



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: D 12.2: References to marine and coastal planning within Local Development Plans relevant to the Solway Firth



European Commission
Directorate-General for Maritime Affairs and Fisheries

Grant Agreement No. EASME/EMFF/2014/1.2.1.5/3/SI2.719473 MSP Lot 3

SIMCelt Partners



Deliverable i.d.:	SIMCelt-C1- C1.2.4 - D12 – D 12.2
Deliverable Lead Partner:	Marine Scotland
Due Date of Deliverable:	31/08/17
Completion Date of Deliverable:	28/04/17
Start Date of Project:	29/12/15
Duration:	24 Months
Version:	1.1
EU Grant Call:	Action on Maritime Spatial Planning in the Northern European Atlantic
EU Project Officer:	David San Miguel Esteban

Dissemination Level		
PU	Public	X
PP	Restricted to a group specified by the consortium (including the Commission services)	
RE	Restricted to other programme participants (including the Commission services)	
CO	Confidential, only for members of the consortium (Including the Commission services)	

Document Information

Deliverable Title	References to marine and coastal planning within Local Development Plans relevant to the Solway Firth
Coordinator	Paul Haddon
Authors	Baruah, E. L., Fairgrieve, R. and Ross, L.
Recommended Citation	Baruah, E.L. and Fairgrieve, R. (2017) SIMCelt: References to marine and coastal planning within Local Development Plans relevant to the Solway Firth (D12.2). EU Project Grant Agreement No: EASME/EMFF/2014/1.2.1.5/3/SI2.719473 MSP Lot 3. Supporting Implementation of Maritime Spatial Planning in the Celtic Seas (SIMCelt). Marine Scotland. 47pp.

Version History

Date	Document Version	Reviewer	Revision
01.10.16	1.0	Emma Baruah	Initial draft
18.01.17	1.1	Rhona Fairgrieve	Structural Revision
28.04.17	1.2	Emma Baruah	Content update
17.01.18	1.3	AM O'Hagan	comments
19.03.18	1.4	Paul Haddon	Finalise document

Table of Contents

1. Introduction.....	7
Background to marine planning in the UK.....	9
2. Dumfries and Galloway Local Development Plan.....	12
Stranraer harbour.....	14
Fish farming.....	14
Local Development Plan 2.....	15
Shoreline Management Plan.....	16
3. Cumbria County Council Planning Policy.....	18
Minerals and waste management.....	19
4. Allerdale Local Development Plan (Part 1).....	21
Natural Coastal Environment.....	21
5. Copeland Local Development Plan.....	24
Marine and coastal management policy.....	25
Protected area management.....	25
6. Britain’s Energy Coast.....	26
Allerdale within Britain’s Energy Coast Innovation Zone.....	26
Copeland within Britain’s Energy Coast Innovation Zone.....	26
7. Solway Coast Area of Outstanding Natural Beauty.....	28
8. Carlisle Local Development Plan.....	31
Flood risk.....	31
9. North West England and North Wales Shoreline Management Plan 2.....	32
10. Inshore fisheries in the Solway Firth.....	35
West Coast Regional Inshore Fishery Group.....	35
North West Inshore Fisheries Conservation Authority.....	36
11. River Basin Management.....	39
12. Variations in local plans.....	43
Dumfries and Galloway.....	43
Allerdale.....	43
Solway Coast Area of Outstanding Natural Beauty.....	43
Copeland.....	44
Carlisle.....	44
Solway Tweed River Basin.....	44
13. Conclusions.....	45
14. References.....	47

Table of Figures

Figure 1: SIMCelt study area.....	11
Figure 2: Solway Firth coastline with Dumfries as the regional capital and Stranraer as a district centre.....	14
Figure 3: Cumbria County bordering Southwest Scotland.....	18
Figure 4: Purple polygon area representing deep coal between 50 and 1200 m onshore and offshore around Cumbria.....	20
Figure 5: Borough of Allerdale.....	22
Figure 6: Progress on the North West Coastal Footpath.....	23
Figure 7: Copeland Borough Council.	24
Figure 8: Location of the Solway Coast AONB within Allerdale	30
Figure 9: Carlisle as a district of Cumbria	31
Figure 10: Sub-cells within Cell 11.....	34
Figure 11: Scottish Inshore Fishery Group regions.....	36
Figure 12: Designations and key developments around the NWIFCA district authority.....	38
Figure 13: Solway Tweed River Basin District Management Area.....	39

Table of Tables

Table 1: Policies used for managing the shoreline.....	33
Table 2: Examples of terrestrial plans the Solway Tweed River Basin Plan interacts with.....	40

Glossary of acronyms

AONB: Area of Outstanding Natural Beauty

D&G: Dumfries and Galloway

IFCA: Inshore Fisheries Conservation Authority

IFG: Inshore Fishery Group

INNS: Invasive Non-Native Species

LA: Local Authority

LDNP: Lake District National Park

LDP: Local Development Plan

MCAA: Marine and Coastal Access Act 2009

MCZ: Marine Conservation Zone

MHWS: Mean High Water Springs

MLWS: Mean Low Water Springs

MMO: Marine Management Organisation

MSA: Marine (Scotland) Act 2010

MSFD: Marine Strategy Framework Directive

MSP: Maritime Spatial Planning

MW: Megawatt (Million Watt)

NM: Nautical miles

SNMP: Scottish National Marine Plan

SAC: Special Area of Conservation

SFP: Solway Firth Partnership

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

SMP: Shoreline Management Plan

UK MPS: Marine Policy Statement 2011

WAG: Welsh Assembly Government

WFD: Water Framework Directive

WCRIFG: West Coast Regional Inshore Fishery Group

1. Introduction

The SIMCelt Project (Supporting Implementation of Maritime Spatial Planning in the Celtic Seas) is a cross-border project co-funded by the European Commission aiming to look at cross-border and transboundary issues connected to maritime spatial planning (MSP) within a European context (Figure 1). The project is a collaboration analysing marine planning in the context of the Celtic Seas: England, Scotland, Northern Ireland, Ireland and France.

This report on *“References to marine and coastal planning within Local Development Plans”* is one of a series of documents as part of a Planning Across Borders case study for the wider SIMCelt project. This series provides information on different aspects of marine planning for the Solway Firth but may be applicable to other transboundary water bodies.

In order to test the issues associated with transboundary marine planning within the UK, the Solway Firth will be examined as a SIMCelt case study due to its unique status as a single marine ecosystem straddling the Scottish and English national boundaries. The Solway Firth has a third boundary with Northern Ireland at 12 nautical miles (nm) and another with the waters surrounding the Isle of Man. Each area has different legislation setting the requirements, parameters and objectives of marine planning within its administrative boundaries. Each set of national objectives must not adversely affect the ability of another administration to pursue and achieve their own. As a result, there are multiple challenges in ensuring the achievement of different national objectives for sustainable economic development as well as those from overarching UK policy and EU Directives. For further information on the governance structure of the Solway Firth, refer to the SIMCelt document: *‘Initial comparison of requirements and differences of UK primary legislation pertinent to marine planning.’*

Marine Plan implementation requires formal agreements that reflect accountabilities across the administrative bodies to ensure horizontal integration. The Celtic Seas are unique and need a bespoke method of interpreting and implementing maritime spatial planning. There are multiple challenges in ensuring different marine planning legislation delivers for the different national objectives as well as for overarching UK and EU Directives. The ecosystem itself does not recognise these human boundaries and is subject to interactions from different pieces of marine legislation and national priorities. To help encourage sustainable development, each set of national objectives must not also adversely affect the pursuit and achievement of another. This is the first step towards an Ecosystems Based Approach to planning.

The [United Nations Sustainable Development Goal 14](#) is to “*Conserve and sustainably use the oceans, seas and marine resources.*”¹ 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, MSP is supposed to apply the Ecosystem Based Approach to secure 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), as this covers 11 million km² across Europe. Marine Plan implementation requires formal agreements that reflect accountabilities across the administrative bodies to ensure horizontal integration for the European marine area.²

Local Authorities including County Councils are expected to have due regard to any existing marine plans when creating, amending or updating terrestrial plans. It is a requirement that marine plans have due regard to the aims and objectives of any terrestrial authorities bordering the marine plan area. This report will examine how local plans affecting the Solway Firth (including for inshore fisheries and River Basin Management), take account of marine and coastal planning progress, as well as how they make specific mention to activities or processes that might affect the marine environment. This report will also highlight the usefulness of marine plans taking account of existing planning mechanisms.

Generally, marine plans extend to Mean High Water Springs (MHWS) whilst terrestrial plans extended to Mean Low Water Springs (MLWS) to ensure an overlap and complete plan coverage, with no restrictions from an artificial coastal boundary. Marine planning is still in development, whilst terrestrial plans have generally been in existence for some time. Therefore, it is expected that greater reference to marine planning will be made as terrestrial plans go through cycles of review and amendment and the UK marine plans is implemented.

UK planning authorities must follow the [National Planning Policy Framework 2012](#), including meeting the challenges of climate change, coastal change and coastal flood risk during spatial planning. In coastal areas, Local Authorities should refer to the [UK Marine Policy Statement 2011](#), marine plans and apply integrated coastal management across local authority and land/sea boundaries, for integration of the terrestrial and marine planning regimes. Areas identified that are likely to be affected by physical changes to the coast should be marked as a Coastal Change Management Area to avoid planning inappropriate activities in a vulnerable area.

¹ UN Sustainable Development Goals 2015

²Cormier (2015)

Development in a Coastal Change Management Area can only occur where it is demonstrated that:

- It will be safe over its planned lifetime and will not have an unacceptable impact on coastal change
- Coastal character, including designations, will not be compromised
- The development provides wider sustainability benefits
- The development does not hinder the creation and maintenance of a continuous signed and managed route around the coast as part fulfillment of the Marine and Coastal Access Act (MCAA) 2009

Background to marine planning in the UK

The legal basis for marine planning in the UK³ was provided for by the [Marine and Coastal Access Act](#) (MCAA) 2009, which created the [Marine Management Organisation](#) (MMO).⁴ Following the MCAA 2009, the MMO was created as an executive non-departmental public body. English marine plans put into practice the objectives for the marine environment that are identified in the MPS alongside the [National Planning Policy Framework](#), and the [Localism Act 2011](#). England took a regional approach to marine planning, whereby 11 Plan Areas⁵ would each have a marine plan with a long-term (20 years) view of activities and which will be reviewed every three years. In reality, there will be 10 marine Plans as the North West will now have one plan covering inshore and offshore areas, following requests in that area to have single Plan.⁶ Apart from the South East Plan Area, which is lacking an offshore region, each of the other Plan Areas will have separate inshore and offshore plans. The English Plan Areas are significantly larger than the areas encompassed by the Scottish Marine Regions. The North West Marine Plan Area covers from the Scottish border in the Solway Firth down to the Dee estuary Welsh border.

[Marine Scotland](#) is a directorate of the Scottish Government. Under devolution, the Scottish Parliament can legislate in relation to activities affecting the marine environment in Scotland's inshore waters, except for reserved matters. Marine planning in Scotland's inshore waters is governed by the [Marine \(Scotland\) Act](#) (MSA) 2010 (an Act of the Scottish Parliament), and in offshore waters by the [MCAA 2009](#) (an Act of the UK Parliament). Scotland's 'top-down'

³ See SIMCelt report: *'Initial comparison of requirements and differences of UK primary legislation pertinent to marine planning'* (D12.1)

⁴ *Ibid.*

⁵ The 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

⁶ The offshore area for the North West is relatively small, due to the border with Northern Ireland and the Isle of Man, compared to other English Plan Areas.

approach to marine planning prioritised the publication of the [Scottish National Marine Plan](#) (SNMP) in 2015, which covers both inshore and offshore waters, and is in its first review period.

Following the [MSA 2010](#), Scottish Ministers defined 11 [Scottish Marine Regions](#),⁷ which cover Scotland's sea areas extending out to 12nm. Unlike the English Plan Areas, the Scottish Marine Regions do not cover the offshore zone. Regional marine plans will be developed by Marine Planning Partnerships that have been delegated the powers by Scottish Ministers. Scottish marine plans put into practice the objectives for the marine environment that are identified in the MPS alongside and the [National Planning Framework](#) and the [Planning Circular 2013](#).

Scottish Regional Marine Plans cover inshore waters as the UK Parliament legislates for Scotland's offshore waters, bar certain matters in the area that have been executively devolved and are covered in the National Marine Plan. Scottish Regional Plans must be in conformity with the National Plan and the MPS, unless relevant considerations indicate otherwise. Regional Marine Plans will be developed by [Marine Planning Partnerships](#) 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 SNMP.

The [UK Marine Policy Statement 2011](#) (MPS) provides a policy framework and context for marine plans, with the four Administrations having a shared vision for having clean, healthy, safe, productive and biologically diverse oceans and seas. It states that integration of marine and terrestrial planning will be achieved through:

- Consistency between marine and terrestrial policy documents and guidance. Terrestrial planning policy and development plan documents already include policies addressing coastal and estuarine planning. Marine policy guidance and plans will seek to complement rather than replace these, recognising that both systems may adapt and evolve over time
- Liaison between respective responsible authorities for terrestrial and marine planning, including in plan development, implementation and review stages. This will help ensure, for example, that developments in the marine environment are supported by the appropriate infrastructure on land and reflected in terrestrial development plans, and vice versa
- Sharing the evidence base and data where relevant and appropriate so as to achieve consistency in the data used in plan making and decisions

⁷ 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

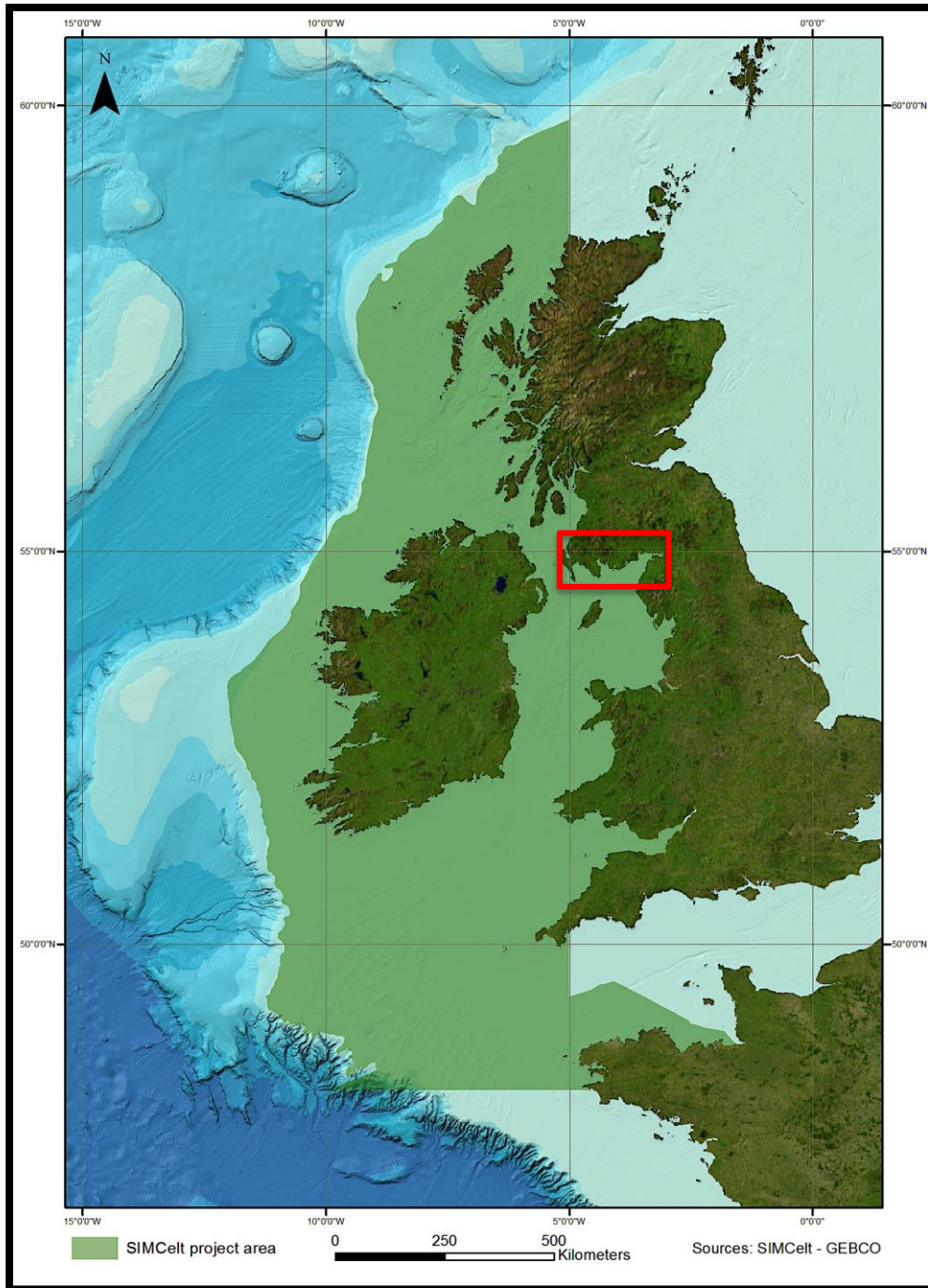


Figure 1: SIMCelt study area with red polygon indicating the Solway Firth⁸

⁸ SHOM (2017)

2. Dumfries and Galloway Local Development Plan

In Scotland, the [Planning Circular 1/2015](#)⁹ states 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. Dumfries and Galloway (D&G) Local Development Plan (LDP) was published prior to the publication of both the Circular and [Scottish National Marine Plan 2015](#) but under section 4.62 of the Plan, the Council aims to collaborate¹⁰ with the Solway Marine Planning Partnership that will be established for the area. The [UK Marine Policy Statement 2011](#) requires¹¹ the plans to sit alongside and interact with each other and the Planning Circular.

Planning policy must respond to climate change, which heralds rising sea levels and extreme weather conditions. The creation of the green network¹² will contribute to counteracting and adapting to these effects. The legislative framework for Scottish coastal management comprises the [Coast Protection Act \(1949\)](#) and the [Flood Risk Management \(Scotland\) Act \(2009\)](#). The avoidance principle is the most sustainable form of flood management in relation to sustainable development and by following the Flood Risk Management (Scotland) Act 2009. The overarching principles of this plan are:

- Reduce the overall flood risk
- Reuse brownfield sites
- Avoid prime agricultural sites
- Develop mixed communities

The Dumfries and Galloway [LDP](#) covers the area of the unitary council, including its 350 km of coastline; it guides the future use and development of land in towns, villages and the rural area. It also indicates where development, including regeneration, should happen and where it should not. The current LDP was adopted by [D&G Council](#) in 2014, and as a planning framework, is set for review every five years (Figure 2).

The Plan's 'water environment' comprises inland, coastal and transitional waters, groundwater and wetlands. D&G Council will continue to work with Scottish Environmental Protection Agency and other partners during the Plan period towards the implementation of the [Water](#)

⁹ 'The relationship between the statutory land use planning system and marine planning and licensing'

¹⁰ Coastal Development, paragraph 4.62

¹¹ Section 1.3 Integration with terrestrial planning regimes

¹² 'Green networks' refer to the linking together of natural, semi-natural and manmade open spaces, including river systems and coastal environments vital to the sustainability of an urban area.

[Environment and Water Services \(Scotland\) Act 2003](#), now supported by the [Water Environment \(Controlled Activities\) \(Scotland\) Regulations 2011](#) and the [Solway Tweed River Basin Management Plan](#).¹³

The majority of the coastline remains undeveloped but it is still a hub for economic, recreation and tourist activity. New or alternative coastal access routes were to be encouraged¹⁴ including the [South West Scotland Coastal Path](#) around the Rhins of Galloway, particularly if they contributed to the formation of green networks. Renewable energy, including offshore developments with onshore ancillary components, were to be supported as long as they would not have an individual or combined unacceptable significant adverse impact upon:

- Fishing interests
- The landscape/seascape
- Areas or routes important for countryside recreation
- Air quality
- Amenity of the surrounding area
- Cultural or natural heritage

Flood management followed the avoidance tactic of the [Flood Risk Management \(Scotland\) Act 2009](#), for example, by prohibiting plans for developments that posed a flood security risk. Proposals for development on the undeveloped coast are unlikely to be suitable for development unless the Council were satisfied that:

- A requirement for a coastal location that cannot be located within the developed coast
- It would enhance and improve the integrity of the coastal environment
- There would be minimal risk from, or increase of, flooding and erosion
- There would be no adverse effects upon the natural heritage or landscape interest
- Redevelopment of brownfield land is prioritized

¹³ See section 11

¹⁴ Coastal access in Scotland is not a legislative requirement as it is in England and Wales under the MCAA 2009 but there is the “Right to Roam” for responsible recreational, educational and some commercial purposes under the [Land Reform \(Scotland\) Act 2003](#).

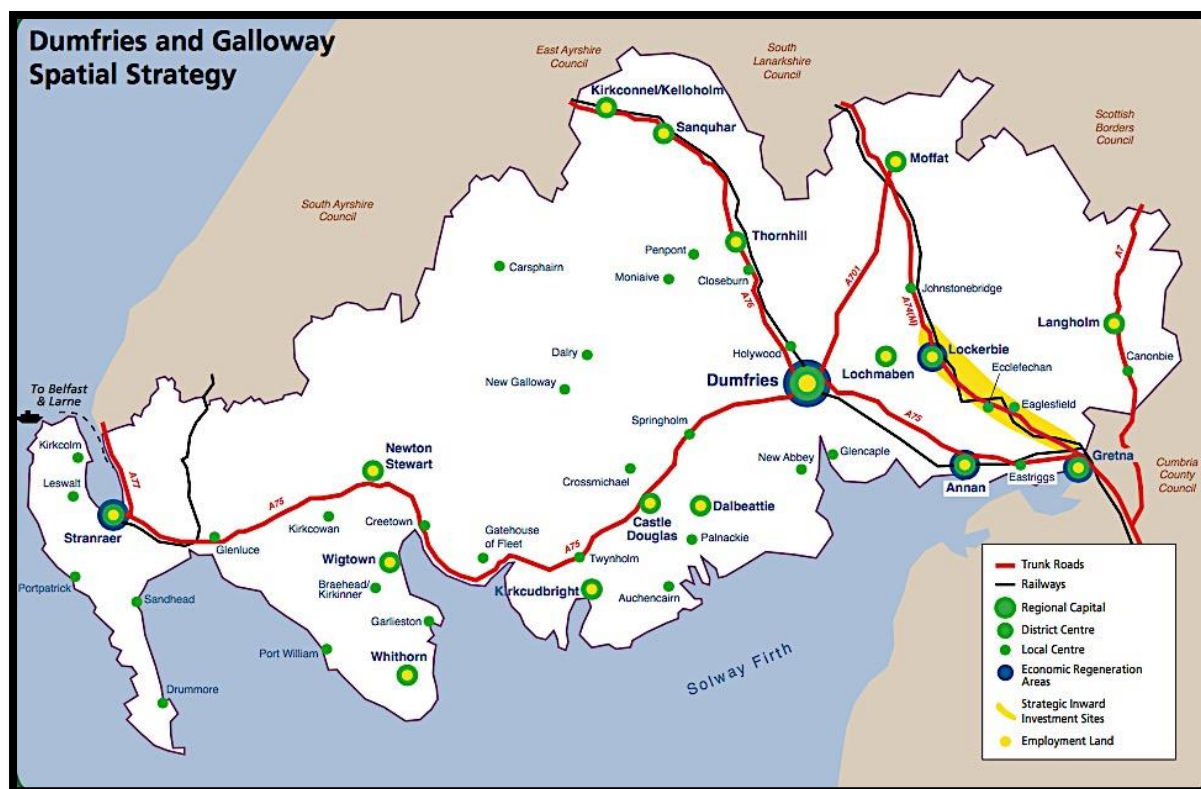


Figure 2: Solway Firth coastline with Dumfries as the regional capital and Stranraer as a district centre¹⁵

Stranraer harbour

Stranraer harbour suffered a significant economic loss when Stena Line moved ferry services north from the harbour to a deeper port in Cairnryan. As such provision is made in the LDP for a regeneration master plan to reposition Stranraer harbour as an attractive seaside town for residences, businesses and visitors (Figure 2). Public, private and community partnerships were required to attract investment. Harbours, marinas and slipways owned by the Council are safeguarded from development that would impede public access, threaten use of the established facility, its potential to expand or an adverse material effect. Development planning proposals were encouraged but only so long as they did not compromise the integrity of a Natura site.

Fish farming

Aquaculture is a planning anomaly in that license for development rests with the Local Authority out to 12 nm. However, developers need a seabed lease from the Crown Estate or Crown Estate Scotland,¹⁶ and a marine license regarding navigational aspects and for finfish discharges from wellboats. Fish farming in D&G is referred to in three distinctive areas: inland, intertidal, and

¹⁵ Dumfries and Galloway Council (2014)

¹⁶ The Crown Estate's management duties in Scotland have been transferred to Scottish Government, as recommended by the Smith Commission and reflected in the [Scotland Act 2016](#).

seaward out to 12 nm. A diverse range of fish and shellfish are present. Fish farms in the intertidal or seaward areas are likely to require land based facilities, which would have to be considered as part of the proposed development plan.

To date, there have not been proposals for fish farming below the low water mark and only a very limited number of proposals in the extensive intertidal area. There are no finfish marine aquaculture facilities in operation. Loch Ryan is only designated Shellfish Water in the area and hosts Scotland's only commercial native oyster production farm.

If a desire for fish farm development in these areas emerged during the lifetime of the LDP, D&G Council would consider producing supplementary guidance, taking account of the full range of interests, including nature conservation, the water environment, visual impacts, recreation and the historic environment. It could identify the extent and locations of suitable sites. D&G supported aquaculture practices on the condition that no negative effects would result upon the natural or built environment. Considerations before allowing planning include:

- Carrying capacity of the area to be developed
- Impacts on the marine historic environment
- Impacts on the sea bed
- Operational requirements
- Impacts upon local communities
- Impacts on access to outdoor sports and recreation interests
- Impacts on the water environment quality and on habitats

Local Development Plan 2

In February 2017, D&G Council started consultations for its LDP 2 through the production of the [Dumfries and Galloway Main Issues Report](#). Key considerations relevant to marine planning include:

- Planning for sea level rise as a priority
- Tidal technologies are an emerging area for the Solway Firth but feasibility and viability are yet to be proven
- Creation of low carbon places provided for by mixed renewable energy
- Considering climate change through flood risk and coastal erosion
- Refreshing and reviewing the Shoreline Management Plan
- Focus on protecting the undeveloped coast

As the local cross border partnership for both the Scottish and English sides of the Solway, the [Solway Firth Partnership](#) (SFP) attended the consultation for LDP 2. SFP discussed existing integrated coastal zone management policies and the anticipated Solway Regional Marine Planning Partnership. From this, planners confirmed that the LDP2 would include due regard to the SNMP and progress (if any) on the Solway Marine Planning Partnership. This fulfils a requirement of the UK MPS 2011 for integration of marine and terrestrial planning.

Shoreline Management Plan

D&G adopted its non-statutory Shoreline Management Plan (SMP) following the success of the scheme in England and Wales.¹⁷ The SMP aims to promote a long-term high-level strategic approach for protection against coastal erosion and flooding and is a key tool for integrated coastal zone management.¹⁸ As part of this, the risks of coastal flooding and erosion are assessed at present and how they may alter as a consequence of climate change and other factors. Only a small proportion of the D&G coastline presently has, or is likely to require, coastline protection or flood defences in the next 50 years, mainly at Stranraer, Southernness and Annan. The future Solway Regional Marine Plan can use the SMP as an evidence base and tool for identifying natural and manmade marine assets at potential risk.

The SMP area is divided up into 'Coastal Process Units' or 'Cells',¹⁹ within which coastal processes are broadly similar and beach sediment movements can be regarded as largely self-contained. In D&G these are:

1. **Inner Solway** (River Sark to Borron Point)
2. **Outer Solway Coast** (Borron Point to Torrs Point, Abbey Head)
3. **Wigtown/Kirkcudbright Bays** (Torrs Point, Abbey Head to Burrow Head)
4. **Luce Bay** (Burrow Head to Mull of Galloway)
5. **Rhins of Galloway (west)** (Mull of Galloway to Milleur Point)
6. **Loch Ryan** (Milleur Point to Finnarts Point)

¹⁷ See section 9

¹⁸ The SMP takes account of existing legislation in terms of flood and coastal erosion risk management such as the [Coast Protection Act 1949](#), which empowers Local Authorities and the [Flood Risk Management \(Scotland\) Act 2009](#).

¹⁹ In England and Wales, 'Cells' are defined areas of coastline where beach sediment are largely contained. Beach sediment moves across administrative boundaries, emphasising that any interruption to such movements, for example as a result of one authority installing coastal defences, could affect the beaches in an adjacent authority's area. In Scotland, this sediment approach is less useful due to the often rocky shoreline. Instead, cells are defined by general orientation and wave exposure.

Areas at risk of erosion have been identified in the LDP and planning applications must protect the land without affecting:

- The adjoining coastline
- The wider shoreline management
- Nature conservation interests of the coastline and adjoining areas
- Areas that require new defenses against coastal erosion.

Areas administered by the unitary councils in Scotland are often larger than those for the district/ borough/ unitary councils in England and Wales. The coastline in Dumfries and Galloway comprises one complete "Cell". In England, a coastal cell may cover the shoreline of numerous Local Authorities. This can reduce the aspiration for co-operation between Scottish Local Authorities to improve the planning and management of coastal defences. The proportion of the coastline in Scotland protected by coastal defences, or affected by them, is much smaller than in England and Wales. For these reasons the development of strategic plans for coastal defence in Scotland has, therefore, been much less of a priority than for England and Wales. SMP has extended over the whole coastline and a strategic plan for each Sub-cell or Cell is a requirement if such defences are to be (part-) funded by central Government. Where Councils in Scotland have decided to adopt such an approach to coastal defence planning, on a voluntary basis, they have largely followed the system used in England and Wales, starting with the development of a Shoreline Management Plan.²⁰

²⁰ Dumfries and Galloway Council (2005)

3. Cumbria County Council Planning Policy

In England, the [duty to cooperate](#) was created in the [Localism Act 2011](#). It places a legal duty on local planning authorities, county councils in England 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 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, county councils that are not 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. This integration is also facilitated by requirements within the MCAA 2009 and the [National Planning Policy Framework](#).

The County Council manages matters relating to waste, minerals and highways. The Development Plan for Cumbria (Figure 3) comprises of the [Minerals and Waste Development Framework](#) and District Council Local Plans (See sections for Allerdale, Copeland and Carlisle) or Local Development Framework documents. [The Cumbria Wind Energy Supplementary Planning Document \(2007\)](#) provides advice on landscape and seascape, environmental and socioeconomic issues.



Figure 3: Cumbria County bordering Southwest Scotland²¹

²¹ visitcumbria.com (2016)

Minerals and waste management

The Development Plan is the starting point for considering planning applications for development in the county. Decisions should be made in accordance with it unless there are material considerations, which indicate otherwise. The Development Plan for Cumbria currently comprises of the [Cumbria Minerals and Waste Local Plan 2015-2030](#), District Council Local Plans and/or any adopted Local Development Framework Documents and the National Planning Policy Framework.

The Cumbria Minerals and Waste Local Plan covers all Cumbria bar the two National Parks²² and is designed to mitigate any conflicts that may arise during minerals exploitation and waste management. Marine plans should consider all existing local plans for better integration as in the case of the Minerals and Waste Plan, this might prove useful for offshore developments that have need of local supply chains and onshore resources.

There continues to be a significant need for sand and gravel in the south and southwest of Cumbria, largely for construction purposes. West Cumbria Mining Ltd has proposed an underground coking coal mine near Whitehaven (Figure 4). The mine would be 400m below ground and sea, onshore and offshore, in a 200-km² area. The western area of the shallow coal resources skirts the Solway Area of Outstanding Natural Beauty, Lake District National Park, St Bees Heritage Coast and the Frontiers of the Roman Empire World Heritage Site.

For waste removal and accessibility rail and sea transport are options that could increase maritime traffic but have a positive effect on local shipping economy. [The Minerals Core Strategy](#) acknowledges uncertainty around the effects on marine habitats and species and the impact of sea level rise. Annual Monitoring Reports assess if a minerals policy needs to be reviewed or a more pro-active approach is required.

The [Cumbria Landscapes Assessment Toolkit](#) allows for assessment of the distinctive characteristics of a landscape. Sensitivity to development is calculated and capacity to accept development is then determined. There is need for high design quality and sensitivity in designating modern waste management facilities in Cumbria as such developments are often highly visible from sensitive landscapes, such as the Solway. Proposals for development should prove that they have no unacceptable adverse effects upon the water environment, although what constitutes 'unacceptable' is subjective.

²² Lake District National Park and the Yorkshire Dales National Park are managed by their respective Park Authorities.

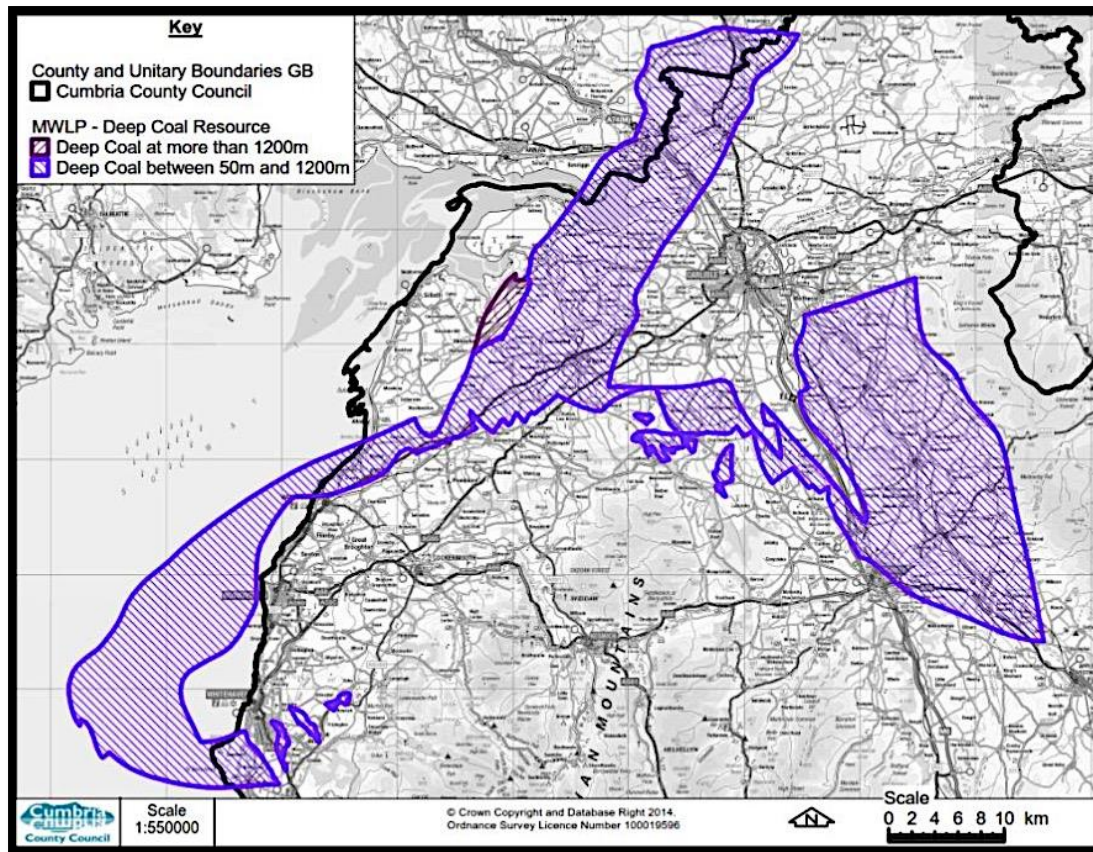


Figure 4: Purple polygon area representing deep coal between 50 and 1200 m onshore and offshore around Cumbria²³

²³ Coal Authority (2016)

4. Allerdale Local Development Plan (Part One)

The [Allerdale Local Plan \(Part One\)](#) was formally adopted in July 2014 and incorporates Allerdale outside of the Lake District National Park (LDNP) (Figure 5). The Allerdale Local Plan contains the Council's planning policies for the use and development of land up to 2029. The Local Plan (Part One) replaces many of the policies from the previous Allerdale Local Plan 1999. Part Two of the Local Plan is still in development and will detail site allocations to deliver the strategy outlined in Part One.

The coastline is one of Allerdale's most valuable social, economic, environmental and historical assets. As part of its coastal planning section, the Local Plan wanted to improve access to the coast²⁴ and its surrounding countryside. Allerdale's vision is to have an unspoilt landscape and coast with high geodiversity and biodiversity and a well-established network of green infrastructure. It is committed in supporting the development of the England Coastal Path for enhanced and secure access to the coastal margin (Figure 6).

Natural Coastal Environment

The coastline is one of Allerdale's most valuable economic, social, environmental and historic assets with numerous internationally protected wildlife and habitat designations. The seascapes and harbours attract visitors, the ports are an important employment source and the miles of beaches and shores provide free access for outdoor recreation and sports.

Similar to D&G, Allerdale's Local plan encourages the use of recreational activities that make greatest use of the harbour and marina, to boost that area whilst simultaneously reducing pressure upon the Solway Coast AONB and Natura 2000 habitat sites. Within the natural environment, England's Coastal Path is to continue being developed to provide an unbroken walking route along the coast of England for enhanced access to the coastal margin. Natural features are to be connected by using a number of transport and environmental initiatives such as the Hadrian's Wall Cycleway. The Cumbria Coastal Railway will be connected to other modes

²⁴ As required in the Marine and Coastal Access Act 2009, Natural England is the responsible body and expects work on the National Trail to be completed by 2020. As part of this work a 'coastal margin' is being identified. The margin includes all land between the trail and the sea. It may also extend inland from the trail if:

- The coastal land is identified in the Countryside and Rights of Way Act 2000, such as beach, dune or cliff
- There are existing access rights under section of the Act
- Natural England and the landowner agree to follow a clear physical feature landward of the trail

In the coastal margin, some areas will not have such rights if the land is:

- [Excepted land](#), such as cropped land or buildings and their courtyards or gardens
- Not suitable for public access, such as a saltmarsh or mudflat

of transport for ease of access. Remaining connectivity project areas are to be identified in Part Two of the plan.

The strategic policies for shoreline management and coastal development are designed to mitigate the potential effects of climate change on the Coastal Change Management Area. Any proposals for new dwellings or conversion of existing buildings to residential use will not be permitted in the Coastal Change Management Area. Proposals for new community facilities, commercial and business uses will only be permitted in the Coastal Change Management Area in certain circumstances. Proposals for new or replacement coastal defence schemes will only be permitted where it can be demonstrated that the works are consistent with the North West England and North Wales Shoreline Management Plan²⁵ and there will be no material adverse impact on the environment.



Figure 5: Borough of Allerdale²⁶

²⁵ See section 9

²⁶ OS Maps (2016a)



Figure 6: Progress on the North West Coastal Footpath²⁷

²⁷ Natural England (2017)

5. Copeland Local Development Plan

The [Copeland Local Plan 2013-2038](#) (also known as the Local Development Framework) aids the Council and the community in responding to challenges in the borough. It is designed to prepare the land, places, infrastructure and services that will be needed, and it can set out the basis for making choices about new development. The Plan will particularly assist delivery of the following:

- [Britain's Energy Coast](#)
- Copeland's Community Strategy – [The "Copeland Partnership Plan"](#)

Copeland extends across 737km² (47km² of coastline) and is mainly rural (Figure 7). The developed coast includes Whitehaven Harbour, Sellafield, Seascale and Haverigg. The undeveloped coastline includes high quality bathing beaches and landscapes, numerous conservation areas. Two thirds of the area covers the LDNP, which falls within a separate planning jurisdiction. Copeland has a number of distinctive landscapes that require protection including shingle beaches, sand dunes, high cliffs, and tidal estuaries. These areas are designated as SSSIs, SACs, Ramsar sites or areas of county or local significance for wildlife.



Figure 7: Copeland Borough Council²⁸

²⁸ OS Maps (2016b)

Marine and coastal management policy

Copeland has a diverse coastline with high cliffs at St Bees to sand, shingle, and pebble beaches, mud and sand flats. Generally, tidal areas, southern coastline and protected of the coast are at greatest risk of coastal or surface water flooding. Any proposed development must not contribute to surface water runoff. As the only Heritage Coast in North West England, Strategic Objective 16 gives added protection to St Bees Head. Most development will be prohibited along the undeveloped coast but nuclear and renewable energy development proposals can be permitted after environmental impacts are critically analysed. The coastal fringe requires remediation to deal with the previous coal and chemical activities at the [Marchon Site](#), in order to be reclaimed and suitable for new developments.

Tourism is key to Copeland, largely due to the LDNP as well as the Coast-to-Coast cycle path and long distance route from St Bees Head on the west coast to Robin Hood's Bay on the east coast. Visitor numbers are also expected to increase with the opening of the Coastal Path. Coastal tourism, leisure and culture development will be focussed primarily in the developed areas of Whitehaven and Millom. Whitehaven harbour side is set for a regeneration project ([A Harbour and Coastal Development Programme](#)) as a strategic development priority. Access and visual links to the coastal area will also be improved as part of this project. Whitehaven Harbour will be linked to St Bees Heritage Coast and Haverigg for leisure and recreational use. The [Copeland Coastal Design Guide](#) provides a structured framework for improvement to public areas of the coastline.

Protected area management

Designated sites are key for recreation and tourism, as well as for conservation. There are seven SSSIs within Copeland, including St Bees Head, which is home to a significant population of breeding sea birds. St Bees is the only known British coastal breeding site of the black guillemot. Copeland has a further seven Regionally Important Geological Sites, ancient woodland that has provided coverage since 1600 AD and 13 County Wildlife Sites.

6. Britain's Energy Coast

[Britain's Energy Coast](#) (BEC) (also known as the “master plan for West Cumbria”) emerged from a cluster of regeneration and economic development companies designed to boost the economies of Allerdale and Copeland. BEC became a fully commercial operation in 2016 and the company received direct funding from the nuclear sector. BEC now supplements its income by applying for funding for local benefit projects, often in the low carbon arena. BEC is owned by [Copeland Borough Council](#), [Allerdale Borough Council](#) and [Cumbria County Council](#), along with the [Nuclear Decommissioning Authority](#), which is headquartered in the borough of Copeland. The BEC team work closely with a number of key local partners including the Cumbria Local Enterprise Partnership

Allerdale within Britain's Energy Coast Innovation Zone

Lillyhall in Workington is part of Britain's Energy Coast Innovation Zone by promoting growth and the development of the Energy Coast Campus.²⁹ The focus is to build upon the existing public and private nuclear expertise in the area by 2030, whilst tackling climate change and securing national energy supply. The aim of the [Energy Coast Masterplan](#) is to capitalise on an £8bn investment for nuclear facilities and to diversify energy sectors.³⁰ Energy plants and associated facilities on the coast may increase shipping and traffic near the area and should be considered in marine plans.

The Council will financially support the Coast Innovation Zone through ventures such as the tourism development of Allerdale's harbours. In particular, Maryport Harbour was identified for having the greatest transformational potential for social and economic prosperity. The development of the Port of Workington will help support objectives of the [West Cumbria Economic Blueprint](#) (2012). Key issues included maintaining air and water quality across the Plan area and giving designated species and habitats the highest level of afforded protection to help adaptation towards climate change. Supporting proposals will aim to improve coastal erosion and flood defence measures to protect the Energy Coast developments. Similarly, these aspirations will need to be considered in the North West Marine Plan.

Copeland within Britain's Energy Coast Innovation Zone

The Britain's Energy Coast Initiative aims to build upon Copeland's nuclear and engineering strengths to enhance energy-based opportunities and diversify the economic base. Copeland and Allerdale have a unique opportunity for harnessing nuclear, wind and water energy and the area could become very prosperous as part of Britain's Energy Coast. In addition, Whitehaven

²⁹ Britain's Energy Coast (2007), West Cumbria Economic Blueprint (2012)

³⁰ Britain's Energy Coast (2007)

has been identified as a location with an opportunity for a future community renewable energy scheme. Sites prioritised for development as part of the Energy Coast programme include:

- [Westlakes Science and Technology Park](#) –research offices and higher education land uses
- Whitehaven Hospital - £90 m redevelopment/refurbishment
- Health Campus at Westlakes Science and Technology Park and/or the Hospital to extend health related services and initiatives and to encourage new employment clusters
- Whitehaven town centre transport interchange –bus station and car parking facilities
- Whitehaven town centre hotel as a Regeneration Priority Site
- Albion Square flagship office redevelopment
- Woodhouse/Greenbank/Kells Housing Market Renewal initiative
- Pow Beck Valley Stadium development and sports village

7. Solway Coast Area of Outstanding Natural Beauty

The [Countryside and Rights of Way Act 2000](#) strengthened the previous [Countryside and National Parks Act 1949](#) by making further provision for the protection and enhancement of Areas of Outstanding Natural Beauty (AONBs). The designation of an AONB:

- Gives formal statutory recognition to nationally important landscapes
- Requires special land use planning policies to apply
- Encourages an integrated approach to land management

Designation requires Local Authorities to prepare, publish and review, every five years, a statutory [Management Plan](#) for AONBs in their area. In the case of Solway Coast AONB the Plan is undertaken and led by the Solway Coast AONB staff unit on behalf of Cumbria County Council, Allerdale Borough Council and Carlisle City Council with support from Natural England and Defra.

The Solway Coast AONB covers 115km² of coastal strip north of Maryport and was designated in 1964 (Figure 8). Although the AONB falls within Allerdale, Carlisle and Cumbria County plans, 88% of the area is within Allerdale's Plan area and only 12% within Carlisle's Plan Area.

Significant landscape and seascape features of the Solway Coast AONB are:

- Dairy, beef and sheep farming, small hedge-bound fields with sunken lanes and narrow roads
- Dynamic and large intertidal estuary
- Extensive areas of traditionally grazed saltmarsh
- High levels of biodiversity associated with a range of intertidal, coastal and inland habitats
- Internationally important area for birdlife in estuary habitats and lowland raised bogs
- Large areas of exposed sand and mud with gravel storm ridges and sandy beaches
- Large but fragmented areas of lowland raised mire
- Large flat expanses of coastal terrain
- Long narrow linear tract of coastal sand dune and dune heath
- Open sky
- Rich archaeological and historical heritage
- Vast unbroken vistas across the estuary to Scotland
- Very scarce woodland cover

Coastal areas of the Solway Coast AONB are known to have protected species including the Natterjack Toad (*Epidalea calamita*) and the Small Blue Butterfly (*Cupido minimus*). The port town of Silloth's coastal region is protected under international designations such as Ramsar and Natura 2000 sites, national designations such as Sites of Special Scientific Interest (SSSI) and local

designations such as County Wildlife Sites. These designations increase tourism to the area and benefit the local economies of Cumbrian seaside towns.

The AONB Management Plan sets out a Vision for the next 20 years. The aims of the Management Plan, which reflect the AONB purposes, are to:

- Conserve and enhance natural beauty through securing the natural and cultural heritage of the AONB, ensuring future challenges are met
- Support the economic and social well-being of local communities in ways which contribute to the conservation and enhancement of natural beauty
- Promote public understanding and enjoyment of the nature and culture of AONBs and encourage people to take action for their conservation
- Value, sustain and promote the benefits that UK AONBs provide for society, including clean air and water, food, carbon storage and other services vital to the nation's health and well-being
- Meet the recreational needs of local residents and visitors alike, where these are compatible with the purpose of AONB designation

The AONB will also respond to the requirements of legislation such as the [Countryside and Rights of Way Act](#) and [MCAA 2009](#) to promote development of the coastal access route whilst ensuring its development and implementation is in line with the Management Plan.

All developments within the area must be in accordance with the AONB Management Plan and conserve or enhance the landscape character, quality and heritage. For example, to protect the marine and coastal area, the Council will reject new static caravan or holiday accommodation sites within the AONB that do not meet strict criteria. Coastal recreation was to be promoted whilst ensuring the protection of habitats along the coast and within the AONB. Aspartia and Allonby will be the coastal and countryside centres for outdoor recreation and for visits to the AONB.



Figure 8: Location of the Solway Coast AONB within Allerdale³¹

³¹ Google Maps (2017)

8. Carlisle Local Development Plan

Carlisle has the smallest area of coastline to plan for in the Solway (Figure 9) and the [Carlisle District Local Plan](#) 2015-2030 was adopted November 2016. The coastal and upland landscape is recognised as being of national importance, and a World Heritage Site stretches across the district. The Solway Coast and North Pennines are the district's two AONBs. Planning has highlighted that future development, including offshore wind, will face functional constraints in gaining approval in these locations.

Flood risk

Extensive areas of Carlisle's coast, including the Solway Firth Estuary, are within Flood Zone 3 (High Probability of risk or Functional Floodplain) and floodplain safeguarding has been listed as a priority. The green and blue infrastructure needs developing, enhancing and protecting for functional and attractive ecological networks³².



Figure 9: Carlisle as a district of Cumbria³³

³² Natural England (2009)

³³ OS Maps (2016c)

9. North West England and North Wales Shoreline Management Plan 2

A Shoreline Management Plan (SMP) is a non-statutory high-level document that provides a large-scale assessment of the risks associated with erosion and flooding at the coast. It also presents policies to help manage these risks to people and the developed, historic and natural environment in a sustainable manner, whilst accounting for existing planning initiatives and legislative requirements for wider strategic.³⁴ SMPs form an important part of the Department for Environment, Food and Rural Affairs (Defra) and Welsh Assembly Government strategy for managing risks due to flooding and coastal erosion.³⁵

SMPs in England and Wales divide the coastline into 11 “Cells”,³⁶ with St Bees Head to the Scottish Border designated as Cell 11 allowing for the creation of the [Northwest England and North Wales Shoreline Management Plan](#). Cell 11 is then subdivided into “Sub-cells” based on coastal character (Figure 10).

The North West England and North Wales SMP is in its second iteration and makes provisions against coastal erosion and flooding risk (Table 1), requiring a close working relationship with Natural England and Local Authorities for well-informed coastal access. The SMP2 should:³⁷

- Set out the risks from flooding and erosion to people and the developed, historic and natural environment within the SMP2 area
- Identify opportunities to maintain and improve the environment by managing the risks from floods and coastal erosion
- Identify the preferred policies for managing risks from floods and erosion over the next century
- Identify the consequences of putting the preferred policies into practice
- Set out procedures for monitoring how effective these policies are
- Inform others so that future land use, planning and development of the shoreline takes account of the risks and the preferred policies

³⁴ In Wales there is a statutory duty for sustainable development to be promoted by the Welsh Assembly Government (WAG) throughout all its business ([Government of Wales Act, 1998](#)). The UK has a requirement to facilitate and promote sustainable development as required by the [National Planning Policy Framework](#). In terms of flood and coastal erosion risk management this is promoted at national policy level through the WAG “National strategy for flood and coastal erosion risk management strategy in Wales” and the Environment Agency “[National Flood and coastal erosion risk management strategy for England](#)”.

³⁵ Defra (2006)

³⁶ Cells are defined as coastal areas where beach sediment transport is largely contained and often spread over Local Authority boundaries. This encourages greater cooperation between Authorities when planning for coastal protection of a defined ecosystem.

³⁷ Halcrow Group Limited (2010)

- Discourage inappropriate development in areas where the flood and erosion risks are high
- Meet international and national nature conservation legislation and aim to achieve the biodiversity objectives
- Highlight areas where there are gaps in knowledge about the coast and produce an action plan to address these gaps

Coastal processes have led to erosion or deposition within some areas of the Solway Coast AONB. For example, the hard defences present from Dubmill to Beckfoot protect the coastal road from the effects of climate change (mainly flooding, sea level rise and erosion). Also, Grune Point (the northernmost point on the English Solway) has erosion on the western side but deposition of sediment on the east. Marine planners can quickly gain evidence and data on the changeable nature of shoreline sediment processes from SMPs, at a relatively fine level of detail suitable for regional plans.

Table 1: Policies used for managing the shoreline³⁸

Policy option	Description
Hold the line	By maintaining or changing the current standard of protection. This policy includes those situations where work is carried out in front of the existing defences (such as beach recharge, rebuilding the toe of a structure, building offshore breakwaters and so on) to improve or maintain the standard of protection provided by the existing defence line. It also includes work behind existing defences (such as building secondary flood defences) where this work would form an essential part of maintaining the current coastal defence system
Advance the line	By building new defences on the seaward side of the original defences. Use of this policy is limited to those policy units where significant land reclamation is considered
Managed realignment	By allowing the shoreline to move backwards or forwards, with management to control or limit movement (such as reducing erosion or building new defences on the landward side of the original defences)
No active intervention	Where there is no investment in coastal defences or operations

³⁸ Halcrow Group Limited (2010)

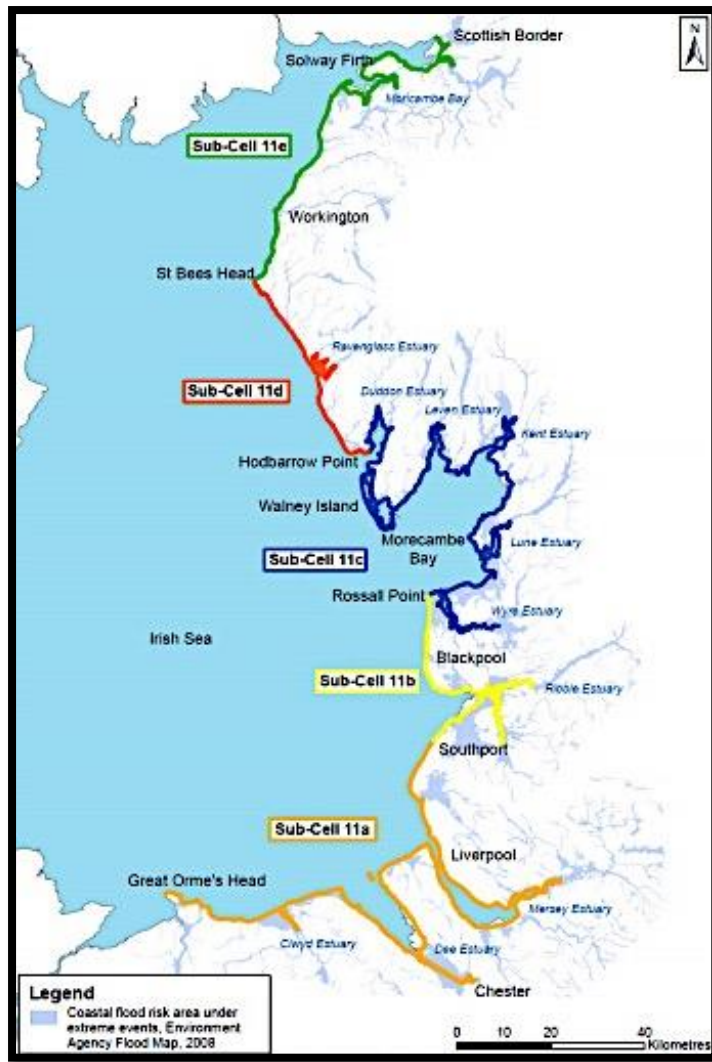


Figure 10: Sub-cells within Cell 11³⁹

³⁹ Environment Agency (2008)

10. Inshore fisheries in the Solway Firth

Marine Scotland manages the Scottish inshore and offshore waters of the Solway whilst the Marine Management Organisation (MMO) manages English inshore and offshore waters. Established by Marine Scotland, the non-statutory [West Coast Regional Inshore Fishery Group](#) improves management of inshore fisheries out to 6 nm⁴⁰ in the Scottish Solway Firth. Within the English Solway Firth, the statutory [North West Inshore Fisheries Conservation Authority](#) manages inshore fisheries out to 6 nm. Although some fisheries are seasonal, there is fishing activity throughout the year around the Solway Firth.

West Coast Regional Inshore Fishery Group

The five non-statutory Scottish Regional Inshore Fishery Groups (RIFGs) replaced the previous six Inshore Fishery Groups that operated 2013-2016 (Figure 10). The West Coast Regional Inshore Fishery Group (WCRIFG) operates from Cape Wrath to the English border of the Solway Firth and works alongside Scottish Natural Heritage, Marine Scotland and other parties. The overarching aim of the WCRIFG is to improve the management of inshore fisheries out to 6 nm and to provide greater representation for inshore fishers regards to wider marine management measures, including marine planning. RIFGs convene four times annually and advance any management decisions to Marine Scotland for consideration.⁴¹

A draft Fisheries Management Plan has been produced but specifically, the WCRIFG seeks to advance, make recommendations and proposals connected to the Draft Plan's Strategic Objectives:

- Biological - to conserve, enhance and restore commercial stocks in inshore waters and the supporting ecosystem
- Economical - to optimise long term and sustained economic return to local coastal communities that are dependent on inshore fisheries, and to promote quality initiatives
- Environmental - to maintain and restore the quality of the inshore marine environment

An example of a previous conflict management mechanism produced by the WCRIFG and facilitated by the Solway Firth Partnership is the [Solway Voluntary Code of Conduct](#) for scallop and static gear fishers.

⁴⁰ Within marine planning areas, the RIFG remit is extended to 12nm.

⁴¹ WCRIFG (2017)

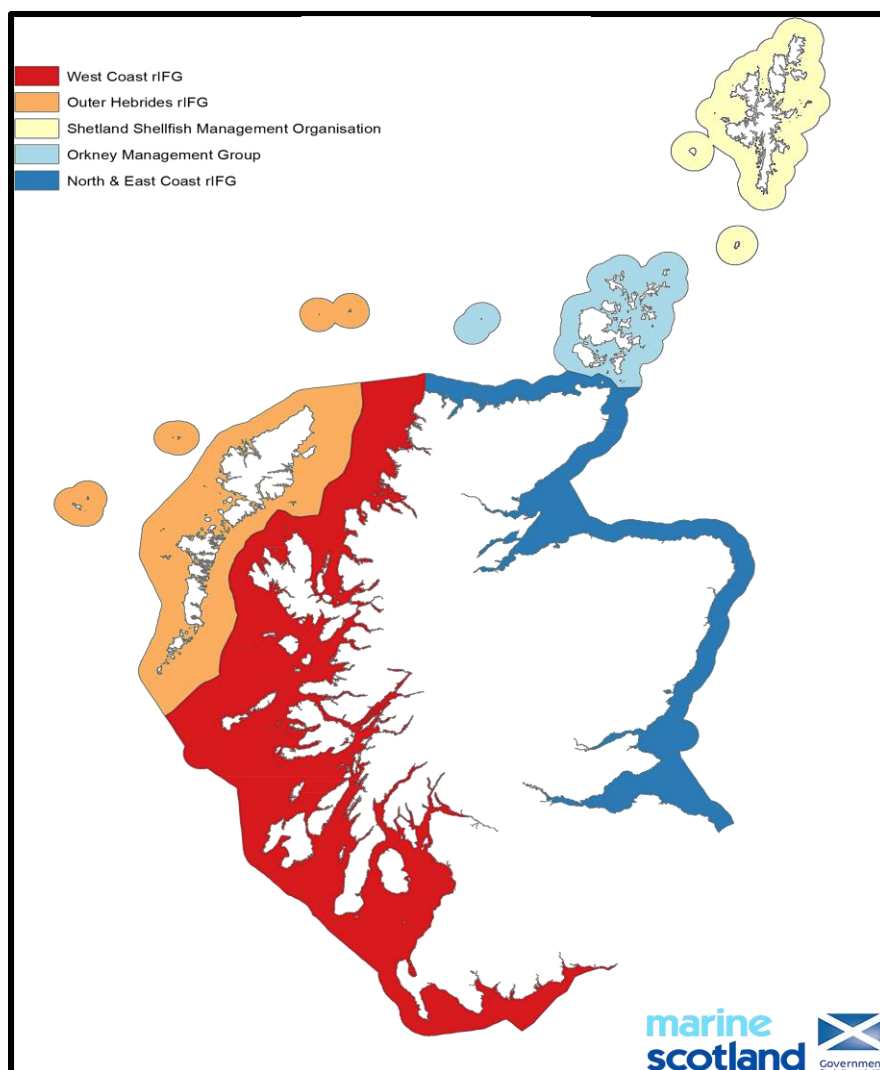


Figure 11: Scottish Inshore Fishery Group regions⁴²

North West Inshore Fisheries Conservation Authority

The Association of the Inshore Fisheries Conservation Authorities (IFCAs) replaced the previous Sea Fisheries Committees in 2011 under [Statutory Instrument 2200 \(2010\)](#) following the [Marine and Coastal Access Act 2009](#). There are ten Inshore Fisheries conservation Districts, each with a corresponding IFCA.

IFCAs are either committees or joint committees of the local constituent authorities within an IFCA district and are responsible for the sustainable management of inshore sea fisheries resources in their local area.⁴³ IFCAs consist of representatives from the constituent local authorities along with representatives from sectors that use or are knowledgeable about the inshore marine area. This may include commercial and recreational fishers, environmental

⁴² Inshore Fisheries Groups (2016)

⁴³ Local authorities provide funding for the IFCA

groups and marine researchers who offer their time voluntarily.⁴⁴ The MMO, Environment Agency and Natural England also each have a statutory seat on the IFCA. Through their local management and funding structures, IFCA's aid local authorities; communities, businesses and individuals participating in the protection and enhancement of the inshore marine environment.

All IFCA's share the same vision:

“To lead, champion and manage a sustainable marine environment and inshore fisheries by successfully securing the right balance between social, environmental and economic benefits to ensure healthy seas, sustainable fisheries and a viable industry”

The statutory North West Inshore Fisheries Conservation Authority (NWIFCA) merged the previous Cumbria Sea Fisheries Committee and North East Sea Fisheries Committee into one district that spans 1,280km of coastline. It reaches from the Welsh Border in the Dee Estuary to the Scottish Border in the Solway Firth. The area covered includes coastal Council landward areas and sea areas up to 6nm offshore (Figure 12). NWIFCA has a permanent office and staff and is an empowered regulator that can create [byelaws](#) with approval from the Secretary of State or emergency byelaws. The NWIFCA publishes an [Annual Plan](#) establishing the organisation's aims for the upcoming year and an [Annual Report](#) evaluating the previous year.

⁴⁴ Association of IFCA's (2017)

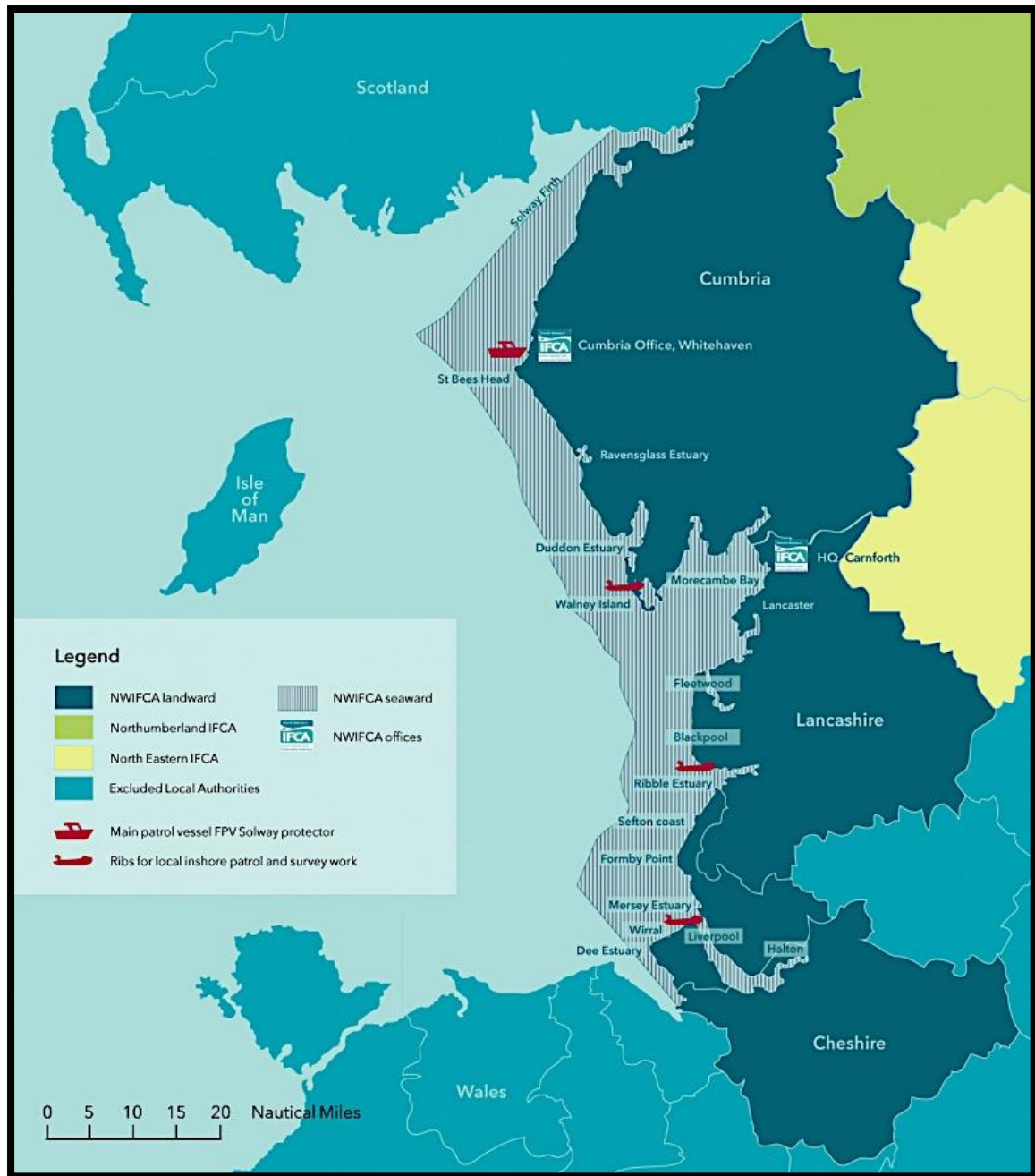


Figure 12: NWIFCA jurisdiction⁴⁵

⁴⁵ Association of IFCAS (2017)

11. River Basin Management Plans

Transboundary river basin districts are managed as part of the [Water Framework Directive](#) and are good non-marine examples of coherent planning across borders. Good governance of river basins is essential for marine planning as runoff and estuaries influence water quality and supply to the seas. The Scottish Environmental Protection Agency (SEPA) and the English Environment Agency (EA) are the two competent authorities for the Water Framework Directive assessment on water quality in the cross border Solway Tweed River Basin District (Figure 13). This included the publication of the [Solway Tweed River Basin Management Plan](#). The Management Plan is a good example of a document designed to integrate with existing plans and processes (Table 2).



Figure 13: Solway Tweed River Basin District Management Area⁴⁶

The Water Framework Directive required the agencies to cooperate for basin management, although fully integrated working was only needed for critical issues. The [Tweed Forum](#) was set up to encourage stakeholder participation and cross-border collaboration and has a similar facilitative role to the coastal [Solway Firth Partnership](#).

⁴⁶ Environment Agency (2015)

SEPA and the EA had several challenges to overcome to jointly create the River Basin Management Plan:

- Both agencies worked to the same UK data standards but had different types of data held for each water body
- Impractical to create new joint classification tool but information was shared
- Of 653 Solway Tweed water bodies, 5 (Solway Firth, Border Esk, Sark, Till and Tweed) had water quality particularly sensitive to actions of the other Administration
- Vast majority of Esk was in Scotland but fish data were significant for this body and held by the EA, so SEPA classified the Esk using EA data in the SEPA tool methodology and presented Plan information on behalf of both agencies⁴⁷
- The EA is responsible for flood warning and defence, whereas SEPA is responsible only for flood warning (the Local Authorities are responsible for flood defence)
- SEPA is responsible for local air pollution control, whereas this is a local authority function in England and Wales
- The EA can bring its own prosecutions and claim legal expenses in successful cases, whereas SEPA must submit cases through the Procurator Fiscal and cannot claim expenses

Table 2: Examples of terrestrial plans the Solway Tweed River Basin Plan interacts with⁴⁸

Wider Focus	England	Scotland
Coastal erosion and flooding	<ul style="list-style-type: none"> • Flood risk management plans • Flood and coastal risk: long-term investment scenarios 	<ul style="list-style-type: none"> • National Flood Risk Assessment • Flood risk Management Strategies
Climate change adaptation	UK National Climate Adaption Strategy and Adaptation Plan	
Water supply	<ul style="list-style-type: none"> • Water resources management plans • Drought management plans 	<ul style="list-style-type: none"> • Water scarcity plan • Scottish Water plans and processes
Biodiversity	<ul style="list-style-type: none"> • Biodiversity 2020: A Strategy for England's wildlife and ecosystem services • Natura 2000 site improvement plans 	<ul style="list-style-type: none"> • 2020 Challenge for Scotland's Biodiversity – A Strategy for the conservation and enhancement of biodiversity in Scotland
INNS	The Invasive non-native species framework strategy for Great Britain	
Forestry	N/A	Scotland Forestry Strategy
Sustainable land use	N/A	Getting the best from our land – A land use strategy for Scotland

⁴⁷ Galley (2012)

⁴⁸ Environment Agency (2015)

Freshwater surface and groundwater bodies are important for marine planning as the runoff influences coastal water quality. This in turn, may affect the activities that can take place in the marine area, as well as the times that they can take place. Bathing waters are also monitored by SEPA and the EA and methods to reduce pollution inputs are investigated. The Solway Estuary is affected by wastewater discharge but must achieve 'Good Ecological Status' by 2027 at the latest. The summary status of the Solway Tweed River Basin District water bodies include:⁴⁹

- 48% out of 624 water bodies and 64% of 58 protected areas were "currently good or better"
- 9% out of 624 water bodies and 14% of 58 protected areas were "achieving good by 2021"
- 33% out of 624 water bodies and 19% out of 58 protected areas were "achieving good by 2027"
- 4% out of 624 water bodies and 3% out of 58 protected areas were "recovering to good after 2027"
- 6% out of 624 water bodies will not achieve 'good' status by 2027

Causes for poor water body condition included: water quality, access for fish migration, physical condition, water flows/levels, and direct impacts of Invasive Non-Native Species. Rural diffuse pollution and modifications to the physical condition of water bodies were the most widespread pressures on the water environment. Diffuse pollution is mainly from agriculture but also from forestry and rural septic tanks.

Scotland and England have taken different approaches to improving the condition of water bodies and protected areas. England's programme of measures, grouped by funding sources, includes:

- Water company investment programme
- Countryside Stewardship
- Highways England's environment fund
- Flood risk management investment programme
- Catchment level government funded improvements
- Water resources sustainability measures

Scotland's approach focuses on reducing rural diffuse pollution and improving the physical condition of water bodies by:

- Studies and investigations to help pin-point the sources of the problems, including working with local communities and businesses to find solutions that maximise social and economic benefits

⁴⁹ Environment Agency (2015)

- Building action-focused partnerships, in particular with land managers, other businesses and voluntary organisations to lead and champion the work
- Communicating and sharing good practices, including amongst land managers and providing funding support for actions where appropriate

12. Variations in references to the coastal environment between Local Plans

The top priorities of terrestrial Local Development Plans (LDPs) usually relate to housing, infrastructure and community services. LDPs as well as other local management plans such as the Solway Tweed River Basin Management Plan have varying priorities in regards to the marine and coastal area, due the organisation and function of the body that created them. These priorities are also dynamic, reflecting their changing local terrestrial and marine environment, as well as that of the political and economic landscape.

Dumfries and Galloway

In terms of the marine area, the D&G LDP focussed on local regeneration projects, especially harbours, ports and slipways that could be used to boost the socioeconomic level of the area. Port and harbour development is prioritised to help boost the local economy through tourism and recreation. Proposed developments should not add to the problem of coastal erosion but fish farming was regarded as a suitable option for business diversification, as long as strict environmental criteria were followed. Erosion and protection of the coast are highlighted as key issues for the area that may require adaptation following the effects of climate change.

Allerdale

Much of the current LDP is mirrored from the previous 1999 LDP and Part Two is in development. Allerdale makes a specific reference to cross-boundary collaboration with neighbouring local planning partners and authorities for strategic planning and coordination of shared issues. West Cumbria is the UK's most important location for nuclear power and related activities. Allerdale, in a context separate from the Solway Coast AONB, is focused upon strengthening its nuclear expertise as part of Britain's Energy Coast Initiative. The development of the Energy Coast is perhaps in contrast to the Solway Coast AONB Management Plan that seems wary of energy developments that do not align well with the area's character. However, there are strategic policies for the protection and enhancement of the natural environment within the LDP.

Solway Coast Area of Outstanding Natural Beauty

The Area of Outstanding Natural Beauty (AONB) Management Plan focuses on the defining characteristics of the landscape and seascape. The promotion of responsible ecotourism and use of the natural area is essential but the Plan does not approve of developments that may compromise the characteristics of the area. Priority was given to promoting local conservation and enhancement of the site, and in keeping the AONB updated with the latest legislation from the UK and EU. Special planning policies and an integrated approach to land and coastal management are required under the statutory designation of the AONB.

Copeland

As part of its coastal management policy, the developed coast is promoted as the most suitable area to support appropriate new employment, tourism and leisure regeneration schemes. Two thirds of the area are not part of the Plan's remit as the Lake District National Park Authority is the responsible authority. Copeland is similar to Allerdale in the promotion of the Energy Coast, but with more of a focus on smaller-scale renewable projects that could benefit local community groups. Tourism was also a key priority due to the neighbouring National Park and was recognised as equally important to economic success as the Energy Coast initiative.

Carlisle

Carlisle has the shortest stretch of Solway Firth coastline but the ecological and tourism significance of the coastline and the Solway AONB was recognised. The priority for the City Council is to avoid any developments that could contribute to the already high risk of coastal and surface water flooding present in the area. Mitigation against this risk was also a key focus, for example, floodplain safeguarding. Similar to the other English LDPs, Carlisle's also anticipated the development of the English Coastal Path.

Solway Tweed River Basin District

The Scottish Environmental Protection Agency and the Environment Agency will continue to manage the Solway Tweed River Basin District with the core priority of its water bodies reaching "Good Ecological Status" by 2027 at the latest. Rural diffuse pollution remains a key issue for water body quality and point sources can cause a cumulative impact upon marine activities, in particular recreation, tourism and fisheries, through estuaries and runoff. There is a continuing need to provide information and advice on issues such as diffuse pollution in the Solway Firth so that landowners and managers are able to reduce their impacts through better management.

13. Conclusions

Local Development Plans (LDPs) around the Solway Firth contain a distinct coastal element but fewer plans explicitly defined a coastal zone, instead referring to an ambiguous 'coastal area'. With the introduction of the Coastal Path in England, a coastal margin will be defined. Coastal policies often relate to protection of the undeveloped coast, coastal tourism and managing flood and erosion risk.

With a national aspiration to shift to a low carbon economy and emerging technologies for a range of tidal power devices and the shift to offshore wind, Britain's Energy Coast could be a major influencing factor in new developments. The potential for greater industry opportunity may increase competition for space, one of the most significant causes for potential conflict around the Solway Firth.⁵⁰ Local plans are specific to the characteristics of an area and are designed to mitigate any conflict that does arise through different mechanisms, policies and objectives. Councils adopting Local Development Plans that align with the National Planning Policy Framework gives credibility to the need for Scottish regional marine plans to align with the National Marine Plan. Marine planners in any country can adapt management techniques based on experiences of terrestrial planning in the coastal zone.

Inshore fisheries form a significant part of the cultural identity of coastal communities around the Solway Firth. The inshore fishing fleet is also usually more visible to the local community than the offshore fleet. Inshore fishery organisations such as the West Coast Regional Inshore Fisheries Group (WCRIFG) and the Northwest Inshore Fisheries Conservation Authority (NWIFCA) have a strong understanding of the fluctuations within inshore fisheries. Marine planners can use stocks and species data when assessing the state of the underlying ecosystem. Data on the number and type of commercial and recreation fishing vessels can also indicate socioeconomic characteristics of the marine plan area.

River basin management is crucial for marine planning as rivers ultimately flow into the seas. The Solway Tweed River Basin Management Plan's "Source to Sea" approach integrates land and water management as what happens in the freshwater environment can affect estuaries and coastal waters. Environmental regulators such as the Scottish Environment Protection Agency and the Environment Agency, as well as fisheries bodies such as the WCRIFG and the NWIFCA are valuable sources of regional data and local knowledge. The expertise and cooperation of these

⁵⁰ See SIMCelt report "*Report on the Sectoral Interactions around the Solway Firth in relation to marine planning*"

organisations amongst others will be key to the success of effective and streamlined marine plans.

The complex geographically divided nature of the Solway Firth highlights the importance of strategically managed and joined-up plans. This will be partially achieved by promoting an ecosystem-based approach to marine and terrestrial management. Also, the engagement activities of vital local coastal organisations, such as the Solway Firth Partnership and the Regional Inshore Fishery Groups, establish strong representational relationships between stakeholders and planning authorities.

In the creation of a new spatial planning tool or plan in any area, it is essential good practice to promote consultation response periods to allow for discussion and recognition of stakeholder aspirations. Furthermore, effective lines of communication and community engagement must remain open and transparent between developers, practitioners and any other interested parties during plan development, in the interests of greater ownership and compliance.

14. References.

- Association of IFCA's. 2017. Available at: <http://www.association-ifca.org.uk/about-us/defra-guidance-to-the-ifcas> (Accessed: 10.10.17)
- Britain's Energy Coast. 2007. A Masterplan for West Cumbria. Available at: <http://britainsenergycoast.co.uk> (Accessed: 05.09.16).
- Carlisle Council. 2015. Carlisle District Local Plan. Proposed Submission Draft February 2015. Available at: <http://www.carlisle.gov.uk/> (Accessed: 08.09.16).
- Coal Authority. 2016. Deep coal availability between 50 and 1200 metres onshore and offshore around Cumbria. Available at: <http://mapapps2.bgs.ac.uk/coalauthority/home.html> (Accessed: 20.09.16).
- Landsburg, W., Nixon, E. and Ouellette, M., 2015. Marine spatial planning quality management system. *ICES Cooperative Research Report, 327*.
- Defra. 2006. Department for Environment, Food and Rural Affairs Shoreline Management Plan Guidance. March 2006.
- Dumfries and Galloway Council. 2005. Dumfries and Galloway Shoreline Management Plan and Plan Study: Stage 1. HR Wallingford.
- Dumfries and Galloway Council. 2014. Local Development Plan. Available at: <http://www.dumgal.gov.uk/CHttpHandler.ashx?id=17412&p=0> (Accessed: 10.10.17).
- Dumfries and Galloway Council. 2016. Local Development Plan Supplementary Guidance. Consultation Draft September 2016. Part 1 Wind Energy Development: Development Management Considerations. 26th September 2016.
- Environment Agency. 2008. Flood Map. Available at: http://www.mycoastline.org.uk/info/1/shoreline_management/3/ (Accessed: 10.10.17).
- Environment Agency. 2015. The river basin management plan for the Solway Tweed river basin district: 2015 update.
- Galley, J. 2012. Conversation with Frances Edwards, 1 May. An evaluation of whether best practice from cross-border planning projects can be identified and applied to marine spatial plans in a transboundary area. Appendix 4. MSc Thesis. Heriot-Watt University.
- Google Maps. 2017. Solway Coast area of Outstanding Natural Beauty. Available at: <https://www.walkingclub.org.uk/maps/england/area-of-outstanding-natural-beauty-map.html> (Accessed: 10.10.17).
- Halcrow Group Limited. 2010. North West England and North Wales Shoreline Management Plan 2. North West and North Wales Coastal Group, Swindon, Wiltshire, UK.
- Inshore fisheries Groups. 2016. Newsletter Spring 2016. Available at: <http://www.gov.scot/Resource/0050/00500955.pdf> (Accessed: 22.09.16).
- Natural England. 2009. Green infrastructure guidance. Available at: publications.naturalengland.org.uk/file/94026 (Accessed:06.10.16).
- Natural England. 2017. England coast path in the Northwest of England.
- Ordnance Survey. 2016a. Allerdale (Local Authority) Ordnance Survey Maps. Available at: www.neighbourhood.statistics.gov.uk/dissemination (Accessed: 05.09.16).
- Ordnance Survey. 2016b. Copeland (Local Authority) Ordnance Survey Maps. Available at: www.neighbourhood.statistics.gov.uk/dissemination (Accessed: 05.09.16).
- Ordnance Survey. 2016c. Carlisle (Local Authority) Ordnance Survey Maps. Available at: www.neighbourhood.statistics.gov.uk/dissemination (Accessed: 05.09.16).
- SHOM. 2017. Service Hydrographique et Océanographique de la Marine. SIMCelt study area map.
- Visitcumbria.com. 2016. Map of the county of Cumbria. Available at: <http://www.visitcumbria.com> (Accessed: 09.09.16).
- West Cumbria Economic Blueprint. 2012. Britain's Energy Coast Cumbria. Realising the potential of Britain's Energy Coast. Available at: <http://councilportal.cumbria.gov.uk/documents/s13554/TheEconomicBlueprint3004121compressed.pdf> (Accessed:05.09.16).
- WCRIFG. 2017. West Coast Regional Inshore Fishery Group. Available at: http://ifgs.org.uk/rifg_wc/ (Accessed: 10.10.17).