

Ireland's Marine Waters



The national statutory body representative of stakeholders with an interest in the quality of Ireland's waters.

Ireland's Marine Territory

Ireland's Marine territory covers 880,000 km², 10 times the size of the island of Ireland and is one of the largest in Europe.

The marine territory can be separated into 3 distinct areas (Figure 1); the offshore marine area; the exclusive economic zone, which is up to 200 nautical miles off the coast; and the nearshore maritime area which is up to 12 nautical miles (NM) off the coast and includes the coastal and transitional zone areas. This whole marine area is important to Ireland and its citizens as it supports aquaculture, fisheries, shipping, tourism, recreation, and energy enterprises. In 2021, the economic value of the Irish ocean economy was €2.1 billion, with an overall turnover of approximately €6 billion. Approximately 40% of the Irish population live within 5km of the coast.

Marine Habitats

Our maritime area contains a rich variety of physical habitats and associated species, ranging from shallow inshore reefs, sandbanks, canyons, seamounts, troughs and cold-water coral reefs in deeper waters. The marine environment is transboundary in nature, with species, currents and other living and non-living features freely crossing jurisdictions. These marine waters are home to a diverse range of animals and plants, including plankton, cold-water corals, fish, cephalopods (such as octopus, squid, and cuttlefish), shellfish, marine birds, reptiles and marine mammals.

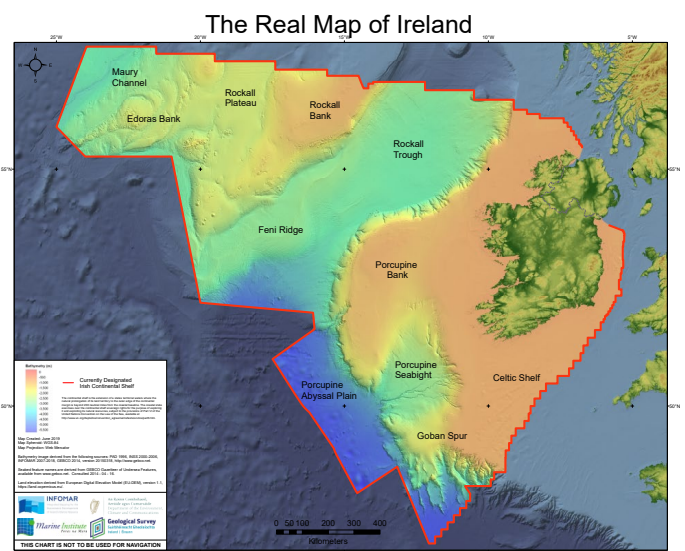
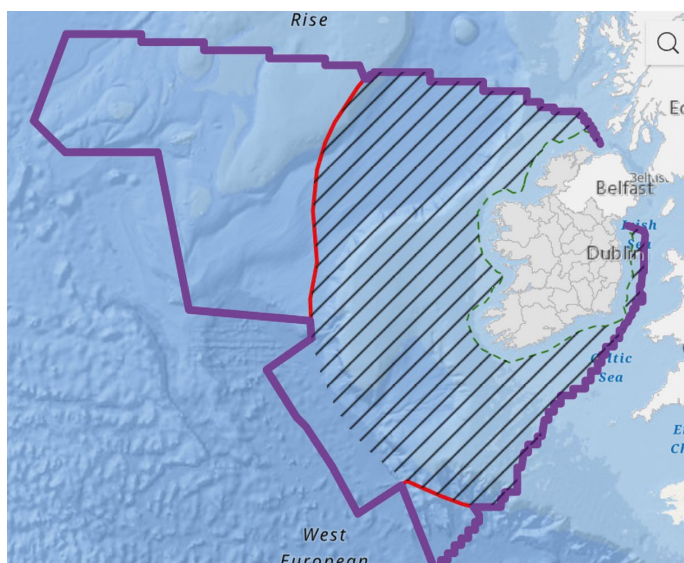
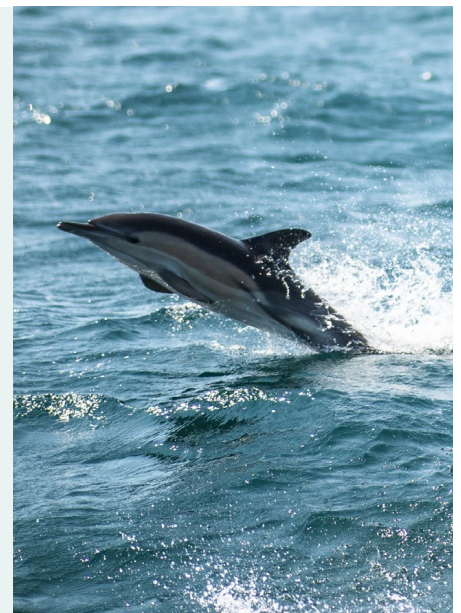


Figure 1. Ireland's marine territory boundary (purple); marine planning framework area (red); exclusive economic zone (lined); and 12 NM territorial sea limit (dashed line) and on the right the Real Map of Ireland from the Marine Institute.

EU Marine Policy – Marine Spatial Planning Directive (2014/89/EU)

The Marine Spatial Planning Directive provides a framework for marine spatial planning in Europe and obliges member states to establish national maritime spatial plans.

The EU **Marine Strategy Framework Directive (MSFD)** aims to protect marine ecosystems and biodiversity and applies an ecosystem-based approach to the management of human activities to enable sustainable use of marine goods and services. In addition, the MSFD provides a binding legal obligation to establish marine protected areas (MPAs).

National Marine Policy

Ireland's **National Marine Planning Framework** aims to provide guidance on the sustainable planning and management of marine resources to balance ecological, economic and social objectives. The Department of Housing, Local Government and

Heritage (DHLGH) is the lead body for the development and implementation of the Marine Planning Framework. The **Maritime Area Planning Act 2021** provides a statutory basis for integrated marine planning under the DHLGH, along with the establishment of the **Maritime Area Regulatory Authority (MARA)** (Figure 2).

In 2022, Ireland increased its maritime protected area to 8.3% with plans to reach 10% by the end of 2023. Ireland's **Marine Protected Areas Bill** commits to protect 30% of our maritime area – that's twice the size of our landmass – by 2030.

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Marine Water Quality

The Marine Strategy Framework Directive sets a target of “Good Environmental Status” which means that the seas are clean, healthy and



Figure 2. Maritime Area Regulatory Authority (MARA) grants and administers marine licencing for specified activities, offshore development consents, associated compliance and enforcement investigations and prosecutions.

productive. The Good Environmental Status (GES) assessment provides a set of standards across 11 environmental areas and environmental targets, indicators and a programme of measures to reach GES. **Ireland's MSFD** assessment area covers 488,762 km² extending beyond 200 nautical miles and includes the exclusive economic zone and areas off the continental shelf. An initial assessment of our marine waters has been completed to determine GES and set targets and indicators across 11 descriptors (Figure 3).

As reported in the EPA Ireland's Environment: An Integrated Assessment 2020 Report, the 5 MSFD descriptors which achieved Good Environmental Status were non-indigenous species; eutrophication; hydrographical conditions; contaminants; contaminants in seafood. Areas deemed compatible with GES for the elements assessed, were marine litter and energy including underwater noise. For sea-floor integrity, biodiversity and commercial fish and shellfish some elements were deemed

compatible, while the GES for food webs was reported as not-known (Figure 3).

The conservation status of marine protected habitats and species (except birds) is assessed under the Habitats Directive (92/43/EEC), while the status of birds species is assessed under the Birds Directive (2009/1/47/EC).

Coastal and Transitional Waterbodies

Ireland has 7,500 km of coastline containing transitional (estuaries) and coastal waters up to 1 nautical mile from the shore. These waters are assessed by the Environmental Protection Agency with support from the Marine Institute, Inland Fisheries Ireland, and National Parks and Wildlife Service, and are reported under the EU **Water Framework Directive (WFD)**. As these tidal waters cover over 14,000 km², a representative sample of waterbodies are assessed to provide an indication of water quality (status) of the marine waters. Currently, 156 transitional and 98 coastal waterbodies are assessed (Figure 4).

Over 81% of coastal water bodies and over 36% of transitional waters are at high or good ecological status (Figure 4). This means that 19% coastal and 64% of transitional waterbodies need improvements to meet WFD objectives by 2027.

Significant Pressures on Ireland's Marine Waters

The EPA Water Quality Report 2022 shows increasing deteriorations in coastal waterbodies impacted by nutrients washing off the land. Inadequately treated wastewater is also a pressure on coastal water quality, these pressures should be addressed in the next River Basin Management Plan cycle and Uisce Éireann's Capital Investment Plan 2025-2029.

In marine waters **overfishing** is a challenge leading to depleted fish stocks and **physical disturbance** that causes damage to seafloor habitats occurs in 46% of the assessed area. **Aquaculture** consists of shellfish mostly oysters and mussels and finfish (mostly

DESCRIPTOR	COMMON NAME	GOOD ENVIRONMENTAL STATUS (GES)
D1	Biodiversity	Some elements compatible with GES
D2	Non-indigenous species	Compatible with GES
D3	Commercial fish and shellfish	Some elements compatible with GES
D4	Food webs	Compatibility with GES not known
D5	Eutrophication	Compatible with GES
D6	Sea-floor integrity	Some elements compatible with GES
D7	Hydrographical conditions	Compatible with GES
D8	Contaminants	Compatible with GES
D9	Contaminants in seafood	Compatible with GES
D10	Marine litter	Compatible with GES for the elements assessed
D11	Energy, including underwater noise	Compatible with GES for the elements assessed

Figure 3. Environmental status of Ireland's marine waters using the MSFD 11 qualitative descriptors for Good Environmental Status (dark green all parameters meet GES; pale green not all parameters have been assessed but those that have meet GES; Orange not all parameters meet GES and Grey parameters have not been assessed, taken from EPA Ireland's Environment An Integrated Assessment 2020.

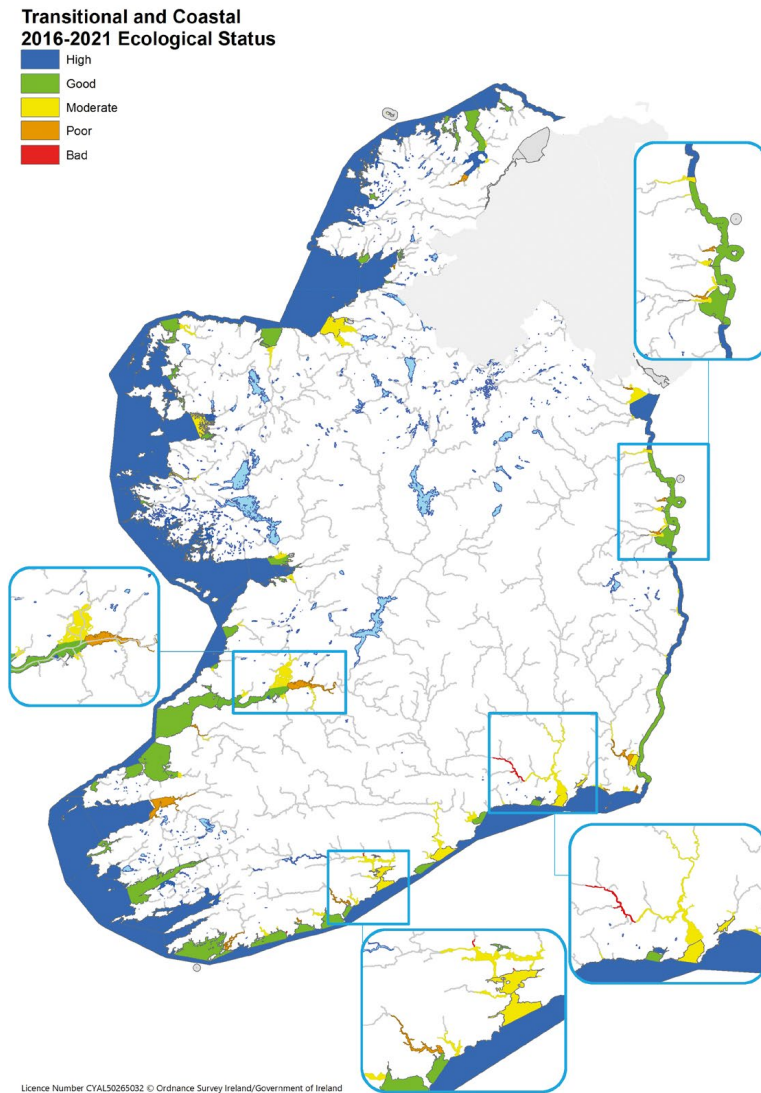


Figure 4. Water quality status in transitional and coastal waterbodies (blue high status; green good status and yellow moderately polluted; orange polluted and red badly polluted). [National Marine Monitoring Programme, Environmental Protection Agency.](#)



Figure 5. UNESCO estimate that there are currently between 50 and 75 trillion pieces of plastic and microplastic in the ocean. These will take between 500-1000 years to degrade.

salmon) farms. Aquaculture can spread disease to wild populations, displace fish, impact wildlife and cause water pollution.

Climate change can result in changes in coastal ecosystem structure (erosion and sea level rise) and the physio-chemical conditions (temperature and ocean acidification). These changes impact marine ecosystems and the organisms they support. Ocean warming will increase the intensity of storms resulting in coastal flooding and erosion. The ocean absorbs approximately 25% of the global carbon dioxide emissions, and as carbon dioxide increases in the atmosphere, more enters the oceans, altering the marine chemistry and making waters more acidic. Ocean acidification makes it difficult for calcifying organisms, such as corals, shellfish, crabs, and certain plankton to make their carbonate shells and could have implications for marine food webs.

Marine litter such as plastics and microplastics are found throughout marine waters (Figure 5). Their breakdown can release harmful chemicals that can bioaccumulate in marine animals and can negatively impact on the marine food webs.

Underwater noise can interfere with marine species navigation, communication and prey location. Noise is caused by vessel movement, seismic surveys, drilling, sonar, pile driving or dredging. It is currently not considered a significant threat in Irish waters.

Seaweed harvesting has been carried out in Ireland for many years. More modern mechanical harvesting can put pressure on habitats and marine biodiversity.