wales MPA management is extremely limited and inaccessible.

### **Objective of the inquiry**

I note the first objective of the inquiry is *“To assess the management of Welsh marine protected areas with a view to identifying opportunities to maximise the economic, social, environmental and cultural benefits that can be derived from them.”*

With one exception (Skomer MCZ), in reality Wales’ “MPAs” essentially comprise a small suite of large Special Areas of Conservation, designated under the European Habitats Directive (known as European Marine Sites (EMS); see comment below on multiple badging of marine areas leading to a misleading, over-simplistic counting of MPAs). Since marine management effort in Wales has been limited to these sites and the MCZ I take the focus of this inquiry to be EMS and MCZ (formerly Marine Nature Reserve (MNR)) management.

Whilst the Committee’s wish to consider socio-economic and cultural benefits is understandable, I am deeply concerned and disappointed that the Committee has framed its inquiry so strongly in the context of the Well-being of Future Generations Act. It is crucial that the Committee focuses its attention on the purposes for which MPAs in Wales’ waters were designated, *ie* nature conservation. Whilst global evidence shows that MPAs most certainly do deliver substantial socio-economic benefits, Wales’ MPAs were not established to specifically deliver such benefits and it would be unjust to overly judge them on that basis.

I am concerned that:

- the explicit question about the achievement of nature conservation objectives has not been asked;
- the Committee’s consultation questions will be primarily interpreted by many respondents in socio-economic terms;

My response is primarily framed in the context of nature conservation objectives.

Assessing MPA management's capacity to contribute to WBFG Act goals going forward is entirely legitimate. However:

- MPA legislation is not presently framed to encompass these goals;
- any such assessment must encompass all the ecosystem services (ES) that the seas provide to human society. It must not be constrained to the most obvious or easily monetised goods, such as fisheries; *ie* it needs to be more holistic and realistic than currently.

See comments on marine ecosystem services included under *Essential context* below.

## Essential context

### *Distinction between MPA designation and protection*

Designation as MPA does not, in itself, equate to protection. Irrespective of the words used in the term "Marine Protected Area", protection is not provided by either the designation or the title, but is afforded by appropriate and effective management measures.

Despite this, Welsh Government (WG), Natural Resources Wales (NRW) and others habitually mislead the public, themselves and, by extension, members of this Committee, through the careless use of the term and an implied level of protection that simply does not exist.

Example: the claim on WG's MPA web page that "35% of Wales' seas are protected for species and habitats" <sup>1</sup> invalidly equates the designation of sites with actual marine protection.

In October 2016, Cabinet Secretary Lesley Griffiths, publicly made the outrageously naïve and misleading claim that: 'With more than 75% of our coastline in Marine Conservation Area [*sic*] our seafood is, by its very nature, sustainably sourced" <sup>2</sup>. Whilst marine protection and seafood sustainability can go hand in hand, protection does not necessarily result in fisheries sustainability and it is blatantly dishonest to claim that it does.

### *Number and extent of MPAs*

WG, NRW and others (including this Committee in its online survey introduction) routinely mislead the public, and themselves, by reference to the number and extent of Welsh MPAs.

Whilst it is correct that there are 128 (now more since the addition of harbor porpoise SACs and SPA extensions at the end of January) MPA designations, in reality there are essentially five large all-Wales and two cross-boundary marine sites within which most of the remaining "128 MPAs" (including Skomer MCZ) are nested one within another <sup>3</sup>, plus a handful of small, intertidal or supra-tidal SSSIs.

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<sup>1</sup> <http://gov.wales/topics/environmentcountryside/marineandfisheries/marine-conservation-and-biodiversity/marine-protected-areas/?lang=en>

<sup>2</sup> <http://www.clientearth.org/wales-seafood-strategy-live-up-to-ambition-sustainability-must-be-understood/>

<sup>3</sup> Carmarthen Bay & Estuaries alone encompasses 20 of these "128 MPAs" (an SAC, two SPAs, a Ramsar site and 16 SSSIs) and Pembrokeshire Marine SAC encompasses over 30 (mostly SSSIs). In some cases there are multiple layers of nesting; *eg*: Carmarthen Bay & Estuaries SAC completely encompasses the Burry Inlet SPA, which shares a boundary with the Burry Inlet Ramsar Site, and the Burry Inlet SSSI; Pembrokeshire Marine SAC encompasses large parts of the Skomer & Skoholm SPA, the Skomer MNR / MCZ and Skomer Island SSSI; in both examples four MPA designations occupy the same space, though self-evidently they are part of a single, larger whole.

The combination of WG's demonstrable failure to distinguish between the designation of MPAs and their protection, and the exaggeration of the number of MPAs is to create both a public perception and a self-delusion that Wales is delivering substantially greater and more effective MPA management than is the case.

### *Condition of Wales' marine environment*

In common with most marine areas globally, Wales' marine environment is degraded and under threat; it is certainly overfished and has been for many years <sup>4</sup>.

The sea, seabed and its biodiversity have been heavily modified by human activities for centuries. Different areas and different seabed types have been differently degraded to different degrees; they are not pristine.

The detailed historical evidence of environmental condition that is almost taken for granted on land is simply unavailable for the sea, but inference from historical documents provides a convincing picture of how much less robust and productive marine ecosystems are now than they were decades and centuries ago <sup>5</sup>.

### *Statutory responsibilities for undertaking marine management*

Following commencement of the Marine and Coastal Access Act 2009 (M&CA Act), the dissolution of local Sea Fisheries Committees (SFCs) in Wales and WG taking management of inshore fisheries in-house (2010), and the dissolution of the Countryside Council for Wales (CCW) and Environment Agency Wales (EAW), and establishment of Natural Resources Wales, statutory responsibilities for undertaking MPA and wider marine management have increasingly shifted to WG. Nevertheless, WG have continued to depend on other relevant authorities to deliver management, whilst concurrently failing to engage sufficiently in partnership working to deliver integrated MPA management and their own management obligations.

### *Marine ecosystem services*

The range and scope of marine ES is extremely wide and complex <sup>6</sup>. Objective, evidence – based, measurement and valuation are complex and specialized <sup>7</sup>.

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<sup>4</sup> There is a considerable body of evidence too substantiate this statement; I do not have the time to even begin to list it in order to meet the inquiry consultation deadline.

<sup>5</sup> Examples: *An Unnatural History of the Sea*. Callum Roberts, 2009; *A selective review of historical information about the marine environment around Wales*. Sue Gubbay, 2008. This report to WWF Cymru was never published but would doubtless be made available to the Committee by either Dr Gubbay or WWF Cymru on request. I do not consider it appropriate for me to append the copy I hold.

<sup>6</sup> "Supporting services" necessary for the production of all other ecosystem services (*eg* nutrient cycling and primary production); "regulating services" (the benefits obtained from regulation of ecosystem processes such as climate regulation, water purification, gas cycling; *ie* oxygen production); "cultural services" (the non-material benefits from ecosystems, including ecotourism, education, and cultural heritage); "provisioning services" (often referred to as "goods", products obtained from ecosystems such as food, water, energy). See, for example, briefing documents here: <http://www.valmer.eu/wp-content/uploads/2015/03/Topic-1-EN.pdf>; and here: <http://valuing-nature.net/demystifying-economic-valuation-paper>; the introductory video here: <https://www.youtube.com/watch?v=zJGHwNU257g>; and *Ecosystem services from marine*

It is essential that any equitable evaluation of MPAs that purports to assess socio-economic benefits takes account of the full suite of such benefits; *ie* it must include the difficult-to-assess functional supporting, regulating and cultural services and not be confined to only the most familiar and easier to measure goods (*eg* fish, energy, aggregates) <sup>8</sup>. I do not see any evidence for such an holistic approach in this inquiry as yet. On the contrary, I noted a strong pre-occupation with fisheries in the Committee's initial evidence session.

Efforts have been made to monetise fundamental life-support services (*eg* oxygen generation, carbon sequestration, climate-change mitigation, gas and nutrients cycling) <sup>9</sup>. The estimated economic values are unimaginably huge, but in reality they are priceless since mankind simply cannot live without these life-support services and there is no alternative source.

The value of cultural services, not least for supporting physical and mental health and reducing costs to health services, is also enormous, but almost equally difficult to monetise.

The estimated value of the coastal and marine environment to economy of Wales is £6.8 billion <sup>10</sup>. Although the marine contribution to the SoNaRR's estimated value of wildlife and outdoor activity (*c.* £6.2b supporting *c.* 206,000 jobs) is unidentified, a 2013 investigation into the economic value of marine related recreation around the St Davids peninsula, Pembrokeshire, alone found an estimated expenditure of £51.4m *per annum*, equating to a *c.* £24.5m *per annum* contribution GVA <sup>11</sup>. From this study it is clear that, despite the difficulties in estimating the marine contribution to the Wales-wide value, the cultural appreciation of the marine environment is unquestionably significant.

In contrast, the approximate GVA value of fishing and aquaculture combined to the whole of Wales in 2015 was just £18m <sup>12</sup> and the total landings value by UK (not just Welsh) vessels into Wales were *c.* £2.8 million of fish and £12 million shellfish in 2014 <sup>13</sup>. Although undoubtedly of local importance, the value of fisheries to Welsh GVA is almost vanishingly small. This must be taken into account when prioritising conservation management requirements in MPAs (and the wider marine environment). It must also be recognised when considering the contribution that MPAs could make to improving Welsh fisheries and their economic value.

### *Contribution of MPAs to well-being goals and ecosystem services.*

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*environments*. Scottish Association for Marine Science, 2015 at <http://www.sams.ac.uk/lmc/marine-ecosystem-services>; *Marine ecosystem services*. Natural England, 2008 at <http://publications.naturalengland.org.uk/publication/301112>

<sup>7</sup> *eg Marine and coastal ecosystem services: Valuation methods and their application*. UNEP-World Conservation Monitoring Centre, 2011 at [http://www.unep.org/dewa/Portals/67/pdf/Marine\\_and\\_Coastal\\_Ecosystem.pdf](http://www.unep.org/dewa/Portals/67/pdf/Marine_and_Coastal_Ecosystem.pdf)

<sup>8</sup> <http://rspb.royalsocietypublishing.org/content/royprsb/283/1844/20161635.full.pdf>

<sup>9</sup> For example: UK National Ecosystem Assessment <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>

<sup>10</sup> *State of Natural Resources Report* (SoNaRR) Natural Resources Wales 2016 <http://tinyurl.com/j3oswpx>

<sup>11</sup> *Wales Activity Mapping: Economic Valuation of Marine Recreation Activity* Atkins / Pembrokeshire Coastal Forum 2013 <http://tinyurl.com/jko7gyx>

<sup>12</sup> WG Knowledge and Analytical Services, by e-mail 4 January 2017

<sup>13</sup> NRW SoNaRR *op cit*

The capacity of MPAs to contribute to either WB goals or ES depends on:

- The size of MPAs. It is unrealistic to expect a small area, for example the size of Skomer MCZ, to make major contribution to ecosystem supporting services in isolation, although it may provide substantial cultural value and local enhancement of fisheries value. In respect of the latter two, Skomer MCZ clearly does both; it is important for both recreation and tourism and in terms of exported scallop larval production from its protected population.
- The purpose for which the site has been and is being managed.
- The way it has been managed to date (whether potentially damaging or disturbing human activity has been actively managed or not).
- The ecological composition of MPAs (biological components vary immensely in their ecosystem functions).
- The prevailing environmental condition of structure, function, flora and fauna within the MPAs.

Genuine, meaningful, empirical assessment of the economic contributions from any given MPA or marine area is an extremely complex and data-hungry process requiring considerable specialist expertise. The likely economic value of MPAs, even in their currently poorly managed condition must not be dismissed simply because specific data has not been collected.

#### *Scope of “marine management”*

“Management” of MPAs and the wider marine environment is limited to the management of human activity and its impacts on the marine environment, not the direct management of the marine environment itself, other than minor, limited attempts in a very few marginal instances.

Much terrestrial environmental management consists of direct intervention in natural processes in an attempt to secure a desired end point. Careless or unqualified use of the phrase “marine management” implies similar intent.

Human society certainly has the power to degrade natural marine functions and deplete species populations, and to maintain them in degraded or depleted states. It does not have the power to directly manage the marine environment or its biodiversity to deliver specific end points. “Management” of wild fish stocks, for example, is overwhelmingly delivered through management of their exploitation, and not by fish husbandry, which is the province of carefully controlled aquaculture.

Humanity simply does not have the ability to control the immensely powerful and complex naturally dynamic natural forces of the sea. Even if it did, humanity has neither the knowledge nor understanding that would be necessary to attempt to do so, nor the resources.

Even such restricted examples of coastal habitat restoration as salt-marsh regeneration or “creation” largely consist of removing man-made obstacles and letting the sea get on with the job. Occasional examples of plant transposition go further, but their success or failure remains dependent on natural processes.

The few large-scale experimental efforts to interfere in natural processes for the best of intentions have a growing track record of unforeseen negative consequences (*eg* iron fertilization).

It is supremely arrogant to suggest that humanity can “garden” its way to restoration in the marine environment. The best we can aspire to is to remove or at least minimise

anthropogenic disruption and allow inherent marine processes to manage themselves, just as they have managed to do for many millions of years without human interference.

***Q1 Has the management of Welsh seas received sufficient resource and strategic direction to enable sustainable management that supports the well-being of current and future generations?***

Unequivocally no.

The scope of “sustainable management” in this question is undefined. I assume it is intended to include both the sustainability *of* management (resources and political will) *and* management *for* sustaining MPA designated features (*ie* what is subject to management measures).

The question as written explicitly asks about management of Welsh seas rather than MPAs. I focus my response on MPA management.

The designation of Wales MPAs and their management predates the Well being of Future Generations Act 2015 by many years. Whilst it is legitimate to consider how they contribute to the well-being of current and future generations it is unjust to judge them on the basis of recently introduced obligations. I therefore include in this response my views on whether resource and strategic direction are sufficient to meet these obligations going forward.

### ***1.1 Strategic direction***

I take “strategic direction” to mean direction from government.

The *Conservation (Natural Habitats, &c.) Regulations 1994* (now amended and consolidated as the *Conservation of Habitats and Species Regulations 2010*; the Conservation Regulations) initially set out the overall strategic direction for management of European Marine Sites (EMS). This was developed in guidance published jointly by the then Department of Transport and the Regions and the Welsh Office in 1998, which, although valuable, did not provide the clear direction necessary.

The recommendations detailed in the comprehensive outputs from the UK-wide (JNCC and country conservation agencies), European funded LIFE Marine SACs project (1996-2001) provided considerably greater practical steer and direction.

Those public bodies with management responsibilities (identified as “relevant authorities” in the Conservation Regulations) largely undertook their functions following these directions and advice.

However, following the establishment of devolved governments, no further Wales-specific strategic guidance emerged.

The Welsh Assembly Government’s 2009 draft strategy for MPAs in Wales, *Protecting Welsh Seas*, stated that: “In order to develop a coherent and well managed network of MPAs in Wales that contributes to the wider UK network, we consider that the following are required: **improved coordination of management of MPAs** to deliver site-level and network-level objectives as well as broader biodiversity targets; better use of existing and new tools to deliver effective management of MPAs” (my emphasis added). However, it failed to identify the action necessary to meet its stated aspirations.

The Countryside Council for Wales (CCW) was subsequently tasked to carry out a review of

MPA management in Wales, which reported to WG in 2012 <sup>14</sup>. Amongst its main conclusions were that:

“The **key issues** in terms of the current MPA management processes and partnerships are:

- **Lack of coordinated national direction and drive** for MPA management,
- **Lack of direction** to MAs {management authorities} and insufficient national support for local MPA partnerships,
- Insufficient or unequally distributed resources,
- **Lack of national MPA management framework** that encompasses all MPAs”

and:

“A single lead body and **high level steer and commitment** would improve consistency of approach and delivery of good management” (my emphasis added).

The report’s principle recommendation was the establishment of an explicitly Government-led Wales-wide MPA Management Steering Group (MSG).

In July 2013, through a Cabinet Statement, WG stated: “Whilst our existing sites are required to achieve their conservation objectives, these sites also need to be well-managed. My officials will continue to work with Natural Resources Wales to review the management of our sites and, where necessary, identify improvements.”

Two years elapsed before the MPA MSG was established. Since its establishment it has functioned opaquely, out of public view (the only information provided on the WG website is the Group’s terms of reference). It is only because two thirds of its members are also members of EMS “relevant authorities groups” (RAGs; see response to Q.3) that I have any awareness of its work.

Progress by the MSG has been painfully slow and, despite the Group’s EMS members having clearly expended considerable effort, no strategic management steerage has yet emerged. Its key recommendation to date, to establish seven MPA management areas each with a dedicated officer has not, as yet, been adopted and taken forward by WG.

The shift in responsibility for delivering marine management in Wales to being more centralised within WG is described above. However, this has not been matched by WG providing the high-level steer and commitment necessary to deliver MPA management needs.

This shift in responsibility is particularly acute in the context of the Skomer MCZ. In April 2016 NRW wrote to the MCZ’s Advisory Committee chairman to advise that: “With the introduction of the Marine and Coastal Access Act and the transition to a Marine Conservation Zone ... our statutory responsibilities to undertake these {longstanding management} activities have now ceased.”

This was despite a letter from WG to NRW in June 2014 expressing WG’s “expectation that {NRW} will continue to maintain an effective management regime for {Skomer MNR} as a Marine Conservation Zone.” However, this “expectation” was expressed by a middle-ranking WG official, and remains unsupported by any ministerial (or strategic) direction. Although NRW does continue to maintain management of the Skomer MCZ, its stated (and technically

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<sup>14</sup> Two reports: *MPA Management in Wales 1: Overview of current MPA management in Wales and a summary of new MPA management tools*. CCW Marine Science Report No 12/06/01 and *MPA Management in Wales 2: Evaluation of current MPA management in Wales*. . CCW Marine Science Report No 12/06/03



correct) statutory position both undermines public confidence for the MCZ continuing to be actively managed and generates desperate uncertainty for the MCZ staff.

## **1.2 Resources**

Neither the financial nor human resources available for MPA management in Wales have, with one partial exception, ever been sufficient.

The partial exception is the resource that was available to the Skomer MNR (as it was at the time) for several years following designation. However, this was limited to the resources immediately available to the MNR team and not to fisheries management.

Resources made available for Skomer MNR/MCZ's operation have varied considerably throughout the last 25 years. At present resources appear relatively stable and sufficient to maintain basic function, but their future security is uncertain and appear to depend on WG's "expectation" that NRW continue to deliver the MCZ's management (see above).

### *Collaborative EMS management resources*

Since the establishment of devolved government in Wales, WG have delegated resourcing of MPA management to one or more government sponsored agencies and other "relevant authorities".

WG have never directly provided resources to support the work of partnership RAGs.

In a climate of austerity, local government have found it increasingly difficult to financially contribute to MPA collaborative working and have, over time, withdrawn funding.

Whilst CCW and EAW contributed significantly to RAG resourcing, NRW rapidly withdrew core funding and no longer contributes.

The issue of declining resources for collaborative EMS working is documented at great length in a considerable body of correspondence from Wales EMS RAGs and the EMS Officers Group to WG and NRW (and previously CCW). I refer Committee members to one of the two remaining long-term EMS Officers for up to date detail.

### *Resources available for MPA management within relevant authorities*

Budgets within all relevant authorities have been under increasing pressure for many years and resources are widely insufficient even to meet core statutory purposes, far less the costs of undertaking additional management activities that are considered discretionary.

### *Marine enforcement resources*

Resources allocated to fisheries enforcement within the former districts managed by local Sea Fisheries Committees (SFC) prior to them being dissolved and inshore fisheries management taken in-house by WG (April 2010) have clearly decreased. Example: patrol days at sea by the South Wales Fisheries Protection Vessel has dropped from a minimum of 100 *per annum* under South Wales SFC management to 32 *per annum* in both 2013 and 2014, and further to just 17 in 2015 <sup>15</sup>.

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<sup>15</sup> WG Access to Information response ATISN 10842 Marine Fisheries Management dated 8 November 2016, sourced from WG website January 2017

## **2 How should Area Statements, to be developed by Natural Resources Wales, cover Welsh seas?**

This question is premature given that the nature and scope of Area Statements (AS) are as yet undeveloped by NRW.

The marine environment is complicated and ill suited to simplistic spatial management solutions.

It is vital that AS covering Welsh seas adequately encompass wholly marine, coastal and relevant hinterland issues, meaningfully reflecting ecological, physiographic and functional environments. They must also reflect the distribution of coastal zone activities (from ports to coastal recreation), terrestrial governance boundaries and accommodate relevant international dimensions.

Although it is assumed that terrestrial AS will be based on local authority boundaries, these are probably the least relevant of all potential boundaries in the sea.

Clearly there will be a requirement for overlapping AS in Welsh seas. Local authority based AS must extend off their coasts. It is difficult to identify a suitable common distance offshore since the requirements will vary so much from place to place. Possibly the Welsh territorial limit of 12 miles is appropriate.

One or more wholly marine AS are also necessary. Whilst a single AS would be necessarily complicated, there is no simple clear ecologically, physiographically or functionally meaningful way of subdividing Welsh seas that also reflects socio-economic considerations.

The future relationship between AS and the marine spatial planning (MSP) process, which has been in progress for several years, is unclear.

MSP is globally recognized good practice and is welcomed. However, it must be holistic and encompass the fullest breath of relevant issues, activities, pressures, environmental safeguards and appreciation of ecosystem services (see above).

It is imperative that developments of Wales' MSP and marine AS have a clear, mutually supportive relationship, and that a marine AS be integral to and a fundamental driver for the MSP. The MSP process and development of AS are not linked at present; worse, they are being undertaken in the wrong order. Although it would cause further delay in publishing Wales' MSP, it is essential that the process be prolonged to enable AS development to catch up and its requirements and recommendations incorporated into the MSP.

## **3 How well are Wales' MPAs currently being managed?**

The simplest, most straightforward answer is - overall, poorly. However, this both undervalues the few examples of good management and inadequately captures the far greater examples of inaction. "The truth is rarely pure and never simple" (Oscar Wilde).

CCW's 2012 MPA management review (referenced above) concluded, and advised WG, that: "MPAs in Wales are failing to achieve favourable condition/status due to a lack of effective management."

The situation has not improved; if anything, in my view it has become worse as resources have declined and as uncertainty about WG's commitment and political will to deliver effective MPA management has increased.

### 3.1 Skomer MCZ

Skomer MCZ is extremely well managed within the limitations imposed on it by legislation and resources. It is the most actively managed and comprehensively monitored MPA in Wales (and almost certainly in the UK).

The MCZ has been demonstrably and remarkably successful in achieving the conservation and scientific goals of its 1990 designation Order. The success of its management is out of all proportion to the limits imposed on its operational jurisdiction and is in spite of and not because of the limited statutory protection that it is afforded by weak statutory provisions.

These achievements are particularly attributable to:

- the MCZ having relevantly qualified and experienced staff on site,
- MCZ staff carrying out day-to-day management to ensure compliance with existing management measures, including: public facing “soft-enforcement” of bylaws and code of conduct by providing information, advice and deterrence; activity surveillance and recording; biological and physico-chemical monitoring; reporting; liaising with relevant enforcement agencies;
- clear commitment to the MCZ’s nature conservation purpose;
- the time and effort freely given by a range of volunteers in support of the MCZ’s management and monitoring.

The statutory protection afforded by its designation is very limited; protection from the impacts of fishing and most other non-recreational pressures are at the discretion of the authorities responsible for their management. I repeat, the conservation success of the MNR/MCZ is in spite of the limited statutory authority it suffers.

The only fisheries management measures in place are the prohibition of scallop dredging and beam trawling, and the collection of scallops by any means. There is no proactive enforcement of these measures by WG. There has been some occasional reactive enforcement action in response to request from MCZ staff.

The MCZ’s monitoring programme provides a valuable picture of the condition of some of the MCZ’s species and habitats and their trends, though resources limit its comprehensiveness. The evidence indicates some are faring well, but others are not.

The scallop population and its supporting sedimentary habitat that benefit from clear statutory protection measures are increasing and improving respectively.

The MCZ’s small seagrass bed is subject to clear, though non-statutory, visitor management measures. Its area and density are stable, although its health is potentially under threat from elevated nutrients from outside the site.

Other, less well safeguarded but vulnerable, features within the MCZ are less healthy. Pink seafans are one of the MCZs iconic species and one of very few marine non-vertebrates listed for specific protection (Wildlife & Countryside Act 1981, and now included in s.7 list of species of principal importance in the Environment (Wales) Act 2016). Numbers have been decreasing slowly for years, but in one remote area of the MCZ they decreased significantly in 2016. There is no evidence to explain why, but the only human activity in that area is lobster potting.

### 3.2 European Marine Sites

Management of EMS is inadequate. There is a widespread and general lack of proactive management action directed toward achieving EMS conservation objectives. The few exceptions should not be allowed to distract from the overall failure to implement appropriate management.

Management of EMS is assigned to relevant and competent authorities as defined in ss.6 and 7 of the 2010 Conservation Regulations. The Regulations enable, and implicitly recommend, the collaborative development of management schemes for EMS. The relevant authorities for all except one of Wales' major EMS came together soon after publication of the original Regulations and have operated as effective and efficient collaborative Relevant Authorities Groups (RAGs) since then.

RAGs are exemplars of collaborative partnership working. They have expended considerable and successful efforts to develop management schemes that identify pressures, threats and the necessary generic management solutions to address them, to raise awareness and to engage stakeholders and the public.

However, RAG effectiveness and management abilities are very limited.

RAGs have no statutory status or collective management jurisdiction and are not collectively answerable to any superior authority (except, possibly, the relevant government minister, though intervention powers in s.37 of the Conservation Regulations appear very limited).

Relevant authorities are not obliged to participate in RAGs.

RAGs have no alternative other than to work by consensus. Consequently their progress has been slow, moving at the pace of the slowest or least collaborative members. Individual members can disrupt progress and, since there is neither an obligation on those members to participate in joint working and majority members have no recourse to a higher authority in those circumstances, many outcomes (*eg* agreements on pressures, recommended necessary management action) in management schemes were weakened by the need to achieve consensus and to retain unsympathetic members within the RAGs; *ie* individual authorities have a *de facto* power of veto over the agreements by the majority.

Regardless of the necessity of management actions identified and recommended by RAGs, through site management schemes, RAGs are not empowered to deliver those actions but depend on the recommendations being accepted and undertaken by the appropriate relevant or competent authority.

Competent authorities, particularly WG, have failed to engage with RAGs (a notable contrast to the situation in England<sup>16</sup>); WG has repeatedly refused to engage despite multiple requests and invitations over many years.

Very few tangible, practical measures to manage activities causing damage or disturbance to EMS and their features have been introduced by the relevant authority members of RAGs or competent authorities since EMS designation.

Probably the most significant management measure benefitting most EMS MPAs to date has been WG's introduction of The Scallop Fishing (Wales) Order 2010. However, it is important to note that this measure was not introduced proactively but was a response by WG to circumvent European Court action after complaints were made to the European Commission about Wales' failure to manage dredging in Cardigan Bay SAC. Nevertheless, WG have

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<sup>16</sup> *A review of effectiveness of management schemes for European Marine Sites* Roger Morris *et al*, 2012. Defra project MB0113. "The Morris review": [http://randd.defra.gov.uk/Document.aspx?Document=10378\\_MB0113finalreport.pdf](http://randd.defra.gov.uk/Document.aspx?Document=10378_MB0113finalreport.pdf)

recently announced its intention to lessen the Order's effectiveness and extent by reducing the area included in the dredging exclusion zones.

The 2014 Habitats Directive reporting round found that all five major marine habitats were unfavourable across Wales. Of these, most of three - roughly 65%, 88% and 80% of reefs, estuaries and inlets and bays respectively - were reported as still "declining"<sup>17</sup>.

However, there is no site-specific breakdown of assessment. NRW (and previously CCW) have failed to deliver promised reports of feature condition assessment to inform management. Management authorities are working blind: they have no assessment of the outcome of any management measures that are in place; where management authorities are able and willing to introduce or take measures, insufficient information is being provided to inform such action.

Nevertheless, it is clear that the principle reason for judgments of unfavourable and declining condition is the insufficiency and inadequacy of appropriate proactive management action to address the pressures and threats clearly identified in EMS management schemes.

Further contributing factors include:

- Circumvention of the plans and projects assessment and consenting processes leading to perverse permitting of activities, process or developments which cause additional damage or disturbance (*eg* the of permitting industrial activities in Milford Haven by the former EAW against the advice from CCW; see further detail in response 4.1 below).
- Naive reliance on unenforceable and demonstrably ineffective voluntary management mechanisms (also see answer 10.4).
- Lack of information on the extent and intensity of many unregulated activities in the marine environment since no agency is required to collect it.

See also answer to Q.4.

#### **4 What are the key issues affecting the effective management of multi-use MPAs?**

It is not clear whether this question is intended to address the impediments to management, or identify the pressures and threats to MPAs. By specifically asking about "multi-use MPAs" the question also fails to address management of nature conservation focused MPAs.

I address each.

##### **4.1 Issues affecting effective management**

*Key issues impeding effective management include:*

- Failure by relevant and competent authorities to take appropriate sufficient measures necessary to address the pressure, threats and management requirements clearly identified in EMS management schemes.
- The flawed basic model for MPA management implicit in legislation; *ie* the failure to identify an authority with clear responsibility to lead on MPA management, but instead dispersing duties for delivering MPA management and simply giving public authorities a duty to carry put their functions in a way that they think will support, or at least not hinder, achieving conservation objectives. This provides neither the necessary incentives

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<sup>17</sup> These values are not included in any official reports; they are sourced from spreadsheet data available from Joint Nature Conservation Committee website.

for appropriate management, nor penalties for failing to take action, sends conflicting messages of priority and provides the discretion to override MPA conservation objectives (or invoking claims overriding public interest in the case of EMS) where there are conflicts of interest.

Although this model introduced for MNR management (1981 Wildlife and Countryside Act) was long criticized and discredited for its lack of effectiveness, the fundamental provisions for EMS management (Conservation Regulations) and MCZ management (M&CA Act) are essentially the same, with a few minor additions.

- The lack of delegated authority to collaborative management groups (*ie* RAGs for EMS) implicitly tasked with leading on MPA management.
- The failure of competent authorities, particularly WG, to engage with RAGs and, again specifically WG, to accept the objective assessment and recommendations detailed in EMS management schemes (see also WG specific issues below).
- The conflicts arising from increasing disengagement by NRW corporately whilst local engagement remains supportive and collaborative.
- The failure to recognize or acknowledge the inherent inertia in both the marine environment and environmental management; *ie* positive outcomes from new or improved management of pressure-causing activities may take long time periods to bear fruit. For example, over a decade elapsed after closure to dredging before the scallop population in the Skomer MNR began to recover.
- Misleading reporting of MPA / environmental condition – see response 10.1 below.
- Inadequate monitoring resources. Despite the obvious need for more information, despite every chapter in SoNaRR beginning with the claim “NRW is an evidence based organization”, which seeks “to ensure that our strategy, decisions, operations and advice to Welsh Government and others are underpinned by sound and quality-assured evidence”, in part by “... having a well resourced proactive programme of evidence work”, monitoring is being starved. In the face of rapidly diminishing resources from WG to meet its obligations, NRW is cutting back on monitoring across the board.
- Perverse decision making by regulatory authorities which undermine conservation objectives and increase pressures on, or threats to the condition of MPA features. Examples: EAW permitting for Pembroke Power Station against CCW advice <sup>18</sup>; the current WG proposal for opening up more of Cardigan Bay to scallop dredging; several iterations of a memorandum of understanding on waste water discharges into Carmarthen Bay and Estuaries EMS which were manifestly unlawful but still signed by CCW and EAW.

*Key issues specific to WG's role include:*

- The lack of unambiguous commitment to the meaningful delivery of MPA management.
- The lack of clear, committed, strategic direction.
- The failure to provide clearly identified, unambiguous, direction for the priority for nature/biodiversity/environmental conservation/protection relative to socio-economic

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<sup>18</sup> Complaint currently under investigation by European Commission:  
[http://legacy.foe.co.uk/cymru/english/press\\_releases/pembroke\\_power\\_station\\_complaint\\_180610.html](http://legacy.foe.co.uk/cymru/english/press_releases/pembroke_power_station_complaint_180610.html)

development and activity. This ambiguity fosters confusion, conflicts of interest, perverse decision-making and provides excuses for inaction.

- Demonstrable failure to distinguish between the designation of MPAs and their protection by management (see above).
- A fundamental lack of expertise and understanding about most aspects of MPA management and issues. This both inhibits WG's ability to provide sufficiently clear direction to deliver marine policy and legislative objectives and also compromises the integrity of MPA processes.

Example: I was a member of the Technical Advisory Group which WG formed to advise it on site selection criteria for its failed 2010-2013 MCZ project; it was clear that WG officials re-wrote technical advice provided to them by CCW and in so doing largely rendered them ecologically meaningless.

- Demonstrable WG discrimination in favour of fisheries over nature conservation (see response 10.5).
- The inherent conflict of interest between WG's Fisheries managers' duties toward marine environmental protection and their primary purposes to support and develop fisheries.
- Lack of transparency in decision-making. By definition, this is difficult to demonstrate unequivocally. Example: the work of the MPA MSG described in response 1.1 above; see also the example cited for the following point.
- Cherry picking data and information to support perverse or unsympathetic decision-making contrary to the conservation interests of MPAs. Examples:
  - The findings of the task and finish group established to review the public consultation responses to the MCZ project were not shared widely. Although its draft report identified that 81% of consultation responses supported highly protected MCZs (roughly equivalent to No Take Zones), this finding was excluded from the final report which instead implied a more equal response and considerable greater opposition than was the case;
  - WG's assessment of the recent (2016) Cardigan Bay scallop dredging consultation clearly dismissed as trivial the large number of objections to additional dredge fishing which did not provide additional new evidence (not that the consultation necessitated provision of such evidence), but treated all supporting responses with equal merit whether or not they provided additional evidence.
- Failure to require the same standards of evidence from socio-economic interests (particularly fisheries) opposed to MPA management measures as is demanded to demonstrate ecological importance, or pressures and threats to MPAs, or the need for protective management.

Unevidenced assertions of likely economic losses caused by establishment or management of MPAs seem accepted without question by WG whereas impossibly high evidence standards are routinely imposed to justify MPA designation and management.

This failure to require robust evidence from economic interests amounts to providing them with a *de-facto* power of veto over management proposals.

### *Additional specific issues resulting from management of multi-use MPAs*

MPA management *per se* has many challenges; management of intentionally multi-use MPAs is fraught with additional problems, including:

- Ambiguity, conflicting priorities and genuine confusion for managers and stakeholders;
- “Wriggle-room” for managers and stakeholders to circumvent management requirements;
- Greater difficulties of enforcement;
- The positive effects and benefits from management of an incomplete range of selected activities (pressures and threats) can only ever be limited, whilst being particularly difficult to measure (assuming adequate appropriate monitoring is in place);
- Over-expectations of benefits. Global experience (see response to Q.6) clearly shows that limited management returns very limited benefits but that “highly protected” MPAs return disproportionately far greater benefits; *ie* the relationship between level of protection and benefits of protection is not simple or linear.

These issues are explored and documented at length in the wealth of global literature on MPA governance and management referred to in answer to Q.7

## **4.2 Key pressures and threats to MPAs**

These include:

- Global overarching pressures and threats that are typically diffuse and chronic, *eg* effects stemming from climate change such as changed temperature regimes, increased acidity, sea level rise and storminess; ubiquitous pollutants such as hydrocarbon, persistent organic, plastic and micro-plastic pollutants and contaminants;
- Widespread pressures and threats that are both diffuse and concentrated, chronic and acute, such as nutrient enrichment, terrestrial sediment run-off and deposition, fisheries;
- Site specific pressures and threats, which tend to be concentrated, and may be chronic and /or acute, the most important of which are fisheries, water quality, commercial development and activities (locally), unregulated recreation and commercial tourism (locally), bait collection (locally), disturbance from many sources.

The most critical issues vary between sites, locally within sites, and between the habitat and species features of the sites, however fisheries remain the least regulated severe pressure.

The pressure from lost fishing gear and ghost fishing in Wales is unknown although indirect circumstantial evidence suggests it may be significant (see reference to lost pots compensation scheme in response 10.5).

The “Prioritised Improvement Plans” (PIPs) produced by NRW as a key output from their 2012 – 2016 LIFE N2K project <sup>19</sup> poorly reflect the magnitude and severity of many marine pressures and threats, and they consequently fail to prioritise or identify adequate necessary management action (this is my professional opinion after over three years direct engagement with the project in my last years as an EMS officer, during which I spent considerable time arguing for the honest and accurate assessment of pressures and threats).

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<sup>19</sup> <https://naturalresources.wales/about-us/our-projects/life-n2k-wales/life-n2k-reports/?lang=en#PIP>



## **5 Do existing Welsh MPAs currently provide the right protection for the conservation of Welsh marine biodiversity?**

The meaning of the word “right” in this context is not defined.

Consequently, answers to this question depend on the perspective of the respondent. A commercial developer, or port manager, or fisherman may consider that the current level of MPA management and protection is “right” because it imposes little restriction on their activity.

I take the question to mean “effective” protection.

For all the reasons given elsewhere in this submission, my answer is unequivocally no.

MPAs are, potentially, one crucial tool for the conservation of Welsh marine biodiversity. However, they must be effective and be complemented by a range of other tools that fully encompass marine biodiversity protection and enable enhancement, including marine spatial planning and genuinely ecosystem-based fisheries management. Some tools are in place or in development; others are not.

Many pressures affect different parts of marine ecosystems and different components of marine biodiversity to different degrees in different locations. Mitigating or eliminating pressures and threats requires integrated, holistic, genuinely ecosystem-based management (see response 10.2).

MPAs are an essential component of the suite of tools and have the potential to make an extremely important contribution. However, inadequate current management is impeding and undermining that potential.

Crucially, following the failure of the WG MCZ project, there remains not one Welsh marine area free from direct extractive, depositional or other damaging / disturbing pressures which can be used as a scientific control and which can be studied to collect the information on the benefits of effective MPA protection that is demanded by WG and others.

At the time of writing, WG has established a task and finish sub-group of its Wales Marine Strategic Advisory Group to prioritise habitats and species for restoration and enhancement. The identification of a need for restoration and enhancement is a clear tacit acknowledgment by WG that there are things wrong which need action to remedy. However, whilst restoration and enhancement are welcome goals, there seems little point in expending effort and resources if the pressures that caused the degradation of the habitats or species selected for restoration and enhancement action are allowed to continue unabated. Self-evidently, some manner of effective safeguard for those habitats and species is an essential prerequisite to successful restoration and enhancement.

## **6 What lessons can be learnt from current MPA management activity in Wales (including designation, implementation and enforcement)?**

This response needs to be read alongside responses to Q.3 and 4.

There is a wealth of lessons from both Skomer MCZ and EMS management, both positive and negative.

However, firstly, crucial common lessons from both are that:

- the basic management model spelled out in the relevant MPA legislation is flawed and provides too many opportunities for authorities with marine management responsibilities to avoid using them to deliver adequate MPA protection. Assigning management as the joint and several responsibility of multiple bodies simply by placing a “duty on all public

authorities ... to undertake their functions in a way that will further or where that is not possible, to least hinder the achievement of site conservation objectives” is woefully inadequate. This approach in the 1981 Wildlife & Countryside Act was long and widely discredited yet essentially the same approach is reproduced in both the Conservation Regulations and the M&CA Act.

- The insufficient resources available for EMS management in general, to RAGs and, specifically for monitoring, NRW (and previously CCW) in particular have been a major impediment to delivering all aspects of MPA management. This deficiency is getting steadily worse and urgently needs to be addressed by WG.

## 6.1 Skomer MCZ

The achievements of Skomer MNR/MCZ have been thoroughly documented in annual reports, project status reports and technical monitoring reports since the year following its designation in 1990. The minutes of the Advisory Committee (AC) established at designation (see below) also document the achievements, lessons learned and advice to CCW and, latterly, NRW.

However, lessons from the MNR/MCZ have been frequently overlooked or knowingly ignored by WG and by NRW, despite the best efforts of both the staff and the AC. Despite multiple attempts by the AC’s chairman, WG has clearly avoided meaningful engagement.

Specific clear lessons from the MNR/MCZ include:

- *The value of a partnership approach to developing and supporting management.* Despite Tim Glover’s (Blue Marine Foundation) assertion in oral evidence (1 February 2017) that the Lyme Bay process was the first in the UK where all parties gathered collectively at the negotiating table, dialogue between all relevant parties leading to the establishment of Skomer voluntary Marine Reserve (vMR) commenced in 1973. The vMR “management” committee established in 1976 was considered so successful by the Nature Conservancy Council (prior to its dissolution and the establishment of the country conservation agencies, including CCW) that its evolution into an Advisory Committee to support management of the proposed statutory MNR was specifically included in the MNR’s designation Order.
- *Appropriate protection measures deliver positive outcomes and benefits.* The robust recovery of the scallop population since protection from any form of exploitation is an excellent home-grown example of the benefits that can accrue from well protected marine features and the closure of areas to fisheries. However:
- *Marine nature conservation is hampered by unreasonable requirements for “proof” as distinct from reasonable evidence.*

Scallop dredging was identified as a key pressure in the Skomer vMR when drawing up proposals for its submission as a statutory MNR in the early 1980s. Even then, scallop dredging was known to be one of the most damaging fishing techniques employed in UK waters. Nevertheless, because none of the evidence of its impacts had been collected locally, the then SWSFC required the collection of experimental “proof” that it caused damage *in* the proposed MNR before being willing to consider its management. The experimental work was duly undertaken, the evidence collected and the “proof” delivered (despite the fisherman returning the day after the experimental dredging and dredging extensively within the experimental control area). The price paid was to absurdly cause substantial, deliberate, additional damage within a protected area in order to gain more effective protection.

This attitude prevails, as evidenced by fishing industry demands during the WG MCZ project consultation for home-gathered “proof” that highly protected MPAs would be successful. Given that there was then, and still is not now, any area in Wales that could have been used as a scientific control, such a demand is not just unreasonable, but patently impossible to meet.

- *Marine nature conservation is hampered by unreasonable requirements for consensus.* Management of other fishing techniques in the proposed Skomer MNR was not even suggested as it was anticipated that to do so would forestall any prospect of gaining consensus for designation. Again, this attitude prevails as witnessed by the preferential regard accorded to unevidenced rejection of even the suggestion of fisheries management measures by the WG MCZ project.
- *Volunteer ‘citizen science’ is highly valuable.* The data collected over twenty by a four-year cycle of citizen science projects that require modest scientific expertise but a lot of diver-power has proved invaluable. Not only could the in-house team never be able to find the time to match what the volunteers accomplish but citizen science participation creates shared ownership of the MNR/MCZ, ambassadors for marine nature conservation and positive public relations whilst enabling the volunteers to develop their scientific knowledge and expertise.

## 6.2 European Marine Sites

Many lessons learned are included in responses to Q.3 and 4 above.

However, the lessons drawn from EMS management will differ depending on attitudes to marine nature conservation; *ie* whether biased or prejudiced against, sympathetic to and supportive of, or neutral.

The RAG model for collaborative management is inherently positive:

- it requires representatives from relevant authorities (RAs) to focus on EMS management, temporarily setting aside being encumbered by potentially conflicting corporate priorities;
- it provides for neutral assessment of pressures and threats and the management requirements to address them.

RAGs have:

- proven to be effective and efficient collaborative groups;
- developed consensus management schemes for all except one <sup>20</sup> of the substantive EMS;
- successfully encouraged and facilitated dialogue and liaison between RAs, bringing unsympathetic and / or disinterested RAs to the table whether willingly or by peer pressure;
- successfully provided neutral and impartial mechanisms and fora to bring pressures and management issues into focus for RAs, competent authorities, stakeholders, local communities and the public;
- successfully provided a host for integrated management and public engagement, underpinned by an officer independent of individual relevant authorities, without which very little would have been accomplished.

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<sup>20</sup> No RAG has ever been established for the Menai Strait and Conwy Bay SAC.

However, the level of support from their member authorities, the lack of engagement from competent authorities and obstruction by WG, rather than the commitment, support and leadership that was needed, has very strictly limited RAG achievements.

The consensus management schemes took a long time to produce and the need to keep every authority engaged resulted in failures to agree on some issues and the omission of some necessary actions.

Despite the schemes detailing many objectively identified management needs, and resulting in good liaison and outreach work, few positive changes to management for conservation benefit have been introduced by RAs and competent authorities as a result. Known threats remain ineffectively managed; for example, illegal scallop dredging continues and little effort goes into enforcing regulations.

RAGs are too reliant on good will and willingness to engage in partnership working to deliver objectives that are perceived by some RAs as being in conflict with their core purposes

These and other serious problems are caused by, or at least enabled, by:

- The lack of strong strategic leadership and clear high-level steer from WG on the importance of MPAs and their management in general and EMS in particular.
- The low priority for EMS management within many management authorities.
- The conflicts of interest between socio-economic drivers and environmental goals, and the lack of adequate attempts to reconcile those conflicts of interest resulting in decisions that avoid taking action or do not benefit EMS.
- The widespread failure of the precautionary principle to be fully embedded in WG or RA decision making, with the development part of “sustainable development” tending to override EMS conservation objectives.
- The frequent reluctance of RAs to agree to undertaking proactive action, or anything other than the minimum action required - often in response to the need to be seen to be doing something, rather than taking sustainable, long term, co-ordinated perspectives, often because of real or perceived conflicts of statutory duties, though in some circumstances because of such legitimate reasons as lack of financial or staff resources.
- The absence of a statutory duty for relevant authorities to work collaboratively (*eg* as RAGs), with few incentives to do so and no penalties for not doing so.
- The lack of meaningful incentives for RAs to make the effort required and / or take the necessary decisions to secure action; the absence penalties for failure to undertake necessary action or to deliver MPA objectives.
- The lack of delegated authority accorded to many RA representatives by their parent authorities to enable adequate progress and decision-making necessary to achieve meaningful outcomes.
- The lack of a requirement for competent authorities, particularly WG, to engage collaboratively with relevant authorities or the development and implementation of MPA management schemes. This is not a fault in the RAG model, it is a shortcoming of the legislation which is particularly acute in Wales in respect of the ‘RA functions’ undertaken by relevant authorities in England (most importantly sea fisheries management, see following point) but in Wales by WG.
- The absence of specific duties on WG to undertake the EMS and other marine biodiversity / conservation responsibilities that are imposed on IFCAs and the MMO in England. The general “sustainable development duty” of the WG is insufficient to deliver the specific

marine environmental safeguard duties and responsibilities necessary in EMS (or other MPAs).

- The inconsistency between EMS in terms of approach to management, effort and resource allocation.
- The insufficient resourcing of RAGs to maintain basic partnership working and undertake collaborative actions. RAGs could be adequately resourced either by WG directly or via ring-fenced funds through one or more specific relevant authorities, or by WG requiring RAs and/or NRW to adequately resource RAGs.
- The insufficient prioritisation of funding for management planning, action, monitoring or reporting within many management authorities, the lack of resources and staff with a clear remit to address many necessary actions within management authorities and insufficient appropriate training for relevant staff in management authorities.
- Poor awareness and understanding of the imperatives for environmental conservation and of EMS importance, goals and status which, in turn, contributes to the consequential limited buy-in from many authorities, stakeholders and the public, particularly senior managers driven by unsustainable short-term socio-economic objectives.
- Limited sharing of locally relevant information on activity related pressures and threats.
- The current generation of EMS conservation objectives (“Regulation 35 advice”) are overly generic and imprecise to provide adequate identification of what constitutes FCS for the features of each EMS, and open to such a degree of interpretation that they provide too much opportunity to circumvent their intent.

There is a need to introduce statutory duties for RAs, and relevant CAs, to collaborate as collective management groups, whether they are called RAGs or renamed as management groups (as they are more appropriately and descriptively named in England). This includes introducing an obligation for WG departments that undertake the functions undertaken by RAs in England (*eg* fisheries management) to engage with RAGs in identifying, and seeking legislative amendment where necessary, and a requirement to identify, introduce and implement relevant management measures in a collaborative manner with other responsible bodies to secure comprehensive EMS management.

### 6.3 Other lessons

Multiple MPA reports were commissioned by CCW and shared with WG in support of the 2010-13 MCZ project. Example: Sue Gubbay, 2006. *Highly Protected Marine Reserves – Evidence of benefits and opportunities for marine biodiversity in Wales*. CCW Science Report. Report No: 762. There is little to suggest that these were taken into account at all, never mind fully or with any degree of commitment.

### 7 Are there MPA examples or practices elsewhere that Wales can learn from?

This a disturbingly naïve question that should not need to have been asked. There is a global wealth of published reports, research papers and guidance documents. Many of these have been made available or cited in the past by CCW in its advice to WG and I would have been expected some to have been referred to in briefing documents for this inquiry.

The electronic reference “library” provided to the English MCZ programme’s Science Advisory Panel in 2010 included over 140 reports and published papers on MPA design, management

and assessment alone (and a further 140 on the effects of MPAs on ecology and fisheries). Many more have been published since then.

The following is a far from comprehensive list of some of the most general and widely applicable information and lessons from elsewhere globally and the UK.

*International* (in no specific order):

United Nations Environment Programme Technical Report *Governing Marine Protected Areas - Getting the Balance Right*. Jones *et al*, 2011.

*Governing Marine Protected Areas Resilience through Diversity*. Peter Jones, 2014. Earthscan/Routledge

IUCN World Commission on Protected Areas. *Establishing Marine Protected Area Networks—Making It Happen*. IUCN-WCPA, National Oceanic and Atmospheric Administration and The Nature Conservancy, 2008

*Benefits beyond boundaries: the fishery effects of marine reserves*. Fiona Gell and Callum Roberts 2003. Trends in Ecology and Evolution Vol.18

*Marine Biodiversity Conservation*, Keith Hiscock, 2014. Earthscan/Routledge

*How is your MPA doing? A methodology for evaluating the management effectiveness of marine protected areas*. Robert Pomeroy, 2005. *Ocean & Coastal Management* 48, 485–502 summarised from World Bank report.

World Commission on Protected Areas (WCPA) / World Conservation Union. *Guidelines for Marine Protected Areas*. Graeme Kelleher

*Fully-protected marine reserves: a guide*. C.M. and J.P. Hawkins., 2000. WWF Endangered Seas Campaign, Washington, DC 20037/ University of York

*New Zealand*: multiple papers and reports by Dr Bill Ballantine, Leigh Marine Laboratory; particularly appropriate example: Ballantine 2014, *Fifty years on: Lessons from marine reserves in New Zealand and principles for a worldwide network*. Biological Conservation vol. 176.

*Australia*: Great Barrier Reef and state marine parks are exemplars of publicly well-supported and effective MPA management. However their conditions are undermined and threatened by wider perverse government management decisions such as failure to manage terrestrial run-off and nutrient inputs and climate policies.

These and many other documents provide a considerable body of evidence for MPA management approaches and the benefits of MPAs. Insofar as benefits, the following lessons are particularly important:

- The greater the level of protection the disproportionately greater biodiversity and fisheries benefit;
- Many benefits take a long time to accrue, and may continue to accrue decades following designation;
- Stakeholder buy-in and management enforcement are both crucial;
- Fully protected zones are less impacted by wider disturbance and recover faster than habitats and communities outside those zones, including those in multiple use MPAs.

*UK*: multiple examples of lessons can be gained from Lundy MNR/MCZ/NTZ; Lamlash Bay, Arran Scotland; Lyme Bay, Dorset; Isle of Man (fisheries exclusion zones and MNR). In each

case the findings for the benefits of prohibiting scallop dredging reflect those from the Skomer MCZ, although over differing timescales.

See also:

The Morris review of EMS management schemes (see footnote 16 above).

*Methods for managing Marine Protected Areas: Options for establishing and managing a marine protected area system in the UK.* Stevens *et al*, 2006. Report for Natural England.

*Marine Protected Areas. A review of their use for delivering marine biodiversity benefits.* Sue Gubbay, 2006. English Nature Research Report.

*A review of the recovery potential and influencing factors of relevance to the management of habitats and species within Marine Protected Areas around Scotland.* Mazik *et al*. 2015. Scottish Natural Heritage Commissioned Report

*Ecological effects of the Lundy No-Take Zone: the first five years (2003-2007).* Hoskin *et al* 2009. Report to Natural England, DEFRA and WWF-UK.

The model for shared responsibility for management between the Marine Management Organisation (MMO) and Inshore Fisheries and Conservation Authorities (IFCAs) that has been developed in England following introduction of the M&CA Act may superficially appear to be positive from a distance. However, I urge caution since what little investigation I have undertaken suggests that it is far from a perfect solution, at least at the present time (because of, *inter alia*: fisheries priorities and lack of relevant scientific expertise in IFCAs; inadequately clear distinction between jurisdiction for MPA responsibilities between MMO, IFCAs, Natural England and Defra).

## **8 The majority of Wales' MPAs are designated under the EU Habitats Directive. How should the Welsh Government's approach to MPA management take account of the UK's decision to leave the European Union?**

The post-Brexit legislative landscape is unknown.

I share and endorse the worries expressed by Lynda Warren and Sue Gubbay in their oral evidence to the Committee (1 February 2017).

MPA designation and management in neither the UK nor Wales has been held back by membership of the EU and the requirement to implement European nature directives. The opportunities to have done more and better than required by the nature directives have been there for more than 20 years. Neither the UK nor Wales chose to take such opportunities, but instead frequently did the minimum possible to implement the directives, as witnessed by the number of infraction proceedings that have been brought against the UK for its failures to adequately implement them.

Regardless of the implications of withdrawal from the EU, Wales must continue to make its contribution to meeting existing international and national obligations and targets including

the Biological Diversity (CBD / World Summit on Sustainable Development)<sup>21</sup>; Ramsar and Bonn Conventions and the Oslo & Paris Commission (OSPAR) (1992)<sup>22</sup> targets.

EMS comprise the majority and greatest area of the UK's international MPA contributions<sup>23</sup>.

The importance of EMS in meeting both national and international obligations and aspirations are clearly identified in the 2009 UK High level marine objectives<sup>24</sup> and 2011 UK Marine Policy Statement<sup>25</sup>.

Going forward, MPA management in Wales must build on existing mechanisms and goals as a minimum. EMS and their management will need to be rolled forward post-Brexit at least as well as they currently stand in order to continue making Wales' contribution to international obligations and commitments.

In oral evidence on 1 February 2017, Lynda Warren noted that it took 20 years to secure three, small, MNRs in the UK. I add that specifically for the Skomer MNR it took 5 years from proposal to designation, in spite of 13 previous years engagement and collaboration between all stakeholders.

Committee members clearly demonstrated their awareness on the failed 2010 – 2013 Wales MCZ project during the Committee's first evidence session on 1 February.

Clearly, in the absence of a strong political will for marine nature conservation to be meaningful or to succeed, it has proved very difficult or impossible to secure MPA designation and management under solely UK legislation.

It was not until the European nature directives became law that the UK designated (though has failed to adequately manage) multiple, substantially sized MPAs. It is moot whether these designations would have occurred with the possible threat of sanctions and the European Court.

Any alternative to rolling forward of the Conservation Regulations in their entirety (as a minimum) will require specific new, comprehensive, fit-for-purpose, legislation to ensure current legislative provisions (as a minimum).

A timely report following a review of the nature directives by the European Commission has recently (January 2017) been published<sup>26</sup>. It concludes: "The evaluation has shown that the Directives remain highly relevant for the conservation and sustainable use of species and

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<sup>21</sup> Specifically, the Strategic Goals and Aichi Biodiversity Targets of the Strategic Plan for Biodiversity 2011 – 2020). "

<sup>22</sup> Specifically: "Establish an ecologically coherent network of well-managed Marine Protected Areas by 2010."

<sup>23</sup> UK Contribution to Ecologically Coherent MPA Network in the North East Atlantic Joint Administrations Statement 2012: "The UK MPA network will contribute to a wider North East Atlantic MPA network and will include European Marine Sites (SACs and SPAs)"

<sup>24</sup> *Our seas – a shared resource: High level marine objectives* HM Government, Northern Ireland Executive, Scottish Government, Welsh Assembly Government, 2009. "Measures such as an ecologically coherent network of well-managed Marine Protected Areas will help deliver {the vision of "clean, safe, healthy, productive and biologically diverse oceans and seas"} and in some cases enable ecosystems to recover from previous damage.

<sup>25</sup> *UK Marine Policy Statement*. HM Government, Northern Ireland Executive, Scottish Government, Welsh Assembly Government, 2011.

<sup>26</sup> [http://ec.europa.eu/environment/nature/legislation/fitness\\_check/docs/nature\\_fitness\\_check.pdf](http://ec.europa.eu/environment/nature/legislation/fitness_check/docs/nature_fitness_check.pdf)



habitats of EU conservation concern, for the environment, people and the economy ...” The findings are summarised in an Assembly Research Service briefing was produced in January 2017<sup>27</sup>.

The Well-being of Future Generations and Environment Acts potentially put Wales in a more advantageous position for environmental protection than rest of the UK following withdrawal from the EU. However, there is no cause for complacency or to assume the MPA management would improve because of these Acts, or even not slip backwards. Neither of these two Acts have yet proved themselves. WG must do far better in its delivery of these Acts than the lip service shown to the sustainable development duties in Government of Wales Acts<sup>28</sup>. Whilst the WBFG and E(W)A might provide a potential safety net, their value to marine environmental protection in general and any contribution to MPA management in particular, cannot be assumed to be a given. They are not an appropriate vehicle, and were never intended or designed to be.

Failures to follow correct process and permitting damaging fisheries methods have resulted in complaints to the European Commission in at least four of Wales’ EMS. None reached the European Court because government took action to address the problem issues.

Withdrawal from the EU will leave the Welsh (and British) public with no recourse to EU infraction processes or the European Court. It will be imperative that a new, effective, mechanism be introduced for holding government (UK and Wales) accountable for inactions and failures to take appropriate action.

Withdrawal from the EU will deprive MPA management from access to significant funding streams. These will need to be replaced, though it is difficult to imagine how this will be achieved in Wales in the current and forthcoming economic climate.

### **9 If you had to make one recommendation to the Welsh Government from all the points you have made, what would that recommendation be?**

This question seeks an over-simplistic response. A single simple recommendation is meaningless without detail and context. It risks failing to capture the complexity of the issues and providing an excuse to cherry pick just one focus at the expense of all the other legitimate and important lessons and needed improvements in MPA management.

If pressed, I recommend that WG takes and demonstrates a committed lead,

- showing confidence and being prepared defend a decision to protect marine biodiversity both for its intrinsic value and its importance to the wellbeing of future generations in its broadest sense,
- which ensures that the full suite of existing MPAs have appropriate, adequately resourced, holistic, integrated, ecosystem-based (*ie not* selective feature based), nature conservation focused management, unencumbered by overly complex micro-assessment, in place within a tightly defined timescale (I suggest a minimum of three years),
- and which includes a comprehensive set of substantial fully protected areas with appropriate scientific monitoring in place, including the Skomer MCZ,
- and with the commitment to rapidly designate any additional MPAs that are necessary, together with appropriate management,

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<sup>27</sup> <https://assemblyinbrief.wordpress.com/2017/01/30/half-a-million-voices-record-breaking-response-defends-eu-nature-directives/>

<sup>28</sup> *Sustainable development and business decision making in the Welsh Assembly Government*. Welsh Audit Office report 2010.

- ensuring that any authorities to which responsibilities are delegated are clearly directed and enabled, including being adequately resourced, to deliver the nature conservation objectives.

## **10 Do you have any other comments or issues you wish to raise that have not been covered by the specific questions?**

### **10.1 Misleading reporting of condition**

Honest and accurate reporting of marine environmental condition is imperative to ensure decision-making is well informed.

Reporting of marine feature and sites condition / status monitoring must be clear and unbiased rather than tailored as a public relations exercises so that condition / status appear to be better than reality. These assessments need to include the rationale for judgments and confidence indicators.

However, there has been and there remains an unfortunate, chronic tendency by statutory agencies toward magnifying positive news at the expense of honest acknowledgement of outstanding problems. Environmental condition reports from statutory agencies tend to give rosy, yet ambiguous, misleadingly quasi-positive impressions, which selectively cherry-pick from and poorly reflect the source material they draw on.

Examples:

- a headline statistic in a recent CCW current state of knowledge report boasted that “27% of designated habitats and species within SACs are considered to be in favourable condition”. Considerable effort was needed to find an explanation of the condition the other 73%. (most were unfavourable);
- NRW’s 2016 SoNaRR boasts that 29% of estuarine and coastal waters are at “good or better ecological status” and represent “fair” water quality. What is the elastic term “fair” likely to mean to most readers in this context? How much more than 69% of waters have to be classified as less than “good” before an honest term such as “poor” or “bad” is used?

SoNaRR alludes to “challenges such as pollution and climate change and damage to the ecosystems” that are “the result of the choices people make every day” which “present a risk to the resilience of Welsh ecosystems ...” whilst admitting that “many of our natural resources and the resilience of Wales’ ecosystems are continuing to decline”. Such convoluted language fails to deliver the clear unambiguous messages that are essential to inform government, policy makers, regulators and the public.

The differences in messages between reports from statutory agencies on one hand and those from major UK NGOs not given to over-excitement and exaggeration (*eg* the Wildlife Trust’s State of Nature Report series) and international organisations and collaborations (*eg* OSPAR, WWF International) are frequently irreconcilable.

Misinformation causes confusion. It fosters denial, apathy and complacency. It risks creating an impression of “job done” and the illusion that things are better than they are, particularly amongst senior managers and elected representatives who do not have the time to read detailed background data. It leads to abandonment, or at best, postponement of essential management action until a later date when it is likely to be significantly more expensive and less effective.

## 10.2 Holistic / integrated / “ecosystem-based” management

The fundamental interconnectedness of the marine environment necessitates an integrated “joined-up thinking” approach to management <sup>29</sup>.

The UK, including Wales, aspires to an “ecologically coherent” network of MPAs, reflecting OSPAR targets. Ecological coherence is a superficially deceptively simple concept that is nevertheless extremely difficult to pin down in detail and which requires data and knowledge considerably greater than presently exists to meaningfully describe <sup>30</sup>.

The Joint Nature Conservation Committee (JNCC) is nevertheless focused on identifying whether all the components identified as necessary for an ecologically coherent system are included in MPAs. Their “gap analysis” for Wales’ MPAs has recently been completed <sup>31</sup>. Its conclusion is clear: most “broad-scale habitats” are included; “only a few gaps remain in relation to the area of these habitats afforded protection” (or in actuality, as has been stressed earlier in this submission, that have been designated); there are “a small number of shortfalls in the protection of habitats and species”.

Wales MPA coverage clearly includes most ecosystem components. It is readily amenable to integrated holistic, ecosystem based conservation management.

Most MPA management practitioners in Wales have taken a largely natural ecosystem-focused approach either by accident or design. However, the opportunity to have done more and better, and to act holistically and with greater integration, has been in place since the MNR provisions in the 1981 Wildlife and Countryside Act. MCZ provisions in the M&CA Act are only cosmetically different. Whilst there remain legislative shortcomings, many failures have been largely attributable to policy decisions and guidance.

JNCC’s assessment process is fantastically complex, splitting ecosystems into almost meaningless individual components in order to determine whether or not sufficient minutely defined components are included, and scoring the number of occurrences or shortfalls of those components. As a consequence, and in complete contrast to Wales’ MCZ and EMS, the English MCZ programme is predominantly focused on designating a multiplicity of MCZs with a very limited range of components (“features”) in each, which risk being ecologically isolated and managed in isolation from their surrounding undesignated habitats and environment. It is difficult to envisage what, if any, nature conservation or socio-economic benefits will accrue for this approach and Wales must at all costs avoid following this example.

### *Skomer MNR/MCZ*

Wales has only has one MCZ (former MNR). The Skomer MNR designation Order does not restrict its purposes to the protection of limited range of specific conservation features. It identifies the holistic purposes of a) conserving marine flora, fauna, geological and physiographic features and, b) providing “under suitable conditions and control special opportunities for the study of and research into” that flora and fauna and “the physical conditions in which they live”.

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<sup>29</sup> A considerable body of research literature on this subject exists which I do not have the time to succinctly summarise for this submission.

<sup>30</sup> Or is likely to exist in the foreseeable economic climate. The focus on ecological coherence has come under considerable academic criticism for as being an unattainable objective given the complexity of marine ecosystems and the current understanding of them.

<sup>31</sup> [http://jncc.defra.gov.uk/pdf/JNCC\\_NetworkProgressWelshWaters\\_Final.pdf](http://jncc.defra.gov.uk/pdf/JNCC_NetworkProgressWelshWaters_Final.pdf)

The main conservation byelaw included in the Order superficially appears equally holistic, forbidding: “intentionally or recklessly - (a) kill, take, destroy, molest or disturb any animal or plant in that part {*ie* the MNR}, (b) do anything which interferes with the sea bed in that part, or damage or disturb any object in that part”. However, this holism and the nature conservation intent of both the Order and its byelaws are fundamentally undermined by a suite of exceptions including “any right of fishery”.

The fishery exception also fundamentally undermines the second purpose of the MNR Order, the undertaking of research and study “under suitable conditions and control”.

The simple removal protection of “any right of fishery” would radically enhance the conservation credentials, power and capacity of the MCZ. The opportunity to do so has been there since designation; the exclusion was not a requirement of the Wildlife and Countryside Act, nor is its retention required by the M&CA Act.

### *European Marine Sites*

The European Habitats and Species Directive (HSD), through its definitions of “Favourable Conservation Status” (FCS) for habitats and species features (which specifically include the extent, distribution structure and function of habitat features, and the supporting habitats of species features) is essentially ecosystem focused for large, physiographic marine features (*ie Large shallow inlets and bays, Estuaries, Sandbanks and many Reefs*). The definition of FCS clearly identifies the goal of encompassing and managing entire ecosystems holistically.

“Regulation 35 advice”, detailing conservation objectives, issued by CCW (as a statutory obligation) is explicitly holistic, clearly basing the conservation objectives on the HSD definitions of FCS and making repeated reference to ecosystem functioning.

Most RAGs have taken an holistic, ecosystem based approach to developing management schemes for EMS.

However, these holistic requirement and approaches have been routinely overlooked, challenged or disregarded by regulators, managers and WG officials.

Clear opportunities for holistic, integrated, ecosystem-based management have existed for over two decades but have not been taken.

### **10.3 Lack of scientific monitoring control areas**

The fundamentally important lack of any highly protected areas where extractive, depositional, damaging or disturbing activities are excluded, and which can act as scientific control areas, prevents comparisons with multi use areas to objectively assess impacts to marine biodiversity and investigate and document the ecological, social, economic and cultural benefits of such fully protected marine areas has been identified elsewhere in this submission (response 5).

### **10.4 Ineffectiveness of voluntary management measures**

Voluntary approaches to management are broadly welcomed by both agencies with management responsibilities and marine users, operators and businesses. They are appealing for many reasons, not least their low cost and need for relatively little effort and commitment by regulators and managers.

However:

- Obtaining voluntary agreement on management measures from the sectors that will be managed is difficult or impossible without the threat of regulation. There are several UK examples of voluntary fisheries closures that failed after short periods; the Lyme Bay example cited by Tim Glover (oral evidence 1 February 2017) owed its current success to the pressure of statutory measures (previous voluntary agreements lasted a few months at best) .
- The track record of effectiveness of voluntary management agreements is demonstrably poor <sup>32</sup> .
- Whilst writing this submission I have been informed that the recently introduced voluntary bait collection zoning agreement for the Gann Estuary, Milford Haven (Pembrokeshire Marine SAC; SSSI) is being consistently and blatantly disregarded by bait diggers despite shiny new signs and on-shore markers.
- Failed attempts to secure improved MPA management can result in increased pressure once the sector that was proposed for management realize the lack of constraint on their activities.

*Example:* failed attempt to phase out pot fishing in Skomer MNR. Following significant increase in pot-fishing pressure from the late 1980s (when effort recording began) to 2002, a proposal was developed to phase out, through a byelaw, fishing over a ten-year period, which provided for the two fisherman with a track record in the MNR to reach retirement. Despite agreement from the two affected fishermen, the proposal was rejected. Following the rejection, the number of pot fishers and effort roughly doubled <sup>33</sup>. That such increase in pressure can occur in a designated Marine Protected Area, particularly apparently in response to an attempt to secure enhanced protection, is of considerable concern.

## **10.5 Disproportionate prioritisation of fishing over nature conservation protection and management**

*I apologise to Committee members: I am running out of time to complete this submission and must truncate this section; I would be pleased to expand on any of the issues identified on invitation.*

WG have developed of track record of disproportionately prioritising fishing interests over nature conservation protection and management.

Examples:

- *Cardigan Bay scallop dredging.* WG has overtly taken the decision to open further areas of Cardigan Bay to scallop dredging in advance of having conducted a legally compliant assessment. Part of its preparation included facilitating provision of several hundred thousands of pounds for a research study with the clear aim of supporting an expanded dredge fishery, rather than a comprehensive objective assessment of whether or not a dredge fishery should be expanded at all (or actually permitted to continue since designated MPA features in the area are currently assessed as unfavourable).

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<sup>32</sup> Prior, S (2011) *Investigating the use of voluntary marine management in the protection of UK marine biodiversity*. Report to Wales Environment Link

<sup>33</sup> Full details of this example are documented in Skomer MNR Advisory Committee minutes, MNR annual reports and briefing notes, South Wales SFC minutes and contemporary press reports

- *Lost pots compensation scheme 2014.* WG disbursed almost a quarter of a million pounds to compensate for lost fishing gear (19,728 pots, of which 10,711 were parlour (lobster) pots) with no requirement on fishers to provide any evidence of loss or location of loss<sup>34</sup>. “Ghost fishing” is a well known global phenomenon that has a significant impact on fish stocks. Local evidence of impacts from lost static fishing gear has been collected and published by the Skomer MNR/MCZ in collaboration with the SeaFish (Sea Fish Industry Authority) and Prof Mike Kaiser, Bangor University<sup>35</sup>. Ghost fishing has both negative ecological and fisheries impacts, yet WG appear comfortable with subsidizing it.
- *Unquestioned acceptance of fisheries criticism and dismissal of scientific evidence.* WG appeared to accept the fishing industry’s rejection of the scientific case for the MCZ project without challenge. Specifically, WG appeared to have accepted the “alternative approach” proposed by the fishing industry. The core of those proposals were to adopt almost the exact approach that EMS management had followed for over a decade, but which the fishing industry had steadfastly avoided engaging with.

The critical difference was that it proposed “co-management” by the fishing industry. Whilst fishermen should indeed be involved in marine management, their industry’s track record of self-control and compliance with regulation leaves so much to be desired that it does not inspire confidence in co-management<sup>36</sup> (also see letters to the then Minister and Marine Branch submitted as attachments to this response). Further, it is not clear why fisheries, particularly given its trivial economic value, should have preferential opportunity for co-management more so than any other marine sector.

## Summary and conclusion.

It is clear that despite the few examples of good and effective practice, overall MPA management in Wales is failing. The single greatest reason for this is the lack of genuine commitment, leadership and direction by Welsh Government. Marine conservation is seen as a threat and impediment to economic development rather than being embraced for both its intrinsic value and its overwhelming cultural and ecosystem services values.

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<sup>34</sup> WG FOI Request 8894 - Response letter 20141103#2

<sup>35</sup> Bullimore *et al*, 2001. *A study of catches in a fleet of “ghost-fishing” pots*. Fisheries Bulletin vol.99; Kaiser *et al* 1996. *Catches in ‘ghost-fishing’ set nets*. Marine Ecology Progress Series vol.145

<sup>36</sup> Examples: see list of recent and pending prosecutions in WG response to FoI request ATISN 10842 Marine Fisheries Management:  
<http://gov.wales/docs/decisions/2016/environment/161109atish10842ltr.pdf>

The actions of the fisherman engaged to carry out the scallop dredging experiment described in response 6.1

The local Wales fishing industry refused to participate in the SeaFish led “ghost gear project” and allegedly warned off local fishers from participating (*pers comm*. David Bray, fisherman, deceased). The industry participated in the partner projects in Ireland, Portugal and Spain.

SMNR potting phase out. I carefully make no allegation of intimidation, but it was clear that the two key fishermen with track records in the MNR who agreed to the phase-out proposals had an abrupt change of heart after the local fishing association made it clear that they were giving away their “birth-right”.

I apologise for the length of this submission. Nevertheless, despite its length it contains far less detail, examples and supporting evidence than exists, than is needed and that I would wish to have included.

I also apologise for any typographical errors that may remain.

Yours sincerely,

Blaise Bullimore

#### Attachments

Articles: *Marine conservation Wales: gloom or hope?* Blaise Bullimore. *Natur Cymru*, vols 47&48, 2013

Article: *Monitoring Wales only Marine Nature Reserve.* Blaise Bullimore. *Natur Cymru*, vol 50, 2014

Article: *Tales from the Bush.* Blaise Bullimore, *BBC Wildlife*, March 2016

Letter: Blaise Bullimore to John Griffiths, then Minister for Environment and Sustainable Development, October 2012.

Letter: Blaise Bullimore to WAG Marine Branch, November 2010.

### ***Annex 1 Personal credentials, continued***

During the first half of the 1980s I developed the core of what has become the longest continuous subtidal rocky seabed monitoring programme in the UK, in the then Skomer voluntary marine reserve (vMR). I carried out surveys of scallop populations in and near the vMR and was invited to design and lead an field investigation of the impacts of scallop dredging prior to the vMRs submission for designation as what was expected to be the UK's first MNR.

During the second half of the 1980s, prior to the dissolution of the Nature Conservancy Council and the creation of the country conservation agencies in 1990, I was responsible for leading the Skomer Marine Nature Reserve (MNR) through its four year pre-designation public consultation and conversion from voluntary reserve to statutory MNR, and for designing and managing impact assessments to inform new management measures. The protracted consultation resolution period enabled Lundy MNR to overtake the Skomer process and become the UK's first MNR. I was the Skomer MNR's first manager from designation in 1990 until 1998, during which time I broadened and developed the scope of the monitoring programme in partnership with the new staff that were appointed after designation.

From 1998 until early retirement from the Countryside Council for Wales in 2006, I was a senior marine conservation officer with responsibilities for delivering CCW's obligations for European Marine Sites, marine Sites of Special Scientific Interest and providing advice and consultation responses across the full range of development and other proposals in the marine environment of SW Wales, including retaining professional responsibility for the management of the Skomer MNR.

I spent ten years in CCW leading on development of conservation objectives and management measures for marine European Habitats Directive 'Special Areas of Conservation' and supporting 'Relevant Authority Groups' to develop management schemes.

Following retirement from CCW, I continued working in the development of European Marine Sites as Carmarthen Bay & Estuaries European Marine Site Officer for a decade, with a year providing part-time maternity cover for the Pembrokeshire Marine SAC, at the delivery end of developing and attempting to implement management plans. During this period I also undertook work as an independent consultant specialising in marine environmental monitoring.

Throughout this time and before it I was actively involved in designing and delivering field survey, monitoring and environmental impact assessments

I retired as an EMS officer in 2016 but remain an active field biologist and maintain a professional involvement in marine environmental monitoring as project manager for the Milford Haven Waterway Environmental Surveillance Group, a technical knowledge partnership comprised of the major industries surrounding Milford Haven, the Port of Milford Haven, local authority, Pembrokeshire Coastal National Park Authority and NRW.

I retain a strong interest in the conservation and management of Skomer MCZ, being an independent member of the its Advisory Committee and a volunteer scientific dive team member.