



NAFC Marine Centre  
University of the  
Highlands and Islands



## UNDERSTANDING AND INFLUENCING THE MARINE MANAGEMENT AND DEVELOPMENT PROCESSES - **BEST PRACTICE GUIDANCE FOR FISHERS**



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## 1. Introduction

Fishers have used the sea for thousands of years and in many areas have, until recently, been the sole users<sup>1</sup>. As well as the continued expansion of more established sectors such as oil and gas, telecommunications, aquaculture and shipping, the seas around Scotland are becoming increasingly busy as newer sectors such as marine renewables, recreation and tourism, and conservation also compete for space. This has created an increasingly congested marine environment, with the fishing industry potentially interacting and possibly being in direct competition for space with these other marine users and sectors<sup>2</sup>.

The increase in use of our seas has in turn led to an increase in legislation, planning and management approaches. Fisheries are still a major part of marine activity around Scotland so need to be considered by marine developers or planners at all stages of the planning and development process. Whether impacts are large or small, economic or social, the fishing industry is a key stakeholder so it is important that fishers know what to expect from the different marine sectors and vice-versa. It is also key that the fishing industry remain positively engaged and are knowledgeable about the processes involved, enabling them to better represent their interests during consultations and helping solve issues that may arise through developments.



<sup>1</sup> Alexander, K. A., Wilding, T. A., & Heymans, J. J. (2013). Attitudes of Scottish fishers towards marine renewable energy.

Marine Policy, 37, 239-244.

<sup>2</sup> MMO (2014) Social impacts and interactions between marine sectors, MMO report. UK Government





## 2. What marine development and management means for fishers

As there are so many activities that are now occurring in the seas around Scotland it is important to understand what exactly this means for fishers. Some of these activities may affect very specific areas or may have wider ranging impacts on the fishing industry in the area. Links to the sources of information touched upon in the table below can be found in Section 5.



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# Summary of marine developments, their potential impacts on fishers and available information

Marine Development	Potential impacts on fishing industry		Current information sources available*
	Negative	Positive	
<b>Oil and gas</b>	<ul style="list-style-type: none"> <li>• Direct (permanent) loss of fishing grounds and subsequent earnings from overlap with infrastructure</li> <li>• Pipelines can pose a hazard to gear through snagging</li> <li>• Effort displaced to other areas, creating extra pressure on fish populations and fishermen elsewhere</li> <li>• Obstruction of regular fishing vessel transit routes</li> <li>• Changes in natural habitat may provide a habitat for non-native ('alien') species</li> <li>• Pollution risk (e.g. from ship to ship transfers)</li> </ul>	<ul style="list-style-type: none"> <li>• Increased emergency response presence in the area for vessels in distress and/or pollution from other industries.</li> <li>• Economic opportunities to providing vessels for the oil and gas industry for a number of different purposes such as guard duty on underwater hazards or acting as escorts for seismic surveys</li> <li>• Installations can act as fish attraction devices increasing fishing potential (e.g. fish attracted to the warmth of underwater pipes), although these areas may be higher risk</li> <li>• There may be remuneration for lost earnings</li> </ul>	<ul style="list-style-type: none"> <li>• Kingfisher bulletin provides information on a regular basis on surface and subsea structures etc.</li> <li>• FishSafe data base and electronic consoles provides oil and gas structure locations on an electronic platform</li> <li>• National Marine Plan interactive (NMPi) shows locations of pipelines and platforms</li> <li>• Department for Business, Energy and Industrial Strategy</li> <li>• Oil and Gas Authority</li> </ul>
<b>Marine renewables</b>	<ul style="list-style-type: none"> <li>• Direct (permanent) loss of fishing grounds and subsequent earnings from overlap with infrastructure. These can be relatively small areas with single structures or large areas with large arrays of structures</li> <li>• Subsurface structures can pose a hazard to gear through snagging</li> <li>• Changes in natural habitat may provide a habitat for non-native ('alien') species</li> <li>• Effort displaced to other areas, creating extra pressure on fish populations and fishermen elsewhere</li> <li>• Obstruction of regular fishing vessel transit routes</li> <li>• Even if fishing is allowed on site after construction there is an added safety considerations in the event of an engine failure or extreme weather</li> </ul>	<ul style="list-style-type: none"> <li>• Fishing may only be prevented during the construction phase</li> <li>• Creation of new fishing grounds (e.g. creeling/potting around the base or between wind turbines)</li> <li>• Installations can act as fish attraction devices increasing fishing potential, although these areas may be higher risk</li> <li>• There may be remuneration for temporary loss of earnings during survey and construction</li> </ul>	<ul style="list-style-type: none"> <li>• The Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) was set up in 2002</li> <li>• NMPi shows the locations of renewable devices and potential development locations</li> </ul>
<b>Shipping</b>	<ul style="list-style-type: none"> <li>• Safety issues when fishing in areas where shipping intensity is high</li> <li>• If shipping lanes are changed and then go through areas previously fished</li> </ul>		<ul style="list-style-type: none"> <li>• 'The shipping industry and marine spatial planning' guidance</li> <li>• Mapping UK shipping density and routes from AIS – Marine Management Organisation document</li> <li>• NMPi for shipping density maps of all vessel types</li> </ul>
<b>Conservation and MPAs</b>	<ul style="list-style-type: none"> <li>• Displacement from traditional fishing grounds and subsequent loss of earnings</li> <li>• Effort displaced to other areas, creating extra pressure on fish populations and fishermen elsewhere</li> </ul>	<ul style="list-style-type: none"> <li>• An indirect benefit may be that gear restrictions can reduce gear conflicts in some areas</li> <li>• Protection of certain habitat particularly those which support spawning areas and nursery grounds may increase stock levels in the long-term</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Protected Areas (MPAs) – Scottish Government website</li> <li>• Marine Protected Areas – SNH website</li> <li>• NMPi for marine protected area locations</li> </ul>
<b>Aquaculture</b>	<ul style="list-style-type: none"> <li>• Direct (permanent) loss of fishing rounds and subsequent earnings from overlap with infrastructure</li> <li>• Effort displaced to other areas, creating extra pressure on fish populations and fishermen elsewhere</li> <li>• Disease transmission risk from cultivated to wild populations</li> </ul>		<ul style="list-style-type: none"> <li>• Aquaculture – Scottish Government website</li> <li>• Scottish Salmon Producers Organisation (SSPO)</li> <li>• Association of Shellfish Growers (ASSG)</li> <li>• NMPi for finfish, shellfish and fishery sites</li> </ul>



### 3. What marine developers are required to do

Scotland has a National Marine Plan that sets out the guidelines for the management of Scotland's seas which developers must adhere to. The National Marine Plan includes specific policies to protect fisheries interest<sup>3</sup>.

In the future regional marine plans may be developed, which will provide more detailed management measures within specific regions of the Scottish coast. At this time regional plans are only being developed in the Clyde and Shetland regions, plans for other regions may be developed at a later date.

#### **3.1 Who makes decisions and what do they have to take into account?**

##### **3.1.1 Developments**

All developments in Scottish waters need a Marine Licence issued by Marine Scotland, with the exception of oil and gas which is primarily licensed by the Department of Business, Energy and Industrial Strategy (DBEIS). In addition, depending on the type of development a number of different licences may also be required. These are issued by other central and local government organisations, including DBEIS, Scottish Environment Protection Agency (SEPA) and local authorities.

In order to gain a licence a developer must consider their impacts on other marine users (including fishers) and the marine environment. The licensing authority will also consider the development impacts before issuing a licence. There are a number of policies in Scotland's

National Marine Plan that explicitly apply to fisheries in a marine planning context. These policies outline the importance of fisheries and state that fishing opportunities should be safeguarded where possible. Policies extend to include social and economic impacts on fisheries, and the potentially detrimental effect on fish populations. See online for more details<sup>4</sup>.

Larger scale developments are required to undertake pre-application consultation prior to submitting an application and this provides fishers, the community and other users the opportunity to comment on a proposed development. Most developments will be required to undertake a formal written assessment of their potential environmental impacts, a process called an Environmental Impact Assessment (EIA). This should include impacts on fisheries. It is likely that a developer will need to engage with the fishing fleet to understand their potential impacts on fishing activity before they can undertake this assessment. Providing data early in the process will allow a developer to consider these impacts, and where possible reduce them.

A licence application will then be submitted by the developer to the licensing authority who will run a public consultation to gather views on the development's potential impacts. If you consider that you will be impacted by the development, or do not agree with the assessment conclusions, or how fishing data has been used or interrupted this is last opportunity to comment or object to the proposal.

##### **3.1.2 Marine Protected Areas (MPAs)**

Under various acts and international agreements the Scottish and UK Governments have a duty

<sup>3</sup> Marine Scotland (2015) Scotland's national Marine Plan - A Summary of Objectives and Policies, Scottish Government Report. The Scottish Government, Edinburgh. <http://www.gov.scot/Publications/2015/04/2989> [Accessed 26/10/2016]

to create a coherent network of MPAs. MPAs are created under a range of legislation, so subsequently have a range of names including Special Areas of Conservation (SACs), Special Protected Areas (SPAs), or Nature Conservation MPAs (NCMPAs). In Scotland the site selection process is normally led by Scottish Natural Heritage (SNH) on behalf of the Scottish Government, unless the site is outside 12 NM, where it is led by the Joint Nature Conservation Council (JNCC) on behalf of the UK and Scottish Governments. In addition Demonstration and Research (D&R) MPAs can be proposed, although at the moment the only D&R MPA is in Fair Isle, designated in November 2016.

Potential sites are subject to public consultation, and there are normally a number of local workshops during the site selection process. Scottish ministers are then responsible for deciding whether or not to designate an MPA and determining what management controls will be put in place. During this process they will consider the views of all those who engaged in the consultation process (NGOs, communities, fishers etc.). It is worth noting that some existing

SACs and SPAs may be implementing new fisheries management measures where there previously were none.

### 3.2 Types of data

There are a number of initiatives to collect and display fishing data. An example of this is Marine Scotland's ScotMap project<sup>4</sup>. The intentions of these projects have been to gather data on the importance of different sea areas to fishers, in order that a developer or decision maker may consider fisheries early in the site selection process. There will be an opportunity for fishers to provide data later on in the process (see section 4.1). However, providing evidence of fishing activity in advance, prior to any proposals allows fishing to be considered at the project inception, alongside other interests such as nature conservation, shipping etc. where data will already be available.

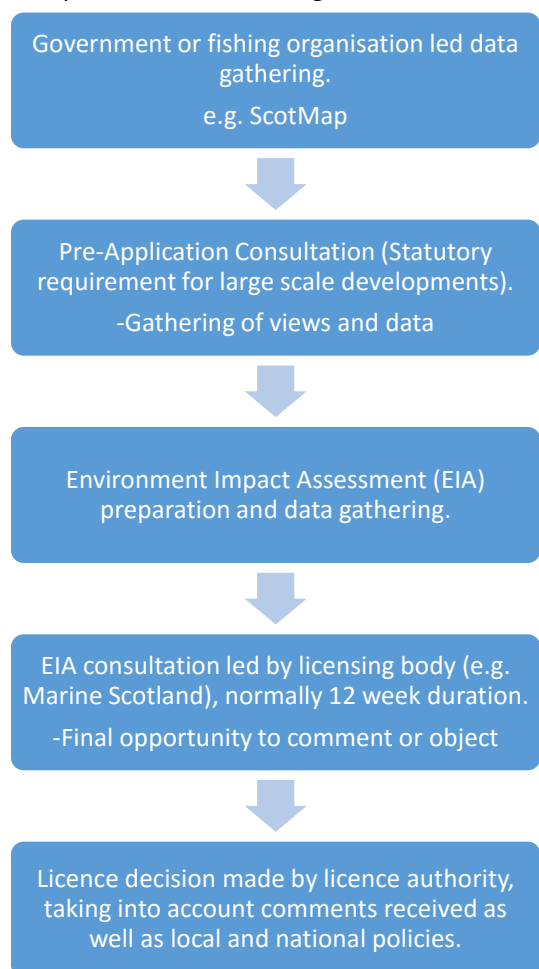


Figure 1: Basic timeline of development process

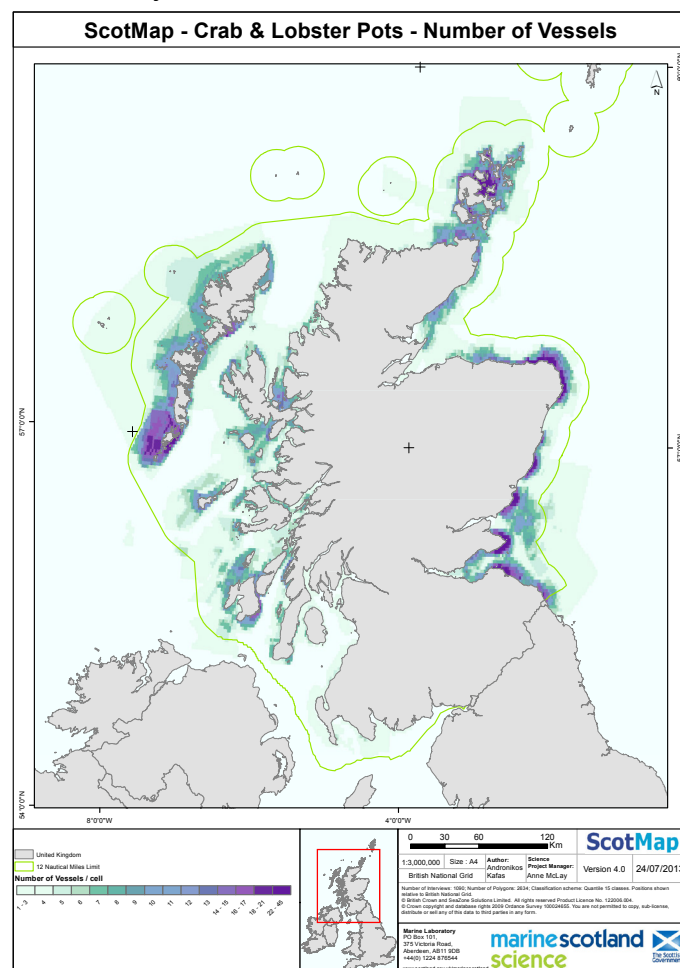


Figure 2: A map produced as part of the ScotMap project<sup>5</sup>

4 Kafas, A., McLay, A., Chimenti, M. & Gubbins, M. (2014) ScotMap Inshore Fisheries Mapping in Scotland, Scottish Marine and Freshwater Science Volume 5 Number 17. *Scottish Government*. Website: <http://marinedata.scotland.gov.uk/dataset/scotmap-inshore-fisheries-mapping-scotland-recording-fishermen%E2%80%99s-use-sea> [Accessed 07/12/2016]





#### 4. Lessons learned from past developments and management decisions, and recommendations for fishers

A number of existing developments and management decisions that have impacted Scottish fishers to a greater or lesser extent. It is important to consider these past experiences and learn lessons from them to enable fishers to be better equipped should a development proposal be initiated in their area. A list of recommendations is given below:

- **New industries** – It is important for fishers to remember that the relationships the fishing industry has with established sectors have been developed over time and that new sectors do not have the same experience of working with the fishing industry.
- **A question of scale** – Developers may request data on a finer scale than fishers are

comfortable in providing. While it is important to protect fishing grounds (from other fishers) there is a risk that during consultation fishers identify a wide area that is fished when actually only a few specific areas are fished. Developers might go ahead under the impression that their development only removes a small percentage of the fishing ground, when in reality it may be located on the main grounds. Thus, a main fishing ground is taken completely away and remuneration for loss could be much less due to calculations based on only a small area of “initial fisher identified fishing ground” being occupied (See Figure 3).

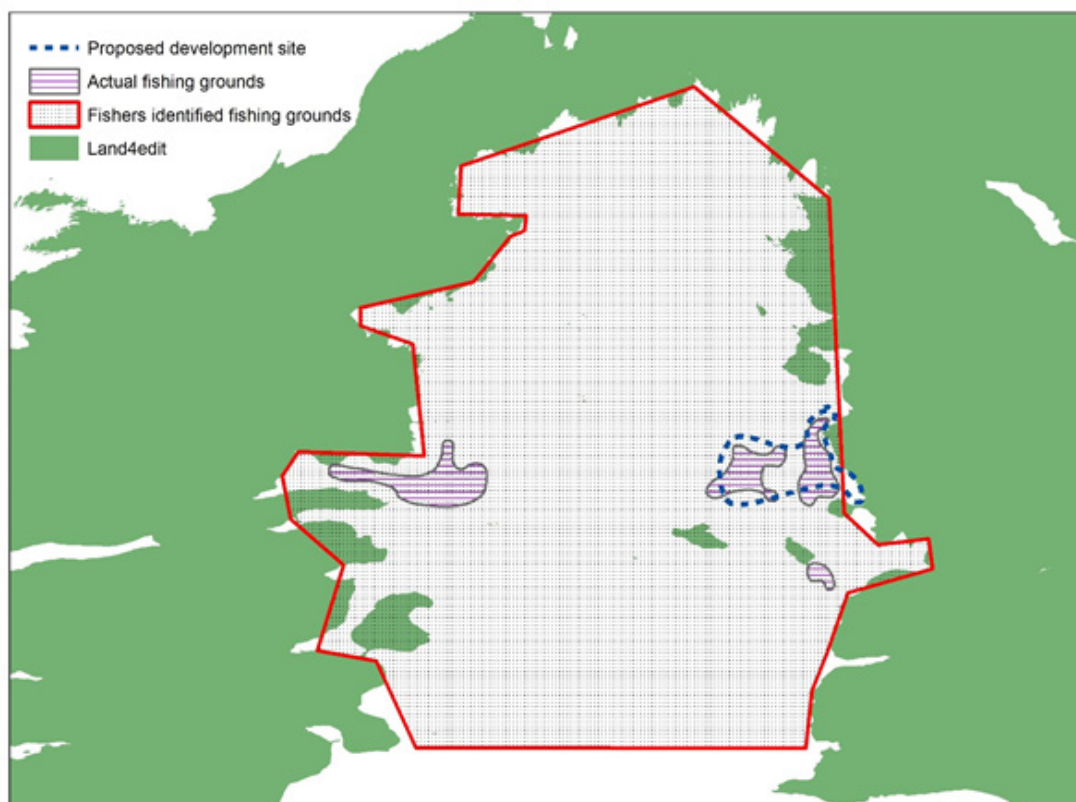


Figure 3: Fabricated map showing an example of the impacts of differences in scale in terms of identified fishing grounds and actual fishing grounds



- **Use your local association** - they will be able to provide advice, represent your views and where necessary engage with the SFF.
- **Always engage** in the development process – developers and licensing authorities can not consider your views if they do not know them! Early engagement will mean that where possible developers will be able to adapt their plans.
- **Be aware** that fishers (often via associations) and communities must be consulted about potential developments and management measures.
- **Be clear** – when providing information ensure that the ways you will be affected by a development or management measure is clear to the developer or decision maker:
  1. **Seasonality** of a fishery may be important and could be taken into consideration when planning a development (i.e. construction phase is out of season).
  2. **Obstructions** and how they alter normal fishing activity should be fully explained to developers (i.e. if a development obstructs a full tow, how this effects safety or turning room etc.).
  3. **Steaming** routes may be affected by developments, inform developers how they will change and why.
  4. **The whole picture** – Inform developers of other restrictions (such as a small vessel can't go too far from port) and how these along with MPAs and other developments affect fishing opportunities already.
  5. **What could developers do** to enable fishers to continue to fish the area (e.g. increase distance between tidal turbines to allow leaders in between).
  6. **Safety concerns** and how developers can overcome these to encourage fishers to continue fishing the area.
  7. **Different stages** – Developers will want to be informed on how fishers will be affected at different stages of the development (i.e. construction, operation and decommissioning).
- **Be pragmatic** - It is important for fishers to be realistic during consultations and negotiations, as fishing is one of many considerations and permission may be granted even if fishermen object.
- **Be ready** - Expect to be asked to provide effort data. Ensure that it is clear that the effort data will only be used for the specific task that is being asked. More complete comprehensive effort data will benefit you (the fisher) in the long run as planning bodies can then have a better grasp of the kind of impact it will make on your fishing opportunities.
- **Do it in writing** - Comments and objections should be made in writing
- **Get advice** - An example from southern England indicated that having a solicitor involved in the drawing up of mitigation agreements helped proceedings<sup>5</sup>



<sup>5</sup> MREKP (2013) Fisheries and Marine Renewable Energy Interactions Summary report from expert workshop, Assessment and Mitigation Marine Renewable Energy Knowledge Exchange Programme (MREKEP). Centre for Marine and Coastal Policy Research, Plymouth University, UK

## 5. Further information

There is an overwhelming amount of information available regarding marine developments and marine management. Much of this has been summarised and made more accessible online including:

### **Marine Scotland**

Directorate of Scottish government that manages the marine environment. Information can be found on their website relating to marine planning, licensing, marine renewable energy, and MPAs.

Website: [www.gov.scot/Topics/marine](http://www.gov.scot/Topics/marine)

### **Marine Scotland – Marine Protected Areas**

Specific section of Marine Scotland that gives details of extensive MPA network.

Website: [www.gov.scot/Topics/marine/marine-environment/mpanetwork](http://www.gov.scot/Topics/marine/marine-environment/mpanetwork)

### **Scotland's National Marine Plan**

An online version on Scotland's National Marine Plan is available online. The fisheries chapter takes you to policies specifically aimed at managing and protecting the fisheries industry.

Website/document: [www.gov.scot/Publications/2015/03/6517/0](http://www.gov.scot/Publications/2015/03/6517/0)

An interactive mapping tool has also been developed, designed to assist planning and development it has a wealth of information on the marine environment around Scotland.

National Marine Plan Interactive (NMPi): [www.gov.scot/Topics/marine/seamanagement/nmpihome](http://www.gov.scot/Topics/marine/seamanagement/nmpihome)

### **The Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW)**

Set up in 2002 this group was set up to improve relations between the fishing industry and offshore renewables sector. They have produced a number of best practice documents for developers.

Website: [www.thecrownestate.co.uk/energy-minerals-and-infrastructure/offshore-wind-energy/working-with-us/floww/](http://www.thecrownestate.co.uk/energy-minerals-and-infrastructure/offshore-wind-energy/working-with-us/floww/)

### **UK Government Department for Business, Energy and Industrial Strategy**

Website: [www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy](http://www.gov.uk/government/organisations/department-for-business-energy-and-industrial-strategy)

### **Oil and Gas Authority**

Government body that “regulate, influence and promote UK oil and gas industry”

Website: [www.ogauthority.co.uk/](http://www.ogauthority.co.uk/)

### **Oil and Gas safety**

Kingfisher bulletins and the FishSafe platform offering positions of potentially dangerous surface and subsea structures.

Kingfisher - [www.seafish.org/industry-support/kingfisher-information-services/kingfisher-bulletins](http://www.seafish.org/industry-support/kingfisher-information-services/kingfisher-bulletins)

FishSafe - [www.fishsafe.eu/en/home.aspx](http://www.fishsafe.eu/en/home.aspx)

### **Shipping information**

Link to guidance document: [www.nautinst.org/en/forums/msp/](http://www.nautinst.org/en/forums/msp/)

Link to government document mapping shipping density and routes using AIS: [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/317770/1066.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/317770/1066.pdf)

### **Marine Scotland – Aquaculture**

Specific section of Marine Scotland website that gives details of the aquaculture sector in Scotland.

Website: [www.gov.scot/Topics/marine/Fish-Shellfish](http://www.gov.scot/Topics/marine/Fish-Shellfish)

### **Scottish Salmon Producer Organisation (SSPO)**

“plays a central role in representing the industry on political, regulatory, media and technical issues in Scotland, the UK, EU and internationally”

Website: [scottishsalmon.co.uk/](http://scottishsalmon.co.uk/)

### **Association for Shellfish Growers (ASSG)**

Website: [www.assg.org.uk/](http://www.assg.org.uk/)



