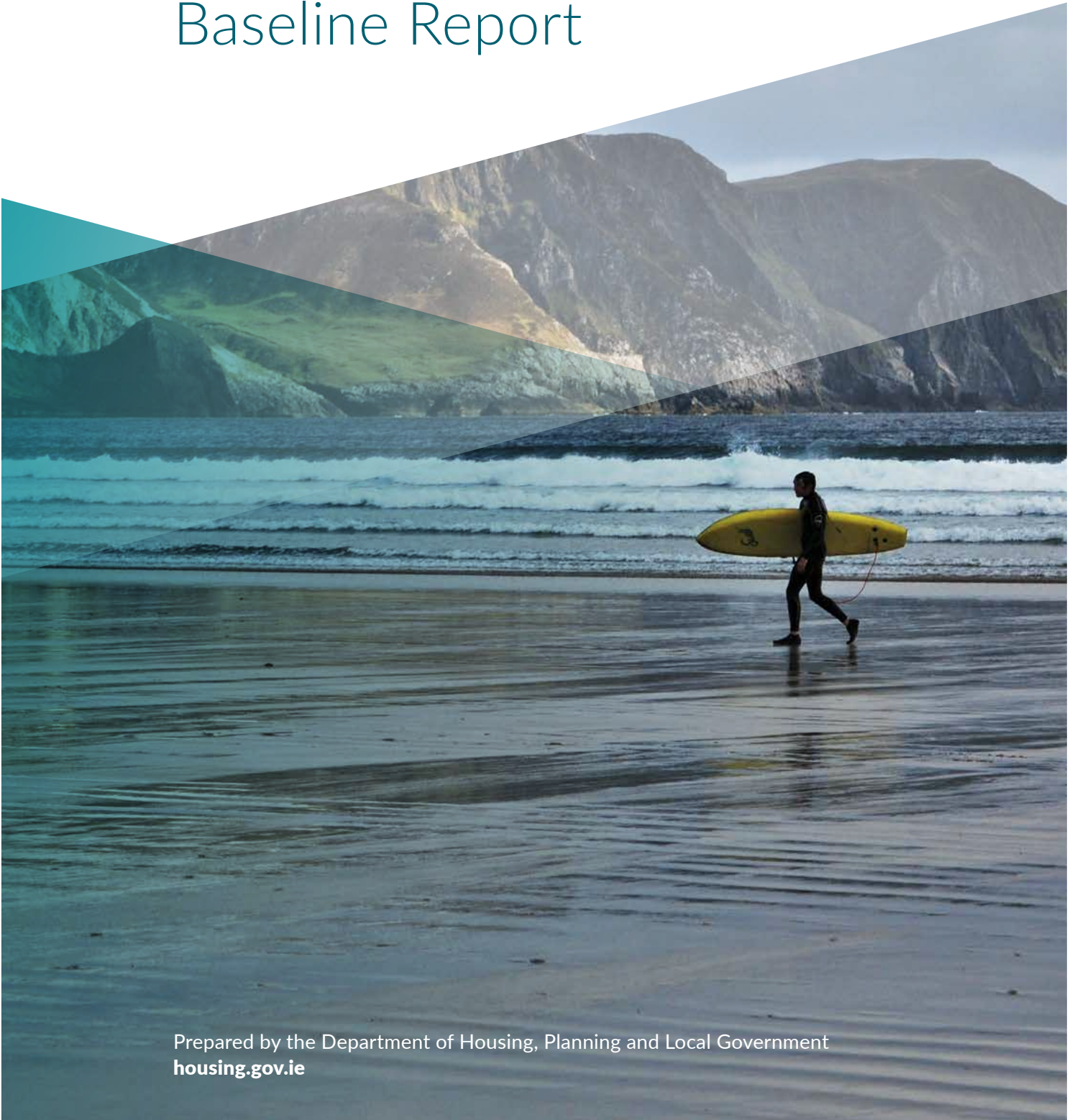




Rialtas na hÉireann
Government of Ireland

National Marine Planning Framework Baseline Report



Prepared by the Department of Housing, Planning and Local Government
housing.gov.ie

All photos copyright Tomasz Szumski with our thanks

Cover image: Ireland is a world leading destination for other marine activities such as surfing, particularly along the west coast at locations such as Lahinch, Strandhill, and Mullaghmore.

Foreword



While land planning is familiar terrain for all of us in Ireland, the concept of managing our maritime area in a structured, integrated way – marine spatial planning – has yet to enter the national consciousness. And yet we are an island nation. A nation whose economy, culture and society is inextricably linked to the sea. With 220 million acres beneath our waters, Ireland has only skimmed the surface in harnessing the power of our ocean wealth. And as we recognise the natural treasure that laps our land, we recognise too that our seas are getting busier.

Fishing and aquaculture feed our families, sustaining coastal communities and livelihoods. Offshore energy helps power our homes and businesses and offers new jobs as subsea fibre optic cables connect distant continents. Vital goods arrive and depart busy ports as holidaymakers make memories that will last a lifetime. Our seas too are the training ground for sporting warriors from sailing on the world stage to surfing at Strandhill. And above, beneath and around it all, a rich, diverse ecosystem teems with life.

This Baseline Report has been designed to help us identify what is happening in our seas; where, when and why it is happening, what challenges are faced, both at an individual sector level and collectively. When we see the demands being placed on our marine area clearly laid out we can effectively consider whether those demands can be met simultaneously or whether some management or governance is required in particular areas. As we move further along the process of plan-making, the report, and your feedback on it will play a critical part in the examining of potential synergies and co-existences, facilitating conflict resolution, anticipating future spatial needs and balancing the ecological, economic and social elements of the marine in a sustainable fashion.

Ireland's integrated marine plan *Harnessing Our Ocean Wealth* (HOOW) (2012) first outlined the need to develop a national marine spatial plan – since copperfastened by the 2014 EU marine spatial planning directive which obliges Ireland to develop its own spatial plan. It is incumbent on us to support the future use, protection and enjoyment of our seas, balancing ecological, economic, and social goals with, as described in HOOW, “an appropriate, overarching national marine spatial plan underpinned by an efficient and robust planning and licensing framework. This will provide competitive advantage for our marine sectors, help realise the full benefit of our ocean wealth and assist with managing our resources effectively and sustainably.”

The principles for engagement for this process were clearly set out in *Towards a Marine Spatial Plan for Ireland*, a roadmap for the development of Ireland's National Marine Planning Framework (NMPF), in December 2017. We believe that the NMPF should be strategic, concise and informed by effective participation to ensure buy-in with regard to implementation to stand as a parallel to Ireland's long term terrestrial plan, the National Planning Framework 2040. Therefore, a core objective is to ensure that, as well as the wider public, all relevant stakeholders are consulted and encouraged to contribute.

This is being facilitated in a number of ways. An interdepartmental group, made up of senior representatives from the Marine Institute, local government and relevant Government Departments, is overseeing the development of the plan. An advisory group of key stakeholders from the economic, environmental and social pillars has been established with a focus on cross-sector collaboration. And finally there is a parallel process of stakeholder engagement with a strong emphasis on coastal communities and smaller unaligned stakeholders. This strand is critically important. Since the spring of this year the NMPF team have been engaged in a series of public and stakeholder engagements. I would like to thank everyone who has taken the time to interact in the process thus far and to encourage those who haven't to please get involved now.

Engagement will continue with a series of regional meetings on this report featuring panel discussions with cross-industry participation and representation from across the economic, social and environmental pillars. As this document is the first formal dialogue in the preparation of Ireland's National Marine Planning Framework, and offers the first chance for formal participation in the process, we hope that everyone who has an interest in our seas and coasts will avail of the opportunity to review its contents, come along to one of the regional events or make a submission during the three-month consultation process. It goes without saying that the future of our marine area is of critical importance to everyone in Ireland. The development of Ireland's National Marine Planning Framework presents us with a unique opportunity for an inclusive, evidence-based process. I would urge everyone reading this to play a part and have your say in how our marine area is managed and developed, now and into the future.

Damien English T.D.
Minister for Housing
and Urban Development

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1.0 Introduction

1.1 As an island nation with sovereign rights over one of the largest marine areas in Europe, Ireland's economy, culture and society is inextricably linked to the sea. Our marine environment is a national asset that yields multiple commercial and non-commercial benefits from sectors such as seafood, tourism, recreation, renewable energy, oil and gas, cultural heritage, and biodiversity. The sustainable development of our marine area affects many people. In order to support a marine that Ireland can use, enjoy and benefit from socially, environmentally and economically, those with an interest are being given the opportunity to have their say in the marine planning process.

What is marine spatial planning?

1.2 Marine spatial planning is a process that brings together multiple users of the ocean to make informed and coordinated decisions about how to use marine resources sustainably. It is a process by which the relevant public authorities analyse and organise human activities in marine areas to achieve ecological, economic and social objectives.

1.3 The output from this process will be a national plan for Ireland's seas, setting out, over a 20 year horizon, how we want to use, protect and enjoy our seas. The marine spatial plan will sit at the top of the hierarchy of plans and sectoral policies for the marine area. The plan will be informed by existing sectoral plans and will, in turn, be used to inform future cycles of those plans in an ongoing feedback loop. It will provide a coherent framework in which those sectoral policies and objectives can be realised. It will become a decision making tool for regulatory authorities and policy makers into the future in a number of ways including, decisions on individual consent applications which will have to have regard to the provisions of the plan in the same way that terrestrial plans form part of the decision making tool-kit in the on-land planning process.

1.4 The Department of Housing, Planning and Local Government (DHPLG) is leading the preparation of the plan on behalf of Government, with input from other Departments and Agencies. One of the main objectives of preparing the plan is to provide a more integrated governance structure that will co-ordinate all of these specific departmental or 'sectoral' areas into an overall strategy.

The marine plan will cover Ireland's maritime area, including internal waters (sea area), territorial seas, Exclusive Economic Zone (EEZ) and continental shelf. The maritime area comprises approx. 490,000 km² and extends from mean high water mark at the coast seaward to in excess of 200 nautical miles in parts. A single plan will be prepared for the entire area now with the possibility of more detailed regional plans being made at a later date.

Benefits of Marine Planning

1.5 The development of an overarching national marine spatial plan is identified as a Government policy objective in Ireland's Integrated Marine Plan, *Harnessing Our Ocean Wealth*¹ (HOOW) (2012). HOOW found that the organisation and regulation of marine-based

¹ <https://www.ouroceanwealth.ie/sites/default/files/sites/default/files/Publications/2012/HarnessingOurOceanWealthReport.pdf>



Marine planning will contribute to the effective management of marine activities and more sustainable use of our marine resources.

activity in Irish waters was being carried out on a sectoral and demand-driven basis, without a strategic framework in which sectoral policy objectives could be envisioned, planned and delivered over the long term. As set out in HOOW, “managing our ocean wealth requires an overarching national marine ‘spatial’ plan underpinned by an efficient and robust planning and licensing framework. Such an approach can provide a governance structure and blueprint for national, regional and local planning of our ocean wealth. This will provide competitive advantage for our marine sectors, help realise the full benefit of our ocean wealth and assist with managing our resources effectively and sustainably”.

1.6 Marine planning will contribute to the effective management of marine activities and more sustainable use of our marine resources. It will enable the Government to set a clear direction for managing our seas, to clarify objectives and priorities, and to direct decision makers, users and stakeholders towards more strategic and efficient use of marine resources. It will inform decisions about the current and future development of the marine area, aiming to integrate needs.

1.7 Ireland’s National Marine Planning Framework (NMPF) will be the key consideration for decision makers on all marine consents. All applications for activity or development in Ireland’s marine area will be considered in terms of its consistency with the objectives of the plan. It will therefore create the overarching framework for decision making that is consistent, evidence-based and secures a sustainable future for the marine area. Through extensive public involvement, it will offer everyone with an interest in our seas and coasts the opportunity to have a say in how their marine area is managed.

1.8 Marine users, including regulators, applicants for consent and interested persons, should find that the system will reduce the regulatory burden on them by giving them more certainty regarding what can happen and where, thereby speed up the licensing process. Marine users should also feel more confident that decisions made on applications for projects will be robust in the face of challenge, provided they are made in accordance with the policy framework set out in the marine spatial plan. This is because the plan will be based on the best available technical and scientific evidence, including early and consistent engagement with stakeholders together with a sustainability appraisal.



Marine users, including regulators, applicants for consent and interested persons, should find that the system will reduce the regulatory burden on them by giving them more certainty.

What is this document for?

1.9 While Ireland's NMPF team has been involved already in extensive public and stakeholder engagement, this document is the first formal dialogue and a major step towards the preparation of a marine spatial plan for Ireland. It will inform the next steps in the process, including the development of objectives and policies in the draft plan.

1.10 The purpose of this paper is to set out the context in which the marine spatial plan is being developed and help to identify the key issues marine planning will need to address. It sets out:

- the policy, legislative and regulatory context for Marine Spatial Planning in general and, more specifically, for the development of Ireland's first plan;
- a description of the "as is" situation in terms of existing sectoral development and activities in Ireland's maritime area, including an identification of the future opportunities and constraints for each;
- an initial elaboration of potential high level objectives for Ireland's first National Marine Planning Framework, informed by HOOW and the Maritime Spatial Planning Directive 2014/89/EU; and
- A number of consultation questions or issues intended to prompt discussion and consideration amongst stakeholders. Responses to these questions will be a crucial input to the draft plan.

Public Participation, Communication and Engagement

1.11 As set out in the Government's marine plan roadmap, *Towards a Marine Plan for Ireland* (December 2017) we have been carrying and will continue to carry out extensive public and stakeholder engagement as the plan develops.

1.12 Between March and July 2018 the MSP team hosted public engagement events in almost all coastal counties across Ireland. These events were aimed at raising awareness around:

- the MSP concept,
- the Government's plans to develop a marine plan for Ireland,
- details on how people could engage with the plan-making process and
- providing a timeframe for the various phases of that process.

1.13 In parallel, we have had extensive direct engagement with a broad range of stakeholders in the marine sector (including port authorities, local authorities, sports and recreation organisations, regional and national inshore fisheries, sea fisheries organisations, environmental groups, renewable energy sector, tourism sector etc.) and have established a visible and active presence on social media platforms.

1.14 We are committed to continuing to work closely with our key stakeholders and people interested in the marine area. This baseline report marks the first opportunity for formal public participation with a 3 month consultation period running from publication until Friday 14 December 2018.

1.15 Written submissions at this first stage of the National Marine Planning Framework process can be made any time before midday 14 December 2018. You can make a submission by:

1. Email to the following email address only msp@housing.gov.ie; or
2. Writing to the following address:

MSP Submissions, Marine Spatial Planning Section, Department of Housing, Planning and Local Government, Newtown Road, Wexford, Y35 AP90.

1.16 **The deadline for receipt of all submissions is midday on Friday 14 December 2018.**

We cannot accept submissions for this pre-draft stage beyond that deadline. Please make your submission by one medium only, either electronic or hard copy. All submissions must include the following:

- Your name and details of any organisation, community group or company you represent.
- An address for correspondence.
- Your submission on relevant planning issues for the National Marine Planning Framework.

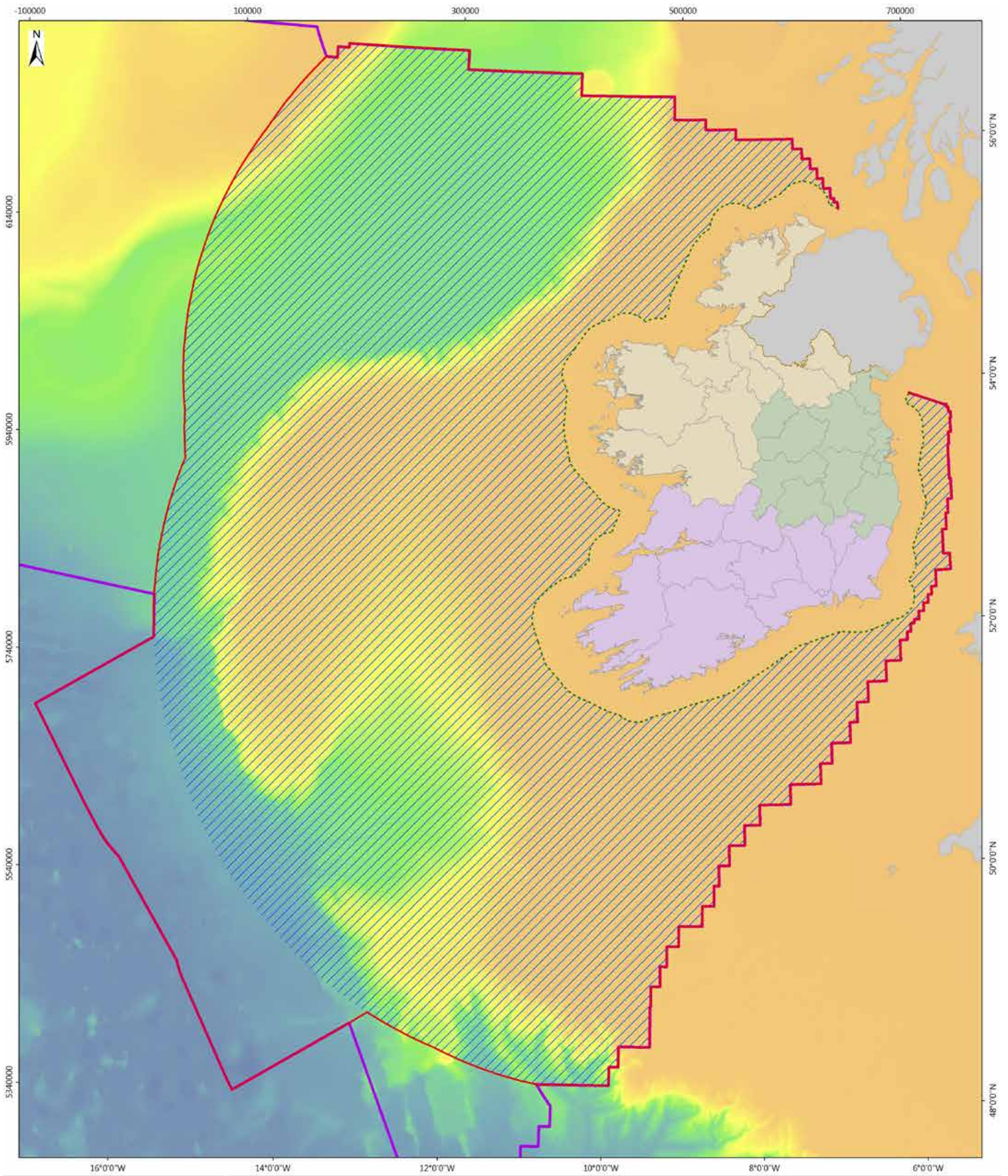
It should be noted that in the interests of transparency, all written submissions received will be made publicly available on the Department's website. Receipt of submissions will be acknowledged but it will not be possible to issue individual responses.

Privacy Statement

1.17 The Department is committed to protecting and respecting your privacy. The Privacy Statement published alongside this Baseline Report explains how the Department, as the Data Controller, will process the personal data provided to it in respect of submissions made during this public consultation; how that information will be used, and what rights you may exercise in relation to your personal data.

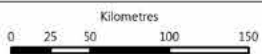
Public Events

1.18 To inform and support public and stakeholder participation, we are holding a series of regional public and stakeholder events throughout October. Full details of these events including speaker line-ups, will be available on twitter (@MSP_Ireland).

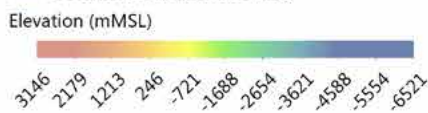


Key Boundaries

- Marine Spatial Plan Assessment Area
- - - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- /// Exclusive Economic Zone from 12 nm
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator



2.0 Our Ocean Wealth – Vision, Goals and Targets

2.1 Ireland's Integrated Marine Plan, *Harnessing Our Ocean Wealth* (HOOW) established the high level vision, goals and targets for our ocean economy. The **vision** is that “our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.”

2.2 Based on the concept of sustainable development, HOOW established three **high level economic, environmental and social goals** of equal importance.

2.3 **Goal 1** focuses on a **thriving maritime economy**, whereby Ireland harnesses the market opportunities to achieve economic recovery and socially inclusive, sustainable growth. Getting the conditions right for growth, delivering business-friendly yet robust governance, policy and planning frameworks are critical to realising this ambition.

2.4 Our ocean wealth depends on **healthy ecosystems (Goal 2)**. Our goal is to protect, preserve and, where possible, restore our rich biological diversity and ecosystems. We need to proactively manage our living and non-living resources in harmony with those ecosystems, so that they continue to provide essential monetary and non-monetary goods and services (e.g. food, climate, health and well-being). Protection of our marine ecosystems and compliance with environmental legislation are essential components of our ecologically sustainable future and need to be seen as an essential enabler for a thriving maritime economy.

2.5 Ireland is a maritime nation and our rich maritime heritage (cultural, physical and ecological dimensions) is a valuable national asset. Yet as a nation we have embraced the land as the primary provider of food, energy and economic growth; overlooking our ocean wealth. Our ambition under **Goal 3** is to strengthen our **engagement with the sea** – strengthening our maritime identity and increasing our awareness of the value (market and non-market), opportunities and social benefits. Our ocean wealth is a national asset and needs to be protected, managed and developed for and by our citizens.

2.6 HOOW established two overarching **economic targets**:

- to double the value of our ocean wealth to 2.4% of GDP by 2030, and
- to increase the turnover from our ocean economy to exceed €6.4bn by 2020.

2.7 The latest review of Ireland's ocean economy published by the Socio-Economic Marine Research Unit at NUI Galway in June 2017 found that in 2016, by comparison with 2014:

- turnover had increased by 23% to €5.7bn;
- emerging marine industries were ahead of the average with a 39% growth in turnover;
- the value of our ocean wealth had reached 1.7% of GDP;
- employment had increased by 10%; and
- Ireland's ocean economy is, on average performing better than the general economy.

2.8 HOOW provides the strategic national policy context for Ireland's maritime area and the National Marine Planning Framework will be the spatial articulation of that overarching policy vision.

3.0 Marine Planning in Broader Context

EU Policy and Legal Framework

3.1 While some countries have had systems of maritime planning for a couple of decades, marine spatial planning is a relatively new approach across most of the EU. In 2007 the EU adopted an Integrated Maritime Policy (EU-IMP) which seeks to provide a more coherent approach to cross-cutting maritime issues, with increased coordination between different policy areas such as blue growth, marine data and knowledge, integrated maritime surveillance, sea basin strategies and maritime spatial planning. EU-IMP encourages all coastal Member States to develop integrated maritime policy and plans at a national level.

3.2 In the intervening period the EU has adopted a number of policy initiatives and legislative measures aimed at advancing the integrated maritime policy agenda.

3.3 **MSP Directive 2014/89/EU² establishing a framework for maritime spatial planning was adopted in July 2014.** The Directive obliges all coastal Member States to establish maritime spatial plans by 2021.

3.4 When establishing and implementing maritime spatial planning, Member States are obliged by the Directive to consider economic, social and environmental aspects to support sustainable development and growth in the maritime sector, applying an ecosystem-based approach, and to promote the coexistence of relevant activities and uses.

3.5 The Directive requires Member States to use their maritime spatial plans to aim to contribute to the sustainable development of energy sectors at sea, of maritime transport, and of the fisheries and aquaculture sectors, and to the preservation, protection and improvement of the environment, including resilience to climate change impacts. However it allows Member States to pursue other objectives such as the promotion of sustainable tourism and the sustainable extraction of raw materials.

3.6 Similarly while the Directive sets the general ground rules in terms of criteria to be addressed, it is open to Member States to determine how the different objectives are reflected and weighted in their maritime spatial plan or plans.

3.7 The **Marine Strategy Framework Directive³ (MSFD)** is the environmental pillar of the EU's Integrated Maritime Policy and requires European member states, including Ireland, to reach Good Environmental Status (GES) in the marine environment by the year 2020 at the latest. The directive is very similar to the Water Framework Directive, but the focus is on the marine environment.

3.8 The aim of the Directive is to protect Europe's marine waters by applying an ecosystem based approach to the management of human activities, while enabling the sustainable use of the marine environment for present and future generations. Good environmental status in the marine environment means that the seas are clean, healthy and productive and that human use of the marine environment is kept at a sustainable level.

² Further Information on Maritime Spatial Planning Directive <http://www.housing.gov.ie/node/7081>

³ Further Information on Marine Strategy Framework Directive <http://www.housing.gov.ie/water/water-quality/marine-strategy/marine-strategy-framework-directive-msfd>



HOOW established two overarching economic targets - to double the value of our ocean wealth to 2.4% of GDP by 2030, and to increase the turnover from our ocean economy to exceed €6.4bn by 2020.

3.9 Under MSFD, our marine waters must be assessed against an agreed set of standards across a number of important environmental areas (e.g. biodiversity, fish stocks, and contaminants). Based on the assessment, appropriate environmental targets and indicators must be set and programmes of measures put in place to reach GES.

3.10 The **Water Framework Directive** (2000/60/EC)⁴ requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It was given legal effect in Ireland by the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.

3.11 Obligations arising under a range of other directives may also be relevant in the context of marine spatial planning, including the Urban Waste Water Treatment Directive, Nitrates Directive, Bathing Waters Directive, and Floods Directive.

National Policy and Legal Framework

3.12 Ireland has transposed the MSP Directive through the [European Union \(Framework for Maritime Spatial Planning\) Regulations](#)⁵, signed into law on 29th June 2016. The regulations establish the legal basis and broad framework for Ireland to implement MSP through the development of a maritime spatial plan (or plans) on a 10 year cycle. Under the Regulations, the Minister for Housing, Planning and Local Government is the competent authority for the purposes of the Directive and, by extension, for purposes of preparing Ireland's first marine spatial plan.

3.13 Ireland's national marine mapping programme, INFOMAR (Integrated Mapping for the Sustainable Development of Ireland's Marine Resource), provides baseline data to underpin Marine Spatial planning and is included as a Key Deliverable under HOOW and within the National Development Plan. The accurate seabed maps and data from INFOMAR underpin development and protection across a range of marine sectors including transport, fisheries, aquaculture, marine heritage, environmental designation, aggregates and research. Economic studies have underlined the value of this activity and its cost benefit to the state.

⁴ Further Information on Water Framework Directive <http://www.housing.gov.ie/node/433>

⁵ <http://www.irishstatutebook.ie/eli/2016/si/352/made/en/pdf>

3.14 Part 5 of the [Planning and Development \(Amendment\) Act 2018](#)⁶, when commenced, will repeal and replace the above regulations with new primary legislation to give effect to the requirements of the MSP Directive. It will introduce new arrangements for the plan-making process including governance, public participation, review and Oireachtas involvement, to ensure that the process for making Ireland's National Marine Planning Framework is consistent and fully aligned with the arrangements for the National Planning Framework in the terrestrial planning system. More detail on this legislation is provided at Section 23 below.

3.15 Implementation by Ireland of the requirements of the **MSFD** has been carried out in a number of phases.

3.16 The first phase required an **Initial Assessment** of our marine waters, a determination of Good Environmental Status and the establishment of a set of environmental targets and indicators. This assessment described the prevailing status of the Irish marine environment across the 11 descriptors for GES.

3.17 The second phase was the establishment and implementation of monitoring programmes for the on-going assessment of the environmental status of marine waters which will form the primary data and information source for formal reporting to the EC.

3.18 The third phase involved the development of a Programme of Measures (POMs) to address factors that impact upon the achievement of GES. The main purpose of the POMs is to put in place actions and measures which will support the meeting of the environmental targets set out under the Directive, leading to the achievement (or maintenance) of GES.

3.19 Work on implementing MSFD requirements is progressing separately and in parallel to the MSP process and will be adopted as the environmental pillar of the National Marine Planning Framework. More detailed information on MSFD can be found at Section 15 below (Marine Environment).

3.20 In broad terms, the objectives of the **Water Framework Directive** are (1) to prevent the deterioration of water bodies and to protect, enhance and restore them with the aim of achieving at least good status and (2) to achieve compliance with the requirements for designated protected areas. It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.

3.21 River Basin Management Plans (RBMPs) are plans to protect and improve the water environment. They are prepared and reviewed every six years. The first RBMPs covered the period 2010 to 2015. The Government published a second-cycle [RBMP](#)⁷ on 17 April 2018. It outlines the measures that will be taken to protect and improve water quality between 2018 and 2021.

3.22 The National Marine Planning Framework will have regard to the measures contained in the RBMP, particularly those that relate to coastal waters.

⁶ <http://www.irishstatutebook.ie/eli/2018/act/16/enacted/en/pdf>

⁷ https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf

Linkage with Land Planning

3.23 Ireland's National Marine Planning Framework will be a parallel document to the [National Planning Framework](#)⁸ (NPF). The NPF is a national document that will guide at a high-level strategic terrestrial planning and development for the country over the next 20+ years, so that as the population grows, that growth is sustainable in economic, social and environmental terms.

3.24 Finalisation of the NPF alongside the ten-year National Development Plan puts together one plan to guide strategic development and infrastructure investment at national level.

3.25 The NPF with the National Development Plan also sets the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and co-ordinating local authority County and City Development Plans in a manner that will ensure national, regional and local plans align.

3.26 The NPF recognises the importance of integration between land and marine planning (Chapter 7) and the many shared aims and overlapping areas of co-ordination and activity across the two regimes. The NPF contains 6 national planning objectives that are specific to the marine sector.

3.27 It will be important that the National Marine Planning Framework mutually recognises the importance of integration and co-ordination with the land planning regime at national, regional and local levels. In future it will be equally important in turn that national, regional and local terrestrial plans are consistent with the National Marine Planning Framework. Many activities and uses that take place on land or in the sea can have impacts on both the land and the maritime area. The MSP Directive requires that these interactions are considered.

Environmental Assessments

3.28 The requirements of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment, more commonly known as the Strategic Environmental Assessment (SEA) Directive, will be addressed in respect of the draft marine spatial plan.

3.29 The European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), transpose the Birds and Habitats Directives in Irish law. The regulations require that a screening for appropriate assessment (AA) is carried out and, if required, that an appropriate assessment is carried out.

3.30 External consultants will be employed by DHPLG to carry out the environmental assessments and the results of those assessments will be published along with the draft National Marine Planning Framework.

⁸ <http://npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf>



The National Marine Planning Framework will not replace or remove existing regulatory regimes or legislative requirements ... Rather, it will provide an overarching framework for their continued operation.

National Regulatory Context

3.31 Responsibility for marine matters, including licensing and development consent systems, is spread across a number of government departments and agencies. The broad range of Government departments, agencies, and public bodies that exercise functions of relevance to the maritime area are listed at Annex A.

3.32 In recognition of the need for effective coordination across the Government departments concerned the Inter-Departmental **Marine Coordination Group** was established in 2009. Membership of the Group is listed at Annex B. The Group is chaired by the Minister for Agriculture, Food and the Marine and convened by the Department of the Taoiseach. The Group meets monthly, bringing together representatives of departments with an involvement in marine issues to discuss and coordinate cross-cutting matters that require inter-departmental action.

National Marine Planning Framework Adoption

3.33 The effective date from which it will become a legal obligation to comply with the requirements of the National Marine Planning Framework will be the date on which it is approved and adopted, currently expected to be late 2020. There is, in effect, no plan in place to comply with until then. For future iterations of the planning process and review of plans the current version of the National Marine Planning Framework in place at any given time will remain operative until such time as a new plan is adopted to replace it.

Marine Consents and Licensing

3.34 The National Marine Planning Framework will not replace or remove existing regulatory regimes or legislative requirements governing the operation of various marine sectoral activities. Rather, it will provide an overarching framework for their continued operation.

3.35 As part of their decision-making processes public bodies involved in consenting for marine development and activities will become obliged to take into account the objectives of plans, when adopted. However, decisions on applications for consent should not be delayed in anticipation of plans being adopted for the first time.

3.36 Cases currently in the system or submitted for consideration prior to the adoption of Ireland's first National Marine Planning Framework in 2020, as envisaged, will be dealt with on the basis of the currently applicable sectoral plans and regulatory requirements.

Maritime Area and Foreshore (Amendment) Bill

3.37 As set out at 1.5 above, HOOW identified the need for an integrated marine plan underpinned by an efficient and robust marine consent process. The Maritime Area and Foreshore (Amendment) Bill intends to streamline the marine consent process through aligning the foreshore consent system with the planning system and providing for a single Environmental Impact Assessment for projects. It will also provide a coherent mechanism to facilitate and manage development in the EEZ and on the continental shelf, including for the first time, a comprehensive regime for the regulation of Offshore Renewable Energy.

3.38 The drafting process brought to light many technically challenging and legally complex issues being tackled for the first time in an Irish context. These issues impact a range of marine functions across Government. Development continued throughout 2017 and 2018 through engagement with the Marine Coordination Group, workshops and bilateral meetings with relevant policy Departments and the Office of the Attorney General. Legal advice from the Office of the Attorney General is expected shortly which will inform the finalisation of legislation to reform maritime development consent.

Climate Change

3.39 The [Climate Action and Low Carbon Development Act 2015](#)⁹ provides the statutory basis for the national transition objective laid out in the national policy position. As provided for in the 2015 Act, in order to pursue and achieve the national transition objective, the Minister for Communications, Climate Action and Environment must make and submit to Government a series of successive National Mitigation Plans (NMPs) and National Adaptation Frameworks (NAFs). The first [NMP](#)¹⁰ was published in July 2017 and the first [NAF](#)¹¹ was published in January 2018.

3.40 The marine spatial plan will consider climate change from two perspectives; how actions under the plan may help mitigate climate change and how actions under the plan need to be adapted to take account of the effects of climate change.

⁹ <http://www.irishstatutebook.ie/eli/2015/act/46/enacted/en/pdf>

¹⁰ <https://www.dccae.gov.ie/documents/National%20Mitigation%20Plan%202017.pdf>

¹¹ <https://www.dccae.gov.ie/documents/National%20Adaptation%20Framework.pdf>

BREXIT and Marine Planning

3.41 Marine planning administrations in England, Northern Ireland, Scotland and Wales have all been advancing the preparation of plans for their jurisdictions in recent years. England has plans in place for six of eleven marine plan areas and is preparing plans for the remaining five. Scotland has had a single national marine plan in place since 2015. Northern Ireland and Wales have prepared and published draft plans for public consultation. Arrangements are in place under the provisions of the MSP Directive 2014/89/EU to ensure consultation between EU Member States so that maritime spatial plans are coherent and coordinated across the marine region concerned.

3.42 These arrangements have been followed by UK administrations during their plan making processes and will continue to apply during the Brexit transition process. As is the case with other aspects of the future EU/UK relationship, the future relationship in terms of marine issues can only be finalised and concluded once the UK has become a Third Country, that is after it leaves the EU on 29 March 2019.

3.43 At the initiation of the Department of Housing, Planning and Local Government, recognising the need for ongoing engagement across all the marine planning jurisdictions of Ireland and the United Kingdom, a new group has been established. The new grouping brings together senior policy and planning officials from the six marine planning administrations of Ireland, Northern Ireland, England, Scotland, Wales and the Isle of Man, on a 6-monthly basis to discuss latest developments in terms of national plans and planning-related issues of mutual concern or interest. While not in any way linked to Brexit discussions, this forum will provide a standing mechanism for transboundary engagement.

International Boundary Issues

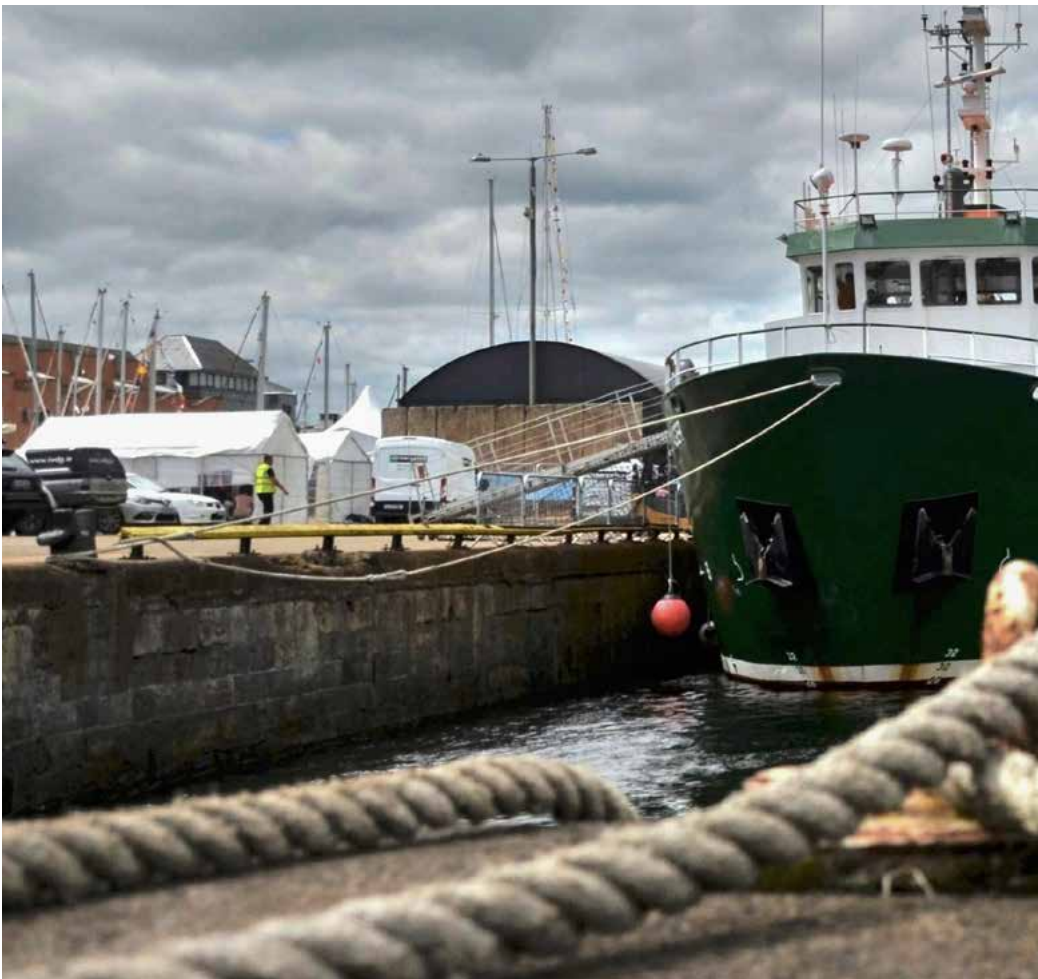
3.44 The resolution of jurisdictional issues in Lough Foyle and Carlingford Lough remains outstanding. Following discussions in 2011 between the Minister for Foreign Affairs and Trade and the British Foreign Secretary, the UK and Irish Governments agreed to seek to resolve these issues. Since then a series of meetings have taken place at official level between the Department of Foreign Affairs and Trade and the Foreign and Commonwealth Office. The issues involved are complex and involve a range of different actors, including the Crown Estate, and both Governments are committed to achieving a positive resolution as soon as possible.

4.0 Key Sectoral Activities

4.1 The following sections provide background information and scene setting for each of the key marine sectors, drawing together and summarising evidence and issues that have emerged based on data and information collected to date, national context and policy, relevant existing plans, and discussions with stakeholders. For each sector information is presented under the following headings:

- **Key Evidence:** summarises the key information for that sector, including national context and policy, relevant plans, data and information;
- **Issues for Delivery:** sets out key current issues and predicted future challenges for delivery in the sector;
- **Issues for Other Sectors:** outlines how the sector interacts with other activities;
- **Issues for Sustainability:** considers the social, economic and environmental impacts of the sector.

4.2 If a map is provided it is located at the end of the relevant section.



RV Celtic Voyager tied up at Galway Docks.

5.0 Aquaculture

Part 1: Key Evidence

5.1 Aquaculture is an integral part of the coastal economy in Ireland and has co-existed in various locations with other marine sectors such as ports, marine leisure and tourism. Aquaculture includes the culture or farming of fish, aquatic invertebrates, aquatic plants or any aquatic form of food suitable for the nutrition of fish. Land-based aquaculture may also require planning permission and a discharge permit from the local authority. Aquaculture licensing is administered through the Aquaculture and Foreshore Management Division of the Department of Agriculture, Food and the Marine. The Division also processes companion foreshore licences required for coastal aquaculture operations. The Department considers all applications for aquaculture licences in accordance with the following legislation:

- Fisheries (Amendment) Act 1997;
- Foreshore Act 1933;
- EU Habitats Directive of 92/43/EEC;
- EU Birds Directive 79/409/EEC;
- Consolidated Environmental Impact Assessment Directives 2011/92/EU;
- Public Participation Directive (Aarhus Convention).

5.2 The licensing process involves consultation with a wide range of scientific and technical advisers as well as various Statutory Consultees. The legislation also provides for a period of public consultation. In addition to the above legislation the Department must adhere to a wide range of regulatory requirements and other legislation which impact on the licensing process.

5.3 Applications for aquaculture licences are assessed through a number of stages such as Appropriate Assessment and Environmental Impact where relevant, as well as statutory and public consultation, with follow up monitoring and compliance as required.

5.4 The licencing process considers issues such as hydrodynamic conditions, visual impact, impacts on Natura 2000 sites, other marine users and native fish stocks.

5.5 The latest [BIM Aquaculture Survey](#)¹² indicates that Irish Aquaculture output in 2017 increased to 47,147 tonnes of farm-gate produce, worth €208.4 million. Production continued to expand in both overall volume (plus 7%), value (plus 24%) and unit value from 2016. While some areas such as rope mussel production are relatively static since 2008, oyster production increased in volume from 2007 to 2016 by over 25%, with a value increase in the order of 128% over the ten-year period. The salmon farming sector also experienced an increase in production in the order of 60% from 2007 to 2016, reaching 16,300 tonnes. However the increase in value for salmon is quite striking with an increase of over 100%, reaching nearly €105 million in 2016.

5.6 The industry employed 1,913 people directly on 280 primary production units in 2017.

¹² <http://www.bim.ie/media/bim/content/publications/aquaculture/BIM-Annual-Aquaculture-Survey-2018.pdf>

5.7 Aquaculture is divided primarily between finfish, shellfish and seaweed species, and an aquaculture licence is required for this activity. Some aquaculture takes place on land but the vast majority of aquaculture activity takes place in the marine environment on the foreshore, with the main activity concentrated on the south, west and northwest coast. In Ireland almost all foreshore is in public ownership and aquaculture activity therefore requires both an aquaculture licence to conduct operations and a companion foreshore licence to lawfully occupy the area of foreshore in question. Even in the rare case of private foreshore an aquaculture licence is required to engage in aquaculture activity.

Marine Aquaculture	2012	2014	2016	2012-2014 (% change)	2014-2016 (% change)
Turnover €000's ³	130,300	116,299	167,990	-11%	44%
GVA €000's	60,600	49,163	71,533	-19%	45%
Employment FTEs	956	941	1,048	-1.60%	11%
Location of activity	Shellfish aquaculture activities are widely distributed across the coast of Ireland, with particular concentrations in Co. Donegal, Connemara, Co. Galway, West Cork, Co. Waterford, Co. Wexford, and Carlingford Lough, Co. Louth. Finfish aquaculture is mainly restricted to the Western seaboard in counties Donegal, Mayo, Galway, Kerry and Cork.				

Table 1: Marine Aquaculture turnover, GVA, employment, 2012, 2014 and 2016
 (Source: Ireland's Ocean Economy 2016, Vega/Hynes NUI Galway)

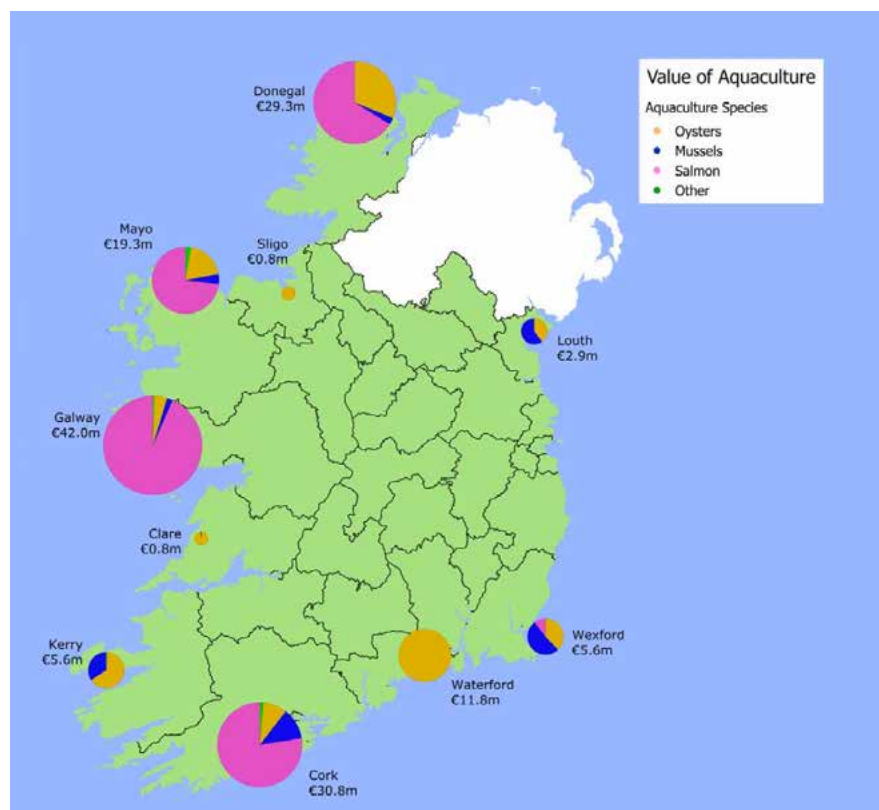


Figure 1: Value of Irish marine aquaculture activity by county
 (Source: Marine Institute, BIM, EPA)



Some aquaculture takes place on land but the vast majority of aquaculture activity takes place in the marine environment on the foreshore.

Part 2: Issues for Delivery

5.8 Planning for the strategic growth of the industry is a critical task in the period ahead. At a European level, while overall production has decreased over the last decade, it is generally anticipated that aquaculture production will increase to meet growing demand for sea food, including strong demand for differentiated and quality assured seafood products within the EU, as well as the need to lower sea food imports and reduce pressures on fish stocks. Marine planning can play an important role in supporting a plan-led approach to the strategic development of the industry within Ireland and across the EU.

5.9 In the context of a growing aquaculture industry and increasing competition for space, new areas are being examined and used for aquaculture purposes. This move out into areas that would previously have been considered unsuitable due to hydrodynamic conditions has been facilitated by advances in aquaculture techniques and technologies. This presents challenges for regulatory authorities also in terms of licensing processes and environmental assessments.

5.10 The recommendations of the [Review of the Aquaculture Licensing Process](https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/aquaculturelicencereview/ReviewoftheAquacultureLicensingProcess210617.pdf)¹³ 2017 will have implications for aquaculture licensing when implemented. The core concern that gave

¹³ <https://www.agriculture.gov.ie/media/migration/seafood/aquacultureforeshoremanagement/aquaculturelicensing/aquaculturelicencereview/ReviewoftheAquacultureLicensingProcess210617.pdf>

rise to the review was the licensing backlog. Accordingly, the elimination of the backlog is the highest priority. The implementation of the report's findings, coupled with the substantial work done to date, will represent a new departure in the regulation of aquaculture which will facilitate the establishment of a well-functioning licensing system. Implementation will also help to achieve the necessary balance between the very legitimate needs of industry and public expectations in terms of environmental protection.

5.11 The Department of Agriculture, Food and the Marine is actively working towards the achievement of 300 licence determinations for 2018 with a further 300 projected for 2019. Achieving this will require the co-operation of a variety of other parties who have an input in the licensing process. Achieving this level of licence determinations will meet a core recommendation of the aquaculture licensing review group. While there will always be licence applications in the pipeline, the achievement of 600 determinations during the next three years will effectively eliminate the backlog as an issue.

Part 3: Issues for Other Sectors

5.12 Marine aquaculture has many diverse interactions with a range of other marine activities and sectors. For example, aquaculture infrastructure can have positive impacts on wild fisheries by serving as safe havens for certain species or through the addition of nutrients to the ecosystem. On the other hand, aquaculture can introduce disease into wild stocks (through escapees) or by degrading water quality. Similarly, aquaculture can have negative impacts on beach tourism through eutrophication of coastal waters, but there is also considerable potential for aquaculture-related activities to form part of the tourist experience. A number of EU Member States are actively promoting the coexistence of aquaculture activities and offshore wind installations.

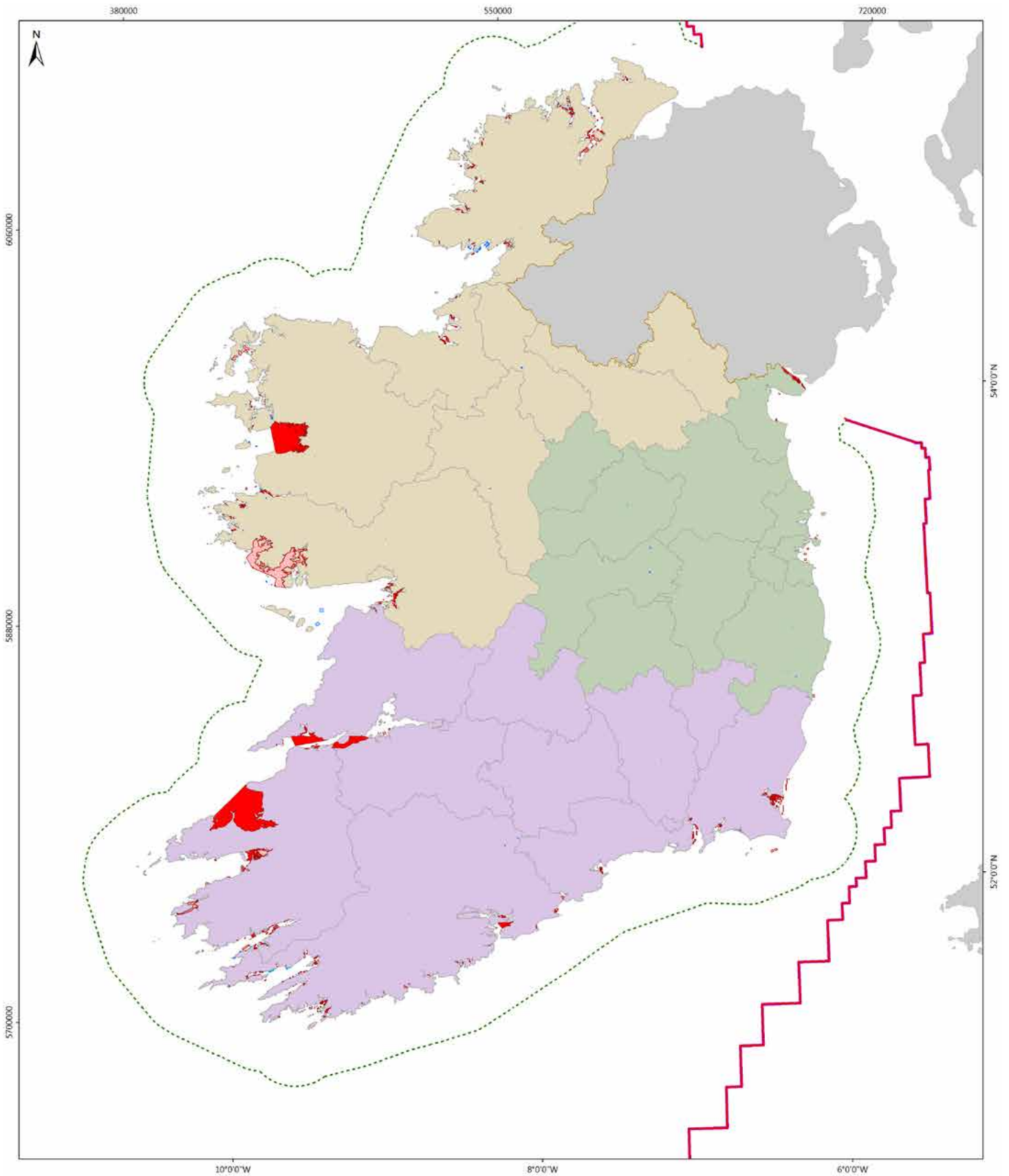
5.13 In addition to the economic contribution, the aquaculture industry provides a significant "social dividend" to coastal communities. The social dividend aspect of aquaculture is widely acknowledged not only in the Irish context but in the broader EU context.

Part 4: Issues for Sustainability

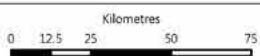
5.14 Aquaculture provides both direct employment in the industry and also provides a key source of product for the seafood industry which also feeds into the tourism sector.

5.15 An increasing demand for aquaculture production can lead to increased pressure on a complex coastal environment. Aquaculture applications can be complex depending on the hydrodynamic conditions, the environmental designation of the location and other existing and proposed developments at that location.

5.16 Environmental concerns such as visual impact, impacts on native fisheries and Natura sites are regular concerns of the public in general and are assessed at application stage.



Aquaculture Sites



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Local Authority Area

Aquaculture Site

- Finfish, Application
- Finfish, Licensed
- Seaweed, Application
- Seaweed, Licensed
- Shellfish, Application
- Shellfish, Licensed



6.0 Cultural Heritage and Assets

Part 1: Key Evidence

6.1 The Department of Culture, Heritage and the Gaeltacht is responsible for the protection and preservation of Ireland's archaeological and architectural heritage.

6.2 The National Monuments Service (NMS) has a broad remit in relation to the marine archaeological heritage, including quantification of the underwater cultural resource, research, underwater survey, excavation and, in the context of MSP, regulation of activities in the underwater environment under the National Monuments Acts (1930-2014).

6.3 Ireland's coastal waters have been central to the development of life on this island since the first water craft crossed the seaways from Britain and the European continent almost 10,000 years ago. Waterborne vessels of various shapes and sizes have explored the coast and used the rivers as route ways into the interior where settlements were established, resources exploited, trade developed and conflict often took place over territory and control of the same resources and waterways. With such a long-standing maritime legacy, it is no surprise that significant numbers of shipwrecks have been recorded from around our coast and while ongoing work by NMS has created an archive of over 18,000 wrecking events, it is estimated that the true figure could be as high as 30,000 wrecks. These losses off the Irish coast and in our inland waterways represent a wide variety of vessel types including logboats, currachs, medieval ships of all classes, fishing and trading vessels, steamships, submarines, warships, ocean-going liners and approximately 1,800 wrecks relating to World Wars I and II.

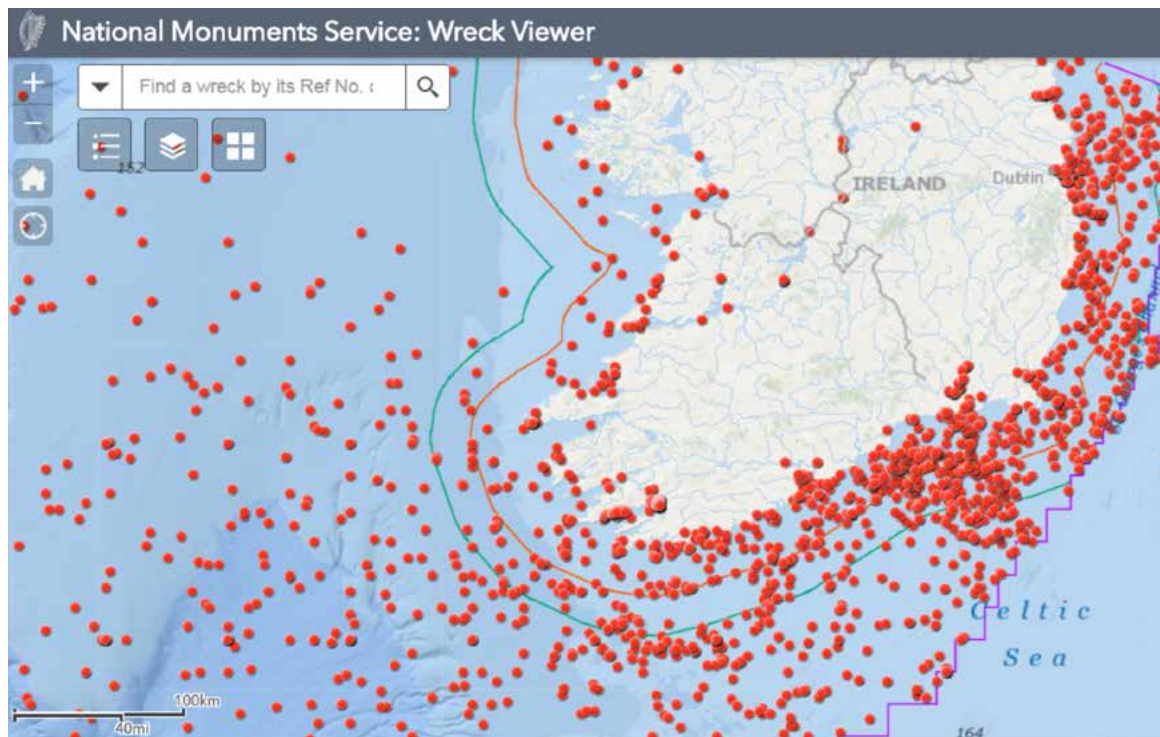


Figure 2: Screen Grab from National Monuments Service Wreck Viewer

6.4 Other cultural sites and culturally significant environments including submerged landscapes, harbours, jetties, landing places, fish traps, kelp grids, bridge sites, crannogs and tidal mills attest to Ireland's rich underwater cultural heritage in the context of the wider landscape within which they are to be found. Evidence for this underwater heritage is found in Ireland's designated waters, along the Irish coastline (over 7,000km), in rivers, wetland environments, intertidal zones and beneath reclaimed areas of land which were formerly seabed. The underwater cultural heritage is a finite and irreplaceable resource, with both natural and manmade pressures threatening its preservation, which can include expanding marine development, threats from treasure hunting, unregulated salvage or increased erosion of our coastal areas as a result of climate change.

6.5 The NMS is responsible for maintaining the Sites and Monuments Record (SMR). The SMR provides details of all monuments and places (sites) in Ireland and there are in excess of 150,800 records in the database and over 138,800 of these relate to archaeological monuments. Many monuments are located in or adjacent to Ireland's coastal, intertidal, estuarine and subtidal zones. Information regarding these monuments can be accessed through the [Historic Environment Viewer](http://webgis.archaeology.ie/historicenvironment/)¹⁴ which is an online digital mapping service providing access to both the databases of the NMS Sites and Monuments Record (SMR) and the National Inventory of Architectural Heritage (NIAH). All recorded monuments are afforded statutory protection under Section 14 of the National Monuments Acts 1930-2014.

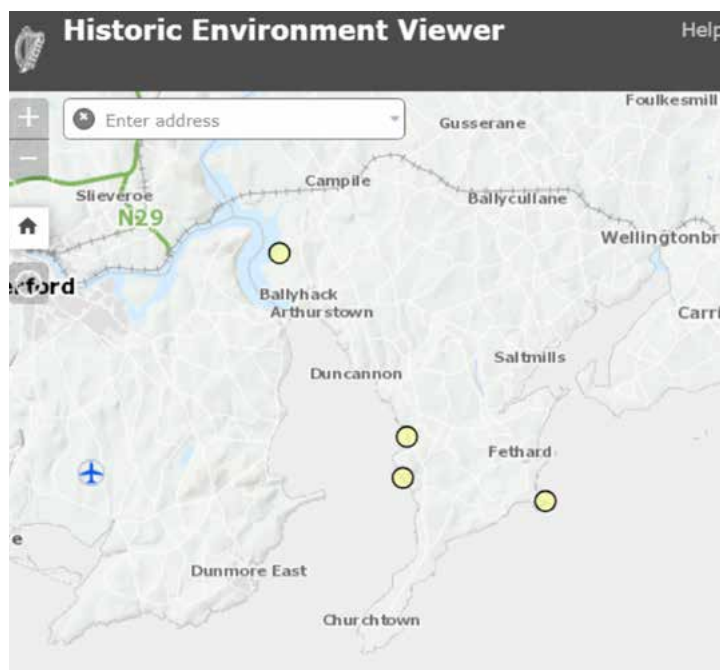


Figure 3: Screen Grab from Historic Environment Viewer showing locations of Coastal Promontory Forts on Hook Peninsula, Co. Wexford

¹⁴ <http://webgis.archaeology.ie/historicenvironment/>

6.6 Our maritime villages and towns are an integral part of Ireland's built heritage, many of which have an idyllic setting in relation to natural coastal or riverine features. The abundance of the major historic towns and ports are predominantly situated on the east, south east and southern coast of Ireland that afforded strategic access to Europe and the wider Atlantic and global trading routes over the centuries. These sites represent Ireland's past maritime trading interests and industry in exporting and importing goods and materials as well as being the nostalgic points of departure of Irish immigrants that made passage to new lands of opportunity. Many of these towns retain a distinct character arising from the development of prominent defensive infrastructure, harnessing dramatic topographical settings and lookouts which are evident from the sea approach and engineering ingenuity in the construction of harbours, piers and landings.

6.7 These historic coastal towns and harbours define our open island character and their surviving heritage assets, both above and below the water, provide a historic environment that is irreplaceable to coastal communities and is strategic for the on-going development of cultural tourism, such as that of the Wild Atlantic Way initiative. They present the opportunity for economic development, expansion and cultural developments where adaptation and re-use is well considered in the context of retaining original character, patina of age and structural integrity.

Legislation – Archaeological and Built Heritage

6.8 Legislation is in place to protect wrecks and archaeological objects in Ireland's territorial waters, in the intertidal zone and within the inland waterways. Section 3 of the National Monuments (Amendment) Act 1987 is the primary piece of legislation for the protection of wrecks over 100 years old and archaeological objects underwater irrespective of age. Wrecks that are less than 100 years old and archaeological objects, or the potential location of such a wreck or archaeological object, can also be protected under the Act. An Underwater Heritage Order (UHO) can be placed on a wreck or object if it is considered to be of sufficient historical, archaeological or artistic importance to merit such protection. In 1995 the wreck of RMS Lusitania, torpedoed in 1915 by German submarine U-20 off the Cork coast, was protected under the relevant provisions of the Act, though it was less than 100 years old at the time.

6.12 As noted above, the National Monuments Acts 1930-2014 also provide for the protection of monuments and archaeological sites and the regulation of archaeological works. All known archaeological monuments are entered into the statutory Record of Monuments and Places (RMP) and any person proposing to carry out works at or in relation to a recorded monument must give 2 months written notice to the Minister for Culture, Heritage and the Gaeltacht.



Salthill Beach,
Co. Galway

Part 2: Issues for Delivery

6.15 The key current issues in relation to underwater cultural heritage can be summarised as follows:

- Climate change, coastal and underwater impacts;
- Coastal erosion;
- Conservation of our coastal built heritage;
- Monitoring our underwater cultural heritage, tied in with defined management strategies;
- Availability of evidence for location of many wrecks (18,000);
- Marine salvage and the threat from highly specialised salvage vessels operating in our territorial and adjacent waters;
- Trawl fishing impact on wreck sites;
- Unlicensed activity and treasure hunting on shipwreck sites and enforcement capabilities.

Part 3: Issues for Other Sectors

6.16 Many sectoral activities and developments in marine environments have the potential to impact on known or potential underwater cultural heritage, including shipwrecks. The need to consider these potential impacts is reflected in the statutory role of the Minister for Culture, Heritage and the Gaeltacht as a consultee under a number of Acts, including the Foreshore Acts 1933–2011, the Dumping at Sea Act 1996 & 2004, and associated Dumping at Sea Regulations 2012, various fisheries acts relating to aquaculture, Petroleum and Other Minerals Development Act, 1960 (as amended 1990). This is in addition to the Planning and Development Act 2000 (as amended) and the associated Planning and Development Regulations. Developments, whether they are large infrastructural projects or smaller localised works, can have the potential to impact underwater cultural heritage.

6.17 As a statutory consultee, the NMS (on behalf of the Minister) assesses applications in relation to potential development impacts and, as appropriate, recommendations are forwarded to the relevant planning authority requesting that archaeological mitigation measures be attached as conditions on the grant of a planning permission, foreshore licence, dumping at sea permit, etc. to ensure the protection of the underwater cultural heritage.

6.18 The type of archaeological mitigation recommended will vary depending on the scale and impact of the development and the archaeological potential of the location. It may include but is not limited to the following: pre-development desktop assessments; archaeological dive surveys; geophysical surveys; wading and metal detection surveys; underwater archaeological assessment; pre-development archaeological testing.

6.19 Archaeological excavation or archaeological monitoring during the course of proposed works may also be required where it is known that archaeology is present or likely to be present and when new discoveries are made. Additionally, areas along river channels, estuaries and large swathes of the coastline have been reclaimed over the centuries. These areas have potential to retain the remains of vessels that were lost, abandoned or wrecked on an ancient seabed, on ancient shorelines or earlier water courses prior to the reclamation works being carried out.

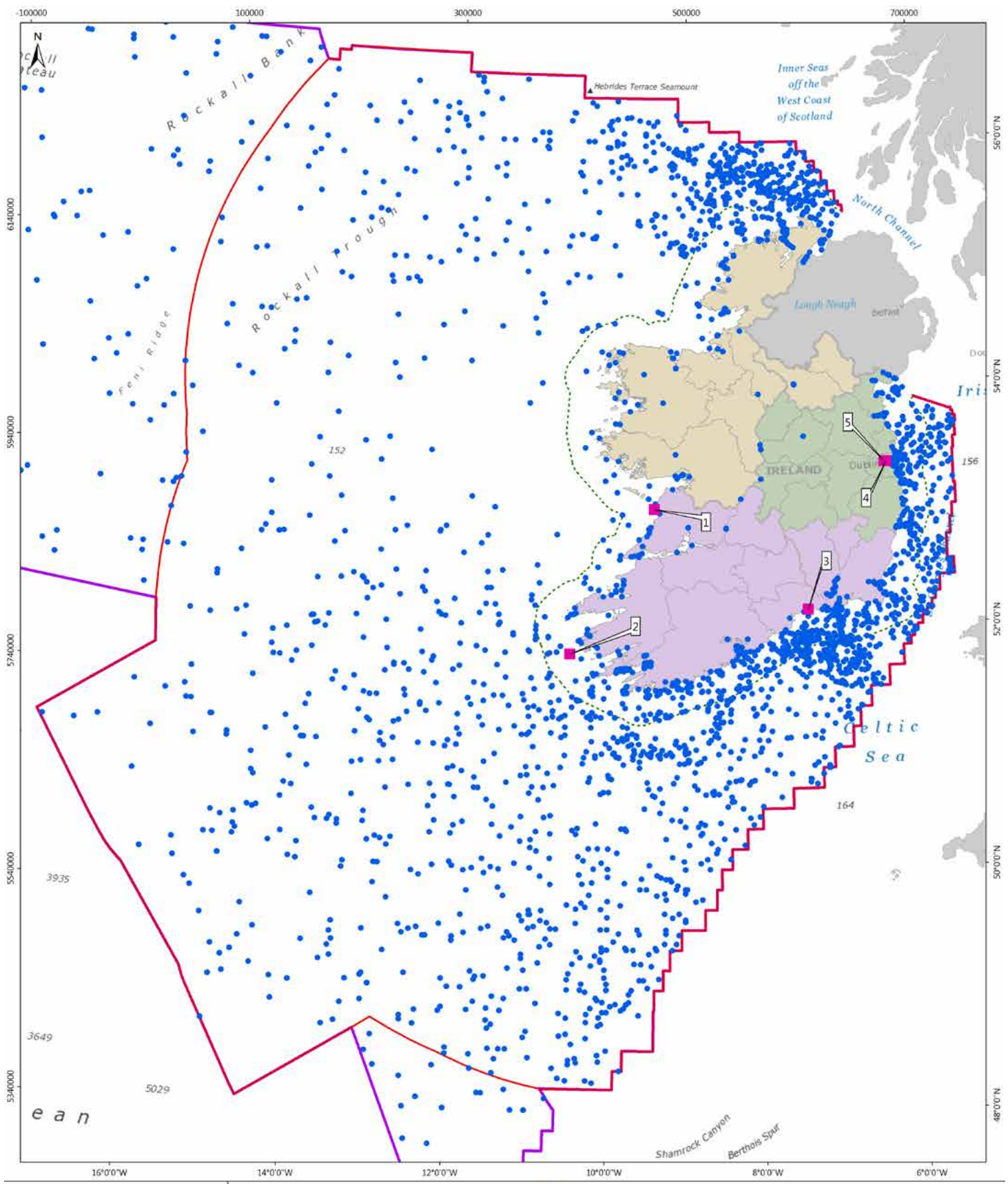
Part 4: Issues for Sustainability

Heritage Tourism and Developing Cultural Identity

6.20 Shipwrecks can be used to promote the value of underwater cultural heritage in its own right and also as an element of cultural tourism, including diving on wrecks, coastal wreck trails and maritime heritage tours, etc. This ties in well with Government aims, local and public initiatives and programmes (i.e. the Wild Atlantic Way, the Ancient East initiative, local heritage trails, coastal tourism and dive tourism, etc.); maritime heritage can also play an important part in developing a cultural identity and a tourism brand for coastal regions while also creating awareness of the need to protect and preserve this fragile aspect of the cultural heritage.

Climate Change

6.21 Climate change is having an effect on our maritime and coastal heritage. The Department is preparing a Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage in line with the Government decision of March 2018. The National Adaptation Framework (NAF) sets out the context that will ensure sectors such as the Built and Archaeological Heritage Sector can set about assessing the key risks and vulnerabilities of climate change. In turn this will allow for implementing climate resilience actions and ensuring climate adaptation considerations are mainstreamed into all local, regional and national policy making; this will specify the adaptation policy measures the Department proposes to adopt for the purposes of (a) enabling adaptation to the effects of climate change to be achieved in relation to the built and archaeological heritage and (b) enabling the achievement of the national transition objective.



Cultural Heritage



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly

- UNESCO Site
- Shipwreck
- 1 - Burren and Cliffs of Moher Geopark
- 2 - Skellig Michael World Heritage Site
- 3 - The Copper Coast Geopark
- 4 - Dublin - City of Literature
- 5 - Dublin Bay Biosphere



7.0 Defence and National Security

Part 1: Key Evidence

7.1 The Defence Organisation provides a broad range of marine services in accordance with its primary security role while it also undertakes a diverse range of non-security related tasks in Irish waters (and beyond, for example as part of EU efforts to rescue migrants).

7.2 The Sea-Fisheries and Maritime Jurisdiction Act 2006 established the Sea-Fisheries Protection Authority (SFPA) as the competent Authority for securing efficient and effective enforcement of sea fisheries protection legislation and the sustainable exploitation of marine fish resources from the waters around Ireland.

7.3 The SFPA has a Service Level Agreement with the Department of Defence (DoD) to secure efficient enforcement of sea-fisheries law through support provided by the Irish Defence Forces.

7.4 An Annual Control Plan is agreed between the SFPA and the DoD. This plan sets out the strategy for achieving sea-fisheries control targets each year.

Naval Service

7.5 The Naval Service is the State's principal sea-going agency. A flotilla consisting of eight ships is maintained at Haulbowline Naval Base in Cork. The primary day-to-day tasking of the Naval Service is to provide a fishery protection service in accordance with national legislation and the State's obligations as a member of the EU. All eight vessels are multi-tasked in the sense that, in addition to their fishery protection role, they also undertake general surveillance, security, pollution monitoring and marine search and rescue support, amongst other duties whilst on patrol.

7.6 Investment in a new ships programme since 2010 runs to over €250 million which has delivered three new Naval Service vessels:

- LÉ Samuel Beckett was commissioned in May 2014,
- LÉ James Joyce was commissioned in September 2015,
- LÉ William Butler Yeats was commissioned into service in October 2016.

A fourth ship, to be named LÉ George Bernard Shaw is scheduled for delivery in the second half of 2018.

7.7 The Naval Service is also responsible for operating the State's Fishery Monitoring Centre (FMC). The day-to-day fishery protection outputs of the Naval Service and the Air Corps are co-ordinated by the FMC, which is based in the Naval Headquarters at Haulbowline.

Air Corps

7.8 The Air Corps operates from Casement Aerodrome Baldonnel County Dublin. Within the Air Corps, the primary mission of 101 Squadron is to support the Naval Service in the Maritime environment. 101 Squadron currently provides air surveillance capacity through two Airbus Military CN235-100 Maritime Patrol Aircraft. The Maritime Patrol Aircraft are primarily tasked and deployed on domestic fishery protection missions on the basis of target inputs and outputs as agreed between the SFPA and DoD.

7.9 In 2015, the Government published its White Paper on Defence which inter alia provides for the replacement of the existing Maritime Patrol Aircraft. It is envisaged that the replacement Maritime Patrol Aircraft will cost in the region of €100m. A Request for Proposals to replace these aircraft was published in May 2018.

7.10 The Naval Service and the Air Corps patrol the entire Irish EEZ and, periodically, and as agreed in the annual control plan, patrol beyond these limits to protect specific fisheries in accordance with international commitments in the areas of the mid-Atlantic governed by the North East Atlantic Fisheries Commission [NEAFC].

Part 2: Issues for Delivery

7.11 Haulbowline Naval Base is of strategic importance to the Naval Service and Ireland given its geographic location. In line with the ongoing Investment programme in new ships, there will be a need for future expansion of the Naval Base with the requirement for additional berthage and the development of a Dry-dock.

7.13 While it remains difficult at this stage to anticipate the full impact on fishery protection requirements arising from the United Kingdom's decision to leave the EU there may be an impact on the Naval Service and Air Corps in the context of maritime security and fishery protection. The potential implications for fisheries protection and monitoring of Irish waters will emerge during the course of ongoing negotiations.

Part 3: Issues for Other Sectors

7.14 The threat to Ireland's economic resources arising from illegal, unreported and unregulated fishing or other illegal activities is real. The Naval Service and Air Corps is of strategic importance to the State as it protects Ireland's interests at sea. These interests include, but are not limited to, the following:

- Irish fishing areas and national conservation sites;
- Installations for the extraction of energy and the production of renewable energy;
- Oil and gas extractor sites and infrastructure;
- Maritime transport routes; and
- Submarine cables and pipe line routes.

7.15 The development of off-shore renewable energy technology will lead to an increased focus on maritime based energy systems in the coming years. The future development of infrastructure, necessary to produce oil and gas or harvest renewable energy from wind, wave and tidal sources, needs to be monitored. Whilst the current threat to existing infrastructure is assessed as low, the security challenges that could be posed in the event of a change in the threat assessment will also need to be continuously reviewed.”

7.16 HOOW envisages a substantial increase in maritime based activity into the future. With this in mind, any future development of major ports in the State, including Galway and Dundalk, will need to give consideration to allocating designated and safeguarded berthage for use by the Naval Service/Naval Service Reserve. Having a permanent capability to remain close to an area of operation for extended periods of time while also enjoying a capability to refuel and resupply will enhance the existing capability of the Naval Service in the context of maritime operations.

7.17 As the focus to grow marine activities, economic and leisure, it is vitally important to safeguard existing Naval Gunnery Ranges to ensure the Organisation maintains its operational readiness to react to requests for assistance. These ranges include:

- D1 Gormanstown
- D13 Galley Head
- D14 West of Castletownbere.

Part 4: Issues for Sustainability

7.18 Future development in Cork Harbour will need to take cognisance of the unique requirements of the Naval Service. The Naval Service should also strive to develop a sustainability policy in line with the Lower Cork Harbour.

8.0 Energy – Petroleum

Part 1: Key Evidence

8.1 Since exploration began in the Irish offshore, four commercial gas discoveries have been made: Kinsale Head, Ballycotton, Seven Heads and Corrib - all gas production has been delivered to the Irish market. There have been no commercial discoveries of oil to date.

8.2 Early exploration efforts viewed the petroleum geology of the Irish offshore as being comparable to that of the North Sea. A lack of success from drilling efforts in the 1970s and 1980s led to a decline in interest. However, industry perspectives as to the potential of the Irish offshore have been transformed in recent years. While the North Sea comparison retains potential, new possibilities have emerged.

8.3 Successful exploration off the Atlantic coasts of Africa, South America and Canada has stimulated new interest in the potential of the Irish Atlantic Margin, with new data, analysis and targets. Exploration interest is now focusing on the potential for Ireland to replicate the oil and gas successes of Newfoundland-Labrador.

8.4 The Corrib gas field demonstrated the impact indigenous supplies can have, where Ireland went from importing almost 90% of our overall energy needs in 2015, to 70% of our energy needs in 2016, a significant improvement in our security of supply. Ireland is now in a position where almost 60% of its natural gas needs is met by indigenous production.

8.5 However, the Kinsale fields (Kinsale Head, Ballycotton, Seven Heads) are expected to cease production by 2021 while by 2025/26 Corrib gas supplies will have declined to less than 40% of initial peak production levels. The anticipated reduction in Corrib and Inch gas supplies will re-establish the Moffat Entry Point interconnector from the UK as the dominant supply point from 2018/19.

8.6 Post-Brexit, Ireland's and the European Union's import dependency will be exacerbated by becoming increasingly reliant on non-EU sources of energy (UK, Norway, Russia, Middle-East etc.). The EU28's import dependency for petroleum and its products (oil and derivatives) increased from 74% in 1995 to 89% in 2015; and in respect of natural gas increased from 43% to 69% over the same period.

Part 2: Issues for Delivery

8.7 The continued maintenance of the policy and regulatory framework to underpin oil and gas exploration and production activities is required, including engagement at national, EU and wider international level, together with the development of legislation, where appropriate, focussed on safety, protection of the environment and fiscal terms.

8.8 Regulation of the sector will include the negotiation and agreement of work programmes with all exploration licence holders and the continual monitoring for delivery of licence commitments. The State's overall role in relation to gas production from the Kinsale area and Corrib gas fields will continue to be managed.

8.9 Offshore activities will be subject to an environmental assessment to ensure that any proposed development of the offshore does not have a significant impact on the environment. Any future applications to drill a well will be subject to a technical, safety, environmental and financial responsibility assessment.

Part 3: Issues for Other Sectors

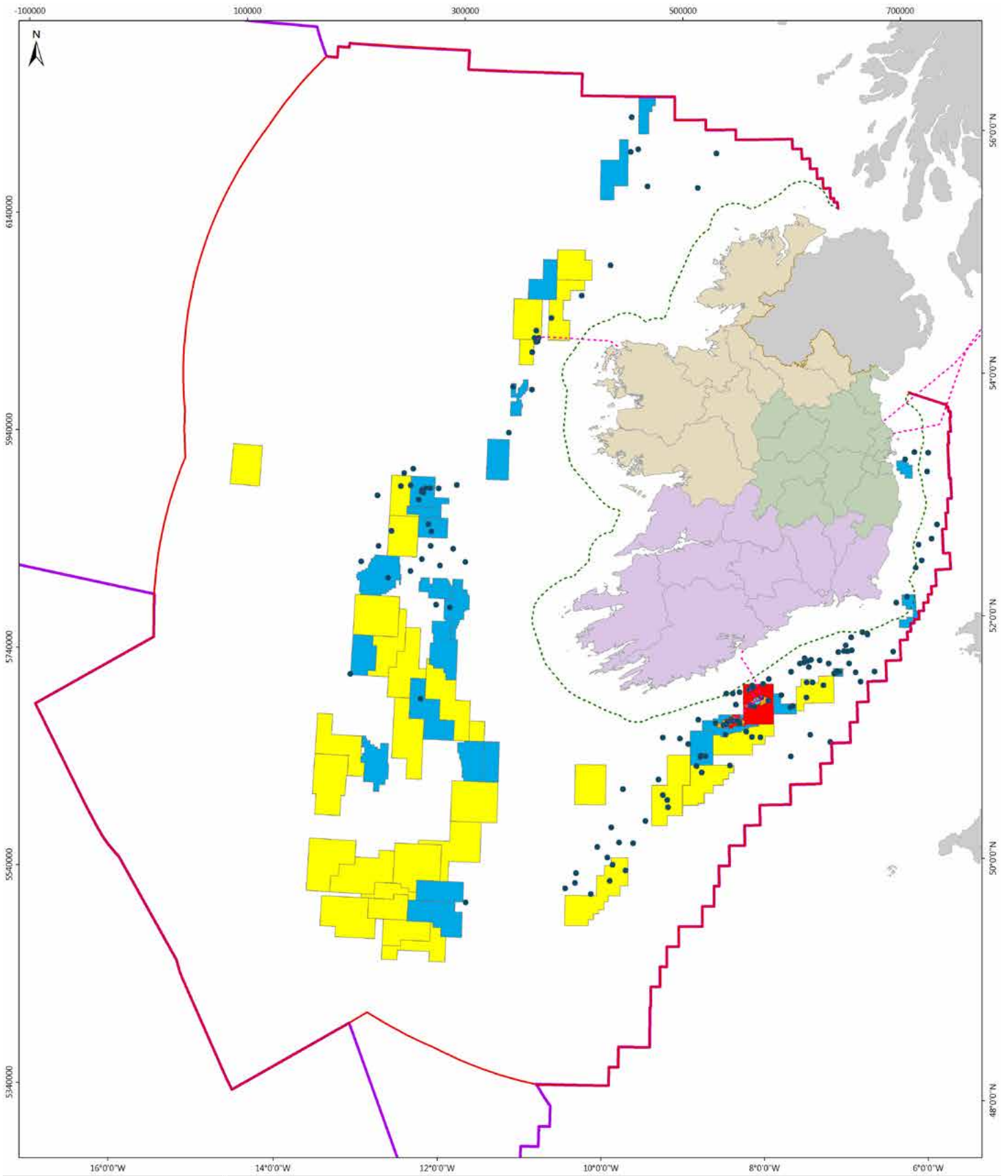
8.10 The development of Ireland's indigenous oil and gas resources have the potential to deliver very significant and sustained benefits to the State and people of Ireland over an extended period of years; particularly in terms of national and local economic development, technology learning, enhanced security of supply, import substitution and fiscal return.

8.11 There are a wide range of potential synergies and operational interactions between petroleum exploration and production and other sectors. Synergies could include the offshore renewable industry, through the use of ports and harbours in supply and transfer operations, supply chain services and provision of engineering and specialist expertise. These opportunities are emerging growth areas with the potential to stimulate new employment and investment opportunities. As the activities are carried out offshore, there may also be interactions with activities such as fishing, shipping or recreational activities.

Part 4: Issues for Sustainability

8.12 The Energy White Paper published at the end of 2015 sets out a roadmap for the energy sector to 2030. It focuses on how Ireland can ensure secure supplies of competitive affordable energy to our citizens and businesses taking into account European and International climate change objectives. The White Paper acknowledges that oil and natural gas will remain significant elements of Ireland's energy supply in the evolution to a low carbon energy system. In the short to medium-term, the mix of non-renewables will shift away from more carbon-intensive fuels, like peat and coal, to lower-carbon fuels like natural gas. Natural gas would continue to play an important role in the energy transition; firstly, to ensure system flexibility and inertia with more renewables in the power sector and, secondly, to substitute for fuels with higher carbon emissions for heating purposes and in transport. The use of oil would fall as it is replaced by less carbon-intensive sources, but its substitution is challenging in several sectors, such as aviation, marine transport and petrochemicals. In the longer-term, fossil fuels will be largely replaced by renewable energy sources.

8.13 The ObSERVE Programme has been undertaken by the DCCAE in partnership with the NPWS over the period 2015-18. It is a significant data acquisition programme designed to acquire new environmental baseline data, with the aim of filling existing data gaps regarding protected marine species and sites in key offshore basins. The ObSERVE Programme is unique to Ireland in terms of its proactive approach to ensuring a clear understanding of animal occurrence, distribution, and density within a defined offshore area, based on the data acquired. The core purpose of these surveys is to collect data on the occurrence, distribution, density and abundance of protected species within the prescribed offshore area. The data will serve to better inform both regulators and stakeholders that in maximising the return of Ireland's natural resources the protection of rare and threatened species may be ensured. The final reports and data will be published and available to all interested stakeholders in 2018.



Energy - Oil and Gas

Kilometres
0 25 50 100 150



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Local Authority Area
- - - - Offshore Gas Pipeline
- Offshore Platform
- Exploration Well
- Offshore Commercial Field
- Current Authorisations**
- Exploration Licence
- Lease Undertaking
- Licensing Option
- Petroleum Lease



9.0 Energy – Renewables

Part 1: Key Evidence

9.1 A secure, sustainable and affordable supply of energy is of central importance to the economic and social wellbeing of Ireland. Ireland has some of the best offshore renewable energy resources in the world. The term offshore renewable energy covers a number of technology types and includes wind (fixed and floating), wave and tidal, all of which rely on harnessing the motion of wind or water to generate energy. Of these technology types fixed offshore wind has reached the commercial stage, while floating wind, wave and tidal technology are still at the experimental stage globally.

9.2 The 2014 Offshore Renewable Energy Development Plan (OREDP) sets out the Government's policy for the sustainable development of our abundant offshore renewable energy resources. It found that 4,500 MW of offshore wind and 1,500MW of wave and tidal energy could be sustainably developed in Irish waters. The OREDP identifies policy actions and enablers that are key to the development of this sector. Progress is monitored by the Offshore Renewable Energy Steering Group (ORESG) which is responsible for the implementation of the Plan across three work-streams: Job Creation; Infrastructure; and Environment.

9.3 An [interim review of the OREDP](#)¹⁵ recently published by the DCCAE evaluates the progress to date and sets out 26 recommendations for the continued implementation of the OREDP's goals out to 2020. A full review of the OREDP will be completed in 2020.

9.4 The Government's [Energy White Paper](#)¹⁶ (2015) presents a long-term strategic vision that is intended to guide the direction of Irish energy policy from now until 2030. It envisages a reduction in greenhouse gas emissions from the energy system by 80-95% relative to 1990 levels by 2050.

9.5 The 2009 EU Renewable Energy Directive sets Ireland a legally binding target of meeting 16% of our energy requirements from renewable sources by 2020. Provisional data from the Sustainable Energy Authority of Ireland indicates that 10.6% of Ireland target had been achieved at end of 2017. In terms of electricity generation, 30% of our demand came from renewable sources in 2017 with onshore wind accounting for the vast bulk of generation.

9.6 While very significant progress has been made in developing an onshore renewable wind sector in Ireland, including a grid safely operating at 65% penetration of renewables, it has not been without significant challenges which are primarily rooted in spatial and environmental constraints, social acceptance and land use. Meeting our 2020 renewable energy obligations will therefore be challenging and our offshore renewables potential will be a critical factor in meeting the challenges ahead.

¹⁵ <https://www.dccae.gov.ie/documents/OREDP%20Interim%20Review%2020180514.pdf>

¹⁶ <https://www.dccae.gov.ie/documents/Energy%20White%20Paper%20-%20Dec%202015.pdf>

9.7 Ireland's renewable energy ambition post-2020 will have regard to our contribution to the binding EU renewable energy target of 32% by 2030, under the Clean Energy Package. It is an objective of government to diversify our energy generation portfolio. While technologies such as onshore wind and solar will contribute to achieving EU targets post-2020, the development of our offshore resource will be critical to the achievement of our 2030 renewable energy obligations.

9.8 Offshore renewable energy generation is relatively well developed across Western Europe with 90% of worldwide deployment happening primarily in the North Sea and is becoming increasingly attractive for investment as technologies evolve and financial viability improves. Some 5% of the UK's annual demand is now met by offshore wind development. And in 2017 zero subsidy auctions were awarded for the first time for offshore projects in Germany and the Netherlands, developing 900MW and 700MW projects respectively.

9.9 To date, Ireland has only one offshore fixed wind farm generating electricity in Irish waters. That installation consists of 6 bottom-fixed turbines located on the Arklow Bank, around 10 kilometres off the coast of Wicklow. Bottom fixed wind turbines are limited to relatively shallow waters.

9.10 Floating offshore wind is still at the pre-commercial stage. It involves a wind turbine supported by a floating structure which is anchored to the seabed by one or more mooring cables. Floating wind has the potential to be deployed in deeper waters and as such could have potential for development off the south and west coasts of Ireland. A number of pilot projects are underway across Europe.

9.11 Between 2014 and 2017 capital funding of €17.7 million was allocated by the DCCAE under the OREDP for research and development of offshore renewable energy technology, with a further €4.5 million allocated in 2018. Government funding supports Ireland's commitment to world class test facilities and infrastructure including the Lir National Ocean Test Facility in Cork, the quarter scale Galway Bay Marine Renewable Energy test site and the full-scale Atlantic Marine Energy Test Site (AMETS), off the coast of Mayo. It also supports the Prototype Development Fund, operated by the SEAI, and provides grant aid to support developers in bringing their ocean energy devices from prototype to full-scale commercial viability.

Part 2: Issues for Delivery

9.12 The development of the offshore renewable energy sector in Ireland cuts across a wide range of sectors from consenting, licensing and infrastructure, to energy markets and international cooperation on renewable energy. A range of State bodies and activities will interact with the sustainable development of offshore renewables. Account must also be taken of legitimate public interest in, and EU and international obligations regarding, the protection of the marine environment.

9.13 Ten policy actions and enablers that are key to the development of this sector have been identified in the OREDP remain valid and are being progressed by the ORESG. These are:

- Put in place a robust governance structure for the OREDP;
- Increase Exchequer support for ocean research development and demonstration;
- Introduce an initial market support tariff for ocean energy;
- Develop renewable electricity export markets;
- Develop the supply chain for the offshore renewable energy industry in Ireland;
- Communicate that Ireland is open for business;
- Explore the potential for international collaboration;
- Introduce a new planning and consent architecture for development in the marine area;
- Environmental monitoring; and
- Ensure appropriate infrastructure development.

9.14 The long term vision is to transform our fossil fuel-based energy sector into a clean, low carbon system. Offshore renewable energy has a key role in that transformation. However, a key objective will be to ensure an inclusive process of engagement and consensus building across society and with local communities.

9.15 Government recognises that to realise the enormous potential of the offshore energy sector will require fully coordinated support across government, from research and development, through supply chain development, to commercial deployment. The environmental and other impacts of offshore renewables must be managed in line with international obligations and best practice.

9.16 In addition, the provision of a robust consenting regime, investment and development of the electricity grid and investment in port facilities are particularly pertinent. Legislative proposals are being drafted to update the Foreshore Act 1933 and to address the absence of a regulatory framework to regulate offshore renewable energy developments beyond the limits of the foreshore (12 nautical miles). The Maritime Area and Foreshore (Amendment) Bill will also provide a coherent mechanism to facilitate and manage development in the exclusive economic zone (EEZ) and on the continental shelf, including for the first time, a comprehensive regime for the regulation of Offshore Renewable Energy. This will be an important foundation for investment in the offshore renewable energy sector.

9.17 Investment in the electricity grid will be required to reinforce the onshore grid, ensuring that the overall power system is capable of handling potentially large volumes of variable renewable offshore generation.

Part 3: Issues for Other Sectors

9.18 In addition to mitigating the impacts of climate change, and to security of supply benefits, offshore renewable energy can bring substantial socio-economic benefits to peripheral coastal communities. These include employment and income opportunities, transferable technology and skills development.

9.19 Offshore renewable energy projects can have a wide range of positive and adverse impacts for other activities or marine sectors. For example, off shore wind developments may be competing for space with traditional sea users, such as fisheries, navigational routes or leisure sailing. However, many synergies also exist including, for example, the colocation of aquaculture activities with off shore wind; potential for multi-use offshore wind and oil & gas platforms; reliance on ports in facilitating the necessary development of both offshore renewable generation and grid infrastructure; potential protections for biodiversity through offshore wind developments serving as de-facto no-take zones.

9.20 To ensure sustainable development, it is important that the development opportunity should be managed efficiently and effectively and in a coordinated fashion through the marine planning process.

9.21 Our ports will also play a crucial role in facilitating the necessary development of both offshore renewable generation and grid infrastructure, requiring investment to handle plant, equipment and cabling, and the associated shipping during the construction, operation and maintenance phases of future projects.

Part 4: Issues for Sustainability

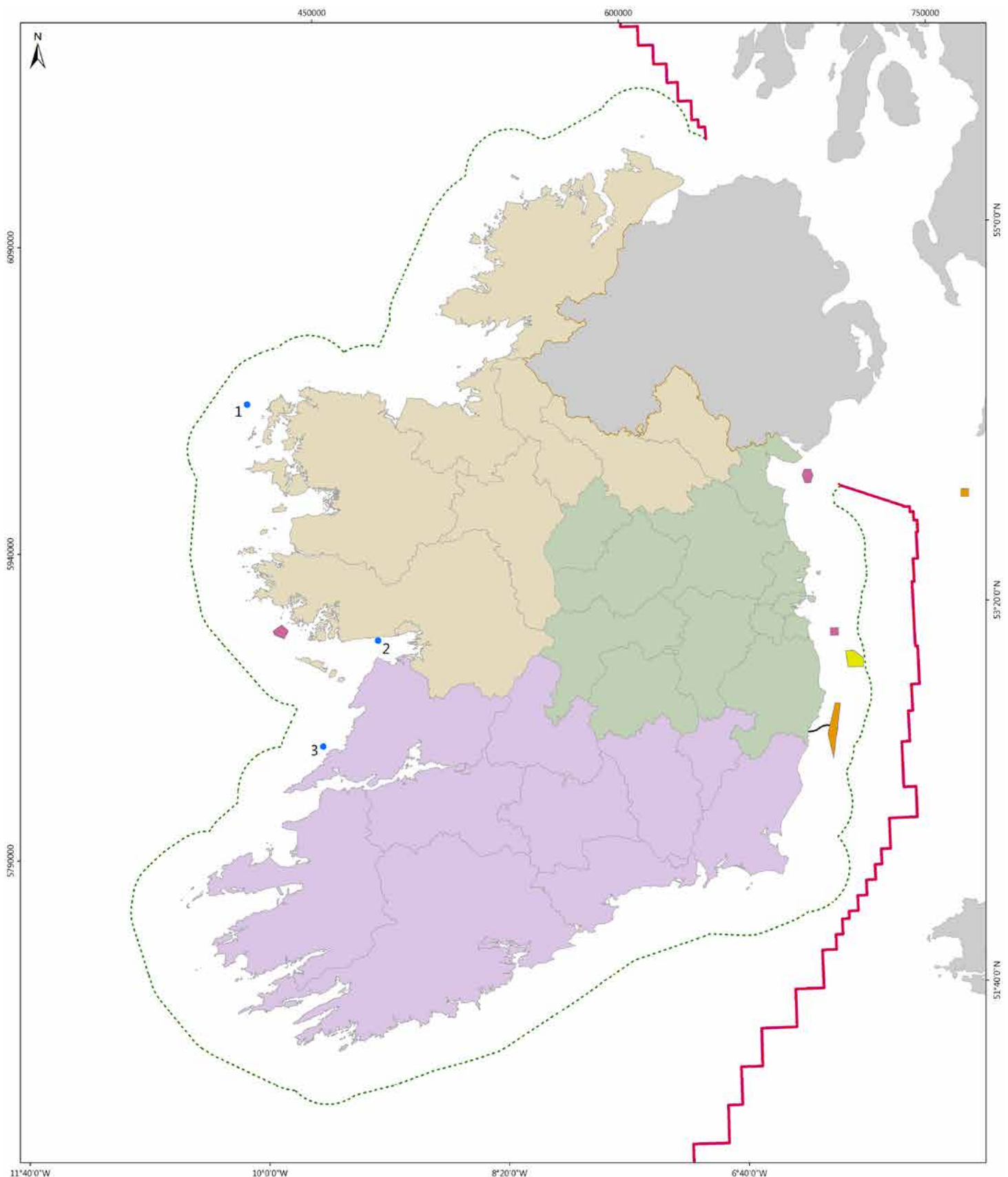
9.22 Offshore renewable energy offers the potential for significant environmental benefits through mitigating greenhouse gas emissions from energy production. By displacing fossil fuel generation, offshore technologies have positive impacts on air quality by reducing the discharge of harmful or toxic emissions into the environment.

9.23 The potential benefits and effects of renewable energy development will vary depending on factors such as technology type, size, structure and geographical location. Renewable energy developments can potentially have adverse impacts on fish and mammals, primarily through construction noise and may displace fishing activity and have direct or indirect impacts on other users of the marine area. Certain bird species may be displaced by wind turbines which also have the potential to form barriers to migration or present a collision risk for birds.

9.24 As tidal and wave technologies are at an early stage of development, the level of risk and ecological significance is largely unknown, but will continue to be monitored at test site locations.

9.25 The ORESG has developed a series of guidance documents to assist developers in the preparation of Environmental Impact Assessments and Appropriate Assessments. Guidance documents have also been produced to aid developers on ecological data required for development of Environmental Impact Assessments (EIAs) and AAs. The documents can be viewed on the [DCCA website](https://www.dcca.gov.ie/en-ie/energy/topics/Renewable-Energy/electricity/offshore/offshore-renewable-energy-development-plan-/Pages/Guidance-Documents-for-Developers0517-9406.aspx)¹⁷.

¹⁷ <https://www.dcca.gov.ie/en-ie/energy/topics/Renewable-Energy/electricity/offshore/offshore-renewable-energy-development-plan-/Pages/Guidance-Documents-for-Developers0517-9406.aspx>



Marine Renewable Energy

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- Currently Designated Continental Shelf Boundary
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Wave Energy Test Sites
- Offshore Wind Farms
 - Authorised
 - Planned
 - Production
- Arklow Bank Wind Park Connection Cable

1. Atlantic Marine Energy Wave Test Site
2. Galway Bay Wave Test Site
3. WestWave Wave Test Site

10.0 Energy – Transmission Systems

Part 1: Key Evidence

Electricity

10.1 Ireland's peripheral location at the edge of mainland Europe means that it is naturally isolated from the wider European electricity grid. This fact, combined with the small size of the market, leads to risks to security of supply and reduced competition. Steps have been taken to address this isolation by building interconnection infrastructure that links Ireland to larger cross border markets and brings direct benefits to Irish consumers through lower energy costs. Ireland currently has trans-marine electricity interconnection with the UK (the East West Interconnector linking Ireland to Wales). Further trans-marine interconnection with the UK and France is currently proposed.

10.2 The [2018 National Policy Statement on Electricity Interconnection](#)¹⁸ sets out Government policy on the development of electricity interconnection between Ireland and neighbouring countries. This policy statement builds on various commentary and commitments in the Government's Energy White Paper. One of the key needs identified by the White Paper is the need for appropriate energy infrastructure, including energy networks and interconnection with other countries' energy systems.

10.3 Interconnection is viewed as critical infrastructure by the European Union. The second pillar of the EU's [Energy Union Strategy](#)¹⁹ is the delivery of a fully-integrated Internal Energy Market using interconnectors to allow energy to flow freely across the EU. European policy is therefore explicit in its support of electricity interconnection between Member States and interconnection projects are facilitated under the EU [Projects of Common Interest](#) (PCI)²⁰ process. PCIs are key infrastructure projects that link the energy systems of EU countries. They are intended to help the EU achieve its energy policy and climate objectives: affordable, secure and sustainable energy for all citizens, and the long-term decarbonisation of the economy in accordance with the [Paris Agreement](#)²¹. The EU approach to interconnection also derives from a lasting focus on solidarity between Member States.

10.4 In its 2014 [European Energy Security Strategy](#)²² the European Commission committed to working with Member States to ensure speedy implementation of PCIs and other measures to meet the target of achieving interconnection of at least 10% of installed electricity production capacity for all Member States by 2020 and 15% by 2030. Ireland's interconnection level is currently at 7.4% [as reported by the European Commission](#)²³.

¹⁸ <https://www.dcae.gov.ie/en-ie/energy/publications/Documents/19/National%20Policy%20Statement%20on%20Electricity%20Interconnection.pdf>

¹⁹ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/building-energy-union>

²⁰ <https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

²¹ https://ec.europa.eu/clima/policies/international/negotiations/paris_en

²² <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN>

²³ https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-ireland_en.pdf

Gas

10.5 Natural gas remains an important component in Ireland’s energy mix. It is the dominant fuel for electricity generation (48% in 2016). Ireland’s natural gas comes from both indigenous production and imports. The indigenous resources include gas fields at Kinsale and Corrib. The balance of our natural gas requirement is imported from the UK. Ireland, Northern Ireland and Great Britain are physically interconnected by two interconnector pipelines under the Irish Sea, which are owned and operated by Gas Networks Ireland (GNI) and its subsidiary GNI (UK), and there is a continued mutual interest in ensuring the on-going operation of arrangements to deliver safe, secure and competitive energy supplies for consumers.

10.6 Natural gas imported from the UK is a significant percentage of Ireland’s overall gas supply. In 2015, prior to the Corrib gas field, gas imported from GB accounted for 97% of total demand. In 2016, indigenous gas production met over 55% of Ireland’s gas demand, with the balance of our natural gas imported from the UK via the interconnectors. Supplies from Corrib will decline in the coming years with 84% of Ireland’s natural gas peak day demands forecast to be met by imports from the UK in 2024/2025. This demonstrates continued reliance on imported natural gas from the UK in the medium term. The two undersea interconnectors will therefore remain as a vital part of Ireland’s energy transmission infrastructure for the foreseeable future.

Part 2: Issues for Delivery

Electricity

10.7 With Ireland’s national policy position on electricity interconnection now in place, the Commission for Regulation of Utilities is separately developing an approach to the regulatory treatment of interconnector applications. Across a series of papers and consultations launched in 2016, it has most recently launched a consultation on its planned assessment criteria for electricity interconnection applications. Interconnector projects will need appropriate regulatory treatment to be decided before the final investment decision will be taken.

10.8 If a trans-marine interconnector project moves into the construction phase then it must comply with all national, EU and international obligations regarding the protection of the marine environment. Electricity transmission lines must be sited and erected in a manner that fits within the wider planning framework and in line with appropriate planning guidelines and principles. For example, the laying of transmission lines within the foreshore requires a foreshore licence from the DHPLG.

10.9 Two existing electricity interconnector project proposals – Celtic linking Ireland with France and Greenlink linking Ireland with Wales – will, if constructed, deliver important electricity connectedness with neighbouring countries. Such connectivity has a range of benefits not least its positive impact on Ireland’s security of electricity supply. It is important that key infrastructure projects such as electricity interconnectors are delivered and the associated public interest benefits are achieved.

Gas

10.10 It is not envisaged that any further international interconnector pipelines will be constructed. The undersea upstream pipelines connecting production facilities to downstream shore terminals such as Corrib – Bellanaboy and Kinsale Area – Inch (which will cease production in early 2020) are not “interconnectors” as they do not connect separate national systems. Upstream pipelines from any further offshore sources that may be found will be developed in accordance with relevant legislative and regulatory regimes, including the Marine Spatial Plan when developed.

Part 3: Issues for Other Sectors

10.11 A secure, efficient and robust system is a critical component underpinning economic development. The presence of trans-marine interconnectors will provide reinforcement of the national electricity grid, facilitating quick and efficient flows between energy markets and across the grid. Interconnectors provide additional transmission capacity that can cater for all levels of anticipated growth in consumption for many years.

10.12 In the construction of transmission lines offshore care must be taken to limit potential disturbances to marine life, shipping routes and other activities including fishing.

Part 4: Issues for Sustainability

Electricity

10.13 If the proposed interconnectors proceed, they have the potential to provide reliable high-capacity electricity links between Ireland and France and Ireland and the UK that would have significant benefits for the people of Ireland. Access to the EU and UK electricity markets would lead not just to expected increased competition and lower prices in Ireland, but it would also improve security of electricity supply and facilitate increased capacity for renewable energy here via export access to these markets.

10.14 The proposed projects are undergoing stringent social impact assessments so that any adverse social impacts that may arise from a project’s development may be pre-empted and prevented. Already for the Celtic project a high level social impact assessment baseline report has been prepared, examining issues such as the geographical setting, the environment, communities and amenities of proposed landing points for the transmission line. Both projects have published details of marine route investigations undertaken within associated feasibility studies.

Gas

10.15 Natural gas is a clean fuel from an air quality perspective, as it has almost no particulate matter emissions, which are estimated to cause over 1,500 premature mortalities in Ireland annually. Natural gas has a much lower CO₂ content per unit of energy than coal or oil.

10.16 Long term Irish energy policy is focussed on achieving the transition to a low carbon energy system in a secure and cost effective manner, with the most recent statement of this in the 2015 energy policy White Paper. This envisages that in the short-to-medium term the non-renewable part of the energy mix will shift away from more carbon-intensive fuels to lower-carbon fuels, like natural gas, and to renewables. The paper states that providing natural gas network infrastructure is essential for the proper functioning of the markets. In this context, developing, maintaining and upgrading the gas networks is crucial, to ensure that the energy system remains safe, secure and ready to meet increased demand as economic conditions improve. It is acknowledged that infrastructure will be required to support this energy transition across the transport, heat and electricity sectors, with the need for this new energy infrastructure to be assessed through robust analysis. As stated above, any future undersea upstream pipelines that may be constructed will also be subject to relevant legislative and regulatory regimes, including the NMPF when developed.

11.0 Energy – Carbon Capture and Storage

Part 1: Key Evidence

11.1 Globally, Carbon Capture and Storage (CCS) is a technology chain that forms a third pillar, along with renewable energy and energy efficiency, to reduce CO₂ emissions to the atmosphere. It works by removing CO₂ from the pre- or post-combustion exhaust gas of power stations and other industrial processes and injecting it into underground geological reservoirs of porous rock for permanent storage. Subject to commercial and technical considerations, CCS can facilitate decarbonisation of the electricity sector while allowing an appropriate level of thermal generation to balance intermittent renewable generation.

11.2 CCS could also be applied to industrial processes with large point-source CO₂ emissions, such as cement manufacture and, when twinned with bioenergy, has the potential ability to remove historic CO₂ emissions from the atmosphere. CCS applied to hydrogen generation from hydrocarbons can create an emission-free fuel for industry, transport and heating, creating potential for large-scale emissions reductions from sectors that may be difficult to decarbonise otherwise.

11.3 All geological storage options currently considered in Ireland are offshore. An [Assessment of the Potential for Geological Storage of Carbon Dioxide for the Island of Ireland](#)²⁴ prepared for the SEAI and others in 2008 identified storage potential in the depleted Kinsale Head natural gas field in the Celtic Sea Basin, with a calculated practical capacity of 330 million tonnes CO₂. Permo-Triassic basins in the Irish Sea with similar geology to the East Irish Sea gas and oil field (UK) were also found to have a theoretical capacity. The [Irish Sea Carbon Capture and Storage Project](#)²⁵ carried out jointly by the Geological Survey of Ireland and British Geological Survey (2012-2014) found that these basins were structurally complex and storage compartments too small to be economic. Nevertheless, potential still exists in the Irish Sea and in the deeper-water Mesozoic basins on the western shelf.

11.4 An economic study by Element Energy (2013) found that CCS infrastructure costs in the Irish and Celtic sea areas are competitive with European cost estimates.

Part 2: Issues for Delivery

11.5 A study by the Irish Academy of Engineering (2016) found that CCS development in Ireland is feasible with existing technology by 2030, but that significant work on the financial, regulatory and legal framework will be required. This is consistent with the view of the International Energy Agency that, despite the promise of CCS and its significant potential for technology progress, strong policy signals are required to trigger the necessary investments.

²⁴ <https://www.seai.ie/resources/publications/Assessment-of-the-Potential-for-Geological-Storage-of-CO2-for-the-Island-of-Ireland.pdf>

²⁵ <https://www.gsi.ie/en-ie/programmes-and-projects/geoenergy/activities/Pages/Carbon-Capture-and-Storage.aspx>

11.6 [EU Directive 2009/31/EC](#)²⁶ established a legal framework for the environmentally safe geological storage of CO₂. Ireland is one of several countries that have applied at least temporary restrictions on CO₂ storage. The [European Communities \(Geological Storage of Carbon Dioxide\) Regulations 2011](#)²⁷ (S.I. No. 575 of 2011) transposes Directive 2009/31/EC by prohibiting storage of CO₂ in amounts greater than 100,000 tonnes in the territory of the State, its exclusive economic zone and on its continental shelf.

11.7 The National Mitigation Plan launched in July 2017 contains an action of the DCCA to explore the feasibility of utilising suitable reservoirs for CO₂ storage.

Part 3: Issues for Other Sectors

11.8 The London Protocol was amended in 2006 to regulate CO₂ sequestration. CO₂ streams may only be considered for disposal into a sub-seabed geological formation (not into the ocean itself). The streams must consist overwhelmingly of CO₂, and no other waste can be added for the purpose of disposal. A further amendment was made in 2009 to enable Parties to export carbon dioxide streams for purpose of sequestration in trans-boundary sub-seabed geological formations.

11.9 The OSPAR Convention was amended in 2007 to allow the storage of carbon dioxide in geological formations under the seabed, on condition that the CO₂ is “intended to be retained permanently and will not lead to significant adverse consequences for the marine environment, human health and other users.” OSPAR also prohibits the placement of carbon dioxide streams in the water column or on the seabed.

11.10 There are potential interactions with the petroleum sector through the potential re-use of depleted reservoirs and associated infrastructure for the purpose of storing CO₂.

Part 4: Issues for Sustainability

11.11 Analysis by the International Energy Agency (Energy Technology Perspectives 2017) indicates that CCS is an essential part of the portfolio of technologies needed to achieve substantial global emissions reductions and meet targets set in the Paris Agreement.

11.12 This is consistent with the work of UCC’s MaREI’s Energy Policy and Modelling Team, who have developed scenarios to explore long-term possible energy futures for Ireland, exploring the context of climate mitigation and energy security. Deep emissions reduction scenarios for 2050 taking account of the Paris agreement all implied very significant changes to our energy system, which will require further consideration. At a broad level, it suggests that onshore wind energy and natural gas dominate the generation mix to 2030, after which gas-CCS, bioenergy and bioenergy-CCS become prevalent.

²⁶ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0114:0135:EN:PDF>

²⁷ <http://www.irishstatutebook.ie/eli/2011/si/575/made/en/pdf>

12.0 Energy – Offshore Gas Storage

Part 1: Key Evidence

12.1 Gas Storage is an activity that allows for the storing of gas during period of low demand (e.g. summer months) in large-scale storage reservoirs, then accessing that gas when demand increases (i.e. in winter). Gas storage in depleted fields is achieved by injecting gas into the reservoir. To maintain pressure within the reservoir a certain amount of gas ('cushion gas') is left. This gas maintains the pressure within the fields and enables deliverability of gas from the field during the winter when the gas is withdrawn to meet winter demand. As natural gas can be stored for an indefinite period it is largely a commercial decision for a storage operator as to when gas is injected and withdrawn. There is limited gas storage capacity in Ireland despite the role it may play in enhancing security of supply and in electricity generation flexibility. The commercial viability of gas storage is dependent on the price differentials between summer and winter gas.

12.2 There are a number of factors that influence this, including-

- The nature of Europe's integrated gas pipeline network which reduces the need for storage capacity;
- Greater flexibility in pipeline import contracts, including contracts with Russia, Norway and Algeria, which has enabled buyers to rely on contractual flexibility rather than book storage capacity;
- Increased European LNG imports resulting in surplus regasification capacity.

12.3 Kinsale Energy operated the first, and to-date the only, offshore natural gas storage facility utilising the depleted Southwest Kinsale gas field. The Southwest Kinsale gas field was converted to an offshore storage facility with a storage capacity of 230 million cubic meters. However, in 2016 Kinsale Energy took the decision to close the storage facility. The last of the storage gas was withdrawn from the reservoir in March 2017.

12.4 SNLG project is a commercial proposal to construct a Liquefied Natural Gas (LNG) terminal near Ballylongford, County Kerry, including connection to the gas transmission system. An LNG facility would provide additional security of supply to Ireland, in that it would bring diversity to Ireland's gas supply sources and would bring connectivity to the global LNG market

12.5 The SLNG project is on the current EU list of Projects of Common Interest (PCI). The project is a private commercial project which has been designated PCI status since the 1st list was established in 2013. Ireland has supported the inclusion of the project on the European list of Projects of Common Interest as it would enhance Ireland's security of supply. However, the development of the SLNG project is reliant on future investment decisions by the project promoter.

12.6 Kinsale Energy previously operated Ireland's only gas storage facility. This facility ceased operation in April 2017. It was operated in conjunction with commercial gas production activities regulated under the Petroleum and Other Minerals Development Act 1960.

12.7 The consent of the Minister for Communications, Climate Action and Environment for the Kinsale Energy storage facility was provided by means of an addendum to the petroleum lease between the company and the Minister governing the production of gas from the field.

Part 2: Issues for Delivery

12.8 Ireland does not currently have a regulatory framework to license stand-alone natural gas storage facilities. DCCAE is in the process of developing legislation to provide for offshore natural gas storage as a stand-alone activity. This is required to provide certainty to prospective infrastructure providers and to ensure that the market is able to provide the infrastructure facilities that can make a significant contribution to Ireland's security of gas supplies.

12.9 The legislative framework will take account of HOOW, in relation to, for example, the need for a robust, stable and effective regulatory regime to attract investment, demonstrate stability and ensure protection of the marine environment.

12.10 The framework will also need to comply with the United Nations Convention on the Law of the Sea (UNCLOS) and take account of the different rights permitted by articles 56 and 77 of UNCLOS in respect of the EEZ and the continental shelf.

Part 3: Issues for Other Sectors

12.11 There are a wide range of potential synergies and operational interactions between gas storage and other sectors. Synergies include the continuous use of ports and harbours in supply and transfer operations, possible colocation with wind energy installations, supply chain services, and the potential for installations to act as artificial reefs providing new protections for biodiversity.

12.12 Potential adverse interactions include displacement or exclusion of other activities such as fishing, shipping or recreational activities, disturbance to marine life, particularly during seismic activities (during exploration phases rather than storage), and general competition for space.

Part 4: Issues for Sustainability

12.13 Future sustainability and energy security are intrinsically linked. Security of energy supply is a key imperative for Ireland and the European Union. One possible option for enhancing security of supply, if it is deemed necessary, is commercial gas storage as a measure to mitigate potential security of supply disruptions.

12.14 Gas Network Ireland and EirGrid, with oversight by the Commission for the Regulation of Utilities (CRU) and DCCAE, are conducting a study into Ireland's resilience to a long term gas disruption, which includes the possible need for gas storage and LNG. This study will inform the formulation of future policy measures to maintain the resilience of Ireland's gas and electricity supply.

12.15 As set out above, gas storage installations and activities have potential adverse ecological impacts which must be identified, analysed, mitigated against as part of the forward planning and development management stages of marine planning.

13.0 Fisheries

Part 1: Key Evidence

Seafood Sector

13.1 As human activities in the marine area, fisheries and shipping have the longest standing spatial claims. Ireland's coastline, inshore and offshore waters contain some of the largest and most valuable sea fisheries resources in Europe. In 2017, the overall 2017 fishing opportunities (i.e. Total Allowable Catches (TACs) species) for stocks to which the Irish fleet has access to, were 1.3 million tonnes of fish, with an estimated landed value of €1.44 billion. Ireland's total share of these TAC's in 2017 amounted to 234,493 tonnes with a value of €226m. The most important stocks for Ireland by value include mackerel and *Nephrops* (prawns). With seafood landings to our main fishing ports amounting to €401m in 2017, our seafood industry is a key natural resource and an important contributor to the Irish economy, particularly in coastal areas. Last year the trade value of seafood exceeded €1billion for the first time.

Port	Value of Landings €M				Volume of Landings Tonnes			
	Irish	Non-Irish	Total	Share of Non-Irish	Irish	Non-Irish	Total	Share of Non-Irish
Killybegs	105	20	125	16%	149,800	42,400	192,200	22%
Castletownbere	31	77	108	72%	9,000	21,500	30,500	70%
Dingle	7	13	20	67%	4,700	3,500	8,200	42%
Dunmore East	15	1	16	5%	7,500	200	7,700	3%
Ros A Mhil	11	1	12	7%	2,600	100	2,700	4%
Howth	11	0.3	11.3	3%	4,100	100	4,200	2%
Kilmore Quay	11	0	11	0%	4,300	0	4,300	0%
Greencastle	9	0.4	9.4	4%	3,700	100	3,800	3%
Union Hall	8	1	9	13%	2,000	400	2,400	17%
Clogherhead	8	0	8	0%	1,500	0	1,500	0%
Other Ports	67	4	71	5%	54,800	1,700	56,500	3%
Total	283	118	401	29%	244,000	70,000	314,000	22%

Table 2: All Landings in Irish Ports by Irish and non-Irish Vessels 2017
(Source: BIM Business of Seafood 2017)

13.2 The fisheries sector provides an important source of economic activity, particularly in our remote coastal regions, with over 14,000 people employed either directly or indirectly, many of them working and living in rural coastal communities. The industry has also made a significant contribution to Ireland's social and cultural history.

13.3 The value of seafood landed and cultivated in Ireland in 2017 increased by 12% to €609m (including aquaculture), while the volume increased by 11% to 361,000 tonnes. This performance was largely attributable to a strong increase in the volume and price of Organic Salmon and an increase in pelagic species including Mackerel, Horse Mackerel and Blue Whiting landed into Irish ports.

13.4 DAFM owns and directly manages six Fishery Harbour Centres. The centres, located at Castletownbere, Dunmore East, Howth, Killybegs, Rossaveel and Dingle, are managed and operated in accordance with the provisions of the Fishery Harbour Centres Acts 1968 which requires the Minister to manage, control, operate and develop each of the Harbours. It also places specific responsibility on the Minister in relation to maintenance, repair, improvement, extension and modification of the harbours including buildings and road access.

13.5 There are two main categories of commercial fisheries activities. These are (1) inshore fisheries, (2) offshore fisheries.

Inshore Fisheries

13.6 While there is no consistent international definition of 'inshore fisheries' or 'small scale coastal fisheries' the EU rule-of-thumb applies to as vessels less than 12m in length using non-towed gear. In an Irish context, this measure excludes small trawlers and shellfish dredgers which are an important component of the inshore fleet. Inshore boats primarily operate within 6 nautical miles of the coast. The composition and regional dispersal of Ireland's inshore fisheries fleet is set out in the table below.

Vessel Size	Number	Region	No. vessels
<10m	1,398	North (Donegal)	300
10-12m	225	North West (Sligo, Mayo)	212
Total <12m	1,623	West (Galway, Clare)	322
Total Irish Fishing Fleet	1,991	South West (Kerry, Cork)	478
		South East (Wicklow, Wexford, Waterford)	190
		North East (Dublin, Louth, Meath)	121
		Total	1623

Table 3: Composition of the Inshore Fleet – April 2018 / Geographic Spread of <12m inshore vessels

13.7 There are currently a further 77 vessels of between 12-15m length which also fish in inshore waters. It is estimated that the inshore sector supports 2,500 – 3,000 jobs, many of these in rural areas with limited alternative employment opportunities.

13.8 The target stocks for inshore fisheries in Ireland are:

- Shellfish by pots (lobster, crab) or dredges (cockle, clam)
- Turbot or bait fish, some crawfish (by nets)
- Limited access to some quota stocks (e.g. mackerel and herring).

13.9 Some inshore fish stocks (e.g. whelk, cockle) are managed nationally, i.e. not part of the Common Fisheries Policy quota system. DAFM works closely with the Marine Institute and Bord Iascaigh Mhara (BIM) in this regard. [Ireland's Marine Atlas](#)²⁸ includes details of fishing activity in the inshore waters (up to 10 miles from the Irish coast).

13.10 Representatives from the inshore sector come together at a national level through the National Inshore Fisheries Forum (NIFF), a consultative forum representing interests of inshore fishermen and other inshore stakeholders which is supported by six Regional Inshore Fisheries Forums (RIFFs).

Offshore Fisheries

13.11 The main commercial offshore fish stocks are managed under the Common Fisheries Policy (CFP). The seas around Ireland are among the most productive and biologically sensitive in EU waters. Most of the fisheries resource within this area comes under the remit of the CFP. Ireland's total share of the Total Allowable Catches amounted to 234,493 tonnes with a value of €226m in 2017. These figures represent stocks in the Irish EEZ as well as other areas and international waters that the Irish fleet have access to.

Part 2: Issues for Delivery

General

13.12 The decision by the United Kingdom to withdraw from the European Union in March 2019 poses many challenges for the seafood sector. Future access to fishing grounds and quota allocation are potential issues, unique to fisheries. Any change to the status quo has the potential to unsettle the stability provided by the Common Fisheries Policy which has allowed the catching sector operate with a degree of certainty for almost forty years. Alongside these, are other challenges shared with the wider economy: how will Brexit impact future trade, our route to market, supply chains, and transport logistics. DAFM has discussed these issues with a wide cross section of stakeholders and the marine agencies to ensure that as the situation evolves, the seafood sector remains informed, advised, and positioned to respond to new scenarios.

Offshore Fisheries

13.13 Any activity that may impact on the fishing activity of other Member States will, under EU Regulation, be subject to the agreement of the relevant Member State(s) or will be required to be determined under the co-decision process of the EU Council and the EU Parliament on the basis of an EU Commission proposal.

²⁸ <https://www.marine.ie/Home/site-area/data-services/interactive-maps/irelands-marine-atlas>

Inshore

13.14 Maintaining a high standard of water quality in inshore areas remains critical to a thriving industry. Activities in other sectors such as agricultural runoff and discharge from water treatment facilities can impact on biodiversity, fish stocks and seafood safety. Regulations have been forthcoming in recognition of these threats and to aim to prevent negative impacts on local ecosystems. Standards are set by directives including the Shellfish Waters Directive (2006/113/EC), the Nitrates Directive (91/676/EEC) and the Urban Waste Water treatment directive (91/271/EEC).

Part 3: Issues for Other Sectors

13.15 The fisheries sector is very diverse and has a wide spatial reach. As such, it is a sector that has multiple interactions with many other marine activities or sectors. Examples include ports and harbours which form a key part of the value and supply chain, marine leisure and recreation which are often co-located with fishing activities, or shipping lanes which may pass through fishing grounds.

Inshore Fisheries

13.16 The access needs of inshore fisheries are varied due to the diverse nature of stocks which are fished, varying from year-round to seasonal to intermittent. Any developments in other sectors should be cognisant of the ongoing access requirements for these vessels.

13.17 While stock management/sustainability is a key ongoing issue which the industry is engaged with in terms of managing outtake from certain fisheries, any changes in behaviour/developments by other stakeholders which have capacity to impact on stocks must consider the potential impact on the optimum conditions for sustaining healthy fish stocks.

Part 4: Issues for Sustainability

13.18 Potential adverse impacts of fishing activities could include ecological disruption, stock depletion, marine litter or other marine pollution, and bycatch.

13.19 Some types of fishing can negatively affect both pelagic and seabed communities, particularly those that support species with low growth rates, soft substrates or cold water coral reefs, and some areas have been heavily impacted by fishing activity. There are also concerns about the level of by-catch of birds, sharks and marine mammals in certain fisheries.

13.20 However, there is a general recognition in the Irish fisheries sector that a more sustainable use of natural resources creates a more resilient seafood sector. Fish populations are generally improving since reform of the CFP and more sustainable management of fish populations with the setting of Maximum Sustainable Yield (MSY) for commercial species.

13.21 Over the past decade, Ireland's Seafood Development Agency, Bord Iascaigh Mhara (BIM) has undertaken a considerable amount of work to ensure a sustainable future for the country's fisheries, aquaculture and processing businesses.

Offshore Fisheries

13.22 Under Article 11 of the CFP Member States are empowered to adopt conservation measures in the waters under their jurisdiction in order to comply with their obligations under the Marine Strategy Framework Directive, the Birds Directive and the Habitats Directive, which do not affect fishing vessels of other Member States. Where any proposed measures will apply to a fishery in which another Member State has a direct management interest these measures must be agreed with that Member State. If this is not possible a full co-decision process, involving the Council and the European Parliament, would be required to introduce measures.

13.23 The Marine Strategy Framework Directive requires European Member States, including Ireland, to reach good environmental status (GES) in the marine environment by 2020. For commercial fish stocks this requires that populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.

Inshore Fisheries

13.24 As referenced previously, maintaining water quality is a pre-requisite for the ongoing protection of a diverse and thriving ecosystem.

13.25 There has been a dramatic escalation in the fishing of some stocks (e.g. razor clams) in recent years, while others are under long-term pressure. The aim is to manage fisheries in a way that is sustainable both economically and environmentally.

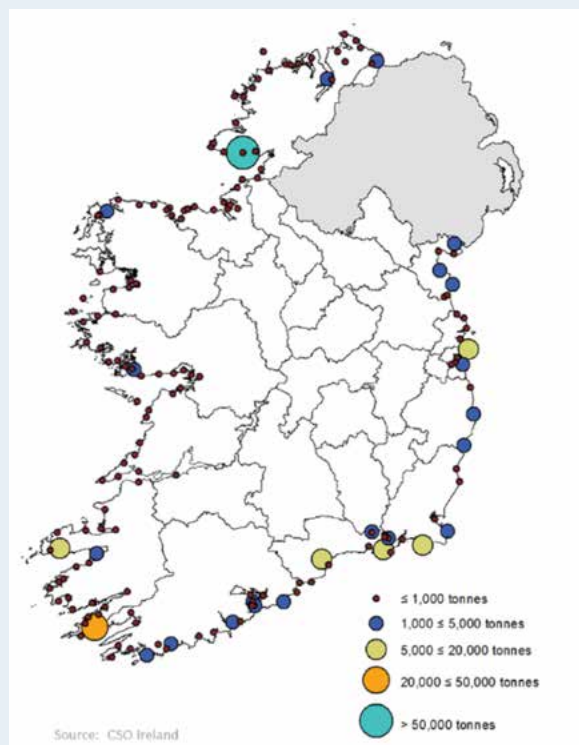
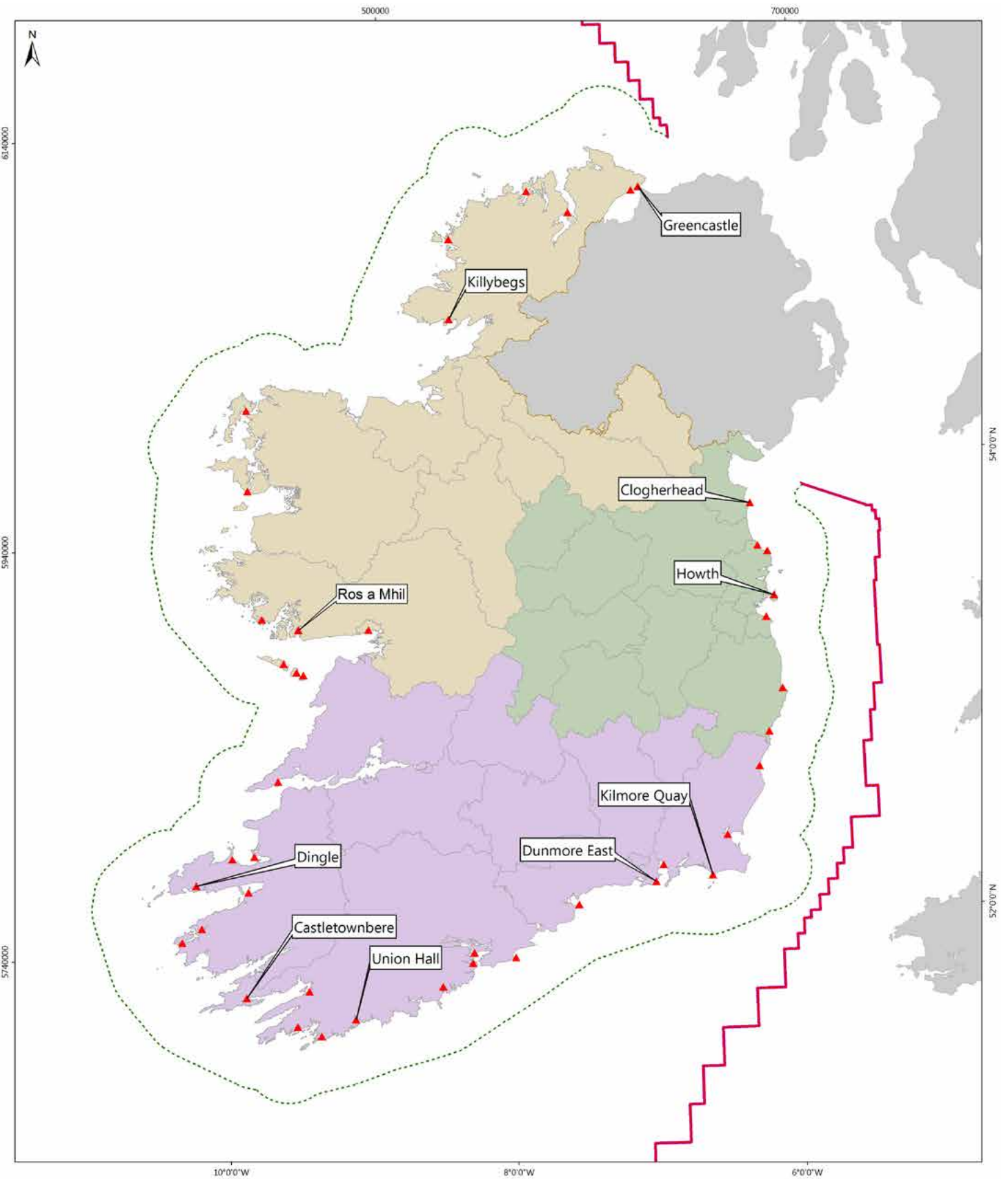
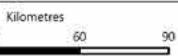


Figure 4: Locations of Irish Ports with All Landings 2016



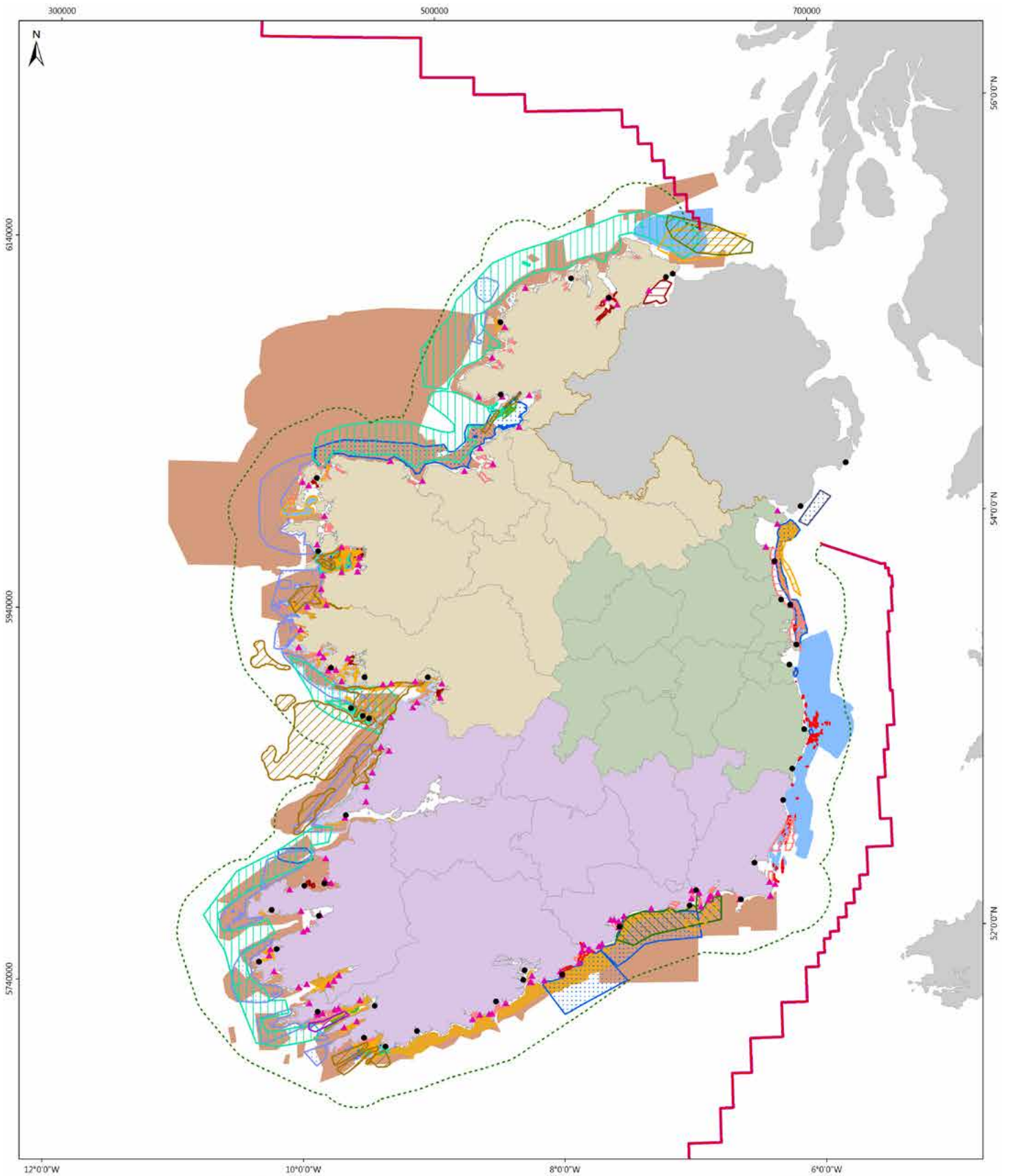
Fisheries Centres/Harbours



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- - - Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- ▲ Fishing Port





Commercial Fisheries - Inshore

Kilometres
0 15 30 60 90

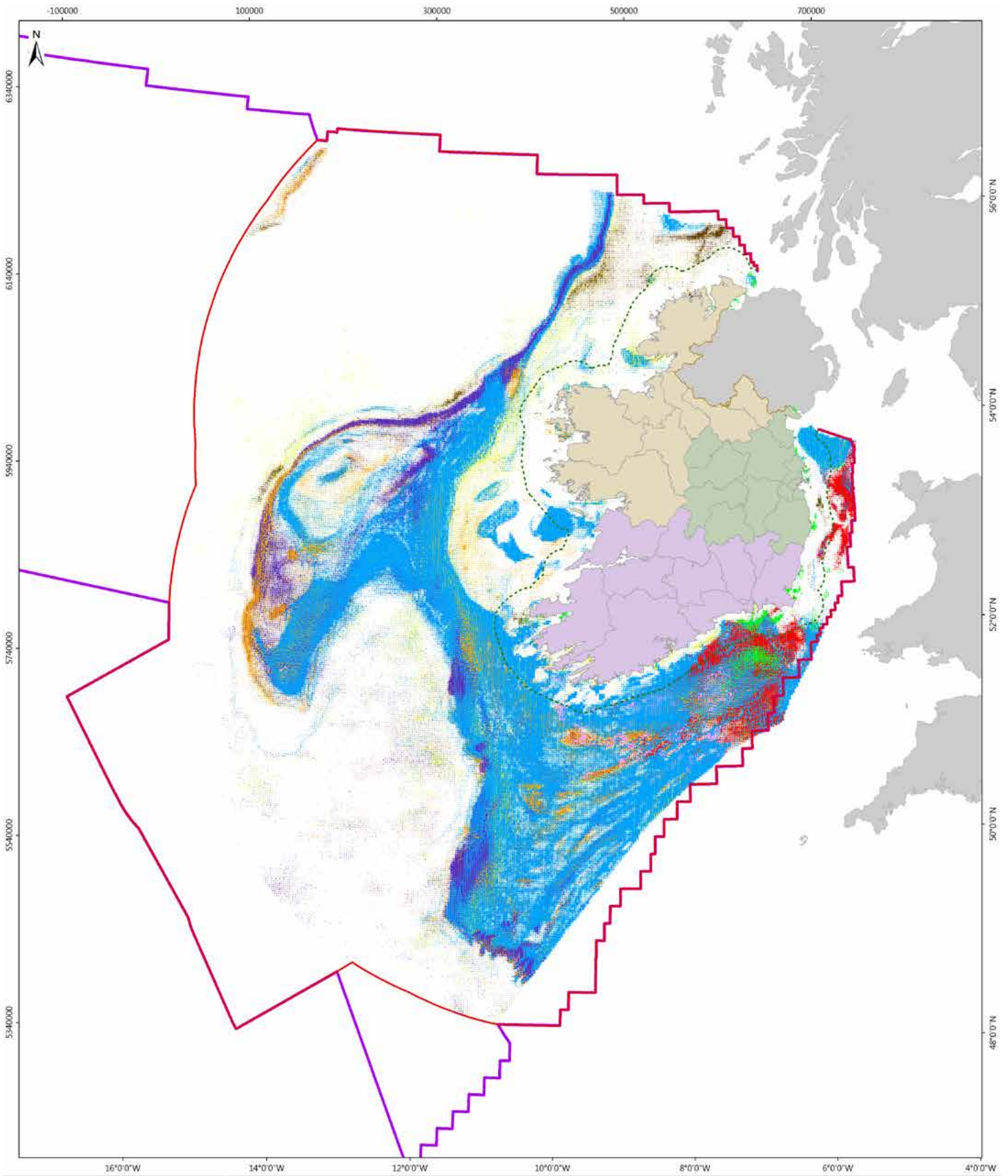


Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

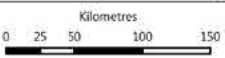
- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Fishing Port
- ▲ Periwinkle Harvesting Collecting

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> □ Bottom Trawl Fishing □ Mixed Demersal □ Nephrops □ Queen Scallop □ Dredge Fishing □ Clams, Cockles □ Mussels □ Native Oyster □ Scallop | <ul style="list-style-type: none"> □ Nets Fishing □ Bait □ Crayfish □ Pelagic □ Demersal □ Pot Fishing □ Crab and Lobster □ Nephrops □ Shrimp □ Whelk | <ul style="list-style-type: none"> □ Midwater Trawl Fishing □ Line Fishing |
|--|---|--|





Commercial Fisheries Offshore - Gear Type



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- | | |
|--|--|
| <ul style="list-style-type: none"> — Marine Spatial Plan Assessment Area - - - 12 nm Territorial Sea Limit — Northern Ireland Boundary — Currently Designated Continental Shelf Boundary Local Authority Area Eastern and Midland Regional Assembly Northern and Western Regional Assembly Southern Regional Assembly | <p>Fishing Gear (All Nationalities)</p> <ul style="list-style-type: none"> Beam trawls Bottom trawls Dredges Lines Nets Pelagic trawls Pots Seines Other |
|--|--|



14.0 Marine Aggregates

Part 1: Key Evidence

14.1 Marine aggregates are sedimentary sand or gravel materials located on the seabed. Extraction of marine aggregates typically involves dredging of the deposit to remove it from the seabed. Sands and gravels sourced from the seabed may be used in the construction of infrastructure such as buildings, roads and bridges.

14.2 To date all aggregate used commercially in the Irish market is extracted from terrestrial sources. To the limited extent that marine aggregate extraction has taken place it has been permitted only for beneficial purposes such as beach nourishment, coastal protection, reclamation and backfill. However, anticipated growth in construction activity and associated demand for aggregates may lead to a greater level of marine aggregates extraction in the future.

14.3 The [IMAGIN research study](#)²⁹ carried out jointly by the UCC Coastal and Marine Resources Centre and the Marine Institute in 2008 concluded that a number of areas with potential to support marine aggregate extraction exist in the Irish Sea and that marine aggregates can contribute to the sustainable management of demand and future use of aggregates in Ireland. In the area covered by the study the available resource was estimated to be 5 to 7 billion m³.

Part 2: Issues for Delivery

14.4 The IMAGIN project developed recommendations for a strategic policy framework for an administrative and regulatory process under which dredging for aggregates in the Irish Sea could be sustainably managed. The project recommended that:

- A clear national policy should be developed to promote and facilitate the sustainable development and use of Irish marine aggregates;
- A unified database of identified aggregate resources should be generated to quantify the resource and, where appropriate, to protect resources for extraction; and
- National policy and a statutory framework for the sector should be consistent with the principles of marine spatial planning.

Part 3: Issues for Other Sectors

14.5 The development of a strategic framework for marine aggregates extraction would involve consideration of how the sector would interact with other uses and activities. Identification of areas of resource potential would provide the basis for detailed assessment of the interaction with existing and planned activities in the areas concerned.

²⁹ Sutton G, O'Mahony C, McMahon T, Ó'Cinnéide M & Nixon E (2008). Policy Report - Issues and Recommendations for the Development and Regulation of Marine Aggregate Extraction in the Irish Sea. Marine Environment & Health Series, No. 32, 2008

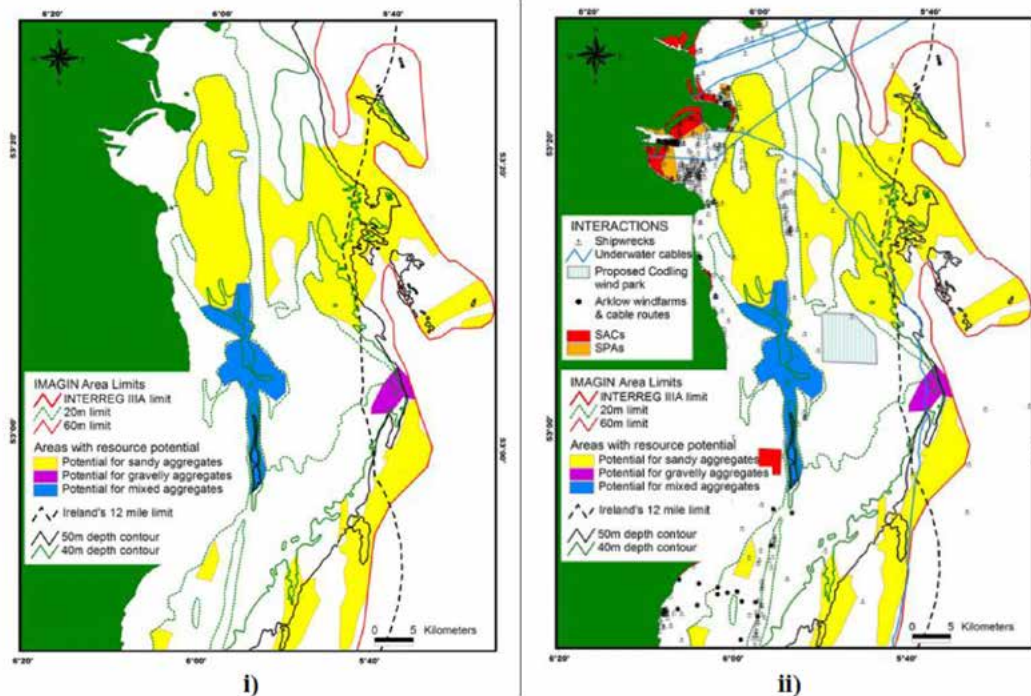


Figure 5: Sub-section of IMAGIN study area showing examples of: (i) identified areas of resource potential; and, (ii) identified areas of resource potential and interactions.

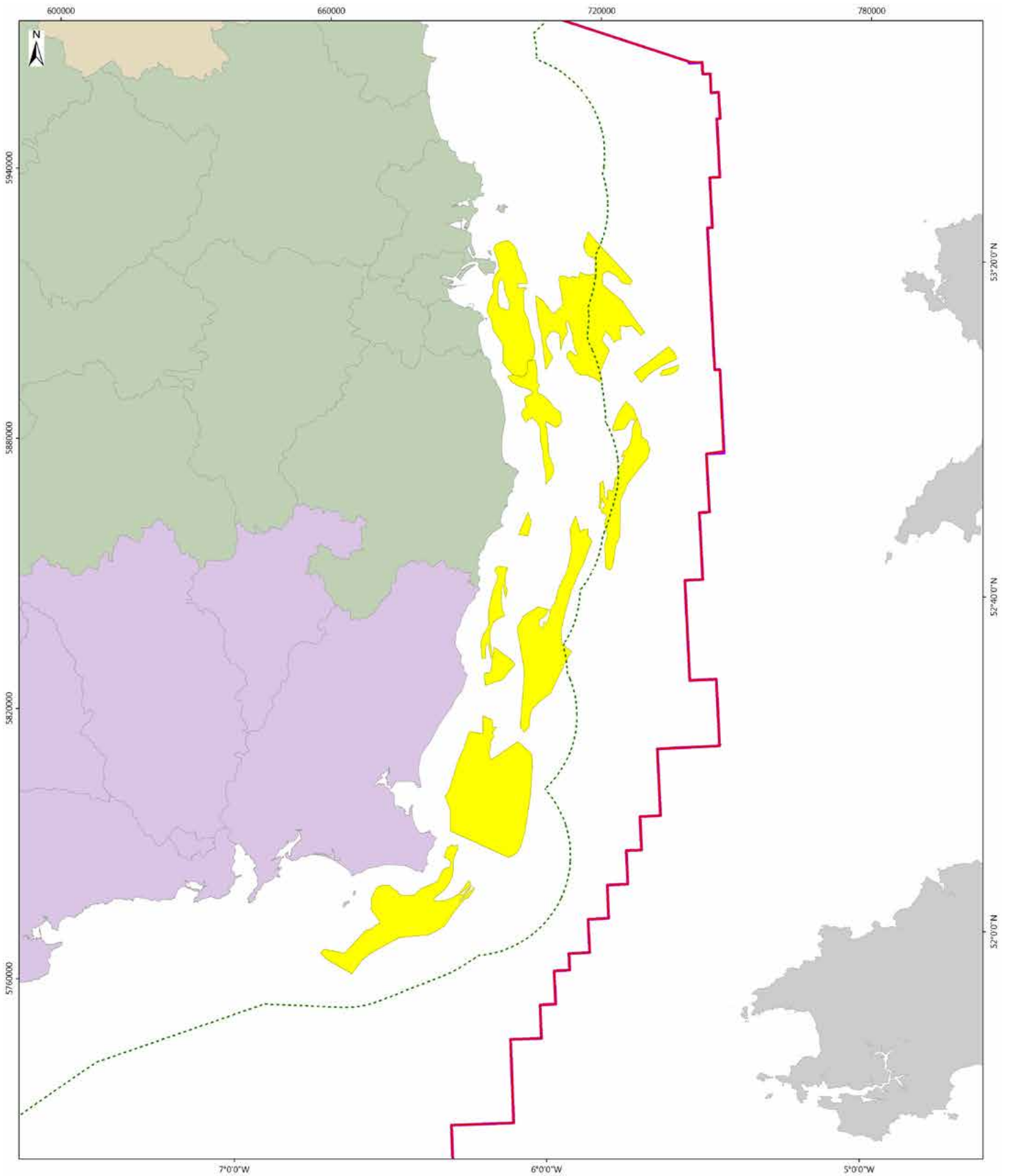
Part 4: Issues for Sustainability

14.6 The IMAGIN study concluded that the introduction of a marine aggregate supply option could provide significant benefits in terms of reduced environmental cost, compared to current land-based sources.

14.7 The study found that CO₂ emissions associated with extraction using marine dredging techniques are less than 50% of those associated with extraction from sand and gravel pits, and less than 15% of those associated with extraction from hard rock quarries. CO₂ emissions associated with the transport of marine aggregates are less than 15% of those associated with the transport of land sourced aggregates.

14.8 Based on the land/marine aggregate resource areas identified within the project and considering aggregate supply to the Dublin market, the equivalent volume of road transport associated with marine aggregates would be less than 25% of that arising from land-based aggregate supply options.

14.9 The environmental impacts associated with the extraction of marine aggregates would relate to the short-, medium- and long-term physical and ecological effects on the marine system. These may include impacts on sediment transport and coastal processes, benthic species and habitats, water quality, and commercial fisheries including spawning and nursery grounds. In evaluating the direct and cumulative impacts on the environment it would be essential that baseline data are available and a dedicated monitoring programme tailored to the spatial and temporal characteristics of the extraction site is put in place.



Aggregate Resource in the Irish Sea



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Local Authority Area
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Irish Sea Marine Aggregate Resource Area



15.0 Marine Environment

Part 1: Key Evidence

Marine Strategy Framework Directive (MSFD)

15.1 The Marine Strategy Framework Directive (MSFD) was adopted in 2008 (Directive 2008/56/EC). It establishes a framework within which EU Member States are obliged to develop marine strategies, the aim of which is to achieve or maintain good environmental status (GES) in the marine environment by the year 2020. It is a multi-phase, multi cycle process with the initial cycle concluding in 2020, after which Cycle II will commence.

15.2 Good environmental status (GES) is defined as ‘the environmental status of marine waters where these provide ecologically diverse and dynamic oceans and seas which are clean, healthy and productive within their intrinsic condition, and the use of the marine environment is at a level that is sustainable, thus safeguarding the potential for users and activities by current and future generations’.

Good Environmental Status

15.3 Good Environmental Status is determined by assessing our marine environment in accordance with a non-exhaustive set of criteria set out in Annex I of the Directive. These are commonly referred to as the MSFD Descriptors and are outlined in the table below:

Descriptor No.	Topic	MSFD characteristics of GES
1	Biological Diversity	Biological diversity is maintained. The quality and occurrence of habitats and the distribution and abundance of species are in line with prevailing physiographic, geographic and climatic conditions.
2	Non-indigenous Species	Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystems.
3	Commercial Fish & Shellfish	Populations of all commercially exploited fish and shellfish are within safe biological limits, exhibiting a population age and size distribution that is indicative of a healthy stock.
4	Food Webs	All elements of the marine food webs, to the extent that they are known, occur at normal abundance and diversity and levels capable of ensuring the long-term abundance of the species and the retention of their full reproductive capacity.
5	Eutrophication	Human-induced eutrophication is minimised, especially adverse effects thereof, such as losses in biodiversity, ecosystem degradation, harmful algae blooms and oxygen deficiency in bottom waters.

Descriptor No.	Topic	MSFD characteristics of GES
6	Sea-floor Integrity	Sea-floor integrity is at a level that ensures that the structure and functions of the ecosystems are safeguarded and benthic ecosystems, in particular, are not adversely affected.
7	Hydrographical Conditions	Permanent alteration of hydrographical conditions does not adversely affect marine ecosystems.
8	Contaminants	Concentrations of contaminants are at levels not giving rise to pollution effects.
9	Contaminants in Seafood	Contaminants in fish and other seafood for human consumption do not exceed levels established by Community legislation or other relevant standards.
10	Marine Litter	Properties and quantities of marine litter do not cause harm to the coastal and marine environment.
11	Energy (incl. Underwater Noise)	Introduction of energy, including underwater noise, is at levels that do not adversely affect the marine environment.

Table 4: MSFD Descriptors Initial Assessment, Monitoring Programme and Programme of Measures

15.4 MSFD requires member states to undertake an Initial Assessment (IA) of their marine waters to determine whether or not they are in GES. This establishes a set of environmental targets and indicators for our marine area. Ireland's [Initial Assessment](#)³⁰ was submitted to the European Commission in April 2013. We are required to revisit our initial assessment for the next implementation phase of MSFD.

15.5 In April 2015 Ireland submitted its formal MSFD [Monitoring Programme](#)³¹ (MP) to the European Commission, formally establishing targets and indicators relating to the achievement of GES.

15.6 Ireland has developed a [Programme of Measures](#)³² (POMs) to address factors that impact upon the achievement of GES. The development of the draft POMs required an interdepartmental and multi-agency approach which was managed by DHPLG. This was submitted to the European Commission in July 2016.

³⁰ <https://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/Environment/Water/FileDownload%2C34366%2Cen.pdf>

³¹ <https://www.housing.gov.ie/sites/default/files/migrated-files/en/Publications/Environment/Water/FileDownload%2C43582%2Cen.pdf>

³² https://www.housing.gov.ie/sites/default/files/public-consultation/files/outcome/msfd_poms_summary_report.pdf

15.7 Provision was made for public and stakeholder participation in the development of each of the Initial Assessment, Monitoring Programme and Programme of Measures. Submissions received were considered and informed the finalised versions submitted to the European Commission. Mechanisms are being established to ensure on-going consultation and feedback loop for key stakeholders and eNGOs.

The OSPAR Convention

15.8 As the marine environment is transboundary in nature, with species and currents freely crossing jurisdictions, it requires that Member States work closely together and with the Regional Sea Conventions such as the OSPAR Convention to achieve Good Environmental Status.

15.9 The OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic (www.ospar.org) unified and updated the 1972 Oslo and 1974 Paris Conventions. It was revised and enhanced in 1992. The Contracting Parties are the governments of Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, together with the EU.

15.10 The main work areas covered by the Convention are:

- Hazardous Substances and Eutrophication;
- Offshore Industry;
- Radioactive Substances;
- Biodiversity and Ecosystems;
- Environmental Impacts of Human Activity (including marine litter, noise and energy);
- Cross Cutting Issues.

Responsibility for MSFD and OSPAR Implementation

15.11 The DHPLG has the lead role in Ireland for implementation of MSFD and the OSPAR Convention. Due to the cross-cutting nature of marine issues, a number of other Departments and agencies are intrinsically involved in the process, including DAFM, DTTAS, DCHG, the DCCA, the Marine Institute and the Environmental Protection Agency (EPA) as well as a wide variety of other agencies and stakeholders.

Marine Environmental Jurisdiction

15.12 The MSFD and the OSPAR Convention apply to the area of marine waters over which a Member State exercises jurisdictional rights in accordance with the UNCLOS. Marine waters, as defined by the MSFD, also include the seabed and subsoil under the water column.

European Communities (Environmental Liability)(Amendment) Regulations 2015

15.13 These [regulations](#)³³ (S.I. No. 293 of 2015) extend the scope of existing environmental liability regulations to cover liability for environmental damage within the area covered by MSFD.

³³ <http://www.irishstatutebook.ie/eli/2015/si/293/made/en/pdf>

Marine Litter

15.14 Marine litter is defined³⁴ as “any solid material which has been deliberately discarded, or unintentionally lost on beaches and on shores or at sea, including materials transported into the marine environment from land by rivers, draining or sewage systems or winds. It includes any persistent, manufactured or processed solid material.”

15.15 Litter in plastic form is one of the most challenging environmental problems of our time. It can be found in all aspects of our environment, including lakes, rivers, beaches and throughout our oceans. Due to its buoyancy, it can easily be washed down rivers, blown offshore and dispersed by currents. It can also be dumped or lost directly from vessels at sea. As it does not biodegrade it persists in the environment in the long-term and can break down into smaller particles through erosion.

15.16 Plastic litter in our oceans ranges in size from large objects such as fishing nets or shipping containers to micro-particles (smaller than 5mm in diameter) and nano-particles (smaller than 0.05mm in diameter).

15.17 While it is considered that most marine microplastic litter is created through the erosion of larger pieces of plastic, microplastics are also entering the marine environment in other forms such as micro-fibres from artificial fabrics worn off clothes by washing; or lost nurdles (very small pellets of plastic used as raw material in product manufacture).

Microbeads

15.18 A certain amount of marine microplastic litter is caused by plastic microbeads used in cosmetics, cleansing products, abrasive scouring agents and detergents. Microbeads cannot easily be removed by treatment of wastewater and therefore enter the marine environment via wastewater discharges or land spreading of sludge from wastewater treatment plants.

Part 2: Issues for Delivery

Marine Strategy Framework Directive (MSFD)

15.19 The aim of the MSFD is to protect Europe’s marine waters by applying **an ecosystem-based approach to the management of all human activities that are either in or that affect the maritime area**. The intention is to ensure that the collective pressure of such activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while enabling the sustainable use of the marine environment for present and future generations.

15.20 Thus MSFD provides the benchmark criteria to measure the environmental impact of activities in the marine environment. MSFD incorporates established targets and environmental standards from a range of sources, including:

³⁴ <https://www.ospar.org/work-areas/eiha/marine-litter>

- other Directives (such as the Water Framework Directive);
- international agreements such as the UN Convention on Biodiversity, or the UN Sustainable Development Goals (e.g. marine protected area targets); and
- the Regional Seas Conventions, such as OSPAR (e.g. setting safe environmental levels to be attained regarding contaminants, radioactive materials etc.)

Marine Protected Areas (MPAs)

15.21 Article 13.4 of the MSFD requires that a coherent and representative network of spatial protection measures including marine protected areas (MPAs) be put in place where appropriate in order to achieve or maintain the good environmental status of our national and shared maritime area.

15.22 MPAs may take a wide variety of forms including the incorporation of existing SPA and SACs under the Birds or Habitats Directives where measures are put in place to restrict certain human activities to protect vulnerable species and habitats. They will also incorporate MPAs established under Article 11 of the CFP which may designate areas where certain types of fishing or all fishing is prohibited or limited to protect commercial fish stocks.

15.23 MPAs may also consist of new types of protected areas or may cover species or ecosystems not identified under the Birds or Habitats Directive but to which MSFD applies. In such MPAs some or all human activities may be restricted or limited some or all of the time.

15.24 As well as providing measures to protect the environment, MPAs may also incorporate measures to protect localised social, cultural or economic activities that are deemed important (such as traditional fishing, aquaculture or seaweed harvesting methods).

15.25 Whilst MPAs can be very diverse in form and purpose a feature all have in common is that they are spatial protection measures.

15.26 Legislation is being prepared to provide the Minister for Housing, Planning and Local Government with the powers to designate different types of MPA in identified locations and to put measures in place to protect MPAs, including offences and penalties.

15.27 The Minister will shortly commence a parallel process to formally identify what additional MPAs are required to protect Ireland's marine ecosystems and environment. It is anticipated that this will be an iterative process taking into account changing circumstances.

Marine Litter

15.28 The [European Strategy for Plastics in a Circular Economy](http://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy-brochure.pdf)³⁵ lays the foundation for a new plastics economy, where the design and production of plastics and plastic products fully respect reuse, repair and recycling needs, and aims to develop and promote more sustainable materials. The European Commission has begun preparatory work on a legislative initiative on single-use plastics.

³⁵ <http://ec.europa.eu/environment/circular-economy/pdf/plastics-strategy-brochure.pdf>

15.29 A number of measures proposed under the strategy target causes of marine litter specific to the marine sector:

- To reduce discharges of waste by ships, the Commission is presenting a legislative proposal on port reception facilities involving measures to ensure that waste generated on ships or gathered at sea is delivered on land and adequately managed;
- The Commission intends to develop targeted measures for reducing the loss or abandonment of fishing gear at sea with options to be examined including deposit schemes, Extended Producers Responsibility schemes and recycling targets;
- The Commission will also further study the contribution of aquaculture to marine litter and examine a range of measures to minimise plastic loss from aquaculture.

15.30 The [OSPAR Regional Action Plan](#)³⁶ to reduce marine litter is also developing measures designed to complement EU measures to reduce marine litter. Ireland co-leads a number of these actions.

Microbeads Legislation

15.31 At EU level Ireland has held a formal position since 2015 that an EU-wide prohibition on microbeads would be the most effective and equitable approach in order establish a level playing pitch across all Member States. However, in anticipation of action at EU level, and in common with a number of other Member States, the Government intends to introduce legislation to prohibit the manufacture, sale, exposure for sale, supply, import and export of products containing plastic microbeads that are likely to be rinsed into wastewater systems. Ireland remains of the view that an EU-wide ban would be more effective and continues to support the introduction of similar legislation at an EU level at the earliest opportunity.

Part 3: Issues for Other Sectors

Marine Strategy Framework Directive (MSFD)

15.32 MSFD is relevant to all users of the marine environment as well as those engaged in on land activities that may have an impact on the marine environment.

Marine Litter

15.33 In addition to harming the environment, marine litter causes socio-economic damage to sectors such as tourism, fisheries, and shipping.

15.34 Microplastics ingested by marine life may ultimately enter the food chain and may affect consumer confidence in seafood.

³⁶ <https://www.ospar.org/work-areas/eiha/marine-litter/regional-action-plan>



MSFD requires that a coherent and representative network of spatial protection measures including marine protected areas (MPAs) be put in place where appropriate in order to achieve or maintain the good environmental status of our national and shared maritime area.

15.35 All maritime activity should be undertaken in such a manner as to reduce the likelihood of marine litter generation. Waste management, prevention of loss of items into the marine environment, reuse of materials and increased recyclability are required as key considerations of any maritime activity.

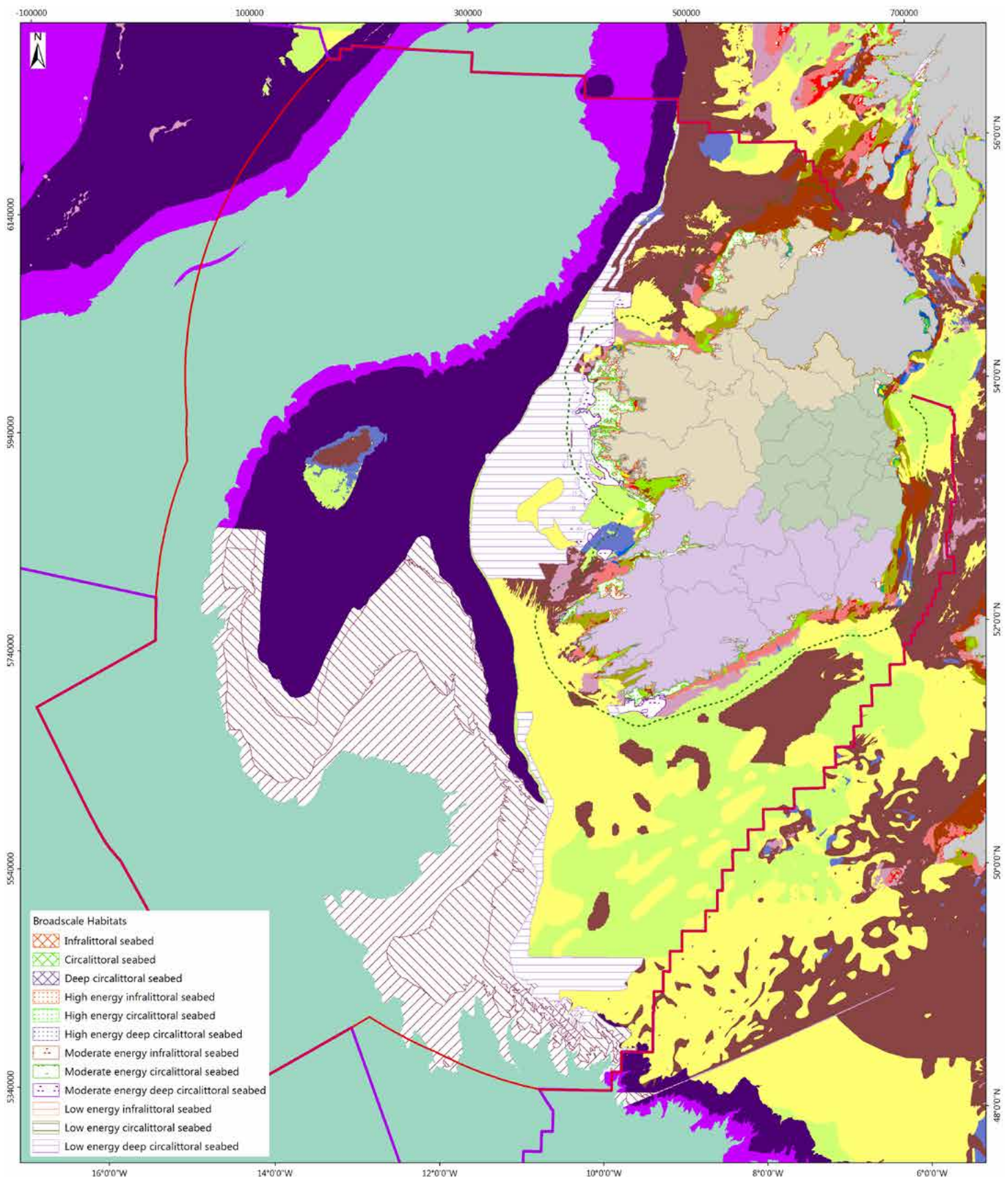
Part 4: Issues for Sustainability

Marine Strategy Framework Directive (MSFD)

15.36 MSFD sets the benchmarks and criteria by which sustainability of maritime activities may be determined.

Marine Litter

15.37 The extent of the marine litter problem and the harm it causes to the environment has yet to be fully established and is subject to ongoing research, although the scale of the problem is clear. There is increasing evidence of harm to marine ecosystems with negative impacts on marine fauna and potentially human health.



Broadscale Habitats

[Pattern]	Infralittoral seabed
[Pattern]	Circalittoral seabed
[Pattern]	Deep circalittoral seabed
[Pattern]	High energy infralittoral seabed
[Pattern]	High energy circalittoral seabed
[Pattern]	High energy deep circalittoral seabed
[Pattern]	Moderate energy infralittoral seabed
[Pattern]	Moderate energy circalittoral seabed
[Pattern]	Moderate energy deep circalittoral seabed
[Pattern]	Low energy infralittoral seabed
[Pattern]	Low energy circalittoral seabed
[Pattern]	Low energy deep circalittoral seabed

Benthic Habitats

Kilometres
0 25 50 100 150

Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

[Red line]	Marine Spatial Plan Assessment Area
[Dashed line]	12 nm Territorial Sea Limit
[Yellow line]	Northern Ireland Boundary
[Purple line]	Currently Designated Continental Shelf Boundary
[Green box]	Eastern and Midland Regional Assembly
[Orange box]	Northern and Western Regional Assembly
[Purple box]	Southern Regional Assembly
[White box]	Local Authority Area

Broadscale Habitats

[Light blue]	Abyssal
[Brown]	Circalittoral coarse sediment
[Blue]	Circalittoral mixed sediment
[Green]	Circalittoral mud
[Pink]	Circalittoral rock and biogenic reef
[Olive]	Circalittoral sand
[Dark blue]	Infralittoral coarse sediment
[Teal]	Infralittoral mixed sediment
[Dark green]	Infralittoral mud
[Red]	Infralittoral rock and biogenic reef
[Yellow]	Infralittoral sand

[Pink]	Lower bathyal rock and biogenic reef
[Purple]	Lower bathyal sediment
[Hatched]	Lower bathyal sediment or Lower bathyal rock and biogenic reef
[Brown]	Offshore circalittoral coarse sediment
[Blue]	Offshore circalittoral mixed sediment
[Green]	Offshore circalittoral mud
[Pink]	Offshore circalittoral rock and biogenic reef
[Olive]	Offshore circalittoral sand
[Purple]	Upper bathyal rock and biogenic reef
[Dark purple]	Upper bathyal sediment
[Hatched]	Upper bathyal sediment or Upper bathyal rock and biogenic reef

16.0 Nature Conservation

Part 1: Key Evidence

16.1 National Parks and Wildlife Service (NPWS) of the Department of Culture, Heritage and the Gaeltacht is responsible for the conservation and protection of natural habitats and species and the protection of biological diversity in Ireland; it is also responsible for providing nature conservation observations to Licensing Authorities in that regard.

16.2 Ireland's marine waters (offshore, inshore and coastline) are home to a rich and diverse range of species and habitats. Warm southern waters mix with cold northern waters, resulting in high levels of productivity and a food-rich environment. These seas are home to a diverse range of animals and plants, including plankton, cold water corals, fish, seabirds, dolphins and whales.

16.3 Our marine territory contains a rich variety of physical habitats and associated species, ranging from shallow inshore reefs and sandbanks to canyons, seamounts, troughs and coldwater coral reefs in deeper waters.

16.4 The seas around Ireland are used by roughly 60 species of resident and visiting birds of which 24 are considered "seabirds" (e.g. terns, puffins, guillemots, sea gulls and gannets) while the remainder include waders and sea ducks. Over 500,000 pairs of seabirds breed annually around the island of Ireland.

16.5 Our marine waters support over 400 fish and cephalopod (e.g. octopuses, squid, and cuttlefish) species and contain some very important spawning and nursery areas for commercial fish species. The latter are important components of marine ecosystems in their own right as well as being a very valuable fishing resource.

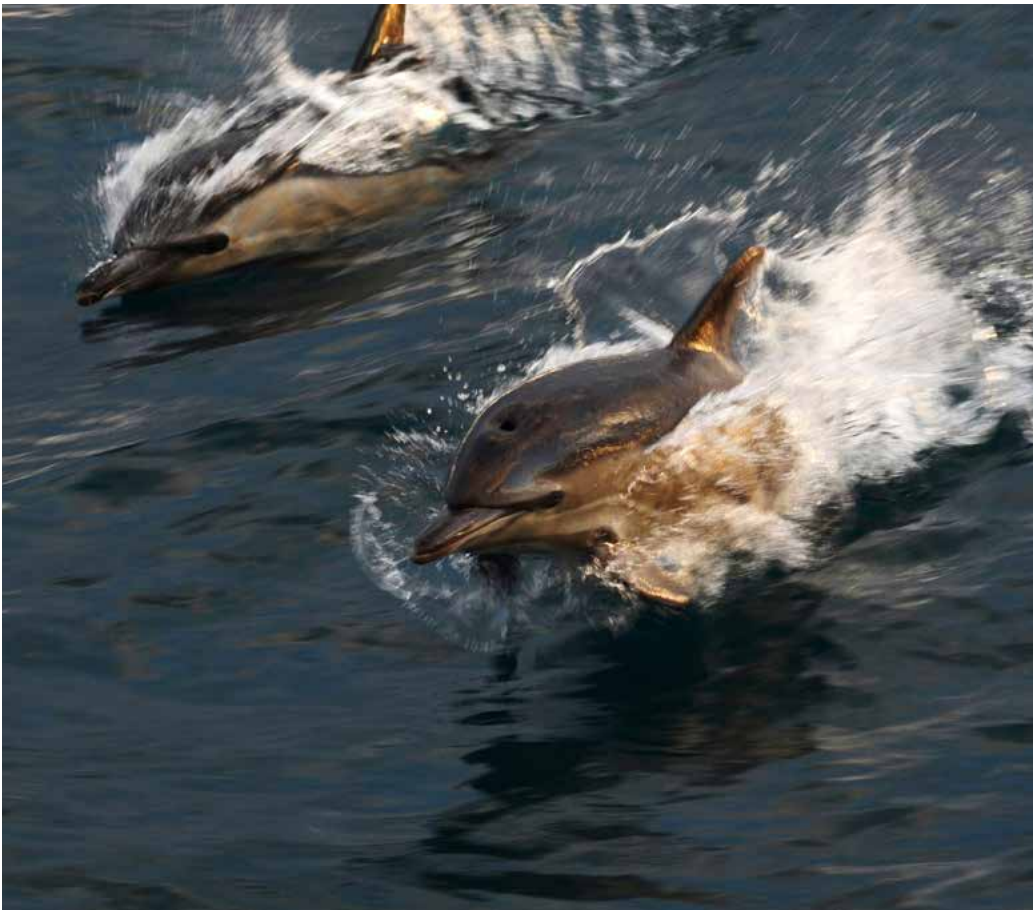
16.6 Ireland's marine territory also supports 18 species of resident or regularly-visiting whales (e.g. fin, humpback and minke whales) and dolphins (e.g. common, bottlenose, striped and white-sided) and sustains large numbers of basking shark and small numbers of leatherback turtles.

16.7 Ireland has a network of [protected marine sites](https://www.npws.ie/marine)³⁷, designated under the European Nature Directives (i.e. the Habitats and Birds Directives. See <https://www.npws.ie/marine> for further details). Lough Hyne, Co. Cork is the one Marine Nature Reserve designated under the Wildlife Acts. The directives require that habitats and species listed in them are maintained, or if necessary restored, to favourable conservation status.

16.8 Under the Habitats Directive, EU Member States must designate SACs for habitats listed in Annex I and species listed in Annex II of the directive. Seven [marine habitats types](https://www.npws.ie/marine/marine-habitats)³⁸ require SACs to be designated: sandbanks, sea caves, estuaries, tidal mudflats, large shallow inlets and bays, reefs (both rock and biogenic reefs) and submarine structures made by leaking gases. Coastal habitats that are transitional from land to sea include saltmarshes and lagoons.

³⁷ <https://www.npws.ie/marine>

³⁸ <https://www.npws.ie/marine/marine-habitats>



Ireland's marine territory also supports 18 species of resident or regularly-visiting whales and dolphins and sustains large numbers of basking shark and small numbers of leatherback turtles

16.9 Four entirely [marine species](#)³⁹ require SAC designation: harbour porpoise, bottle-nosed dolphin, grey seal and harbour (common) seal. Other partly marine species such as otter may also be listed for marine sites.

16.10 One or more of the above listed habitats or species are included as qualifying interests in 159 SACs. These are mostly inshore but a small number of reef sites lie far offshore. The total area of the marine SAC network is 10,420km².

16.11 In addition to the marine mammals listed on Annex II of the Habitats Directive, there are further 22 cetacean species and the leatherback turtle listed on Annex IV. These species require strict protection and, like species on Annex II, require monitoring.

16.12 Ireland has 89 [Special Protection Areas](#)⁴⁰ (SPAs) with a marine element designated under the Birds Directive. The marine area involved is 1,593km². Many of these encompass cliffs and islands and adjacent waters that support breeding seabirds. Others comprise bays and estuaries that host important populations of wintering waterbirds.

16.13 Ireland has yet to conclude an assessment of bird data from offshore waters to determine if SPAs are required there.

³⁹ <https://www.npws.ie/marine/marine-species>

⁴⁰ <https://www.npws.ie/protected-sites/spa>

Part 2: Issues for Delivery

16.14 Evidence from monitoring of natural habitats and species in Ireland's marine environment indicates that many habitats are not in good condition. Improving and protecting these is a challenge to all users of the sea.

16.15 Like all Member States, Ireland reports every six years to the EU on the conservation status of the habitats and species listed in the Nature Directives and is due to report again in 2019. In the last report in 2013, the only marine habitats to be assessed as being in 'favourable' conservation status were sandbanks and sea caves. Estuaries, tidal mudflats, large shallow inlets and bays were assessed as being in 'inadequate' status. Reefs (in particular deepwater reefs) were in 'bad' status. Ireland's latest reports to the European Commission on the [conservation status of habitats and species protected under the Habitats Directive](#)⁴¹ and the [status and trends of bird species protected under the Birds Directive](#)⁴² were published in 2014.

16.16 In general, marine mammal species were reported as being in favourable status although for some cetaceans, their status was reported as unknown.

16.17 Ireland's [National Biodiversity Action Plan 2017-2021](#)⁴³ has as one of its seven objectives to "Conserve and restore biodiversity and ecosystem services in the marine environment". Much of this is foreseen to be achieved through the implementation of existing Directives and legislation. The Plan notes that pressures from human activities on Ireland's coastal and marine biodiversity and ecosystem services arise from a growing range of sources including nutrient and chemical discharge from human activities (for example from industry, agriculture, municipal wastewater) and through direct physical disturbance e.g. shipping, recreation and aquaculture; and habitat degradation from pollution, litter, artificial noise and light.

16.18 Some types of fishing can negatively affect both pelagic and seabed communities, particularly those that support species with low growth rates, soft substrates or cold water coral reefs, and some areas have been heavily impacted by fishing activity. There are also concerns about the level of by-catch of birds, sharks and marine mammals in certain fisheries.

16.19 Fish populations are generally improving since reform of the CFP and more sustainable management of fish populations with the setting of Maximum Sustainable Yield (MSY) for commercial species.

16.20 Climate change and ocean acidification present considerable threats to the marine environment and may modify effects of other pressures and facilitate further establishment and spread of invasive species.

⁴¹ <https://www.npws.ie/article-17-reports-0>

⁴² <https://www.npws.ie/status-and-trends-ireland%E2%80%99s-bird-species-%E2%80%93-article-12-reporting>

⁴³ <https://www.npws.ie/sites/default/files/publications/pdf/National%20Biodiversity%20Action%20Plan%20English.pdf>

16.21 In 2017 a first [Red List of Cartilaginous Fish](#)⁴⁴ (sharks, skates, rays and chimaeras), showing risk of extinction, was published for Irish waters. Of the 58 species assessed, 6 (10.3%) were reported to be Critically Endangered: Portuguese dogfish; common (blue) skate; flapper skate; porbeagle shark; white skate and angel shark. A further 5 species (8.6%) were assessed as Endangered: leafscale gulper shark; basking shark; common stingray; undulate skate and spurdog.

Part 3: Issues for Other Sectors

16.22 The Habitats Directive places strict legal obligations on EU Member States to ensure the protection, conservation and, if necessary, restoration of the habitats and species listed in the nature directives and particularly of SACs and SPAs. Article 6.3 of the Directive obliges member states to undertake an AA for any plan or project that could have a significant effect on these sites. The outcomes of such AAs fundamentally affect the decisions that may lawfully be made by competent national authorities in relation to the approval of plans or projects. In the marine environment this includes decision-making in relation to large infrastructure projects such as offshore wind turbines and port and harbour developments, as well as licensing activities such as aquaculture and wastewater discharge.

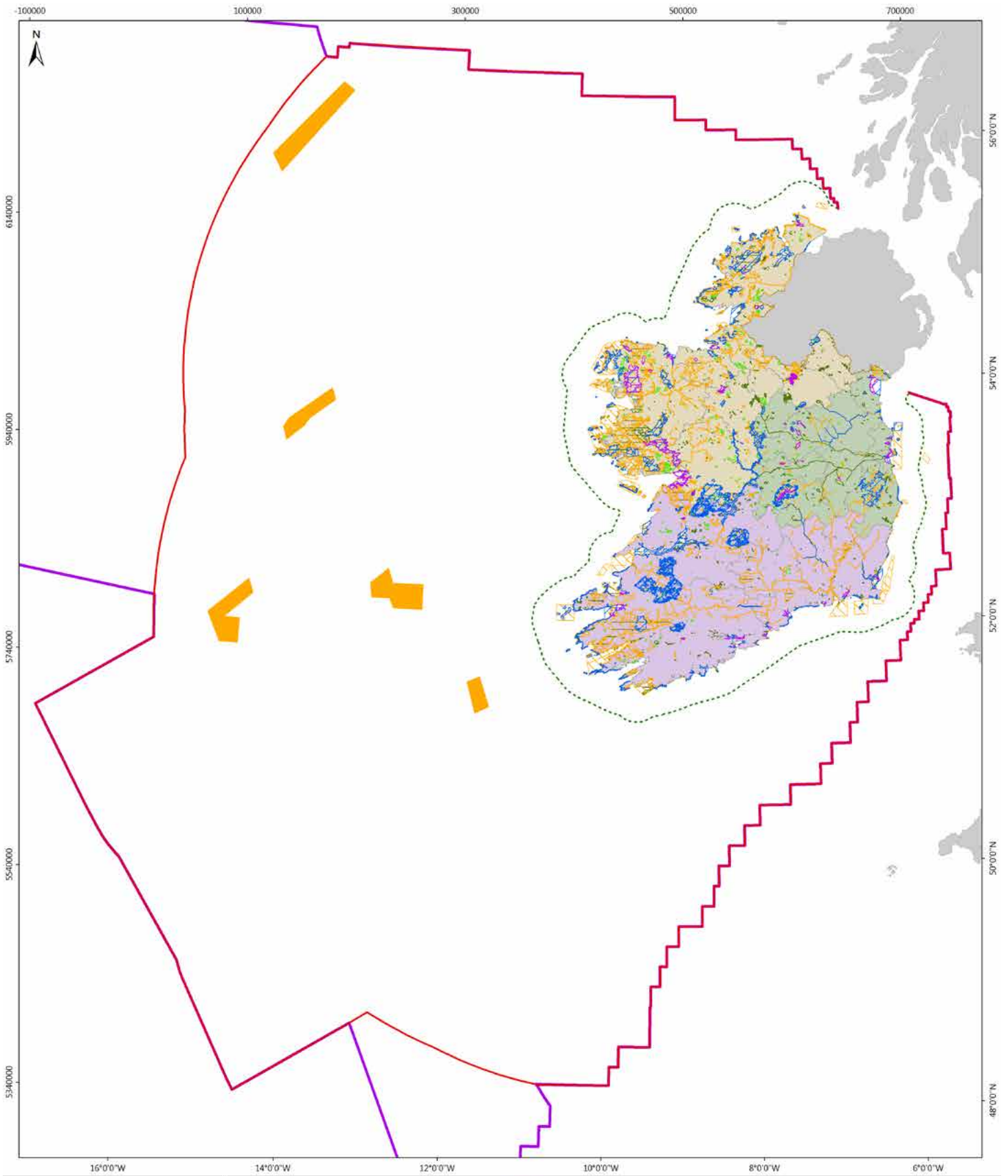
16.23 DCHG is a statutory consultee in relation to aquaculture licence applications and other development applications that might affect designated sites.

Part 4: Issues for Sustainability

16.24 In general, the protection and restoration of natural habitats in the marine and coastal environments provide multiple tangible benefits including increased resilience to coastal flooding, clean water, nursery grounds for fish stock and attractive places for recreation and leisure activities. However, the increased obligations imposed by the nature directives are sometimes perceived as being barriers to development and growth. An effective marine spatial plan should deliver a cohesive approach to marine and coastal management with protection of biodiversity as an integral part.

16.25 The descriptors, targets and programme of measures established for the achievement of GES under the Marine Strategy Framework Directive are also relevant to nature conservation and will support the objectives of other environmental directives. Development and activities carried out in the marine environment should support the achievement or maintenance of GES in Ireland's marine waters.

⁴⁴ <https://www.npws.ie/sites/default/files/publications/pdf/Red%20List%2011%20Sharks%20et%20al.pdf>



Designated Sites

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- ▨ Eastern and Midland Regional Assembly
- ▨ Northern and Western Regional Assembly
- ▨ Southern Regional Assembly
- Local Authority Area
- ▨ Ramsar Site
- ▨ SPA
- ▨ SAC
- ▨ Offshore SAC
- ▨ NHA
- ▨ pNHA

Kilometres

0 25 50 100 150



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator



17.0 Ports, Harbours and Shipping

Part 1: Key Evidence

17.1 As an island nation, ports play a crucial role in facilitating Irish economic growth and prosperity and the Competition and Consumer Protection Commission has estimated that the ports handle 84% of Ireland's merchandise trade in volume and 62% in value terms.

17.2 The [National Ports Policy](#)⁴⁵, published in March 2013, provides the framework for the provision of port services. The policy contains a number of legislative and non-legislative measures which are designed not just to address the issues facing the sector today but also to equip all State commercial port companies with governance structures appropriate to their particular circumstances, role and function.

17.3 National Ports Policy (NPP) categorises the State commercial ports sector into –

- Ports of National Significance Tier 1 (Dublin, Cork and Shannon Foynes);
- Ports of National Significance Tier 2 (Rosslare and Waterford);
- Ports of Regional Significance (Dún Laoghaire, Galway, New Ross, Drogheda under the control of Louth County Council, and Wicklow now part of Wicklow County Council).

17.4 The Harbours Act 1996 to 2015 provides the necessary primary legislative framework for the operation of Irish Ports.

17.5 The ports engage in long term planning and produce a Master or Strategic Plan, usually spanning a 40 year period. These plans identify the infrastructure required in the port to meet not only their own future commercial needs but that of the economy as a whole.

17.6 The Ports of National Significance are our key international maritime gateways, handling approximately 90% of all tonnage, and are of significant importance to our national competitiveness. All three have ambitious development masterplans outlining their future infrastructure development over the next 30 to 40 years which recognises the need to provide sufficient capacity. The successful progression of these development plans will prepare the ports for increases in ship sizes and the changing operational preferences of the providers of shipping services. They will also provide the ability to cater for increases in the number of ship arrivals each day and greatly enhance port capacity in Ireland to meet the future trading needs of the economy.

Category of goods	000 tonnes		
	2016	2017	change
Liquid bulk	11,274	12,211	+8.3%
Dry bulk	15,937	16,805	+5.4%
Lift-on/lift-off	7,230	7,346	+1.6%
Roll-on/roll-off	14,884	15,497	+4.2%
Break bulk & other goods	1,387	1,486	+7.2%
Total	50,712	53,346	+5.2%

Table 5: Tonnage of Goods Handled in Irish Ports 2016-2017
(Source: CSO Ireland)

⁴⁵ <http://www.dttas.ie/sites/default/files/node/add/content-publication/National%20Ports%20Policy%202013.PDF>

17.7 Irish ports handled 53.3 million tonnes of goods in 2017, an increase of 5.2% over the previous year. The number of vessels arriving annually in Irish ports decreased marginally (-0.6%) to 12,829 in 2017, while the gross tonnage of these vessels rose by 1.7% to 243.0 million tonnes. The routes between Dublin and three UK ports – Holyhead, Liverpool and Milford Haven – were the busiest routes for inward movement of goods in 2017. The Dublin-Holyhead and Dublin-Liverpool routes were also the busiest routes in terms of goods forwarded.

17.8 The total number of passengers embarking/disembarking through Irish ports in 2017 was 2.7m, with Dublin handling 1.8m, Rosslare 0.8m and Cork 83,000.

17.9 Cruise ship traffic through Irish ports in 2017 involved 234 ships carrying almost 265,000 passengers.

Ports	Number of cruise ships	Number of passengers
Bantry Bay	3	2,388
Castletownbere	0	0
Cork	68	99,263
Dublin ¹	127	146,429
Dún Laoghaire	7	1,083
Galway	5	3,691
Killybegs	12	7,209
Rosslare	0	0
Shannon Foynes	0	0
Waterford	12	4,710
Total	234	264,763

¹ Includes passengers embarking in Dublin port

Table 6: Number of Cruise Ships and Passengers Arriving in Irish Ports 2017
(Source: CSO Ireland)

17.10 The [International Convention for the Safety of Life at Sea](http://www.imo.org/en/About/conventions/listofconventions/pages/international-convention-for-the-safety-of-life-at-sea-(solas)-1974.aspx)⁴⁶ (SOLAS Convention) requires the provision of such Aids to Navigation as the volume of traffic justifies and the degree of risk requires. Similar data will inform the navigation safety requirements of Maritime Spatial Planning (MSP). Through Automatic Identification System (AIS) monitoring Irish Lights holds data on existing traffic volumes and tracks and data for non-AIS vessels can be estimated. The Irish Coast Guard is the competent authority for the provision and management of a National AIS and associated services. An effective MSP will require a far more detailed risk assessment based not only on traffic volume but taking into account vessel routing, ship types and sizes, fishing areas and access routes, renewable energy, offshore oil and gas, aquaculture, protected areas and heritage sites. All of these activities impact on the sea area available for vessel activity and impact on navigation safety. Through use of the International Association of Lighthouse Authorities (IALA) Risk Management Tool Kit, Irish Lights can contribute to the objective assessment of these issues.

⁴⁶ [http://www.imo.org/en/About/conventions/listofconventions/pages/international-convention-for-the-safety-of-life-at-sea-\(solas\)-1974.aspx](http://www.imo.org/en/About/conventions/listofconventions/pages/international-convention-for-the-safety-of-life-at-sea-(solas)-1974.aspx)

17.11 DTTAS through the Irish Coast Guard, which is a division of the Department, provides a maritime search and rescue service (SAR) as party to the International Maritime Organisation Search and Rescue Convention.

17.12 This service is provided through three 24/7 Rescue Co-ordination Centres and dedicated search and rescue units. The Irish Coast Guard maintains distress listening watch and maintains four Search and Rescue helicopter bases under contract. The Coast Guard maintains 44 volunteer Coast Guard units with cliff, boat and coastal search capabilities. The RNLI declares its lifeboat service to the rescue co-ordination centres as declared assets for search and rescue. The Coast Guard responds to on average 1,900 SAR incidents per year. The Coast Guard also assists the National Ambulance Service by providing Helicopter Emergency Medical Services.

17.13 In addition to the above the Coast Guard also provides a response to maritime casualties threatening major harmful consequences of pollution to the coastline or related interests. This response is enabled through powers of intervention to minimise the threat of pollution from maritime casualties. The Coast Guard also has responsibility for managing the State's responsibilities under the International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC) Convention, which the State is party to.

Part 2: Issues for Delivery

17.14 Ports and shipping are the country's trading life line. Safeguarding access to Ports, Harbours and Navigation Channels is vital to the national economy. The safety and security of shipping and ports must be taken into consideration when considering all other applications for activity or development in the vicinity of ports or shipping channels.

17.15 Each of the three Tier 1 ports is currently engaged upon a period of significant phased infrastructure investment in relation to key elements of their masterplans. Supporting the existing and future development of ports in line with their approved master/strategic plans is essential to ensure the continued economic prosperity of the country.

17.16 Dredging is essential to maintain channels and deepen berths especially as the sector is moving to ever larger ships with greater capacity. Dredged material may be disposed of at marine sites licensed by the EPA or, if possible, used for alternative purposes such as land reclamation or beach nourishment to minimise disposal at sea. Locations of disposal sites may change over time for a variety of reasons – exhaustion of site capacity, monitoring requirements, need for new sites in additional locations. Designated areas are required to dispose dredged material to ensure that ports subject to silting can be kept operational and maintain their depths, in particular when urgent dredging is required after storm activity.

17.17 Freight volumes are expected to continue to increase over the coming decades, while vessel sizes are also predicted to grow and vessel types set to further diversify. In this context accessibility, capacity and navigational safety will be significant challenges for all players and port development will trend seawards. Allocation of sufficient space for future growth, the strategic identification of long term port locations and development of existing ports all need to be factored into long term economic and spatial planning (terrestrial and marine).

17.18 From a safety of navigation perspective, the IALA Risk Management Toolbox approach can quantify forward planning risks and incorporate these into the planning process.

Facilitation of monitoring and data services to support any MSP may be possible using the Irish Lights coastal network. Issues include:

- The importance of protecting routes used by shipping and ensuring any developments are at such a distance to ensure sufficient sea room to allow for safe manoeuvring and collision avoidance in accordance with the regulations for the prevention of collisions, avoiding choke points and the reduction of deep water available for deep draft ships.
- The use of risk assessment tools such as developed by the IALA before any development which may affect safe navigation is considered.
- Assessing the potential of any development to interfere with ships radar detection.
- Consideration of the location of fishing devices such as pots and the potential impact on the safe navigation of small craft.

17.19 From a Coast Guard perspective, the main issues concern SAR and pollution response:

- Requirement for ongoing risk assessments to ensure adequacy of the SAR organisation, response facilities and deployment of resources.
- Requirement to monitor changes in maritime traffic and risk assessment to ensure the State has adequate and exercises response to maritime casualties.
- Requirement to maintain and update national plans, risk assessments and also local authority and port oil spill contingency plans, training and exercise.

Part 3: Issues for Other Sectors

17.20 All marine sectors rely on ports and shipping activities. Similarly, all other sectors will impact to some extent on the sea space available for safe and efficient navigation. The primary interactions are likely to be from aquaculture, renewable energy and protected areas. Consultation and effective communication across sectors and agencies will be critical to beneficial coexistence.

17.21 Investment by ports in infrastructural development will have a positive impact on the tourism sector by providing the additional berth capacity to grow cruise ship calls and larger Roll on Roll Off (Ro-Ro) vessels. This can benefit in particular the local and regional economy.

17.22 The ability to provide extra capacity at Irish ports will have a direct correlation on the ability for all sectors of the economy to grow.

17.23 Ports can support the growth of other marine activities such as offshore renewable energy through the provision of facilities for import and export of equipment and facilities for vessels supporting the industry.

17.24 Alignment is needed with terrestrial plans and planning so ports link with public transport to encourage sustainable travel. Terrestrial planners need to coordinate and support ports with the necessary transport links and suitable road networks.

17.25 Dredging and disposal of the dredged material may impact on other uses and activities on a temporary basis. Dredging activity and disposal sites may not be compatible with other specific uses.

17.26 Scope is needed for facilities to safely handle the expansion of cruise ship activity in areas without large ports.

17.27 Maintaining the State's SAR emergency service impacts on the Irish Aviation Authority, Department of Defence, An Garda Síochána, the Director of Fire Services, the National Ambulance Service, the Health Service Executive, the RNLI, voluntary rescue organisations and the Office of Emergency Planning.

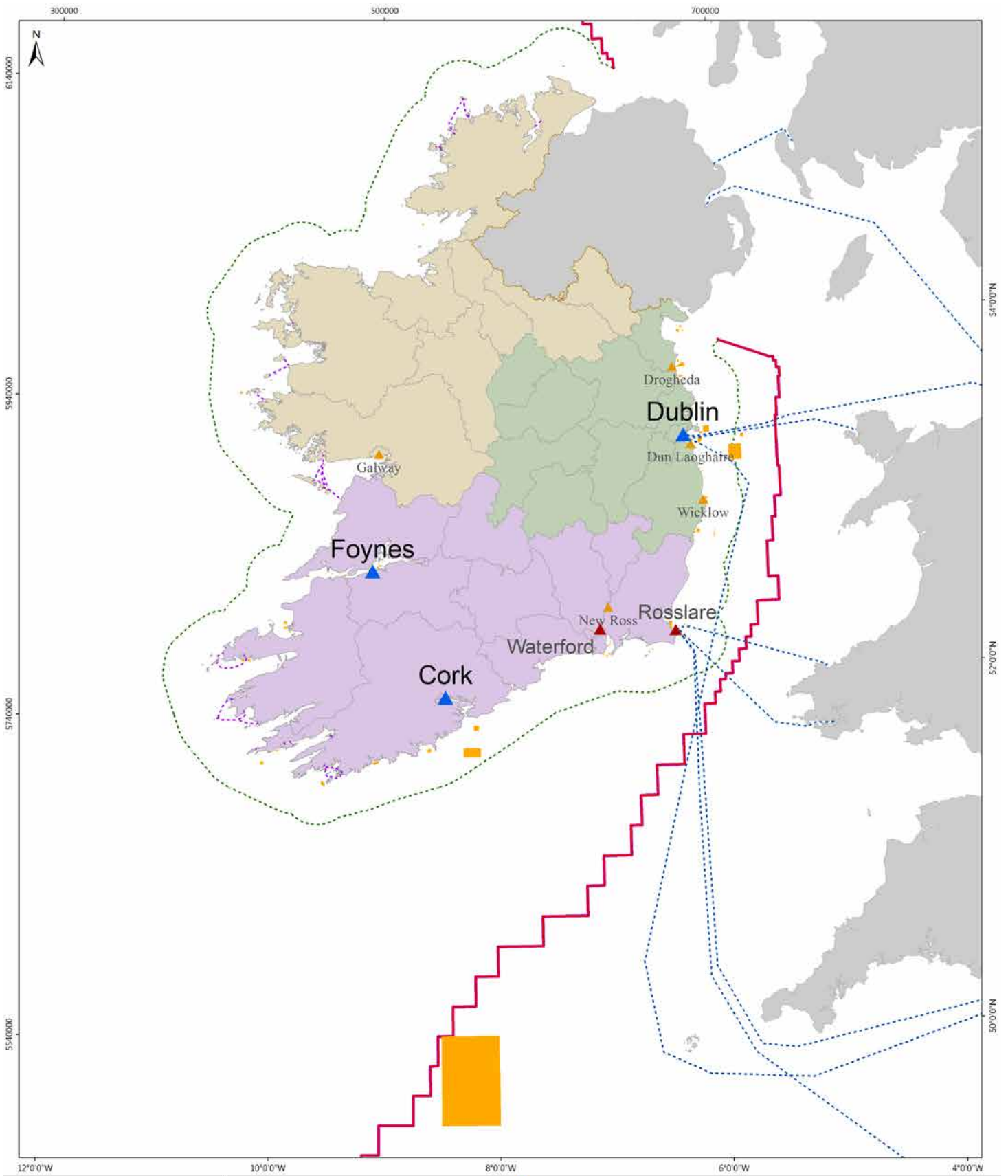
Part 4: Issues for Sustainability

17.28 Port construction and operational activities can have adverse impacts on air quality, noise and marine biodiversity. Post construction however, ports can act as safe havens or sheltered areas for particular marine species.

17.29 While shipping can lead to the introduction of non-native species into an area, safe and efficient shipping delivers very significant environmental benefits overall. Conversely unnecessary diversion of sea traffic increases environmental impacts and constriction of routes and sea space can increase risk of maritime incidents. Irish Lights Risk Assessment processes can identify any increase in navigational risk and potential mitigation measures. Issues include:

- The protection of the use of the shortest routes to ports thus the most economic route with the least carbon footprint.
- The allowance for the development of facilities to allow ships to connect to the national grid when in port to reduce the need for ships to produce their own power in port and cleaner air in port areas.
- Supporting the tourist sector, promoting safety at sea, encouraging safe development of coastal infrastructure and commercial activity (offshore exploration and windfarms etc.).

17.30 Dredging and disposal are licensed activities and their environmental impacts are assessed by DHPLG/EPA during licensing procedures.



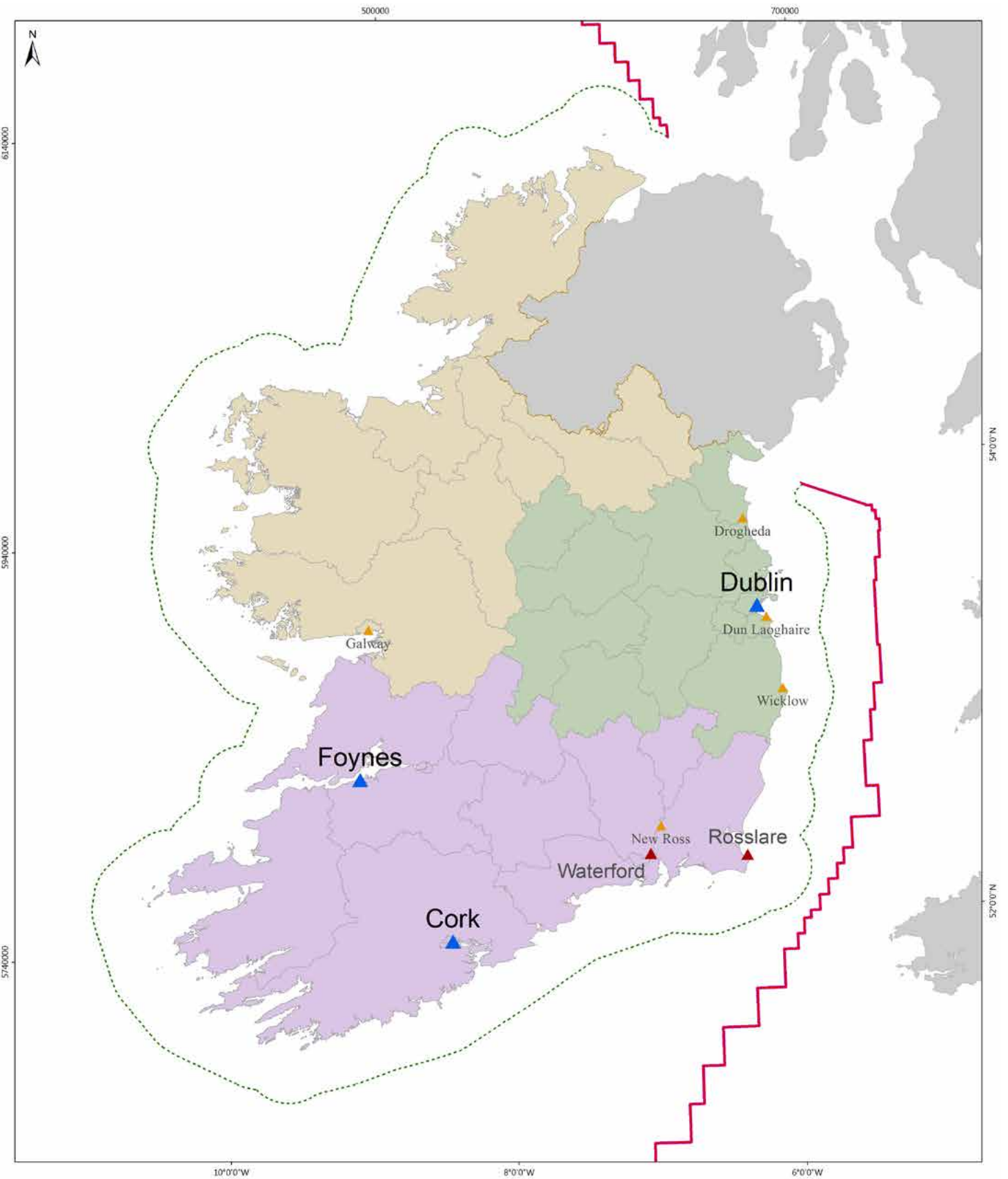
Ports and Shipping



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Local Authority Area
- ▲ Ports of National Significance (Tier 1)
- ▲ Ports of National Significance (Tier 2)
- ▲ Ports of Regional Significance
- - - International Ferry Route
- - - National Ferry Route
- Disposal At Sea Site





Ports



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
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- Southern Regional Assembly
- Local Authority Area
- ▲ Ports of National Significance (Tier 1)
- ▲ Ports of National Significance (Tier 2)
- ▲ Ports of Regional Significance



18.0 Seaweed Harvesting

Part 1: Key Evidence

18.1 The harvesting of wild seaweed by hand is an integral part of rural marine communities and as an activity can be traced back for hundreds of years. It is especially prevalent along the western seaboard where it has been a source of animal feed and fertiliser and, since the development of commercial uses for seaweed, a source of income through the sale of seaweed to commercial processors.

18.2 The main species of wild seaweed which is harvested is *Ascophyllum Nodosum* (Asco), although small amounts of other seaweeds are harvested by hand. Asco grows on rocky surfaces near the sea shore and is harvested by hand at low tide.

18.3 While seaweed was once mainly harvested for fertiliser and animal feed, it is now the raw ingredient for high value products across a range of industries including cosmetics, artisan food production and bio-pharmaceuticals.

18.4 Companies who are developing these products purchase seaweed either directly from harvesters or from processors such as Arramara Teoranta. Arramara Teoranta has been working with harvesters buying wild seaweed for processing since 1947.

18.5 In Ireland, some 25,000 - 40,000 tonnes of wild seaweed are harvested and sold every year by seaweed harvesters. Estimates vary of the number of harvesters who are engaged in seaweed harvesting and it is estimated to be somewhere in the region of 150 - 300.

Part 2: Issues for Delivery

18.6 Under Section 3 of the Foreshore Act 1933, the Minister for Housing, Planning and Local Government may, if it is deemed to be in the public interest, grant a licence for the removal of or disturbance of beach material on the Foreshore. Beach material is defined in the Foreshore Act and includes in its definition "seaweed whether growing or rooted on the seashore or deposited or washed up thereon by the action of tides, winds, and waves or any of them".

18.7 The Property Registration Authority of Ireland (PRAI) has identified that certain rights exist relating to seaweed, particularly along the western seaboard.

18.8 Legal advice from the Office of the Attorney General has confirmed that where an individual right to harvest seaweed exists a licence under the 1933 Foreshore Act is not required by the holder of that right in order to harvest seaweed.

18.9 However, anyone harvesting wild seaweed, even where they have a right to harvest must still comply with environmental legislation including the provisions relating to the Birds and Habitats Directive. This is especially important as seaweed is often found in or near SAC's.

18.10 A right to harvest seaweed may be related to a property (folio or appurtenant right) or built up through harvesting from the same area over a period of time (profit-a-prendre). The process of registering seaweed harvesting rights on a property folio is matter for the (PRAI).

Those who wish to verify that their right is registered, believe that they hold a folio-related right or who wish to obtain information on registering a right built up over time (profit-a-prendre) should contact the PRAI.

18.11 A number of applications made under the Foreshore Act for the commercial harvesting of wild seaweed are on hand in the DHPLG. These applications are now being considered in the context of the advice received from the Attorney General. The applicants have been informed of this advice. Work with these companies and with representatives of harvesters is on-going. It is intended that the DHPLG will produce guidelines to clarify the procedures necessary for potential applicants to identify possible formal and informal seaweed harvesting rights.

18.12 It is important to maintain a security of supply for those companies involved in the production of high value products derived from the processing of seaweed while also ensuring that the rights of those who can harvest seaweed are respected.

18.13 Ensuring continued growth in an industry that provides high value employment and a positive economic contribution to coastal communities in rural Ireland must be balanced against the need to ensure that the level of seaweed harvesting is sustainable and is capable of ensuring the continuing replenishment and availability of this natural resource.

Part 3: Issues for Other Sectors

18.14 Under the 1933 Foreshore Act, the Minister for Housing, Planning and Local Government only holds responsibility for the harvesting of wild seaweed. Responsibility for seaweed aquaculture or harvesting of seaweed within the five Fishery Harbour Centres lies with the Minister for Agriculture, Food and the Marine.

18.15 Other sectors should be aware that seaweed-related rights exist in many counties along the western seaboard.

18.16 Information relating to existing rights or the registration of rights involving seaweed in any particular area may be obtained from the PRAI.

18.17 Any sector engaged in or planning to engage in activity that could affect seaweed harvesting rights in an area should engage in consultation with the rights holders in advance of any works taking place.

Part 4: Issues for Sustainability

18.18 The Government is committed to ensuring that sustainability of seaweed natural resources underpins the licensing regime for seaweed harvesting. In this regard, options are currently being explored in relation to an updated biomass assessment for certain types of seaweed.

19.0 Telecommunications Cables

Part 1: Key Evidence

19.1 While most telecommunications infrastructure is not located in the maritime area, island communities require connection to telecommunications networks on the mainland, and this can be achieved in several ways, including via wireless solutions and submarine cables.

19.2 Connectivity between Ireland and international networks is also an important feature of the telecommunications sector, and there are a number of international submarine fibre cables which have landed in Irish coastal counties including Mayo, Cork, Wexford and Dublin. These connect Ireland to the United States of America and Canada, as well as other European countries such as the United Kingdom and France.

19.3 Protection of infrastructure located in marine environments, including telecommunications infrastructure, against physical damage is critical in the context of planning for a future spatial strategy. This may mean making provision for the use of construction or installation methodologies that allow for greater physical resilience of infrastructure in the marine environment.

19.4 Guaranteeing existing and future international telecommunications connectivity is critically important to support the future needs of society and enterprise in Ireland. The value of the digital economy is estimated at €12.3bn or 6% of GDP and is expected to grow significantly. A robust and coherent marine and foreshore planning system is expected to encourage and support future investment in high speed submarine telecommunication infrastructure.

Part 2: Issues for Delivery

19.5 The correct siting of telecommunications infrastructure enables quality services to be offered to consumers, but such infrastructure (cables, masts, antennae, ducts, etc.) must obviously be sited and erected in a manner that fits within the wider planning framework and in line with appropriate planning guidelines and principles. For example, the laying of telecommunications cables on the foreshore requires a foreshore licence from the DHPLG .

19.6 Connectivity is of great importance for growth, innovation, and social cohesion and is becoming a necessity of everyday life in Ireland. Delivery of high speed broadband to all parts of Ireland is a Government priority and the National Broadband Plan (NBP) is the framework for the provision of high speed broadband through a combination of commercial and State investment. The area covered by the planned State-led intervention includes many of the Ireland's islands – and as such the delivery of the intervention could include submarine cabling and/or wireless solutions.

19.7 It is important that key infrastructure projects such as the NBP, are delivered and the associated public interest benefits are achieved.

Part 3: Issues for Other Sectors

19.8 The electronic communications sector underpins and is essential to the functioning of a modern economy. It is a key enabler to many social and most economic activities and as such, needs to inform and be recognised under the MSP.

19.9 International submarine cable connections are crucial components in high-quality, high-speed networks connecting Ireland to North America and continental Europe. Access to these networks makes Ireland attractive to both foreign and domestic investors in the technology sector, with international firms locating themselves close to cable landing points to make use of the available connectivity. It can also boost other sectors which can avail of ultra-high speed connectivity – for example, banking and financial trading.

19.10 Ensuring that island communities are connected to high-speed broadband will help ensure that citizens can avail of the vast benefits that such connectivity brings, and contributes to building vibrant island communities. Such benefits include the ability to effectively trade online, to access eHealth and eGovernment services, to make use of IT advances in farming, and to access additional educational opportunities. This assists in supporting rural Ireland, and promoting more balanced regional development.

Part 4: Issues for Sustainability

19.11 While some elements of the telecommunications sector e.g. data centres may use a lot of energy, though many operators are keen to source renewable energy for this where possible, the sector itself can provide key tools for sustainable development. Solar, water, wind, power, electric vehicles for example are highly dependent on information technology and communications in both their operation and distribution and on wider front. Telecommunications is fundamental also to environmental monitoring including for example the use of satellite imaging, remote sensors, and geographical information systems.

19.12 The existence of high-quality telecommunications networks can contribute towards climate change mitigation and adaptation. The implementation of the NBP Intervention Strategy will result in the reduction in travel needs thereby reducing fossil fuel consumption. This may be achieved through the ability of citizens to work from home more frequently and more effectively. It will also enable energy efficiency through smart technologies in the home (including smart meters).

19.13 The Intervention Strategy has also been subject to a SEA and AA, and as such will also include mitigation measures to minimise greenhouse gases through materials and transport management during the development of the infrastructure (which, as stated previously, may include cabling between the mainland and the islands).

20.0 Tourism

Part 1: Key Evidence

20.1 Fáilte Ireland (the National Tourism Development Authority) figures for 2017 show the importance of tourism to the Irish economy:

- 9.0m overseas tourists came to Ireland, representing a growth of 3.2%;
- Overseas tourism expenditure grew by an estimated 4.2% to €5.3bn;
- Volume of holiday trips taken by domestic residents was estimated at 4.9 million;
- Spending by Irish people on holiday trips in Ireland amounted to €1.1bn;
- Almost 150,000 people were employed in the accommodation and food service sectors alone.

20.2 Ireland's coastal areas, marine resources and activities are significant components in our overall tourism offering. The qualities that make a region attractive as a place to visit also enhance its attractiveness as a place to live, work and invest in. As well as recognising and endorsing cross-organisational collaboration on identifying and developing the most promising tourism segments, national tourism policy highlights the importance of maintaining and enhancing the quality of the place that visitors experience during their stay, through the protection of natural and cultural assets, while adapting to changing visitor requirements, within a context of sustainable development (which itself involves multiple stakeholders for mutual benefits). This applies equally to marine and coastal areas.



Ireland's coastal areas, marine resources and activities are significant components in our overall tourism offering.

20.3 A strong example of this approach can be seen in the ‘Wild Atlantic Way’, which adopts both a national and regional approach to tourism development and involves multiple stakeholders – including the tourism agencies, local authorities, the tourism industry and communities. Working collaboratively, they can advance common tourism, environmental and other coastal/marine-specific goals. The Wild Atlantic Way tourism experience brand is designed to highlight and leverage Ireland’s unique geographical positioning along the Atlantic Ocean. By allowing tourists engage with and understand how the sea shaped our coastal communities, our lifestyle and our traditions, its key goal is to entice even more visitors to Ireland’s shores and, most importantly, to give them a reason to stay longer and spend more.

20.4 In terms of coastal and marine areas specifically, Fáilte Ireland own research on Irish tourism businesses and tourist travel patterns within Ireland shows that 70% of visitors are concentrated in areas representing 30% of the country and the majority of these areas are along our coastline (refer to below).

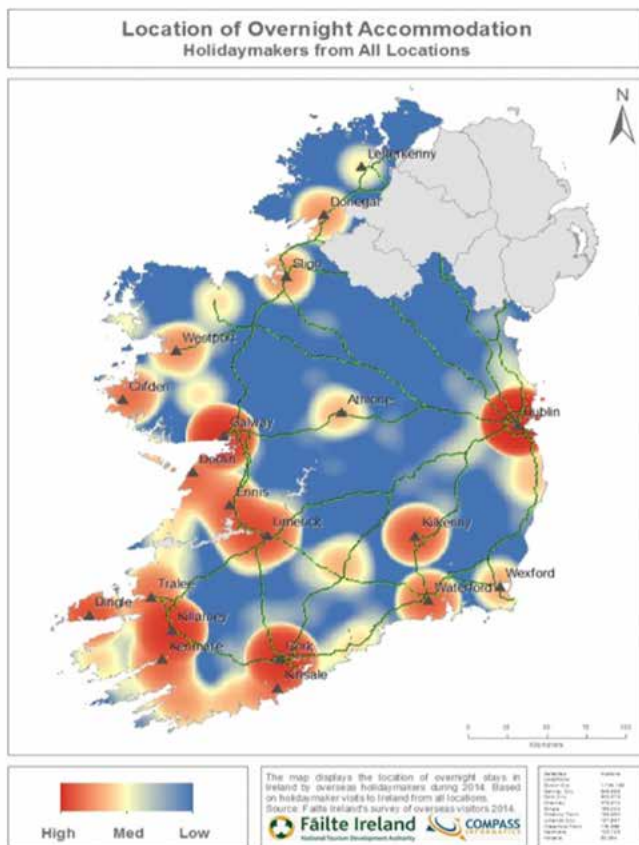


Figure 6: Existing Hotspot Map (location of overnight accommodation)

20.5 The following table gives an overview of the numbers of overseas tourists engaging in angling and other water-based activities in recent years. With specific regard to sailing, based on 3-year averages, Fáilte Ireland’s best estimate for overseas tourists engaging in sailing is approximately 40,000 per annum.

Overseas Tourists (000s)	2012	2013	2014	2015	2016
Angling (all types)	118	127	157	163	131
Water-based Activities	97	110	158	129	196

Table 7: Overseas Tourists Engaging in Angling and Water-based Activities 2012-2016

20.6 As regards the domestic tourism market, out of a total of 4.9 million domestic holiday trips in 2017, about 1 in 5 (21%) domestic holidaymakers engaged in watersports (excluding swimming), and 3% engaged in angling.

Part 2: Issues for Delivery

20.7 Year-round business sustainability is a key issue for Irish tourism providers, particularly those in rural and coastal locations such as those along the Wild Atlantic Way. In such areas, the season for tourism and related activity businesses is currently restricted to a period of 3-6 months in some cases. This causes increased financial constraints and difficulties in sustaining a viable business model with necessary competitive pricing structures and quality across a short trading period.

20.8 As tourism is a cross-cutting sector, it impacts and is impacted by multiple actions, strategies and policies beyond the immediate tourism sphere. Similar to tourism policy, maritime policy (and related strategies and actions) is also a whole-of-Government initiative. It recognises the potential of our ocean wealth to contribute to our overall social and economic well-being and aims for integrated actions across relevant broader, external policy areas.

20.9 With specific regard to areas of convergence between tourism and marine policy, there are mutual economic and social benefits that can accrue through closer collaboration. The following are some particular issues that could usefully be considered and addressed through integrated MSP to optimise the use of our marine resources:

- *Planning and Licensing:* An updated marine consent process will support innovation and development of tourism in coastal and marine areas. Clearly, a healthy marine environment protected by appropriate legislation and regulation is critical to our tourism offering. Nonetheless, tourism businesses and the local economies they support would benefit from a more integrated planning system, to avoid potential conflicts with other sectors and stakeholders, and also from a simplified planning and licensing regime.

Recent progress in regard to the terrestrial planning regime serves as an example of the benefits of such an integrated approach, which could now be applied to marine planning. Over the last number of years, Fáilte Ireland has worked closely with Government Departments and local authorities throughout Ireland to promote the spatial management of tourism. This move away from the traditional objective-based approach has seen tourism increasingly seen as a land-use – one that must be considered and planned for in the context of a range of other uses, all of which compete for resources, space and priority.

- *Access:* Access to the coastline can be limited in many areas and for a number of reasons, including landowner issues, insurance, planning or a perceived conflict in business activities, etc. It would be helpful if access to our shoreline could be improved, whether through investment in new or enhanced infrastructure, or by establishing new, more flexible, ways of working so that public resources such as ports, harbours, piers, marinas, etc., could be shared with private enterprises. This is an issue also for non-tourism related marine recreation.
- *Infrastructure:* Other jurisdictions have developed specific strategies to support investment in coastal and marine infrastructure. Investment by the Scottish Government to support the development of specific sailing routes along the “Whiskey and West Coast” is an example of such targeting.

Part 3: Issues for Other Sectors

20.10 There are significant links and overlaps between tourism and many other sectors – for example, transport; port development (particularly capacity enhancement and facility development to accommodate larger ferries and cruise ships); agriculture and seafood (especially aquaculture and fisheries); rural development; renewable energy; and the environment. For this reason, continued and enhanced cross-sectoral collaboration and integrated policy and strategies should be prioritised for the mutual benefit of all. This is particularly important for tourism, given that the sector does not directly own, manage or regulate many of the assets which underpin it.

Part 4: Issues for Sustainability

20.11 Tourism and recreation present business opportunities for coastal areas. Coastal and maritime tourism highly depends on good environmental conditions and on good water quality in particular. Managed appropriately and developed sustainably, coastal / marine tourism and recreation can deliver sustainable products, services and jobs. Many of the specific issues for sustainability are similar to those already identified as issues for delivery.

20.12 If not managed properly, coastal tourism can put extra pressures on waste water, water pollution, or marine littering. In the broadest terms, supporting the sustainable development of the sectors – across their economic, social and environmental aspects – involves an integrated, collaborative, partnership approach across policy and programmes at both a national and local level. Across both policy and investment, it is important to address issues arising from fragmentation of responsibilities and instead ensure an integrated approach to policy development, planning, licensing, investment and access.

20.13 With specific regard to access in coastal and marine areas, there is a need to move towards a range of both sea-to-land and land-to sea solutions and opportunities for shared access, reflective of how citizens and visitors access these experiences. These should involve the management, maintenance and regeneration of existing assets – not just new infrastructure – to reinvigorate the existing product and develop new offerings, thus potentially creating jobs and revenue.

21.0 Sport and Recreation

Part 1: Key Evidence

21.1 Marine sports and leisure clubs and activities occupy a very important position in Irish coastal communities, offering opportunities for physical activity, facilitating social cohesion and integration through volunteering and social participation, and indeed maintaining links to our maritime heritage. Our waters host a huge range of marine sport, leisure and adventure activities, many of them enjoyed on a year round basis. These include:

- sailing;
- canoeing;
- dinghy sailing;
- jet skiing;
- paddle-surfing / SUP'ing;
- kite surfing;
- powerboating;
- sea kayaking,
- surfing,
- snorkelling,
- diving,
- wakeboarding,
- water skiing,
- windsurfing,
- rowing;
- coasteering,
- sea swimming.

21.2 The most popular in terms of membership numbers and affiliated clubs is sailing with over 19,000 club members in 60 clubs and Ireland is a world class sailing destination with potential to enhance this reputation over the period ahead. In 2016 Irish Sailing and its affiliated clubs and centres organised 134 formal, large-scale races and regattas involving an average of 100 sailors per event, equating to approx. 13,500 sailors competing annually. Nearly 6,000 people tried sailing for the first time in 2017.

21.3 Ireland is also a world leading destination for other marine activities such as surfing, particularly along the west coast at locations such as Lahinch, Strandhill, and Mullaghmore where big wave surfers from around the globe gather to take on the famous “proglers” wave. Our situation as an island perched on the edge of the continental shelf also makes Irish waters suitable for scuba diving and snorkelling. Diving in Ireland is a year round sport with over 80 clubs nationally.

Part 2: Issues for Delivery

21.4 The Irish Sports Monitor 2017 found that 43% of the Irish population participate in sport at least once a week. Some 66% of Irish people regularly engage in recreational walking, the most popular form of physical activity measured. Swimming is the second most popular form of sport in Ireland, with 8.5% of Irish people swimming at least once a week. The Irish Sports Monitor 2017 also found that 45% of Irish people have regular social involvement in sport, and over 34% of Irish people are members of a sports club. Bord Fáilte data (2013) indicates that 496,000 or 11% of the total population are potential future watersports participants.

21.5 Ireland's [National Sports Policy 2018 – 2027](#)⁴⁷ recognises the positive impacts of social participation for social cohesion and integration, and it has particularly benefits for older people, people with disabilities as well as minority and migrant communities. It also recognises the vital role played by sports clubs at the heart of communities throughout the

⁴⁷ <http://www.dttas.ie/sites/default/files/publications/sport/english/national-sports-policy-2018-2027/national-sports-policy-2018.pdf>

country. The Policy emphasises in this regard that sporting bodies and clubs are delivery agents for the rollout of many essential programmes, and affirms that they will remain at the forefront in the Government's policy and practice in sport and physical activity.

21.6 Multiple social, environmental and economic benefits are derived from marine recreational activities. While the reach and diversity of marine activities is increasing, considerable further growth potential exists. Marine sport, leisure and recreation activities have an important role to play in increasing regular participation by Irish people in a sporting activity.

Part 3: Issues for Other Sectors

21.7 Marine sport, leisure and recreational activities have many positive interactions with other sectors. They generate direct and indirect economic benefits and employment opportunities in coastal communities in areas such as sales, equipment, training, certification, repair and rental.

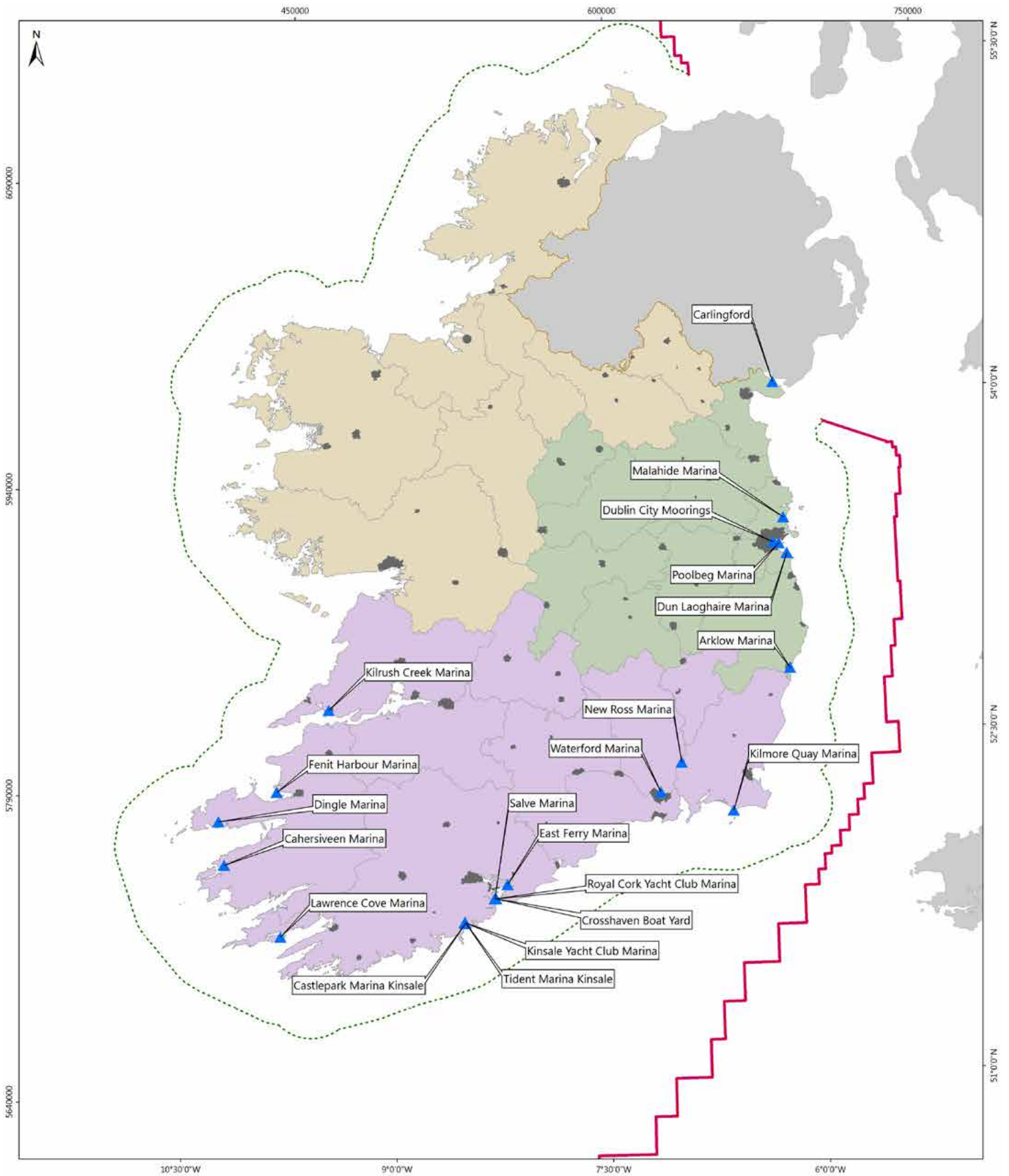
21.8 The range and popularity of specifically marine sport, leisure and recreational activities are increasing in Ireland. Marine leisure users are some of the most vulnerable marine users and often compete for marine space with other sectors. Recreational marine activities can and do successfully coexist with other marine activities and sectors but effective communication, information sharing and cooperation are vital for this. A strategic planning framework which provides for structured dialogue between all marine users will be an important mechanism for achieving synergies in the future.

Part 4: Issues for Sustainability

21.9 A healthy marine environment is one of the major draws for people participating in marine sport and leisure activities. There are generally, therefore, strong synergies between marine leisure activities and marine biodiversity and wider marine life and considerable overlap between those who enjoy marine leisure activities such as diving and those who are passionate about protecting marine ecology.

21.10 However, in addition to other activities such as commercial shipping, in certain instances human leisure activities can have potentially adverse impacts for the marine environment through, for example:

- negative impacts on or disturbances to marine flora or fauna;
- instances of waste water discharge, litter, and noise pollution (for example, from power boats or jet skis). It should be noted in this context that recreational and personal watercraft are also subject to the EU Directive 2013/53/which lays down requirements for the design and construction, exhaust emissions and noise emissions of the following products, and also establishes rules regarding their free movement in the European Union;
- pressures from increased visitor numbers in environmentally sensitive areas (though this is more typically an issue on land);
- introduction of non-native species into an area on recreational boats and crafts.



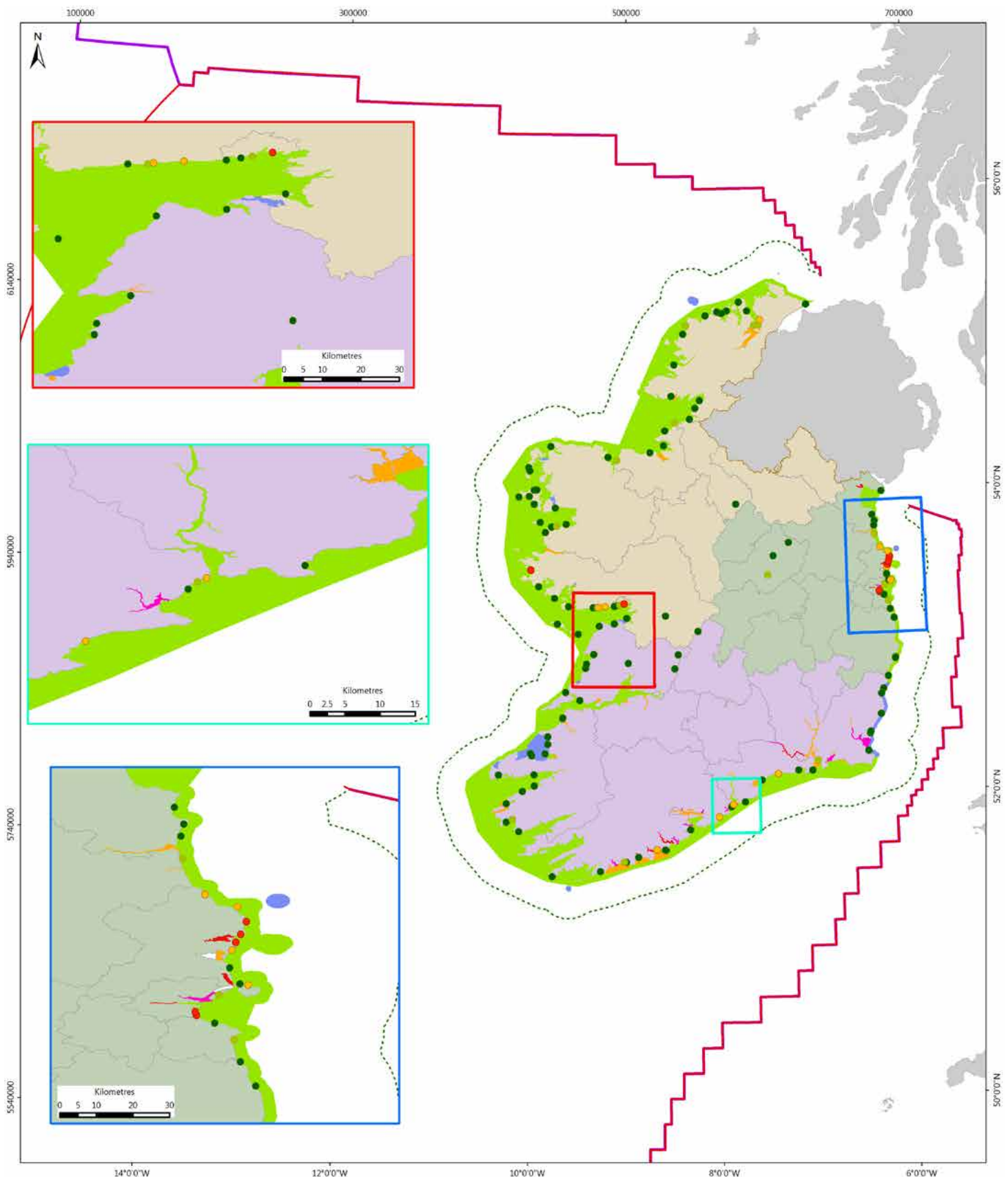
Marinas around the Irish Coast



Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Local Authority Area
- ▲ Marina
- Legal Town/City





Bathing Water Quality

Kilometres
0 20 40 80 120

Coordinate System
WGS 1984 UTM Zone 29N
Projection
Transverse Mercator

- Marine Spatial Plan Assessment Area
- - - 12 nm Territorial Sea Limit
- Northern Ireland Boundary
- Currently Designated Continental Shelf Boundary
- Eastern and Midland Regional Assembly
- Northern and Western Regional Assembly
- Southern Regional Assembly
- Local Authority Area

Bathing Water Quality	Transitional and Coastal Water Quality
● Excellent Water Quality	■ Unpolluted
● Good Water Quality	■ Intermediate
● Sufficient Water Quality	■ Potentially Eutrophic
● Poor Water Quality	■ Eutrophic
	■ Unassigned

22.0 Waste Water Treatment and Disposal

Part 1: Key Evidence⁴⁸

22.1 The objective of waste water treatment is to collect the waste water generated within our communities, remove the polluting material, and then release the treated water safely back into the environment. Without such treatment, the waste water we produce would pollute our waters and create a health risk.

22.2 Irish Water is the national water services authority, responsible for the collection, treatment and discharge of urban waste water. The EPA is the environmental regulator of Irish Water. The EPA issues and enforces authorisations for waste water discharges. The Commission for the Regulation of Utilities is the economic regulator of Irish Water. It ensures that Irish Water's revenue is spent efficiently and effectively to improve services.

22.3 In Ireland more than one billion litres of waste water is collected every day in approximately 30,000 kilometres of sewers. This is treated at 1,100 waste water treatment plants and then discharged into rivers, lakes and coastal waters. The table below shows the level of treatment provided for the national waste water load, before it is discharged back into the environment.

Table 8: Level of Treatment of National Waste Water Load

No treatment or preliminary treatment	Primary treatment	Secondary treatment	Secondary treatment & nutrient removal
3%	1%	69%	27%

Part 2: Issues for Delivery

22.4 The European Union's Urban Waste Water Treatment Directive sets the basic standards for the collection, treatment and discharge of urban waste water from large urban areas. Meeting the standards in the Directive is a key step in protecting our environment from the adverse effects of waste water discharges.

22.5 The EPA is responsible for authorising and regulating urban waste-water discharges. Licences are required where the population equivalent of the urban area is greater than 500, and certificates of authorisation are required for urban populations below this threshold. Authorisations include a requirement to address compliance with the Urban Waste Water Treatment Directive and, where necessary, provide for higher levels of treatment in order to achieve a water quality objective identified in a River Basin Management Plan or to address a requirement of EU legislation.

22.6 The EU Commission has taken Ireland to Court for failure to fully comply with the requirements of the Urban Waste Water Treatment Directive and [in 2016 the EPA identified 44 areas around Ireland](#)⁴⁹ where waste water is collected and released back into the environment without treatment. As shown on the map following, the vast majority of these areas are in coastal locations.

⁴⁸ Unless otherwise stated information in this section is based on the latest available EPA report on Urban Waste Water Treatment in 2016.

⁴⁹ <http://www.epa.ie/pubs/reports/water/wastewater/Urban%20waste%20water%20report%20for%202016%20Final%20Version.pdf>

22.9 According to the [EPA Report on Bathing Water Quality in Ireland 2017](#)⁵⁰ waste water discharges contributed to poor quality bathing waters at 7 beaches in 2017, an increase of 1 from the previous year. The beaches concerned were:

County	Urban Area	Bathing Water
Dublin	Dublin City	Merrion Strand
Dublin	Dublin City	Sandymount Strand
Dublin	Skerries-Rush	Loughshinny Beach
Dublin	Portrane	Brook Beach
Dublin	Rush	Rush South Beach
Galway	Clifden	Clifden Beach
Galway	Galway City	Ballyloughane Beach

Table 9: Beaches with Poor Quality Bathing Waters 2017

22.10 When bathing waters are classified as poor it means that there is a risk of periodic pollution, with the potential to cause illness such as skin rash and stomach upset to swimmers and other recreational users.

22.11 While waste water still pollutes some areas from time to time, the overall quality of Ireland's bathing water remains very good, with 93% meeting the basic standards (2017).

22.12 Waste water released into some coastal areas has the potential to contaminate filter feeding shellfish such as oysters, mussels, cockles and clams. Consumption of contaminated shellfish is a health risk, and can lead to vomiting, nausea and diarrhoea.

22.13 In some areas it is necessary to disinfect waste water during the treatment process, to safeguard shellfish habitats near the effluent discharge points. Disinfection is usually carried out using ultraviolet (often referred to as 'UV') lamps, which kill or inactivate most of the bugs and viruses in the waste water.

22.14 The EPA has identified three urban areas where upgrade works are needed to provide waste water disinfection systems.

County	Urban area
Donegal	Rathmullan
Mayo	Belmullet
Mayo	Killala

Table 10: Urban Areas Discharging to Shellfish Waters that require Waste Water Disinfection Upgrades

⁵⁰ <http://www.epa.ie/pubs/reports/water/bathing/Bathing%20Water%20Quality%20in%20Ireland%20-%202017.pdf>

22.15 Irish Water must finalise assessments of the impacts on shellfish of discharges from around 70 other urban areas. These assessments are essential to inform the need for disinfection of discharges from these areas.

Part 4: Issues for Sustainability

22.16 Ireland's [River Basin Management Plan 2018-2021](#)⁵¹ was published by the Minister for Housing, Planning and Local Government in April 2018. The priority objective for the river basin planning cycle is to secure compliance with the Urban Waste Water Treatment Directive and to contribute to the improvement and protection of waters in keeping with the water quality objectives established by the Plan. This includes addressing waste water discharges and overflows where protected areas (i.e. designated bathing waters, shellfish waters and freshwater pearl-mussel sites) or high status waters are at-risk from urban waste water pressures.

22.17 Details of the proposed upgrades to waste water treatment plants to 2021 are set out in Appendix 1 of the River Basin Management Plan 2018-2021.

⁵¹ https://www.housing.gov.ie/sites/default/files/publications/files/rbmp_report_english_web_version_final_0.pdf

23.0 Implementation of the National Marine Planning Framework

23.1 The success of any plan depends on its effective implementation. Ireland's National Marine Planning Framework 2040 will be no different. It will be important, in developing the plan, to be clear about how it will be implemented, who will implement it and how it interacts with other strategic plans in place, including the National Planning Framework 2040, Regional Social and Economic Strategies and County Development Plans.

23.2 Without pre-judging the final content, objectives or policies of the plan, some steps have been taken already to support strong implementation of the NMPF. As set out in the National Planning Framework 2040, learning from experience with the National Spatial Strategy, legislative support, backed up by wider political and institutional commitment is central to ensuring that the NPF will influence public policy across Government, the Regional Assembly and Local Authority administrations.

23.3 It is therefore intended that the finalisation of the NMPF will be followed up by strong national, regional and local level implementation.

23.4 In line with the recommendations of the final report of the Mahon Tribunal published in 2012, in respect of the NPF, a statutory process for the making of the NMPF and its implementation has been put in place under the [Planning and Development \(Amendment\) Act 2018](#)⁵².

23.5 Ireland originally transposed the MSP Directive through the European Union (Framework for Maritime Spatial Planning) Regulations, signed into law on 29th June 2016. The regulations establish the legal basis and broad framework for Ireland to implement MSP through the development of a maritime spatial plan (or plans) on a 10 year cycle. Under the Regulations, the Minister for Housing, Planning and Local Government is the competent authority for the purposes of the Directive and, by extension, for purposes of preparing Ireland's first marine spatial plan.

23.6 Earlier this year, the Oireachtas approved repeal of these transposing Regulations and their replacement by new provisions contained in the Planning and Development (Amendment) Act 2018. The relevant new provisions provide for four main objectives, namely:

- Transposition of the MSP Directive on a primary legislative basis;
- Introduction of formal arrangements for the marine plan-making process including governance, public participation, review and Oireachtas involvement, to ensure that the processes for making Ireland's two long term forward spatial plans, one marine, the other terrestrial, are consistent and fully aligned;
- Statutory provision that the objectives of Ireland's marine plan must be supported and implemented by all public bodies that have a role in regulating activity or development in the maritime area. This means, for example, that in assessing and deciding on any application for a lease, license or consent, a public body must ensure consistency with the objectives of the NMPF;
- Power for the Minister for Housing, Planning and Local Government to direct a public body to adopt measures to implement or ensure compliance with the plan.

⁵² <http://www.irishstatutebook.ie/eli/2018/act/16/enacted/en/pdf>

23.7 Taken together, these provisions will be critical to the successful implementation of the plan but they must also be supported appropriate administrative and governance arrangements. High level Interdepartmental and external Advisory Groups are in place to support the development of the NMPF.

23.8 The Interdepartmental Group is made up of high-level representatives of government departments whose policies and functions are relevant to the Plan. The group also contains one representative from the local government sector and one representative from the Marine Institute.

23.9 The external Advisory Group provides for the participation of relevant stakeholder groups, non-governmental organisations, professional bodies and technical experts in the process. It acts as the effective link to facilitate the participation of the economic, environment and social pillars while maintaining flexibility to incorporate other sectors as appropriate within these consultative forums e.g. the third level education or knowledge sector.

23.10 Similar structures will be developed and put in place to ensure that the NMPF and its main proposals are given top-level commitment, including of a budgetary and investment nature, and are therefore appropriately driven, including constant monitoring to measure progress and focus accordingly.

24.0 Consultation issues

24.1 Public and stakeholder participation is a strategically important aspect of the marine spatial planning process. Submissions and comments received from stakeholders in response to this paper will inform the development of marine spatial planning objectives and, in turn, development of the policies and plans that are required to achieve those objectives. There will be a number of opportunities for the public and stakeholders formally to make inputs to the process.

Marine Plan Objectives

24.2 This paper does not set out to predetermine sectoral objectives for the plan; however, in light of the issues and evidence presented it is appropriate to suggest some high-level themes that could be addressed.

24.3 In light of HOOW's vision, goals and targets, and taking account of the broader policy and legal context for marine planning, it is suggested that strategic objectives for marine spatial planning should (a) be high-level in nature and (b) aim to guide the MSP process towards achieving the outcomes envisaged by HOOW.

24.4 Also, the MSP Directive establishes certain minimum requirements and objectives to be achieved by the planning process. In broad terms the directive obliges Member States to pursue economic, social and environmental objectives in marine spatial planning processes and plans.

24.5 It is suggested that the following themes could inform the development of strategic objectives:

1. Promote the **sustainable development** of a thriving ocean economy.
2. Establish robust **governance**, policy and planning frameworks to enable growth of the ocean economy and the sustainable utilisation of our marine resources, with an emphasis on ensuring effective and meaningful public and stakeholder participation in planning processes.
3. Address **land and sea interactions** and promote integration, coordination and coherence between land and marine planning systems.
4. Promote the development of vibrant, accessible and sustainable **coastal and island communities**.
5. Adopt an **ecosystem-based approach** to marine planning and ensure that the pressure of human activities takes account of the precautionary principle and is kept within or moves towards the levels compatible with the achievement of Good Environmental Status.
6. Help **realise the potential of marine resources** in an integrated fashion and deal with interaction between different interests in a fair, balanced and transparent manner, including those who are employed in the marine sector.
7. Promote the preservation and enjoyment of marine-related **cultural and heritage assets**.
8. Strengthen our **maritime identity** and increase awareness of the value, opportunities and social benefits of engaging with the sea.
9. Continue to develop a sound **marine evidence** base to support the development, monitoring and review of marine plans.
10. Contribute towards **climate change mitigation** and adaptation measures.
11. Consult and coordinate with Member States and Third Country authorities on **transboundary issues** of shared concern, as necessary.

Consultation Questions

1. This Baseline Report is intended to capture and summarise all of the sectoral activities that are taking place in Ireland's marine spaces. Thinking about your own knowledge and experience, are there gaps in what is presented in this report and, if so, how can they be addressed?
2. Thinking about how we enjoy, protect, or derive economic or social benefits from our seas, what things would you like the marine plan to address?
3. Do the Marine Plan Objectives broadly capture or reflect the things that you want to see in the plan? IF not, and in the context of the high level nature of these overarching objectives, are there additional objectives that should be included or should the draft objectives be amended?
4. The objectives of a marine plan can be supported or achieved in a number of ways. Some countries have used a policy based approach to guide the decisions of statutory consent authorities with respect to specific sectoral developments or activities. Others have opted for a more prescriptive zoning approach (similar to on-land zoning through County Development Plans in Ireland). Taking account of the extent of Ireland's marine area and the varying degrees of activity that take place in our waters what do you think would be the most appropriate means of supporting the objectives of Ireland's marine plan – proscriptive, policy or somewhere in between?
5. How can the marine plan be best aligned with the NPF?
6. How can Ireland's marine plan be used as part of Ireland's climate change adaptation measures?
7. What measures do you think should be put in place to support optimal transboundary (including cross-border with Northern Ireland and with other parts of the UK) cooperation on marine planning?
8. What infrastructure investments need to be made in order to maximise the sustainable potential of our ocean resource?
9. Environmental Assessment will be an important part of the preparation of Ireland's draft marine plan and the plan itself. What are the relevant significant issues to be addressed by the SEA and AA processes and what environmental objectives should be used?
10. This document is an important milestone in the development of a single national marine plan for the entirety of Ireland's marine area. Thinking about the delivery of forward planning goals, what do you think would be the appropriate spatial hierarchy for future marine planning; for example, regional marine planning, a coastal zone or bay approach?
11. What levers are needed to deliver greater efficiencies in administration and governance, when it comes to implementing and monitoring the NMPF?
12. What are the key indicators for measuring the successful implementation of the NMPF?

Annex A

Public Bodies with Marine Responsibilities

Department/Agencies	Functional Responsibilities	Policies, Plans, Programmes or Decisions with Marine Spatial Impacts
Agriculture, Food and the Marine Bord Bia Marine Institute (MI) Bord Iascaigh Mhara (BIM) Sea Fisheries Protection Authority (SFPA) Aquaculture Licences Appeals Board (ALAB)	Integrated maritime policy Sea Fisheries Policy and Management Fishery Harbours Aquaculture Licensing Seafood development Seafood safety/fish health Marine research and development MI involvement in MSP	Harnessing Our Ocean Wealth – an Integrated Marine Plan for Ireland (HOOW) Common Fisheries Policy (CFP) National Strategic Plan for Sustainable Aquaculture Development Seafood Development in Ireland 2014-2020 Food Wise 2025 Appropriate and risk assessments of sea-fishing activities in or near marine Natura 2000 areas Appropriate assessments of aquaculture licences in or near marine Natura 2000 areas
Culture, Heritage and the Gaeltacht Udarás na Gaeltachta Heritage Council	Nature conservation – European Sites Biodiversity Landscape Underwater archaeology National monuments/wrecks	National Biodiversity Action Plan 2017-2021 National Landscape Strategy for Ireland 2015-2025

Department/Agencies	Functional Responsibilities	Policies, Plans, Programmes or Decisions with Marine Spatial Impacts
Communications, Climate Action and Environment EPA Commission for the Regulation of Utilities (CRU) Sustainable Energy Authority of Ireland (SEAI) EirGrid Gas Networks Ireland Geological Survey of Ireland (GSI) Inland Fisheries Ireland (IFI) Loughs Agency	Climate change Petroleum exploration and development Offshore renewable energy Offshore gas storage National oil reserves Energy interconnectors (electricity/gas) International telecoms cables Pollutant Release and Transfer Protocol Sea bed mapping	National Climate Change Adaptation Framework Sectoral Climate Change Adaptation Plans Irish Offshore Strategic Environmental Assessments Ireland's Transition to a Low Carbon Energy Future 2015-2030 National Renewable Energy Action Plan (NREAP) Draft Renewable Electricity Policy and Development Framework 2016 Offshore Renewable Energy Development Plan (OREDP) Existing and proposed consents for offshore petroleum, renewable energy and gas storage projects EPA Licensing (waste water discharges, IPPC, dumping at sea, waste) INFOMAR, national mapping programme
Defence ⁵³ Naval Service Air Corps Army (?)	Fisheries protection Marine firing ranges (Gormanstown)	

⁵³ MSP Directive does not apply to activities “the sole purpose of which is defence or national security”. However, the Naval Service and Air Corps provide fisheries protection services to DAFM/SFPA and for spatial planning purposes account needs to be taken of the marine firing ranges at Gormanstown.

Department/Agencies	Functional Responsibilities	Policies, Plans, Programmes or Decisions with Marine Spatial Impacts
<p>Housing, Planning and Local Government</p> <p>An Bord Pleanala</p> <p>Coastal Local Authorities</p> <p>CCMA</p> <p>Irish Water Safety</p> <p>Ordnance Survey Ireland (OSI)</p> <p>Business, Enterprise and Innovation</p> <p>Local Enterprise Offices</p> <p>Enterprise Ireland</p> <p>IDA Ireland</p> <p>Science Foundation Ireland</p> <p>InterTradeIreland</p> <p>Microfinance Ireland</p>	<p>Maritime spatial planning (MSP)</p> <p>Marine environment/MSFD</p> <p>Shellfish waters</p> <p>Marine protected areas (MPAs)</p> <p>Dredging/Dumping at Sea</p> <p>Bathing water quality</p> <p>Sustainable development</p> <p>Terrestrial planning</p> <p>Foreshore consenting</p> <p>Water services</p> <p>Water safety</p> <p>Future Skills Needs – Marine Sector</p> <p>Research, development and innovation – Marine Sector</p>	<p>MSP Implementation</p> <p>MSFD Initial Assessment of Ireland’s Marine Environment</p> <p>MSFD Programme of Measures</p> <p>Shellfish Waters Designations</p> <p>Marine Protected Area Designations</p> <p>Water Framework Directive/River Basin Management Plans</p> <p>Existing and proposed foreshore consents</p> <p>Existing and proposed dredging/dumping at sea permits</p>
<p>Public Expenditure and Reform</p> <p>OPW</p>	<p>State property/foreshore</p> <p>Coastal protection</p> <p>Flood protection</p>	

Department/Agencies	Functional Responsibilities	Policies, Plans, Programmes or Decisions with Marine Spatial Impacts
<p>Transport, Tourism and Sport</p> <p>Transport</p> <p>Port Companies</p> <p>Irish Maritime Development Office (IMDO)</p> <p>Irish Coast Guard</p> <p>Marine Survey Office (MSO)</p> <p>Tourism and Sport</p> <p>Fáilte Ireland</p> <p>Tourism Ireland</p> <p>Sport Ireland</p>	<p>Ports policy</p> <p>Shipping policy</p> <p>Maritime safety</p> <p>Navigational safety</p> <p>Emergency Response services and Marine</p> <p>Pollution prevention measures</p> <p>National tourism development (including Marine and coastal tourism and leisure)</p> <p>Marketing the island of Ireland overseas</p> <p>Sustainable development of competitive and recreational sport in Ireland</p>	<p>National Ports Policy 2013</p> <p>People, Place and Policy – Growing Tourism to 2025</p> <p>Tourism Action Plan 2016-2018</p> <p>National Physical Activity Plan 2016</p> <p>National Sports Policy (pending)</p>
<p>Foreign Affairs and Trade</p>	<p>Delineating the State's maritime zones (internal waters, territorial seas, EEZ etc) and delimiting maritime boundaries with neighbouring states under the Sea Fisheries and Maritime Jurisdiction Act 2006</p>	

Annex B

Marine Coordination Group Membership

Members of the Group are at Assistant Secretary level with the following Departments represented:

- Agriculture, Food and the Marine
- Culture, Heritage and the Gaeltacht
- Communications, Climate Action and Environment
- Defence
- Foreign Affairs and Trade
- Housing, Planning and Local Government
- Business, Enterprise and Innovation
- Public Expenditure and Reform
- Taoiseach
- Transport, Tourism and Sport

The Attorney General's Office and Marine Institute also participate.

