



Supporting Implementation of **Maritime Spatial Planning** in the **Celtic Seas**

Component: C1.2.4: Case studies on approaches to MSP

CS-3 Planning across borders: Case Study of the Solway Firth

Deliverable 12: Report on approaches to cross-border cooperation, including stakeholder engagement mechanisms

Sub-component: D12.4: Particular cross border issues for the Solway Firth



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About SIMCelt

SIMCelt - Supporting Implementation of Maritime Spatial Planning in the Celtic Seas was a two-year €1.8 million project co-financed by DG MARE and focussed on promoting the development of transnational cooperation to support the implementation of EU Directive 2014/89/EU in the Celtic Seas (Figure 1). Led by University College Cork, the project consortium comprised both planners and researchers from seven partner institutes representing a mix of governmental authorities and academic institutes from Ireland, France and the UK. The consortium was particularly interested in developing meaningful cooperation between neighbouring Member States to support implementation of spatially coherent plans across transboundary zones of the Celtic Seas, building on previous work and leveraging new opportunities to identify and share best practice on technical, scientific and social aspects of transboundary MSP.

Acronyms

EA: Environment Agency

EU: European Union

GES: Good Environmental Status

M: Metres

MCAA: Marine and Coastal Access Act 2009

MMO: Marine Management Organisation

MPS: Marine Policy Statement

MSA: Marine (Scotland) Act 2010

MSFD: EC Marine Strategy Framework Directive

MSP: Maritime Spatial Planning

NAFC: North Atlantic Fisheries College

Nm: Nautical miles

RBM: River Basin Management

RBMP: River Basin Management Plan

SEPA: Scottish Environmental Protection Agency

SFP: Solway Firth Partnership

SIMCelt: Supporting Implementation of Maritime Spatial Planning in the Celtic Seas

SNMP: Scottish National Marine Plan

SSMEI: Scottish Sustainable Marine Environment Initiative

STRMP: Solway Tweed River Basin Management Plan

WFD: EU Water Framework Directive

Terminology

The UK tends to refer to “marine planning” rather than “Maritime Spatial Planning” but practical discussion of the discipline amongst EU Member States tends not to differentiate between the two phrases. Throughout this report, therefore, the phrases “marine planning” and “marine or maritime spatial planning” are used interchangeably.

Key issues identified for marine planning in cross-border areas, e.g. the Solway Firth¹

- 1: A single marine ecosystem may be subject to multiple administrative boundaries**
- 2: Administrations may have separate legislation in place, may take different approaches to marine planning/maritime spatial planning and may be at different stages of implementation**
- 3: Marine planning/MSP regimes may not yet be aligned with each other: linkages to terrestrial planning regimes to take into account 'land/sea interactions' may also be a further consideration**
- 4: Staggered implementation of plans at different scales, and in different areas, leaves the ecosystem vulnerable and results in uncertainty for developers**
- 5: Contrasting policies/objectives/priorities of different planning jurisdictions can impact/conflict with each other and may adversely affect the underlying ecosystem**
- 6: Marine plans must accommodate the effects of climate change on the underlying ecosystem; they should also take account of Plans that relate to the ecosystem, e.g. River Basin Management Plans**
- 7: Stakeholders are at risk from engagement fatigue from multiple planning regimes, especially if plans are developed over a long period of time**
- 8: Stakeholders may live in one jurisdiction but work and experience plan effects in another: use should be made of any established stakeholder groups to access local knowledge, expertise and experience but avoid duplication of stakeholder effort**
- 9: Coastal communities can be particularly vulnerable to environmental or economic changes**

¹ In no particular order

1. Introduction

The Celtic Seas region stretches from the north-west of Scotland to the north-west of France and encompasses three EU Member States: the UK, the Republic of Ireland and France. It is an area where the cross-border and transboundary nature of marine planning is being tested for real. Within the UK, all four administrations – Scotland, Northern Ireland, England and Wales – have marine and coastal resources represented within the sea area. As well as the maritime boundaries between the Member States there are also five estuarine waterbodies that mark the borders between different administrations: Lough Foyle and Carlingford Lough between Northern Ireland and the Republic of Ireland; the Dee and Severn Estuaries between Wales and England and the Solway Firth between Scotland and England.

The SIMCelt Project allowed the opportunity to look in detail at cross-border and transboundary issues connected to maritime spatial planning (MSP). The Solway Firth was examined as a case study for marine planning across borders due to its unique position as a waterbody with a national boundary running through it, a third national boundary at 12 Nm and also because one area was already subject to a National Marine Plan whilst marine plans at different scales were still in the process of being developed for the other areas. As a result, there are multiple challenges in ensuring different national objectives are satisfied by the implementation of different marine planning legislation and that the separate marine planning regimes satisfy the requirements of overarching UK policies and EU Directives.

Marine Plan implementation requires formal agreements that reflect accountabilities across administrative bodies to ensure horizontal integration.² Ecosystems do not recognise human boundaries but are subject to the effects of interactions between different pieces of marine legislation and national policy priorities. To help encourage a coherent and coordinated approach to planning and management across a marine region, economic, social and environmental aspects that support sustainable development in the maritime sector and apply an ecosystem-based approach should be considered³. As part of the planning and management process, cooperation across boundaries is expected and methods for achieving objectives should not adversely affect the pursuit and achievement of those of another administration.

² Cormier et al (2015)

³ EU Maritime Spatial Planning Directive (2014/89/EU)

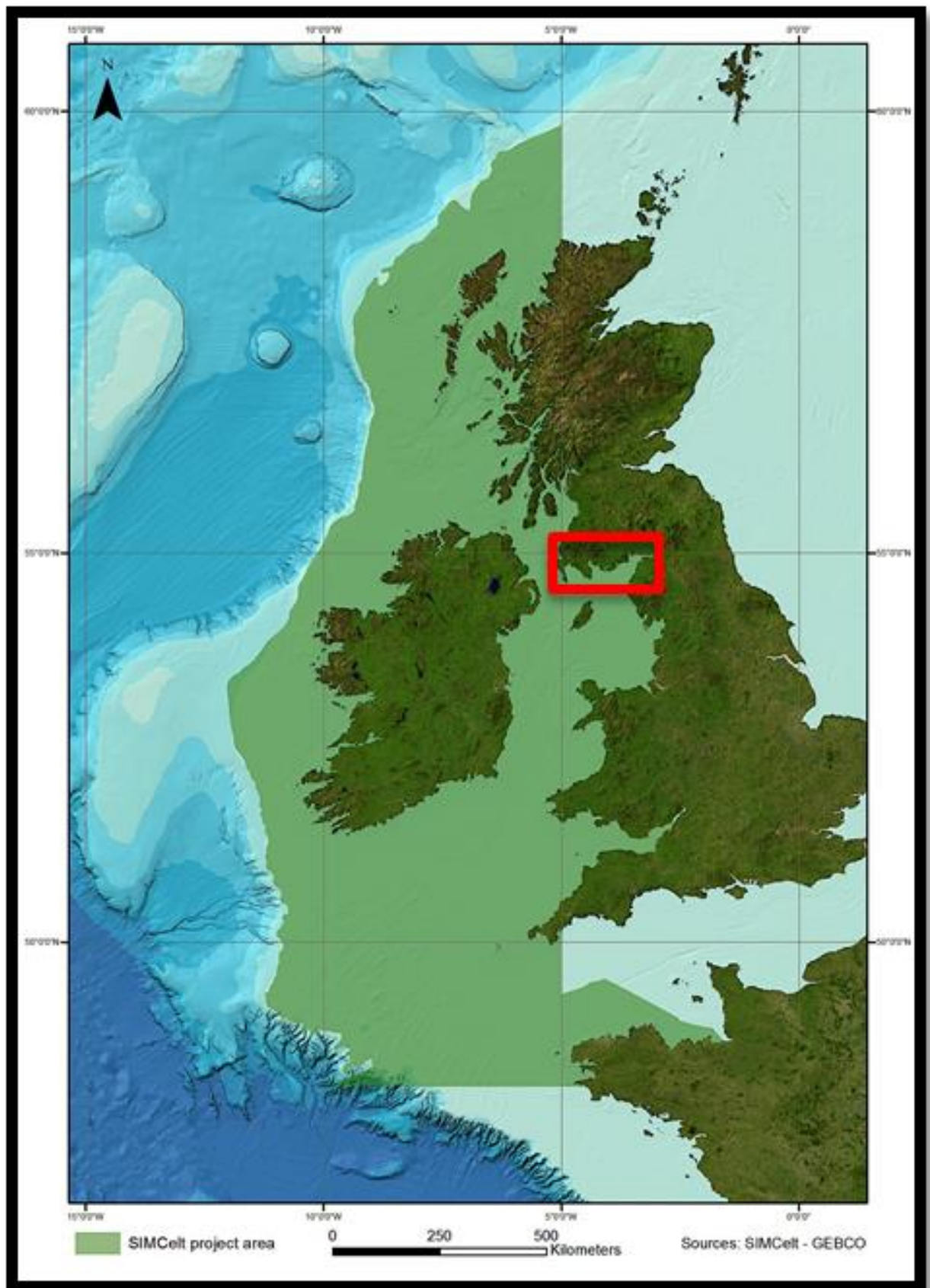


Figure 1: The SIMCelt study area⁴ with the red polygon indicating the Solway Firth

⁴ SHOM (2017)

The [United Nations Sustainable Development Goal 14](#) is to “Conserve and sustainably use the oceans, seas and marine resources.”⁵ To achieve this target requires the implementation of ecosystem-based regional marine planning that can provide the necessary level of spatial detail for sustainable management. Within the EU, the [Maritime Spatial Planning Directive](#) requires Member States to apply the ecosystem based approach to ensure that the collective pressures of marine activities are kept within levels compatible with the achievement of ‘Good Environmental Status’ (GES) by 2020 in the [Marine Strategy Framework Directive](#) (MSFD). Marine Plan implementation requires formal agreements that reflect accountabilities across the administrative bodies to ensure horizontal integration for the European marine area.⁶

Different approaches to MSP, challenges for a staggered implementation of those approaches, effects on the underlying ecosystem and stakeholder engagement will be examined in the cross border context of the Solway Firth.

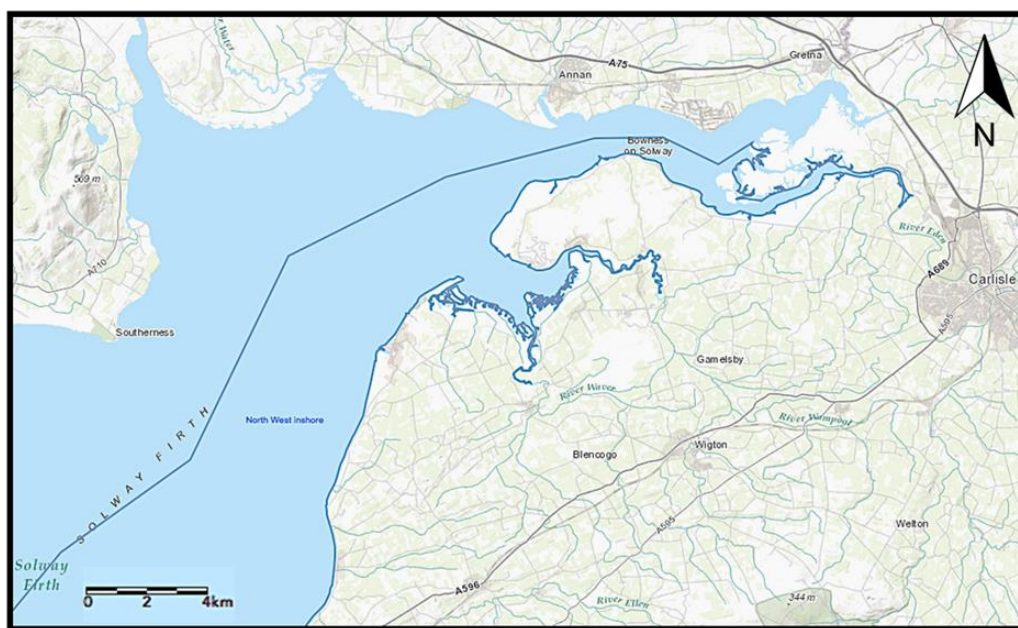


Figure 2: The Solway Firth with lines indicating the boundary between the Scottish National Marine Plan (northern waters) and the English Marine Management Organisation’s North West Inshore Plan (southern waters)⁷

This report is one of a series of documents drafted as part of a ‘Planning Across Borders’ case study for the wider SIMCelt project. Together, they provide information on different aspects of marine planning for a particular cross border ecosystem that is already subject to a complex

⁵ UN Sustainable Development Goals 2015

⁶ Cormier (2015)

⁷ MMO (2016)

governance structure, with different jurisdictions affecting the estuary and taking different approaches to marine planning.

The other documents in the series are available from the SIMCelt website (www.simcelt.eu):

- **SIMCelt – C1 - C 1.2.4 – D12 – D 12.1** Initial comparison of requirements and differences of UK primary legislation pertinent to marine planning
- **SIMCelt - C1 – C 1.2.4 – D12 – D 12.2** References to marine and coastal planning within Local Development Plans relevant to the Solway Firth
- **SIMCelt - C1 – C 1.2.4 – D12 – D 12.3** Report on Sectoral Interactions around the Solway Firth in relation to marine planning
- **SIMCelt – C1 – C 1.2.4 – D 12 – D 12.5** Options for the Solway Marine Region in terms of marine planning.

2. Differences in approach to marine planning

The United Kingdom's involvement in marine planning predates the development of European legislation. The UK Government's [Review of Marine Nature Conservation](#) (1999) set up the Irish Sea Pilot Project in 2002 to test the potential for an ecosystem approach to managing the marine environment at a regional sea scale. The Pilot Project was intended to:

- test ways of integrating nature conservation into key sectors in order to make an effective contribution to sustainable development on a regional basis
- test the framework proposed for the conservation, protection and management of nationally important marine wildlife in the UK
- determine the potential of existing regulatory and other systems for delivering effective nature conservation and identify any gaps, and
- recommend measures to fill the gaps identified.

The Irish Sea was selected for the Pilot Project because it was considered to be one of the most ecologically-distinct regional seas around the UK. The [Project report](#) identified 64 recommendations to the UK Government's Department of Environment, Food and Rural Affairs (Defra), including that "a statutory process of marine spatial planning involving national planning guidelines, strategic plans at the Regional Sea scale and more detailed local plans should be introduced"⁸ as one of a suite of overarching measures required to manage the Regional Sea to achieve marine conservation objectives.

In the decade following the Irish Sea Pilot Project the UK developed the concept of marine planning but constitutional changes and the setting-up of the Devolved Administrations in Scotland, Wales and Northern Ireland meant that a complex picture emerged.

At the same time as the UK was exploring the opportunities of marine planning, other EU Member States were also considering the process to balance economic development of marine resources with environmental protection of coastal and marine assets. In 2011, draft text for an EU Directive for Maritime Spatial Planning and Integrated Coastal Management was proposed. In 2014, the final EU [Maritime Spatial Planning Directive \(2014/89/EU\)](#) was agreed, which established a framework for MSP aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources. The Directive requires each coastal EU Member State to establish and implement maritime spatial planning, taking into account land/sea interactions, by 31 March 2021 but it allows Member States to transpose this requirement into domestic legislation as they see fit.

⁸ The [Irish Sea Pilot Final Report](#) (2004)

This has resulted in a variety of different approaches across the European Union. Within the SIMCelt project area, the approaches of France, the Republic of Ireland and the UK are markedly different. Even within the UK, each of the four Administrations has taken a different approach to reach the objectives of the UK Marine Policy Statement (MPS)⁹.

United Kingdom

The legal basis for marine planning in the UK was provided for by the UK Marine and Coastal Access Act (MCAA) 2009, which created the framework within which marine planning developed for the whole of the UK.

The UK Marine and Coastal Access Act covers activities in Scottish waters from the limit of Scottish territorial waters (12 Nm) to 200 Nm but an agreement between the UK and Scottish Governments in 2009 gave executive devolution to Scottish Ministers for marine planning and conservation powers in the offshore region, coinciding with the existing executive devolution of marine licensing. Marine Scotland was established in 2009 as the competent marine planning authority with responsibility for the integrated management of all of Scotland's seas.

The MCAA required that a [UK Marine Policy Statement 2011](#) (MPS) be drafted to provide the overarching policy framework and context for marine plans in the UK regional seas areas. The four Devolved Administrations have signed up to the MPS and share the vision for having clean, healthy, safe, productive and biologically diverse oceans and seas around the UK. Their own Marine Plans are intended to deliver this vision in due course.

The MCAA 2009 also has a provision that marine planning authorities must take all reasonable steps to ensure that any marine plan is compatible with marine plans for any related marine plan area. For example, in the Solway Firth, the MMO's plan for the English North West Marine Plan area must be compatible with the Scottish National Marine Plan. A subsequent Scottish Solway Regional Marine Plan must be compatible with both and all Plans must be compatible with the UK MPS, unless explained otherwise.

⁹ See SIMCelt report: *'Initial comparison of requirements and differences of UK primary legislation pertinent to marine planning'*

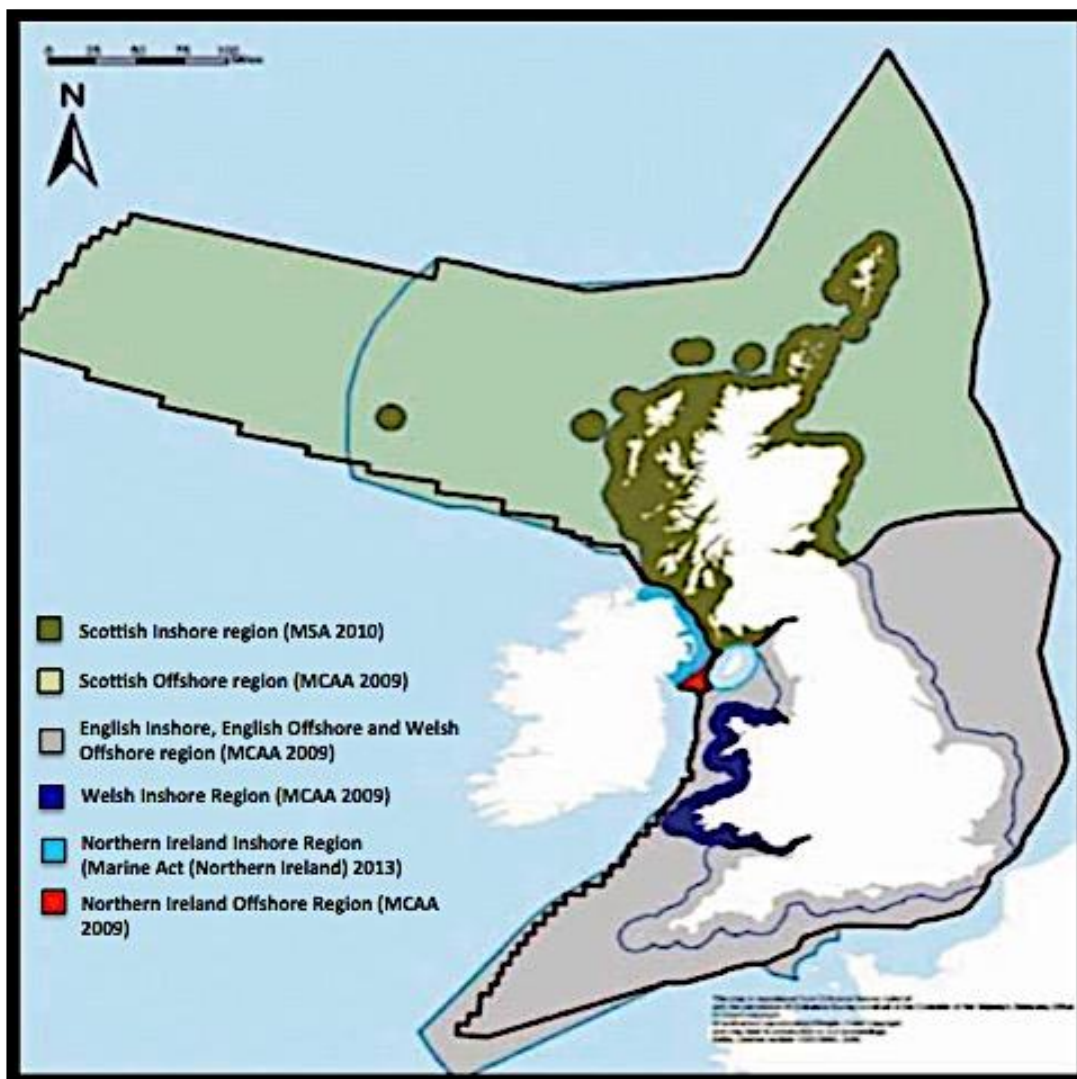


Figure 3: UK inshore and offshore regions subject to UK Marine Policy Statement 2011¹⁰

England

Following the passing of the Marine and Coastal Access Act 2009, the Marine Management Organisation (MMO) was created as an executive non-departmental public body and the marine planning authority in England. English marine plans put into practice the objectives for the marine environment that are identified in the Marine Planning Statement alongside the [National Planning Policy Framework](#), and the [Localism Act 2011](#).

England has taken a regional approach to marine planning, whereby 11 Plan Areas¹¹ will develop Inshore and Offshore marine plans with a long-term (20 years) view of relevant activities. After

¹⁰ DAERA (2012)

¹¹ The English MMO Plan Areas are: North East Inshore, North East Offshore, East Inshore, East Offshore, South East Inshore, South Inshore, South Offshore, South West Inshore, South West Offshore, North West Inshore and North West Offshore

their adoption, these Plans will be reviewed every three years to consider whether any changes to policies or approaches are required. The suite of Marine Plans developed around the coast of England by 2021 will eventually give national coverage of English inshore and offshore waters.

The North West Marine Plan Area covers from the Scottish border in the Solway Firth down to the Dee estuary Welsh border: the southern waters of the Solway Firth are, therefore, included in the MMO's North West Marine Plan Area. Following requests from stakeholders, the North West Marine Plan will be a single plan with both Inshore and Offshore interests reflected in one document. This is because the offshore area for the North West is relatively small due to the proximity of the Isle of Man, Wales and the Republic of Ireland.

Apart from the North West and the South East Plan Area, which is lacking an offshore region altogether, each of the English Plan Areas will have separate inshore and offshore plans. As a result, they are significantly larger than the areas encompassed by the Scottish Marine Regions.

Scotland

Marine Scotland is the Directorate of the Scottish Government with responsibility for marine matters. As a devolved administration, Scottish Ministers can legislate in relation to activities affecting the marine environment in Scotland's inshore waters, except for some matters such as defence that are reserved to the UK Government.

Marine planning in Scotland's inshore waters is governed by the Marine (Scotland) Act (MSA) 2010, an Act of the Scottish Parliament. In offshore waters, it is overseen by the MCAA 2009, an Act of the UK Parliament, but the agreement to give Executive Devolution of powers for marine planning in the offshore area to Scottish Ministers means that the Scottish Government controls all marine planning from the Mean High Water Mark on land to 200 Nm at sea. This area is covered by the strategic Scottish National Marine Plan, which was published in 2015 and was reviewed in early 2018.

The [Marine \(Scotland\) Act 2010 underpins marine planning in Scottish waters. It combines a strategic national approach out to 200 Nm with the development of a suite of sub-national Marine Plans to cover eleven Scottish Marine Regions](#),¹² which cover Scotland's territorial sea areas extending out to 12nm. Unlike the English Plan Areas, the Scottish Marine Regions do not cover the offshore zone: this is left to the National Marine Plan and sectoral marine plans developed for certain particular activities such as offshore renewable energy generation.

¹² The Scottish Marine Regions are: Argyll, Clyde, Forth and Tay, Moray Firth, North Coast, North East, Outer Hebrides, Orkney Islands, Shetland Isles, and the Solway and West Highlands

Regional marine plans will be developed by Marine Planning Partnerships (MPPs), which will be created to encourage local engagement in the marine planning process and to allow more local ownership and decision-making about specific issues within their area. Regional Marine Plans should have a greater level of spatial detail for their area, to provide added value to the Scottish National Marine Plan. The MPPs will be delegated powers for marine planning over their Marine Region by Scottish Ministers. The Scottish National Marine Plan states that:¹³

“The precise approach and coverage of the regional plan will be for the Marine Planning Partnerships to determine based on local priorities and taking account of existing partnerships, methodologies and alignment with local plans”

Scottish marine plans put into practice the objectives for the marine environment that are identified in the MPS alongside and the Scottish National Planning Framework and the Scottish Planning Circular 2013.

Northern Ireland

The Marine Plan for Northern Ireland is made up of two plans, one for the inshore region under the Marine Act (Northern Ireland) 2013 and one for the offshore region under the MCAA 2009. The Marine Plan will combine the plans for both the inshore and offshore regions into one document and will be collectively known as the Marine Plan for Northern Ireland. The draft Plan is expected to go to public consultation in early 2018. The maritime boundary between the waters covered by the Marine Plan for Northern Ireland and the Scottish National Marine Plan will be at the limit of the territorial seas of both administrations.

The Isle of Man

Situated west of the Solway Firth and east of Northern Ireland, the Isle of Man is not an EU Member State and so does not have to implement EU Directives. However, the Isle of Man borders Irish, Northern Irish, Scottish and English territorial waters. The entirety of the Isle of Man marine area is zoned and a zoning approach for marine planning is in consultation.

Policy structure

Each of the English Inshore and Offshore Plans will follow a targeted policy structure, with issues considered by sector. The Scottish National Marine Plan also considers activities by sector but contains cross-cutting General Policies that underpin all Strategic and Sectoral Objectives for Scottish inshore and offshore waters. Regional marine planners will need to consider those

¹³ Chapter 3, Guide for regional planners, paragraph 3.20

General Policies, Strategic and Sectoral Objectives that relate to the activities taking place within their Marine Region when they develop Regional Marine Plans.

Each Marine Plan has a Vision and sectoral policies to reflect the characteristics of the area for which the Plan operates (Table 1). A Solway Regional Marine Plan will need to reflect the issues of importance within the northern part of the Solway Firth. These may coincide with similar issues already considered as part of the MMO's North West Plans.

Table 1: Vision and policy frameworks of the Scottish National Marine Plan and English Marine Management Organisation East Inshore and Offshore Plans

Plan policy structure	Plan vision ¹⁴	Sectoral policy framework/ sectors addressed
English East Plans, 2014	“By 2034, sustainable, effective and efficient use of the East Inshore and East Offshore Marine Plan Areas has been achieved, leading to economic development while protecting and enhancing the marine and coastal environment, offering local communities new jobs, improved health and well-being. As a result of an integrated approach that respects other sectors and interests, the East marine plan areas are providing a significant contribution, particularly through offshore wind energy projects, to the energy generated in the United Kingdom and to targets on climate change”	<ul style="list-style-type: none"> • Aggregates • Cables • Climate change • Defence • Dredging and disposal • Economic • Energy • Environment • Fishing and Aquaculture • Governance • Ports and shipping • Social and cultural • Tourism and Recreation
Scotland's National Marine Plan, 2015	“Clean, healthy, safe, productive and diverse seas; managed to meet the long term needs of nature and people”	<ul style="list-style-type: none"> • Sea fisheries • Aquaculture • Wild salmon & diadramous fish • Oil and gas • Carbon capture and storage • Offshore wind and marine renewable energy • Recreation and tourism • Shipping, ports, harbours and ferries • Submarine cables • Defence • Aggregates

¹⁴ All UK marine plans must ensure collective human activities and pressures are kept within levels compatible with the achievement of “Good Environmental Status” and the strategic High Level Marine Objectives from the UK Marine Policy Statement.

3. Differences in implementation of marine plans

Prior to the formal commencement of marine planning, the [Joint Ministerial Marine Planning Statement 2009](#)¹⁵ agreed between the UK and devolved administrations confirmed that each administration would prepare marine plans in the way most appropriate for its marine planning region, and would also collaborate to enable joined-up marine planning across borders.

In the absence of an English National Marine Plan, the MMO's Plan Areas rely on the high level Marine Policy Statement and Marine and Coastal Access Act for policy and decision-making guidance. The English Plans are being developed in an iterative process, through cycles of issue identification, policy application and stakeholder engagement. The English East Area Plans were the first to be published in 2014 and the South Area Plans were adopted at the end of 2017. In early 2018, the North West Plan was entering its second phase of targeted stakeholder engagement with [workshops in coastal locations](#) intended to raise awareness of the process, invite discussion of relevant issues and consider whether draft policies were appropriate methods of dealing with matters relating to Governance, Environment, Economy and Society.

With a National Marine Plan in place, Scotland has begun regional marine planning through a staggered approach. Rollout of all Scottish Regional Plans will take longer than for England's simultaneous approach. Until such time as a Marine Planning Partnership for the Solway Marine Region is directed to create a Regional Marine Plan for the area, the Scottish National Marine Plan's provisions will cover the northern waters of the Solway Firth. The Marine Management Organisation started work in 2016 to develop the North West Marine Plan and intends to have a draft Plan ready by mid-2020. Marine Planning on both sides of the lateral national border between Scotland and England will have to acknowledge each other and consider the cross-border issues that may affect one, the other or both.

Consequences of having different policy cycles

Within the United Kingdom, the disparity between four planning authorities,¹⁶ each with different national priorities and systems, could cause uncertainty, confusion and delays when considering new proposals for cross-border waterbodies as well as impacting on existing activities. The four Administrations are also at different stages of marine plan development. When all Plans are finally established, it will take time before monitoring and review cycles are synchronised and complimentary to each other. When looking to engage in the process, this can

¹⁵ Published one month prior to the MCAA gaining Royal Assent

¹⁶ Marine Management Organisation, Marine Scotland, Natural Resources Wales and The Department of Agriculture, Environment and Rural Affairs

be confusing for national-level stakeholders and particularly for international developers unused to the nuances of devolved powers.¹⁷

By 2021, the North West Plan is expected to have been adopted; giving regional representation to the English Solway whereas the Scottish Solway will refer to Scotland's National Marine Plan until a Solway Marine Planning Partnership has been established and a Regional Marine Plan has been adopted. Given the differences in detail required between national and region plans, connecting overarching policies of the SNMP with localised North West Plan policies could prove challenging in some circumstances. This could be an important consideration when choosing where to site a development (Table 2).

Table 2: Key challenges for developing marine plans in a cross border ecosystem¹⁸

	Cross border cooperation	Data and data sharing	Governance
CHALLENGES	Cooperation between states tends to be reactive to perceived issues rather than proactive and strategic	Cross sector maps are difficult to visualise, especially when trying to identify synergies and conflicts that exist	Different national MSP governance structures and competing national interests
	Different national priorities can make cooperation difficult	Data collection, production and visualisation methods differ between countries and dissemination can be limited by national rules	Difficulties in getting key stakeholder representatives to participate at intervals
	Difficulties engaging with stakeholders beyond planning jurisdiction	ICES have 3x3 Nm fisheries data squares. Inshore fisheries data is still being collected by Marine Scotland and the English IFCA's at a finer scale	Each Administration is at a different stage of marine planning
	Planners can have trouble distancing themselves from national priorities and personal biases	Lack of consistent data on basic environmental conditions	Planners do not have the mandate to solve all issues. Further political requirement for sensitive conflicts
	There are differences between, compatibility, cooperation and collaboration when planning	increasing marine activities result in additional pressures on the marine environment; improved geographical data on seabed disturbance, eutrophication, pollution, and invasive non-native species are needed	Scottish and English Plans operate to different development and implementation time scales
	Timing differences between plan development	Sectoral actors are not used to thinking holistically, especially if data they hold is financially sensitive	Scottish national approach different to English Plan Area approach

¹⁷ Nuttall (2016)

¹⁸ ABPmer (2016), Urtane et al (2017), Baltic SCOPE (2017a), Baltic SCOPE (2017b)

4. Marine and terrestrial planning interactions

Marine and terrestrial planning policies help governments and administrations achieve their overarching objectives for a more prosperous and sustainable country. In the UK, terrestrial planners are responsible for planning down to Mean **Low** Water Mark and for aquaculture out to 12Nm¹⁹. Marine plans extend up to the Mean **High** Water Mark so the two planning regimes overlap in the intertidal zone. This reflects the interactions between land and sea, where activities on land may have effects offshore and where developments beyond the Mean Low Water Mark may impact on the land. The EU MSP Directive requires that “land-sea interactions” are taken into account by marine plans²⁰.

In general, terrestrial planning (also known as land use planning) is primarily concerned with development management and environmental protection, for example, through Local Authorities developing Local Development Plans. Although land use may change over time, ownership of terrestrial resources is usually relatively simple to identify and the links between economic, environmental, social and cultural aspects are reasonably evident. For marine plans, the area covered is generally much larger than for land plans. The opportunity for multiple activities taking place at the same time and in the same area is higher due to the three dimensional nature of the marine space and the often transient and temporal nature of marine activities. Marine plans cover licensable development as well as activities such as fishing and shipping, which are not subject to a marine licence.

Both marine and terrestrial plans aim to ensure best use of an area, balancing allocation of space for different activities, whilst managing conflict and avoiding overdevelopment. Sustainability is at the core of both planning regimes, partly through the Sustainability Appraisal (a systematic process that must be carried out during the preparation of a Local Plan). Unlike land plans, marine plans generally have less detail than Local Development Plans as they generally cover a much greater area and knowledge about marine resources can be more limited.

Due to the deliberate overlap of marine and terrestrial planning zones, terrestrial Local Authority Plans and marine plans need to take account of each other²¹. Provisions have been made in both Scotland and England to promote the development of a seamless approach to planning across the land-sea interface.

¹⁹ In Scotland, a marine licence is required for navigational aspects and finfish developments also require one in relation to discharges from wellboats. Other consents may also be required.

²⁰ EU MSP Directive, Articles 4(2) and 7

²¹ See SIMCelt report C1 – C 1.2.4 – D12 – D 12.2 ‘References to marine and coastal planning within Local Development Plans’

England

In England, the [Localism Act 2011](#) places a legal duty on local planning authorities, county councils and public bodies to engage constructively, actively and on an on-going basis to maximise the effectiveness of Local and Marine Plan preparation, in the context of strategic cross boundary matters. This applies for planning in the south of the Solway Firth. The Marine Management Organisation (MMO) is included in the list of prescribed public bodies that are subject to the duty to cooperate with local planning authorities and other prescribed bodies. The MMO's inclusion in the duty to cooperate was designed to contribute to strengthening the integration between marine and terrestrial planning.²² This integration is also facilitated by requirements within the MCAA 2009 and the [National Planning Policy Framework](#).

Scotland

In Scotland, the National Marine Plan acknowledges: *“Most development and use which takes place in the marine environment also has an onshore component or implication.”* A suite of planning policy and guidance sets the context for ensuring that terrestrial and marine planning regimes should take account of each other²³. The [Planning Circular 1/2015](#) states that marine and terrestrial planning authorities should formally consult one another during plan preparation but also extend collaboration throughout the planning process to ensure consistency in their respective plans. The document provides detailed guidance on a number of topics, including

- Liaison between terrestrial and marine planning authorities
- Timing and alignment of marine and terrestrial plans
- Plans which take into account both terrestrial and marine impact
- Integrated Coastal Zone Management
- Sharing the evidence base
- Marine licensing
- Marine conservation
- Particular sectors –renewable energy, ports and harbours, coastal defence and aquaculture

The document also refers to the Regional Marine Plans. For example, it states:

“Relevant Marine Planning Partnerships could be involved in the preparation of terrestrial plans to the same extent as the statutory ‘Key Agencies’. It is likely that local authorities will have a key role in the great majority of marine and terrestrial plans, and having one or more officials who are closely involved in both processes will be desirable.”

²² UK Government (2004)

²³ Scottish Planning Policy, the Scottish [National Planning Framework 3 \(2014\)](#) and [Scottish Planning Circular 1/2015](#)

5. The effects of staggered regional planning on the underlying ecosystem of the Solway Firth

Marine plans are designed to ensure sustainable development is balanced with the protection and enhancement of the natural environment, so that it is safeguarded for future generations. However, the prevalence of jurisdictional boundaries usually prevails over ecological boundaries, making it difficult to account for ecological and coastal processes and connectivity that affects maritime spatial planning. The cross border Solway Firth has Scottish and English planning authorities²⁴ aiming for an Ecosystems Based Approach but each can only plan for the section of ecosystem that lies within their jurisdiction. The Solway Firth ecosystem does not recognise these artificial boundaries and human governance structures and is, therefore, at risk of not being considered or managed in its entirety.

At the Celtic Seas scale, key ecosystem challenges for marine planning were identified (Table 3). These are not limited to a specific jurisdiction but are relevant in the context of the Solway Firth. Ideally, marine planning should move away from catchment-based approaches towards an integrated cross-realm approach; emphasising the connectivity between freshwater, terrestrial and marine environments²⁵ but this fails to reflect the realities of administration arrangements.

Table 3: Apparent and emerging areas of concern in the Celtic Seas²⁶

Areas of concern in the Celtic Seas	Emerging areas of concern
Seabed habitat damage	Selective extraction of species
Increased pressure from human activities	Abrasion
Low stock status of some fish species	Smothering
Lack of knowledge on the status of marine mammals	Substrate loss
Unacceptable levels of certain hazardous substances at some locations	Nutrient and organic enrichment
High litter levels	

A further area of concern is the limited understanding of the potential cumulative effects of increased marine activities in the Solway Firth as marine planning progresses. Continued permitting and licensing of offshore projects, such as fishing grounds, and renewable energy structures, may impact natural heritage areas of the Solway Firth. In an increasingly busy ecosystem, the potential risk of negative effects is increased, especially if marine planning is being carried out according to different timescales (Figure 4).

²⁴ The Solway Firth also shares a 12 nm boundary limit with Northern Ireland and the Isle of Man

²⁵ Dominguez-Tejo *et al.* (2016)

²⁶ OSPAR, (2010), ICES (2016)

If the Scottish and English planning regimes are not adequately aligned with each other, the underlying ecosystem could become more vulnerable to unintended consequences of developments or activities. A policy developed to meet the productive needs on one side might have unintended and adverse repercussions for the environment on the other side, impacting on the health of the overall ecosystem. However, misalignment of objectives could be prevented through continued engagement and communication between both marine planning authorities, perhaps facilitated by a pan-estuary organisation such as the Solway Firth Partnership. In addition, Strategic Environmental Assessments could demonstrate both sides of the border have been considered and record potential significant positive and negative effects for both areas.

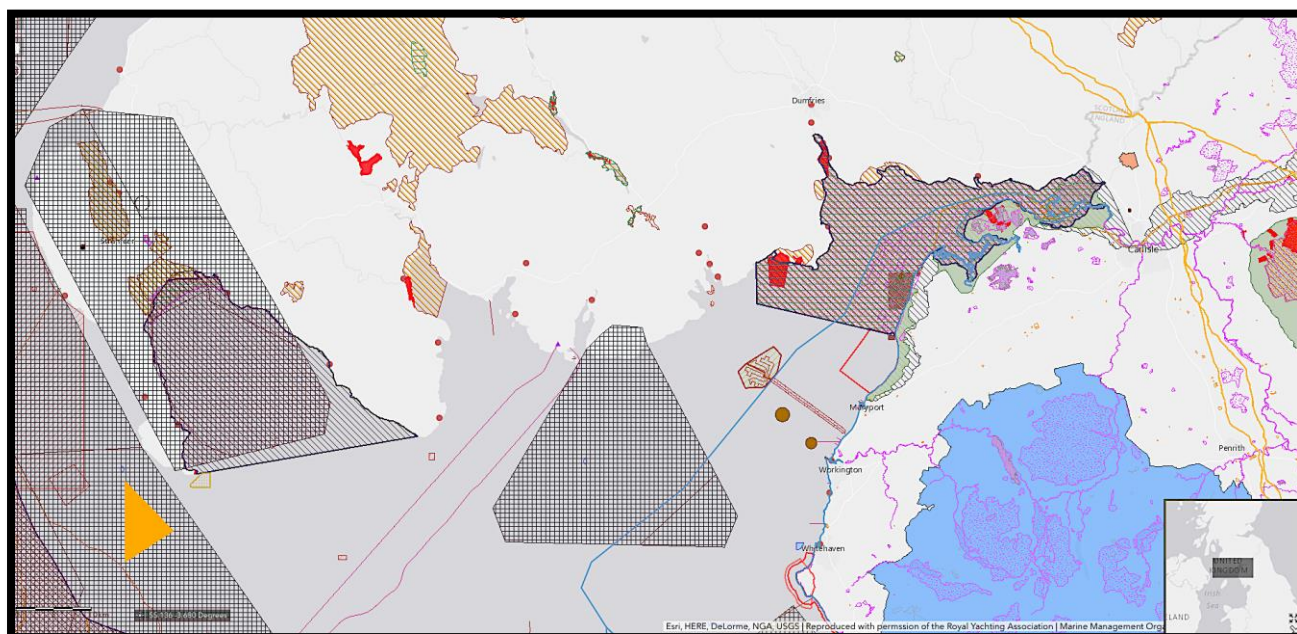


Figure 4: Illustrative map of active marine licence areas around the Solway Firth²⁷

Climate change

The Marine Climate Change Impacts Partnership reported that between the mid-19th and mid-20th century, global sea-level rise accelerated and is now increasing by about 3 mm per year³². Sea-surface temperatures around the UK coast have risen over the past three decades by about 0.7 °C²⁸. Overall, the UK is expected to start to experience hotter, drier summers and milder, wetter autumns and winters. Marine plans can contribute to climate change mitigation and adaptation in line with national policies, and a move towards a low carbon economy through proportionate implementation of specific-marine plan objectives and policies²⁹. A warming

²⁷ MMO (2016)

²⁸ Jenkins et al. (2008)

²⁹ MMO (2017)

climate in the Celtic Seas could have many subsequent effects upon the Solway Firth ecosystem. For example, potential increased prevalence of Harmful Algal Blooms may adversely affect water quality, leading to problems for businesses and recreational use of the Solway Firth coast³⁰. Changing temperatures and/or salinity could also see some marine species thrive, others decline and potentially new species arrive, including invasive, non-native marine species that may have adverse effects on elements of the ecosystem.

Both marine plans and terrestrial plans consider the predicted impacts of climate change on the UK coastline. Local Development Plans and Regional Marine Plans can give greater attention to local threats in the area, such as coastal flooding and options for mitigation. The UK average elevation is 162m above sea level, and the average central lowlands elevation is 150m, whereas coastal towns around the Solway Firth are significantly closer to sea level: Stranraer (10m) Kirkcudbright (10m) Dumfries (21m), Maryport (12m).³¹ Increased variation in weather patterns and rising sea levels put certain areas of the Solway Firth at greater risk from coastal erosion, accretion and/or flooding. Consequently, Local Development Plans active in the Solway Firth³² consider climate change and flooding mitigation as a strategic priority, as the low-lying Solway Firth could be particularly vulnerable without coastal defences (Figure 3).

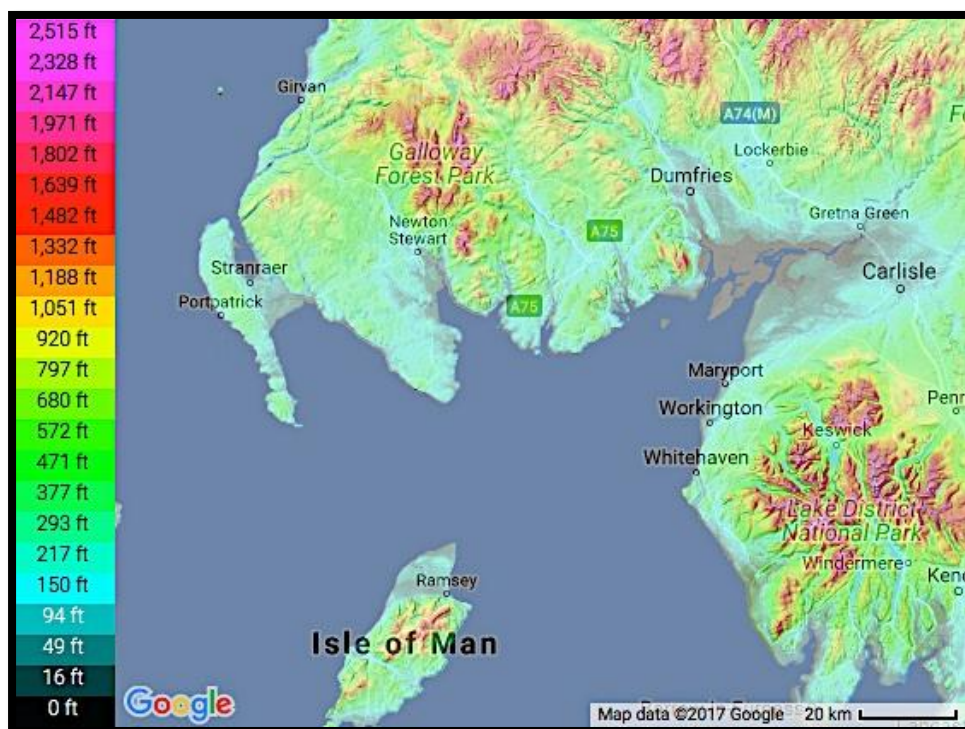


Figure 5: Topographical elevation of the Solway Firth³³

³⁰ Scottish Government (2014)

³¹ Floodmap.net (2014)

³² Dumfries and Galloway, Cumbria County Council, Allerdale, Copeland, Carlisle

³³ topographic-map.com (2017)

Linking River Basin Management and marine planning

The EU [Water Framework Directive](#) (WFD) underpins the approaches taken in EU Member States to improving water quality via River Basin Management Plans but there are direct links to marine planning. River Basin Management Planning is directly relevant to marine planning as freshwater outfalls and runoff, including litter and other land-based detritus, affect the quality of life and activities taking place in coastal waters and the wider marine sphere. Together, River Basin Management and marine planning can work together to take forward requirements to protect and improve the water environment out to 1 Nm in England and 3 Nm in Scotland.

River Basin Management Plans (RBMPs) summarise:

- The state of the water environment
- Pressures affecting the water environment where it is in less than good condition
- Actions to protect and improve the water environment
- A summary of objectives or outcomes following implementation

When the WFD was transposed into UK legislation³⁴, separate provision was made for the Solway Tweed River Basin District because it straddles the Anglo-Scottish border. The Scottish jurisdiction starts north of the River Tweed. The Environment Agency (EA) in England and the Scottish Environmental Protection Agency (SEPA) are jointly responsible for the Solway Tweed RBMP (Figure 4).

The cross border Solway Tweed River Basin Management Plan demonstrates that ecosystems can be planned for as one body. Under the [Solway Tweed Regulations](#), the EA and SEPA were given a number of new duties and responsibilities to jointly deliver a coordinated approach to river basin planning in the District. In particular, the Agencies had to work together to produce:

- River basin characterisation
- Monitoring programme
- Statement of Steps and Consultation Measures
- Significant water management issues
- Environmental objectives for each water body and a summary Programme of Measures to be applied to achieve those objectives

³⁴ Water Framework Directive requirements originally transposed into English and Welsh legislation by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003, superseded by the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. In Scotland, the relevant legislation is the Water Environment and Water Services Act 2004, which set the limit of coastal waters at 3 nautical miles around Scotland instead of the 1 nautical mile used in the rest of the UK. This means there would be a disparity in WFD regulations in the middle of the Solway Firth without a form of joint working.

- A draft River Basin Management Plan
- A River Basin Management Plan

SEPA produced North and South Solway Area Management Plans to accompany the Solway Tweed River Basin Management Plan, to give greater focus to water quality in each of the two jurisdictions.

The North Solway Area Management Plan includes the Esk English water bodies and the South Solway Area Management Plan includes the Scottish Esk water bodies. Members of the [Solway Area Advisory Group](#) include Scotland and England representatives, ensuring those involved in the management of this catchment consider activity upstream and downstream and not stop at the administrative border.



Figure 4: Solway Tweed River Basin District Management Area³⁵

The example of the Solway Tweed River Basin District demonstrates that single waterbodies can be subject to the jurisdiction of two different authorities but can yet be managed under a single administrative system. However, to date, it has not been felt that this example is suitable for marine planning across the Solway Firth.

³⁵ SEPA (2015)

6. The challenges for stakeholder engagement in a cross border ecosystem

Article 9 of the EU MSP Directive requires Member States to establish means of public participation so that interested parties, relevant stakeholders, authorities and the public can be informed at an early stage in marine plan development. Public participation gives marine plans greater legitimacy, creditability and transparency.

In the UK, the terrestrial planning regime has evolved means by which stakeholders are engaged in the development of local and national planning policies. This approach was adopted by marine planning and stakeholder engagement has been a key feature of the regimes in Scotland and England. The UK Marine Policy Statement explicitly recognises that marine planners need to interact with different coastal communities and terrestrial planners. It states:³⁶*“The marine plan authority should ensure, through integration with terrestrial planning, and engagement with coastal communities, that marine planning contributes to securing sustainable economic growth both in regeneration areas and areas that already benefit from strong local economies”*

To be effective, stakeholder participation must add value and improve the legitimacy of the maritime spatial planning process. Stakeholders must be encouraged to understand that they have a stake in the process and are able to contribute through consultation mechanisms. They must also feel that they derive a benefit from doing so.

Like many Scottish and English coastal communities, the Solway Firth area has a history of active engagement as many people depend upon the sea for livelihoods and have been keen to express their views on proposed changes to inshore fishery management measures, environmental protection and other proposed developments using marine and coastal resources in both the English and Scottish areas. However, stakeholder engagement for policy development can be challenging to do successfully as many stakeholders may only be interested in the implications for a single activity or the relevance for a particular area of the plan region in which they have a direct interest. Typical considerations may include if they fish there, if proposals will provide secure employment, if there will be a gain or loss of recreational space, if there will be an impact on their business and if there will potentially be harm done to the environment or wildlife? All views need to be considered but also weighted appropriately by planners.

Challenges arise, however, when marine planning is implemented at different timescales across an area that also is subject to multiple jurisdictions. The issues arising in the wider Celtic Seas and the Irish Sea are reflected in the Solway Firth where one area is already subject to a Marine

³⁶ Chapter 2, Section 2.5.5

Plan but another is still only at the plan development stage. In theory, the development of two, or more, adjacent Marine Plans within a similar timescale could encourage communication across boundaries to ensure that issues with relevance on both sides of a boundary could have their proposals consulted on around the same time. In this way, possible synergies or areas of divergence between policies could be identified and stakeholders would have the benefit of the bigger picture when considering what was relevant to their main area of interest and the waterbody or marine planning area as a whole.

Understanding stakeholders of the Solway Firth

As well as giving due consideration to the natural environment, plans need to recognise the full spectrum of coastal communities that will be covered by the plans, from deprived to affluent, as they have different social and economic challenges (Table 4). For example, coastal areas can be popular with a financially secure older population, but they can also be vulnerable to deprivation and social stigma. This can be exacerbated in areas with a high-risk of flooding, as identified in the Local Development Plans and the Solway Tweed River Basin Management Plan.

The Solway Firth has many small, remote and rural communities that are highly dependent on a single or few economies. For example, static gear fishing is highly important to the Isle of Whithorn, whilst scallop landing and processing is an important economy for Kirkcudbright. If the inshore fishing industry in these locations were to become unsustainable, or a few boats were to go out of business, the direct economic impact could have a significant indirect impact on the social cohesion and well-being of that community.

Table 4: Areas with a high decile Index of Multiple Deprivation around the Solway Firth³⁷

Index of Multiple Deprivation	10%	20%	30%
Scotland	Stranraer, Dumfries	Annan	Carrick South, Rhins South, Whithorn, Gretna
England	Whitehaven, Copeland, Salterbreck, Siddick	Maryport	Silloth, Carlisle

³⁷ Being the 10% most deprived areas in the country. The decile may vary between postcodes within an area (UK Government, 2015, Scottish Government, 2016). For further information on the Local Development Plan policies relating to these areas, please refer to SIMCelt Report C1 – C 1.2.4 – D12 – D 12.2: ‘References to marine and coastal planning within Local Development Plans relevant to the Solway Firth’.

Marine planning engagement

Alongside terrestrial plans, marine planning has a role in helping to enable blue growth but also in improving coastal protection. Stakeholder engagement has been an essential part of the approach taken to both Integrated Coastal Management and marine planning process on both sides of the border in the Solway. The presence of the Solway Firth Partnership since the early 1990s, as a neutral and pan-estuary forum, has ensured that stakeholders and the wider public have had a long-standing expectation of, and mechanism for, consultation of their views on new policies and developments.

Stakeholders in the cross border Solway Firth have to directly interact with two different planning regimes with both planning authorities at different stages of marine planning.

Solway Firth stakeholders on both sides of the estuary have already been able to participate in the development of the Scottish National Marine Plan (published in 2015) and are currently engaging with the English North West Marine Plan. In time, they will also be involved in the production of the Solway Marine Region Plan. Stakeholders also provide feedback during the monitoring and review cycles of Plans. The authorities should look to ensure processes are as streamlined as possible, encouraging engagement and information gathering, whilst reducing unnecessary burden and duplication of effort.

The [2009 Joint Marine Planning Statement](#) set out an understanding between Scotland and England on how to ensure administrative arrangements for marine planning will build upon existing collaborations for joined-up planning across borders. This process was to include:

- Joined up stakeholder consultation and liaison between Scottish and UK authorities throughout the planning process
- Publication of plans under cover of a single document
- Plans to achieve a "seamless" approach to marine spatial planning for the Solway Firth within the context of the UK Marine Policy Statement
- Plans to clearly articulate how they interact and integrate.

Since 2009, marine planning has progressed significantly but the circumstances envisaged by the Joint Marine Planning Statement have not materialised. The Scottish National Marine Plan has been published and reviewed but there is no indication of when a Regional Marine Planning Partnership may be created for the Solway Firth Scottish Marine Region. In England, the East and South Plans have been adopted and regional planning is underway in all remaining English Plan Areas, including the North West. In a sense, these developments have superseded the understanding set out in the Statement. Each Authority has notified others of its intent to

undertake marine planning, but engagement has been conducted specific to each Plan, with each one to be published separately. When doing this over a period of time, differences in approach are apparently in fundamental aspects of the planning process, such as a lack of synergy between separate Geographic Information Systems (GIS), which provide the data from which different marine planning regimes draw their evidence base. The SIMCelt Data workstream identified this as a significant hurdle early on in the process of considering the issues relating to transboundary and cross-border MSP at the international scale but it is also relevant to a single estuary covered by different marine planning systems and their own GIS.

English and Scottish planning authorities use many organisations on both sides of the Solway to engage with different ranges of stakeholders and communities of interest in relation to marine planning and other activities. However, the cross border Solway Firth Partnership (SFP), which promotes sustainable development of the Solway's coastal areas, acts as a pan-estuary forum for stakeholders and a community engagement hub. It can draw on over two decades of experience in cross border stakeholder engagement, conflict resolution and raising awareness of wider coastal issues. The SFP has been used since 2016 by the Marine Management Organisation as a facilitator for their North West Marine Plan stakeholder engagement workshops and held meetings on behalf of Marine Scotland during the development of the Scottish National Marine Plan. SFP staff are able to represent the interests of stakeholders on both sides of the border and at the 2016 Joint SFP/Solway Coast Area of Outstanding Natural Beauty Conference, Marine Scotland and MMO officers used the MSP Challenge board game developed under the SIMCelt project for the Clyde Marine Planning Partnership³⁸ to improve communication on real-life cross-border marine issues (Figure 5).

Future engagement

In the Solway Firth, despite different jurisdictions, stakeholders often conduct activities on both sides of the border.³⁹ Therefore, in the future, if a Solway Marine Region Plan and the North West Plans align during monitoring and review stages, it should be possible for a coordinated engagement effort that includes both Scottish and English stakeholders. This would provide a mechanism to ensure that the plans from both jurisdictions would provide coherent coverage of the Solway Firth ecosystem. Coordinated engagement would also reduce duplication in terms of cross border stakeholders having to engage with both planning authorities on the same issue.

³⁸ See SIMCelt Deliverable 9: Report on potential approaches for stakeholder engagement on MSP and pilot testing at local transboundary level - Clyde Case Study: Using 'serious games' in cross-border marine planning.

³⁹ See SIMCelt Case Study 3 document '*Report on Sectoral Interactions around the Solway Firth in relation to marine planning*'

Again, whilst marine and terrestrial plans each have distinct statutory requirements, planners should look for opportunities to align key stages, including consultations. This delivers efficiencies overall by reducing duplication and would help also enhance stakeholder and community engagement.⁴⁰



Figure 5: Explaining marine planning using the MSP Challenge board game at Solway Firth Partnership/Solway Area of Outstanding Natural Beauty conference, Gretna, November 2016

⁴⁰ Scottish Government (2013)

7. Conclusions

Responsibility for the Solway system is split into separate jurisdictions and subject to different marine legislation priorities and management arrangements, although the Scottish, English, Welsh and Northern Irish Marine Plans will all ultimately adhere to the UK Marine Policy Statement 2011. Regional marine plans should prioritise and reconcile conflicts but not favour activities. There are issues within the Solway to be overcome to help enable coherent and effective maritime spatial planning. Good intentions to cooperate, set out in policy documents, are not enough to ensure that they are put into effect in real-life marine planning situations.

Given the complexities in the Solway Firth and in the current absence of regional plans, there may be benefit for the Solway Firth Partnership, in consultation with local stakeholders, to update the 'Solway Firth Review', published in 1996. This reference document would reflect the spirit of cooperation set out in the Joint Marine Planning Statement in 2009 and could be used by Scottish and English marine and terrestrial planners to set out the key issues and priorities for the Solway Firth, with suggestions on how they could be considered and taken account of in emerging Scottish and English marine plans.

The main issues for transboundary maritime spatial planning identified in the Solway Firth from this report are:

1. This single marine ecosystem has two national boundaries running laterally through the middle and a third at 12 nm
2. The Administrations have separate legislation in place, different approaches to marine planning and are at different stages of implementation.
3. Marine planning regimes are not yet aligned, with linkages to terrestrial planning a further consideration.
4. Staggered implementation of plans at different scales leaves the ecosystem vulnerable and results in uncertainty to developers.
5. Contrasting policies/objectives/priorities of different jurisdictions can impact/conflict with each other and may affect the underlying ecosystem
6. Marine plans must accommodate effects of climate change on the underlying ecosystem and engage with River Basin Management Plans to address issues relating to water quality
7. Stakeholders are at risk of engagement fatigue from multiple planning regimes. Solway already has a stakeholder group so it makes sense to tap into this local knowledge, expertise, experience and established relationships avoid duplication of effort.
8. Stakeholders may live in one jurisdiction but work and experience plan effects in another
9. Coastal communities can be particularly vulnerable to environmental or economic changes.

These issues may have significance to other cross border systems within other Member States that adhere to the same European legislation. Lessons can be learnt from the approaches of the UK authorities in planning for an ecosystem bisected by artificial governance boundaries. The Solway Tweed River Basin Management Plan is an example of how transboundary planning for a water body can be achieved. Although organised differently and with a different outcome to marine planning, the fundamentals of River Basin Management demonstrate an alternative approach when planning for an ecosystem bisected by jurisdictional boundaries, which Member States with similar cross border marine scenarios could consider.

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