

Seascape Character Assessment of County Donegal



2016



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1. Introduction

Donegal has a distinctive, spectacular and diverse coastline of some 1,134km, most of it fronts directly onto the Atlantic Ocean. The indented coast is the longest in Ireland and boasts a heterogeneous character comprising of cliffs, sheltered bays, caves, open coastal views and headlands. The coastal landscape and seascape is synonymous with the character and identity of the County, and inherent in the complex history of the County.

Seascape is a crucial element in any maritime location whether it be employment, pleasure or tourism as examples and it gives a sense of identity and oftentimes defines the culture of the area. It reflects the relationship between people and place and is a product of the interaction between the natural, built and cultural components of our environment (Natural England 2012). It has played an important part in the history and development of Donegal as a landing port for the first settlers, as a food source for its people, for transport and communications, for defence, for commercial fishing, enterprise and export and the local culture of the population amongst a wealth of others. More recently, the coast and the sea have been the focus for tourism and leisure providing a significant asset as a recreational resource along with associated, considerable development pressures. Donegal's dynamic coastline has continuously changed physically, in its use and capacity over time and this change is destined to proceed with global warming, sea levels rising, new and evolving technologies and social and cultural changes.

1.1 Objectives of Seascape Character Assessment

1. To acknowledge seascapes as a key resource within the marine and coastal environment.
2. To identify their character and special qualities.
3. To identify unique areas of specific importance.
4. To provide a base layer of information to feed into and inform a comprehensive and robust Landscape Character Assessment (LCA) of the County and coincide with the Settlement Character Assessment of County Donegal.
5. Establish an understanding of how a place is experienced, perceived and valued by people



2. Methodology

The SCA was carried out following best practice guidance in the form of the Interreg funded document entitled 'Maritime Ireland/Wales, Guide to Best Practice in Seascape Assessment, March 2001' prepared on behalf of the Countryside Council for Wales and University College Dublin, and 'An approach to Seascape Character Assessment', Natural England 2012. The Seascape Character Assessment is an independent assessment in its own right carried out as a parallel process to the Landscape Character Assessment and the Settlement character assessment and was somewhat informed by the Historic Landscape Classification process, whilst aligning to the National Landscape Strategy or Ireland 2015-2025.

2.1 Components of a seascape

Similar to a Landscape Character Assessment, a Seascape Character Assessment describes and characterises all of the individual attributes and features that combined inform the seascape of the coastal landform and adjoining marine area.

Natural England describes seascape as:

"Seascape, like landscape, reflects the relationship between people and place and the part it plays in forming the setting to our everyday lives. It is a product of the interaction of the natural and cultural components of our environment, and how they are understood and experienced by people."

The European landscape Convention (ELC), defines seascape as:

"A 'seascape' is an area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land and sea, by natural and/or human factors."

In **Section 2.2** below **Figure 1.1** extracted from 'An Approach to Seascape Character Assessment', Natural England 2012 illustrates the individual components that together make up a seascape.

2.2 Seascape Character Assessment process

Figure 1.1: Seascape Character Assessment process

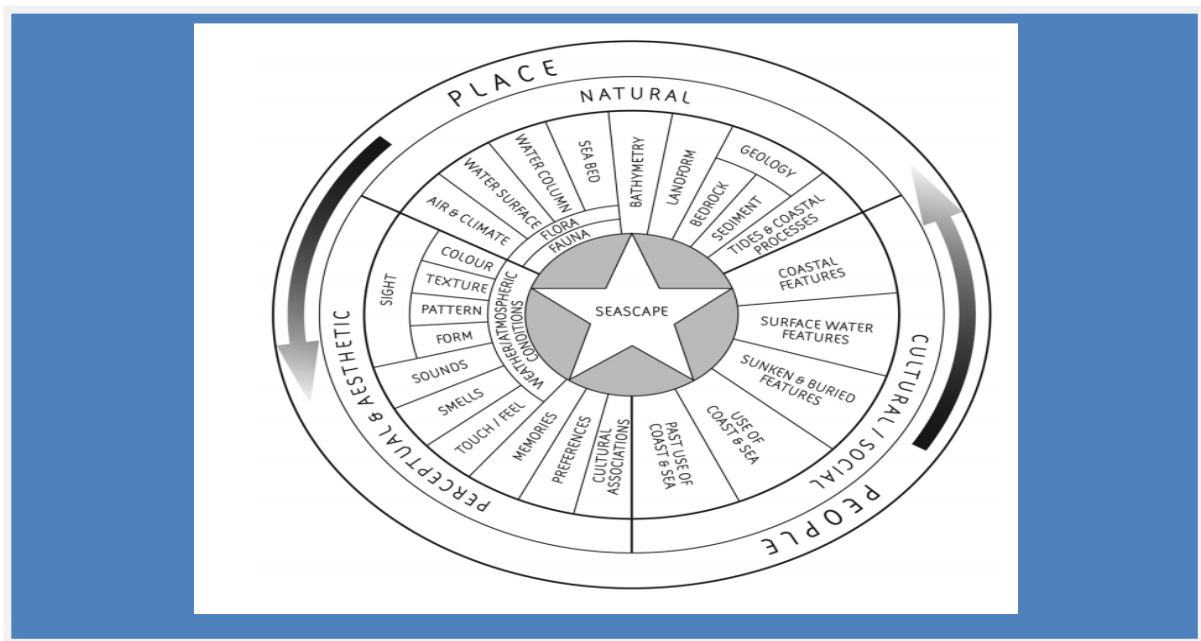
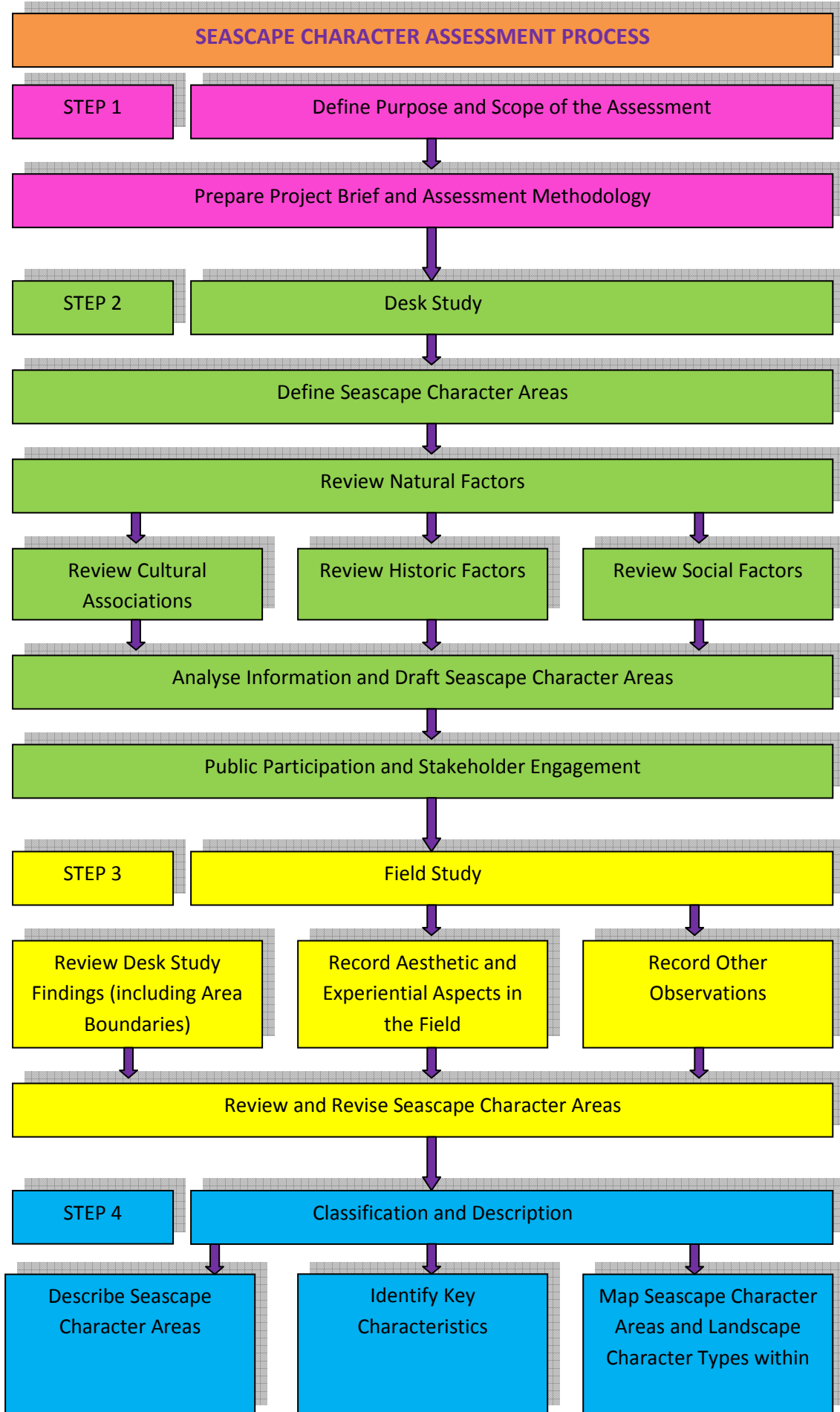


Figure 1.2: Seascape Character Assessment Process Flowchart



2.3 Seascape Character Assessment Process - Step 1

2.3.1 Scope - Step 1

Figure 1.2 on the previous page details the process carried out to prepare the Seascape Character Assessment that consists of four steps which are described in more detail below.

A scoping document was prepared in summer 2013 that set out the content, procedure, scale and level of detail of the Seascape Character Assessment, as detailed in the extract from the scoping document copied below:

"A Seascape Character Assessment of County Donegal shall be carried out that shall consider the entire coast and inlets. A Historic Landscape Assessment (HLC), and a Townscape Character Assessment (TCA) are also being carried out as parallel processes, that along with the Seascape Character Assessment shall feed into and inform a comprehensive and robust Landscape Character Assessment (LCA) of the County.

Scope

The Seascape Character Assessment (hereafter referred to as SCA) of County Donegal will cover some 1,134km or 17.1% of the total national coastline and include the Lough inlets for a distance of 15km out to sea and a (provisional) distance of 10 km inland from the shore edge. The SCA shall be carried out in accordance with current best practice based on the INTERREG funded document entitled 'Maritime Ireland/Wales, Guide to Best Practice in Seascape Assessment, March 2001' prepared on behalf of the Countryside Council for Wales and University College Dublin and 'An approach to Seascape Character Assessment', Natural England 2012.

The SCA will involve the study and characterisation of the 'seascape', consisting of:

- *Views from land to sea*
- *Views from sea to land*
- *Views along the coastline*
- *The effect on landscape of the conjunction of sea and land*

The SCA shall be carried out as a parallel and reiterative process alongside the LCA, HLC and TCA, and shall be incorporated into the final published LCA.

Public consultation on the SCA shall occur within the wider LCA as a result of subsuming the SCA into the LCA.

Content and procedure

The SCA shall consist of a detailed assessment of the coastline in sectors subdivided from headland to headland; each of these shall be described as a 'Seascape Unit'. It is intended to have a seaward buffer of 15km and a landward buffer of 10km (provisional) that may change as a result of further more detailed GIS analysis.

The assessment of each unit shall consist of the following stages.

Stage 1: GIS analysis of existing spatial data comprising multiple layers, and running GIS based programs generating viewsheds in order to define 'seascape units' and identify significant characteristics, constraints and opportunities of sea and land.

Stage 2: Visual analysis of each seascape unit in a structured manner using survey sheets, referenced maps and photographs.

Stage 3: Definition of the marine, coastal and inter coastal areas and their characteristics.

Stage 4: Consideration of the relationship between, and integration of, the marine and terrestrial areas and hinterland.

Each seascape characterisation unit shall include the following:

- *Characterization by physical type*
- *Characterization by use*
- *Environmental designations and sensitivities*
- *Visual and sensory qualities*
- *Key historic and cultural association*
- *Forces for change*

Scope/scale

The size and scale of Donegal and its Coastline lends itself to a 'regional' scale of assessment and in this instance the parameters laid out in the best practice guidelines for regional scale assessment shall be used. The scale shall be sufficient to inform the countywide Landscape Character assessment that may lead onto a requirement for further detailed study as a separate process."

Appropriate Assessment

Pursuant to Article 6(3) of the EU Habitats Directive a report was prepared entitled "Report on the requirement to carry out an Appropriate Assessment". The report recommended that "The Landscape Character Assessment, Seascape Character Assessment and Settlement Character Assessment of County Donegal are narrative descriptions of the individual elements that combine to inform the uniqueness and particular qualities of different areas within County Donegal and as such will have no direct effect on the environment.

These are not likely to be significant effects on the network of Natura 2000 sites as a result of the publication of the Landscape Character Assessment, Seascape Character Assessment and Settlement Character Assessment and therefore an Appropriate Assessment is not required.

Strategic Environmental Assessment

Pursuant to the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I.435 of 2004), a report was prepared entitled "Report on the requirement to carry out a Strategic Environmental Report".

The report concluded that "The Assessments (Landscape Character Assessment, Seascape Character Assessment, Settlement Character Assessment) are narrative descriptions of the individual elements that combine to inform the uniqueness and particular qualities of different areas within County Donegal and as such will have no direct effect on the environment.

2.4 Seascape Character Assessment Process - Step 2

2.4.1 Desk Study

Using the best practice guidance and methodology, 19 individual seascape units were identified using GIS mapping as illustrated on the map below **Figure 1.3**. Each seascape unit referred to extends from natural headland to headland, 15km seaward and 3km

inland. The nature of the long, varied and indented coastline of Donegal resulted in a considerable degree of overlap between seascape units along this coast that for the most part allows fluid transition of differing coastal edge that reflects itself in a dynamic seascape consisting of often dramatic views in, over and out of each seascape unit and thereby informing the coastal landscape character areas.

Figure 1.3: Map of County Donegal illustrating the extent of the 19 SCAs along the coast.



Further GIS analysis of multiple spatial data layers included GIS generated viewshed analysis that was carried out to inform and define 'seascape units', and in particular the extent of intervisibility between the sea and land and between units. Layers of spatial data were interrogated to help identify significant characteristics and features of the sea and land as well as a literature review to inform the historic, social and cultural elements of the units.

As part of the wider Landscape Character Assessment process, Landscape character types were identified throughout the county; these are the physical attributes that make up the landmass of the county, they are generic in nature and not specific to an area and so are present throughout the county, so for example coastal agriculture could be present in Inishowen and also in Donegal Bay but these are in entirely different seascape units and Landscape Character Areas. The map below illustrates the landscape character types that occur within the area of the Seascape Character Assessment.

The coastal edge is a fundamental and defining feature of each seascape unit; it reflects the geology and coastal hydrological processes of the unit that in turn have informed the ecology and history of settlement of that area, and in turn the land use, maritime use, settlement pattern and built, social and cultural heritage of each area. The map below illustrates the coastal edge of the county that has been subdivided into 10 coastal types.

There are varying elements to each Seascape Character unit including the Coastal Edge, use of sea, use of land, contours of the landward side and in particular the coastal edge, density of population, locations of settlements, land-cover, land use and many more.

Akin to the landscape, the seascape is ever evolving and has changed over time as a result of hydrological processes and particular geology. The geological processes in turn created seascapes that were diverse, some more hospitable than others that have influenced ecological cover, settlement patterns and associated built and cultural heritage, farming practices, fishing and other maritime uses such as defence.

Figure 1.4: Map illustrating Landscape Character Types within Seascape Units

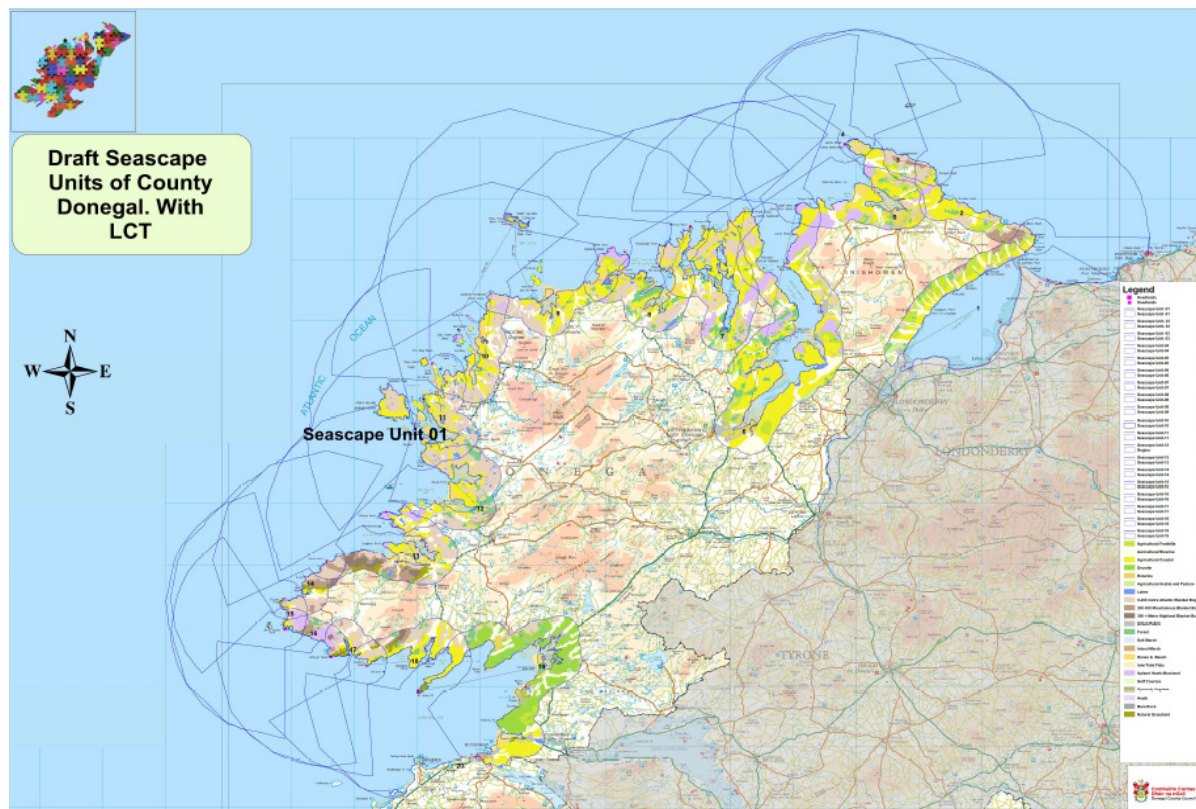
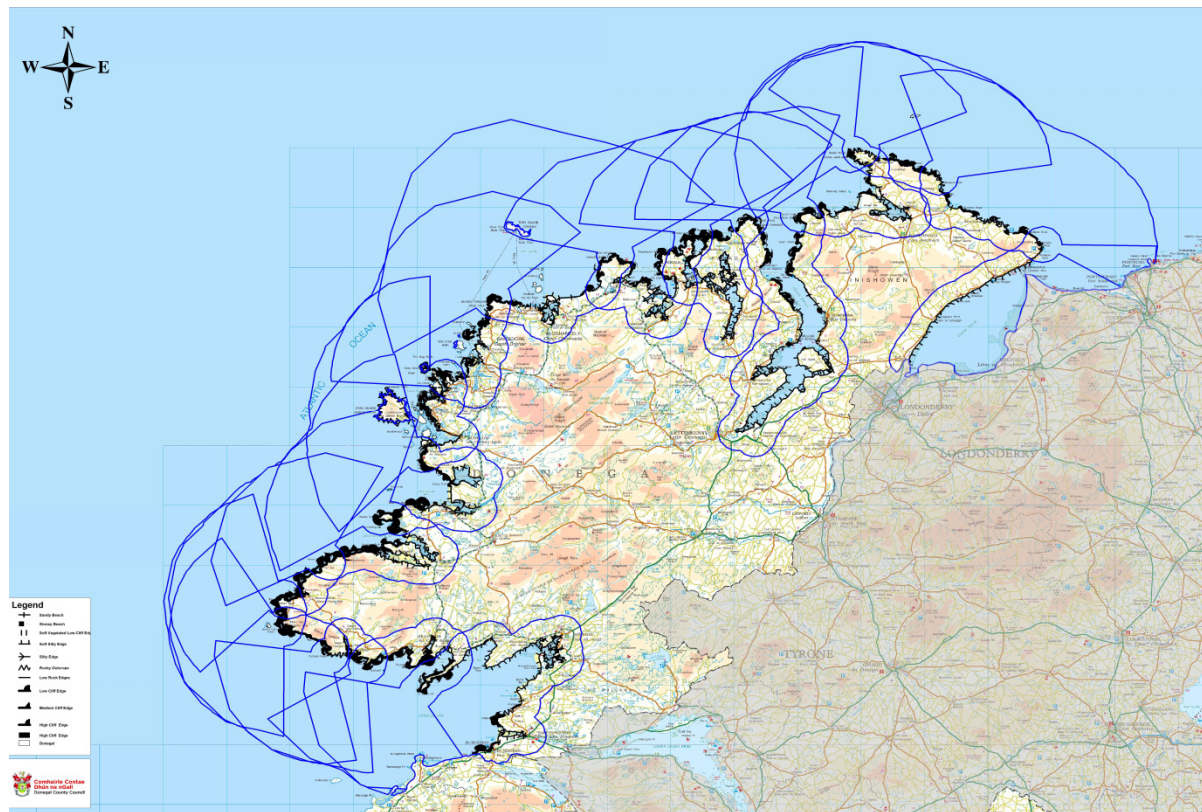


Figure 1.4 above illustrates each of the 19 identified seascape character areas and the widely varying landscape character types within **Figure 1.5** below which shows the ten varying coastal edge types that together provide a fundamental element of the Seascape Character area.

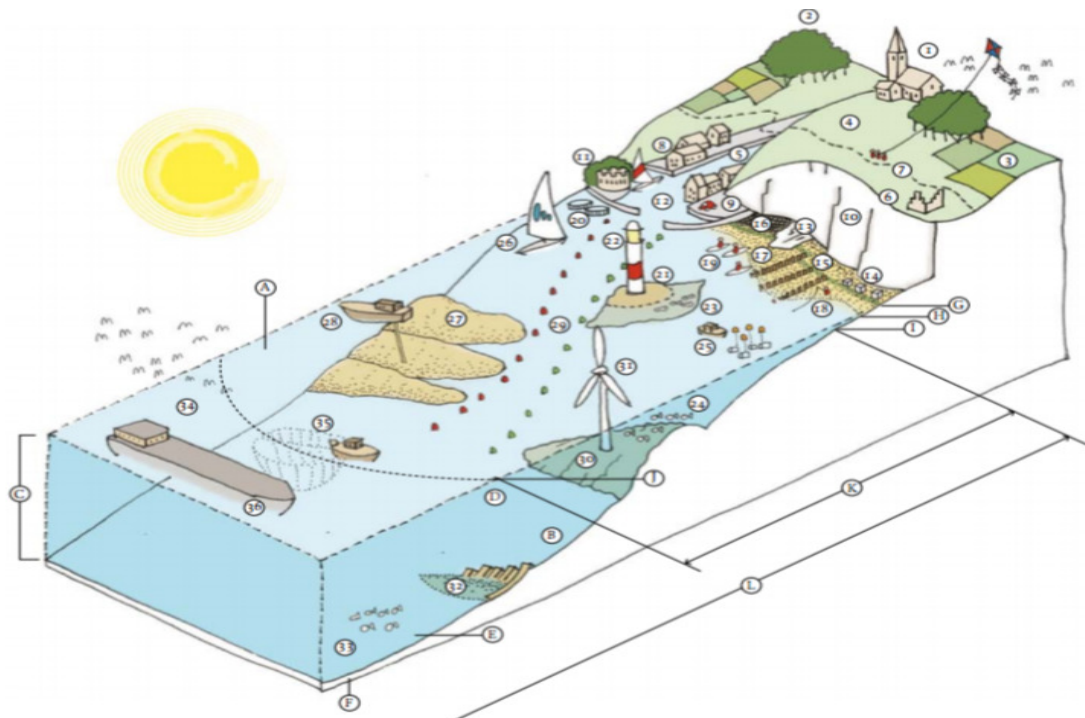
Figure 1.5: Map illustrating the Coastal Edge types along seascape units



Seascape is defined by Natural England in its position statement in All Landscapes Matter (2010) as: "An area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors".

The diagram below illustrates the many physical, marine, ecological, physical, social and cultural elements that contribute to the defining of a seascape character area and that have been considered as part of this Seascape Character Assessment as individual elements that together contribute to the unique character of each individual seascape unit.

Figure 1.6: Seascape Features and activities (Natural England 2011)



LANDSCAPE FEATURES AND ACTIVITIES

- 1 Hilltop village
- 2 Ancient woodland
- 3 Arable farmland
- 4 Grazed pasture
- 5 River
- 6 Collapsing cliff & partially ruined farmhouse
- 7 Coastal path
- 8 Fishing village
- 9 Tourist car park

SEASCAPE FEATURES AND ACTIVITIES

- 10 Rocky cliffs
- 11 Medieval castle
- 12 Estuary/Harbour
- 13 Rock ledge
- 14 Coastal defence
- 15 Groynes
- 16 Pebble beach
- 17 Sandy beach
- 18 Fishing
- 19 Surfing
- 20 Aquaculture
- 21 Rocky outcrop
- 22 Lighthouse
- 23 Seals basking
- 24 Shoal of fish
- 25 Lobster potting
- 26 Pleasure boating
- 27 Sandbanks
- 28 Dredging
- 29 Navigation buoys
- 30 Submerged rock outcrop
- 31 Wind farm
- 32 Partially submerged wreck
- 33 Site of fully submerged wreck
- 34 Site of naval battle
- 35 Commercial fishing
- 36 Container ship

TECHNICAL TERMS

- A Sea surface
- B Seabed
- C Water column
- D Pelagic habitat
- E Benthic habitat
- F Continental shelf
- G High Water Mark
- H Foreshore/intertidal zone
- I Low water mark (Baseline)
- J 12 nautical miles (from Baseline)
- K Extent of UK Territorial Sea (Baseline to 12 nm)
- L British Fishery limits, Renewable Energy Zone/ UK Pollution Zone and Exclusive Economic Zone (up-to 200 nm from Baseline)

2.4.2 Public participation

Public Participation on the SCA occurred as part of the wider LCA public consultation process during a three month period in January 2014. The LCA process was advertised in local press, on the council's website and on Facebook and Twitter. A letter and information leaflet, **Figure 1.7** below, were sent out to over 400 community groups throughout the County outlining the LCA (and including SCA) process, detailing drop-in events and explaining how to make a submission and become involved in the LCA (and including SCA) process. Similarly, a letter and information leaflet was sent out to all public libraries, primary schools and secondary schools in the County in order to target a younger age cohort in the consultation process. Targeted notification on the LCA was also sent out to all neighbouring Local Authorities. An interactive mapping tool was developed encouraging digital submissions that were localised to a geographical point and to which submissions and photographs could be attached, and all methods of submission including digital submissions were encouraged and welcomed, screenshot of this is illustrated in **Figure 1.8** below.

There were a series of 5 structured public 'drop in' events throughout the County during February 2014 and attended by members of the LCA team. There were a number of draft maps on display including those listed below in addition to rolling presentations and hand-out maps and documentation. The purpose of the public events was to encourage informed public participation and on the whole these events were well attended and had positive outcomes.

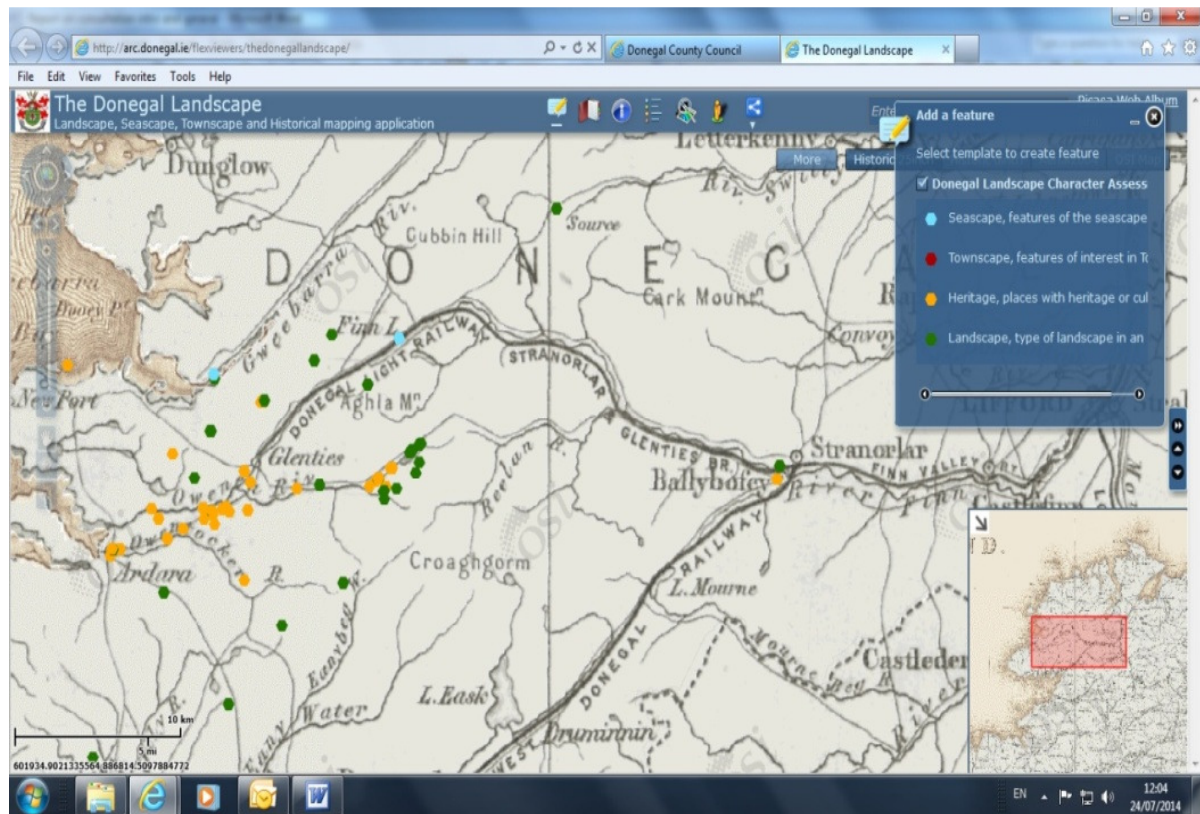
Draft maps on display at the public events were:

- Landscape Character Areas.
- Landscape Character Types.
- Historic Landscape Characterisation.
- Seascape Character Assessment.

Figure 1.7: 'Have Your Say About Your Landscape'.



Figure 1.8: Screen shot from the interactive map based consultation method.



The robust and varied methods for encouraging public participation resulted in the receipt of a substantial amount of submissions; 18 public written submissions (30 via email, 16 at organised drop in events), and 203 online submissions via flexi viewer, the online interactive mapping tool. Of all these responses, only 11 were not associated with any particular area.

2.4.3 Stakeholder Consultation

41 Stakeholders were consulted by letter at the outset of the process in July 2013, requesting input from the earliest stage that would fully inform and help shape the project. The stakeholders were identified based on their specialist knowledge and particular interest in the Donegal landscape and in the LCA process and assistance invited that would provide access to relevant data, guidance, or observations that would enhance the quality of the process and project outputs. 9 of the 41 identified stakeholders responded formally whilst others maintained a more informal consultative role.

On the basis of expressed interest a round table meeting took place on 26th February 2014 with 14 targeted stakeholders comprising a short presentation on the LCA methodology and work to date and detailing the work programme going forward. The stakeholders were then asked to discuss the draft work to date and give a steer as to how the process could be improved upon and an indication of how it should shape up. All elements of the LCA and its process were up for discussion however the LCA team tried to focus the meeting to the regional scale LCA and the draft maps published to date. In particular the 4 areas below were focused on:

- Draft Landscape Character types

- Draft Seascape Assessment units
- Draft Historic landscape Characterisation
- Draft Landscape Character Areas
-

A number of issues were raised giving direction to the LCA at the meeting that have been incorporated in the process and 3 written submissions followed.

2.4.4 Cross border Consideration

County Donegal shares most of its landward boundary with Northern Ireland which informs the landscape of a large section of the county in both adjoining areas and as a long view from many more; conversely the landscape of Donegal informs the adjoining areas in Northern Ireland (and Leitrim). Donegal also shares a large area of Seascape with Northern Ireland along the tidal estuary of Lough Foyle that contains part of the international border. As a result cross border collaboration has been ongoing throughout each Public Participation stage of this process and Donegal County Council have maintained regular contact with the DOE in Northern Ireland, primarily through their principle Landscape Architect who is overseeing the current review of the Northern Ireland Landscape Character Assessment.

Figure 1.9 Listing of Cross Border Meetings

Meeting Date	Brief summary of meeting
22 nd July 2013	Initial meeting with DOE held in Klondyke building, Belfast
4 th October 2013	Discussed Donegal County Council's methodology and work programme for LCA, held at Donegal County Council offices
9 th December 2013	Discussed Donegal County Council's public participation methodology, held at Donegal County Council offices
16 th January 2014	Donegal County Council participated in DOE NI's conference in Craigavon to launch their 'Landscape Charter' entitled 'Changing Landscapes- Together we Progress'. Denis Kelly, SEP, gave a presentation on the progress and methodology of Donegal's Landscape Character Assessment to date.
24 th January 2014	Progress update of Donegal County Council's work programme held at Donegal County Council offices
26 th February 2014	LCA Stakeholder meeting held at Donegal County Council offices
9 th July 2014	Draft Brief for the NI Regional LCA work shop held in Klondyke building, Belfast

The output from the cross border meetings has actively shaped the Landscape Character Assessment at each stage of the process ranging from cross border landscape issues to best practice methodologies and has served to enrich the project through cross boundary cohesiveness and reflecting the shared nature of landscape character between neighbouring jurisdictions in advance of an all Ireland Landscape Strategy.

The robust consultation process was a fundamental, ongoing and oftentimes reiterative element of the LCA and its effectiveness and contribution to the LCA is summarised within this report and set out as three key stages, namely:

1. Initial consultation
2. Pre-draft consultation and
3. Consultation on published Draft

2.5 Seascape Character Assessment Process Step 3

2.5.1 Field Study

Site survey work was undertaken during 2014 to verify and inform the draft 'Seascape Character Areas'. In accordance with best practice guidance, a site survey sheet was prepared to capture information on the seascape (attached in appendix 1). A minimum of three points within each SCA was surveyed to record the following:

- A visual analysis of each seascape unit in a structured manner using survey sheets, referenced maps and photographs.
- Definition of the marine, coastal and inter coastal areas and their characteristics.
- Consideration of the relationship between and integration of the marine and terrestrial areas and their hinterland.

Site survey work was undertaken during late 2013 and early 2014 to verify and inform the Seascape Character Areas. Photographs were taken at certain points to record variations in character and to record typical aspects of the landscape.

For each of the 19 individual Seascape Character Areas identified, the following information is provided within the SCA profiles:

- Landscape Character Types and Landscape Character Areas within the unit.
- Key characteristics
- Key Uses
- Biodiversity
- Cultural Influences
- Visual and sensory qualities

A myriad of seascape features, uses, and activities were identified within each of the defined seascape units, as well as natural and cultural factors. Reflective of the long and varied coastline of Donegal is the diversity of its many uses throughout history to the present day that include military use, recreation, commercial fishing, tourism, shipping, settlement, and farming to name a few, with more recent tourism and leisure uses and some renewable energy uses. All of which have shaped and informed the character of the seascape as well as creating opportunities and presenting pressures on the seascape character.

2.6 Seascape Character Assessment Process Step 4

2.6.1 Classification and Description

The seascape of County Donegal is classified and described on an individual basis across the 19 seascape character areas as detailed in **Section 2.4.1** as an integral but different component of the County's landscape.

The 'classification and description' is the last part in the 4 step methodology set out in **Section 2.2** of the report. This stage in the process considers the entire seascape of the county in terms of all the layers of data identified and collated during steps 1-3 in the process and from the Landscape Character Assessment and Settlement Character Assessment processes.

The 19 individual Seascape Character Units identified are described in detail in **Section 3.0** of this report. The purpose of this description is to highlight the components and characteristics within each unit as identified in the seascape wheel in section 2.2 of this report that make them unique and contribute to their character. Various data sets and data sources including digital spatial data and written record were interrogated and presented as a narrative within this document to inform the sustainable development of the seascape and coastal area of County Donegal.

Interactive spatial digital mapping of the Draft Seascape Character Assessment is available on Donegal County Councils website www.donegalcoco.ie as part of the wider publication process of the Landscape Character Assessment and Settlement Character Assessment. The interactive mapping shows the seascape character areas in their context within the wider landscape and their key spatial components including the relationships and interrelationships with other seascape character areas, settlements and culture.