

Barry Doyle and Company





Alan Doyle
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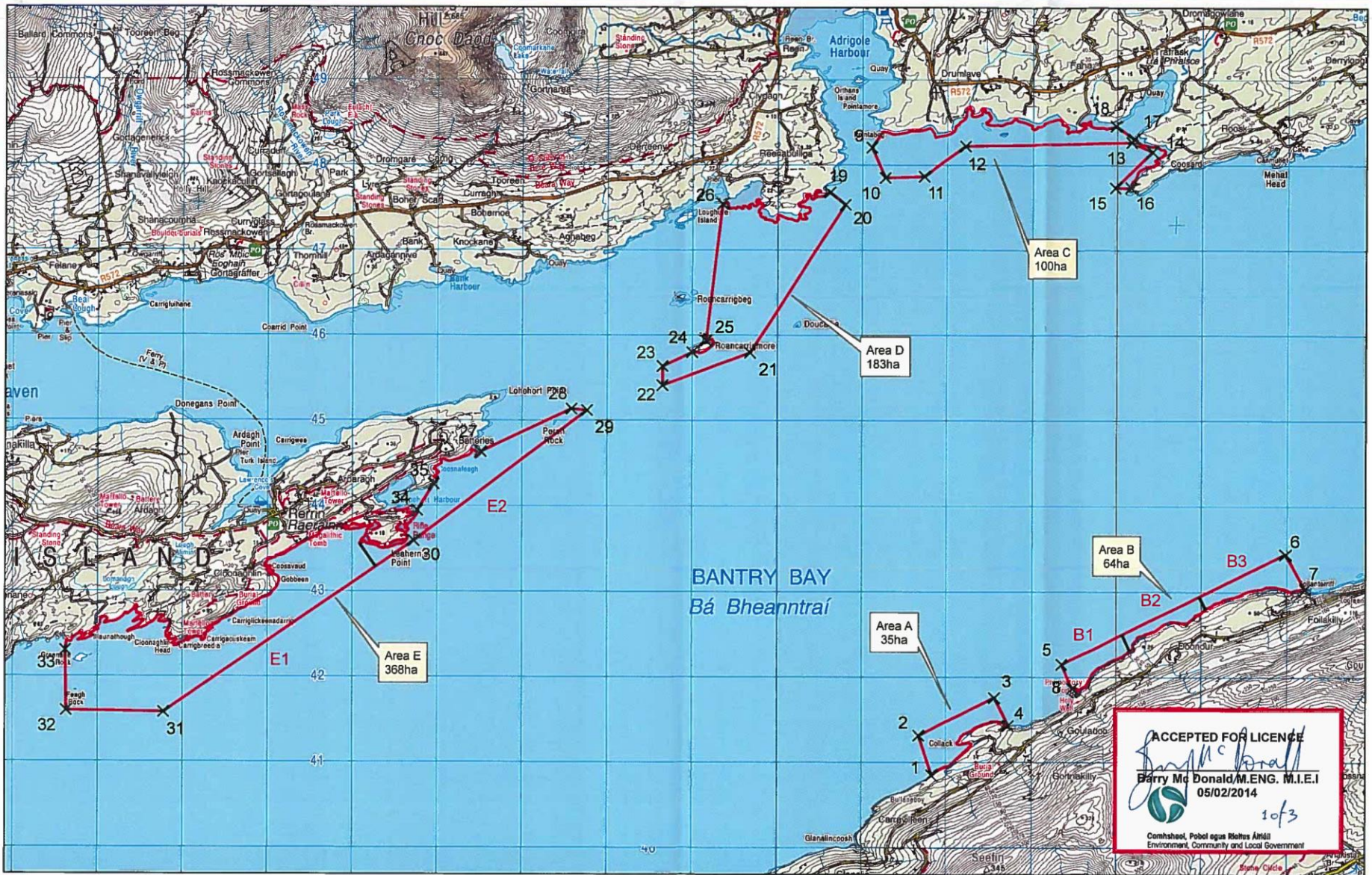
Marshalsea Court
23 Merchants Quay
Dublin 8







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Drawn by : Barry Mc Donald M.Eng. M.I.E.I Licence Area
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Foreshore Licence Map

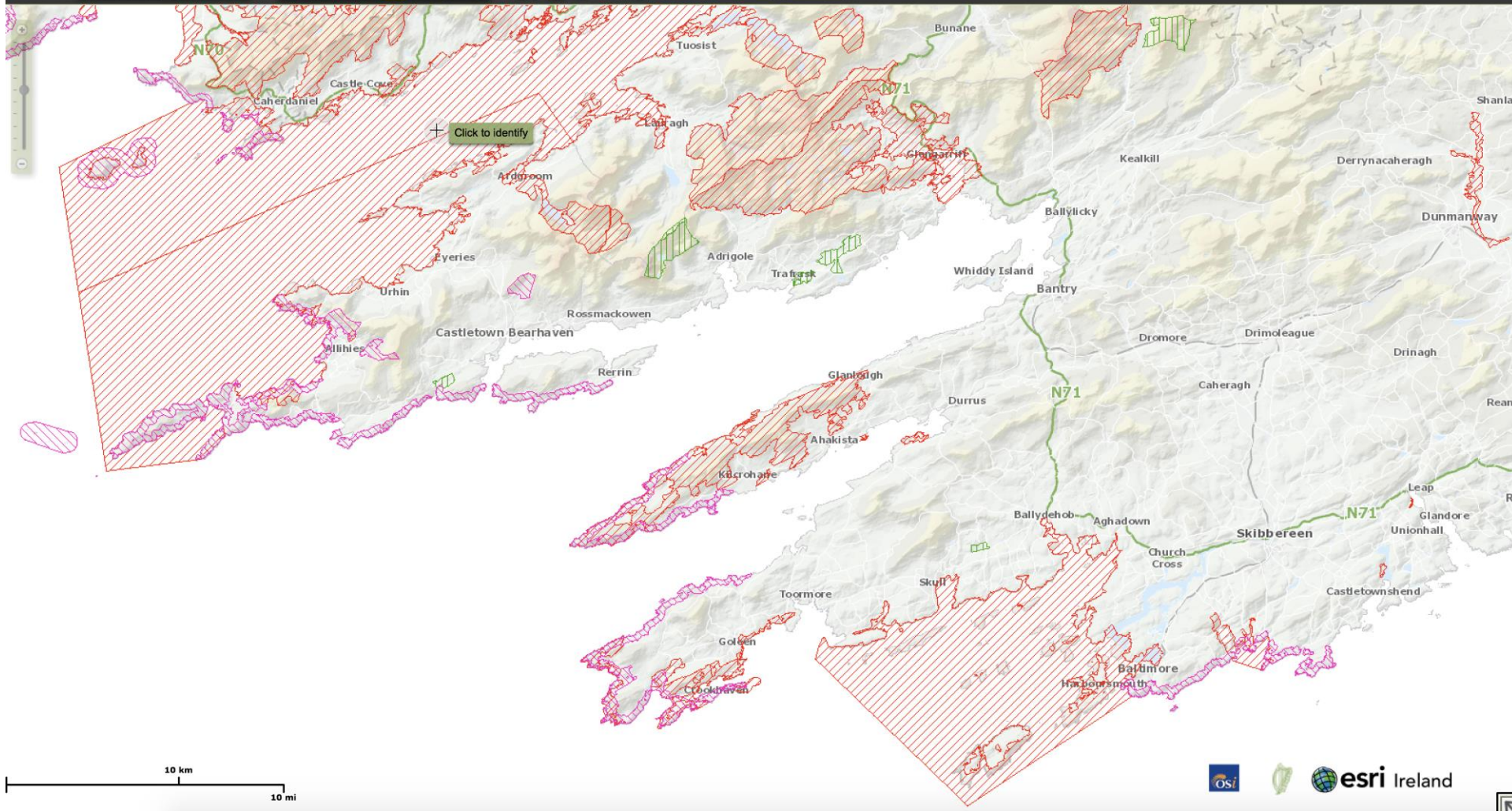
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Comhshool, Pobal agus Rialtas Áitiúil
 Environment, Community and Local Government



Foreshore Licence Application







Biodiversity

- ...good capacity for regeneration
- ... if small understorey kelp plants are left undisturbed...
- ... form a new canopy within 2-3 years...
- However,
- recolonisation ... by flora and fauna is a slow process ...
- ... biodiversity ... is not regained even 6 years after trawling....
- ...recolonisation of areas where harvesting has taken place depends not only on the recovery time of the kelp itself, but also on how successfully the invertebrates are able to reestablish themselves in the system.

Fish

An underwater photograph showing a large school of fish swimming through a dense kelp forest. The kelp stalks are tall and vertical, with long, yellowish-brown blades. The water is clear and blue, with sunlight filtering through from above, creating a bright, sunlit atmosphere. The fish are silvery and appear to be moving in a coordinated pattern.

- Spawning and Reproduction
- Nursery and Shelter
- “... contributing to diversity and abundance in fish communities”

Mammals

- Harbour Seal
- Otter

- **Seabirds**



Cormorant



- ... there is no current evidence that Cormorant populations are in decline due to kelp harvesting,
- although longer-term population studies will be useful to monitor the effects of kelp harvesting.

Shag

- No clear relationship between Shags and kelp forests have been previously described.
- Sandeels ...are a favoured prey item ...
- While Shags feed in deeper waters than Cormorants they also occur in areas of shallow rocky coast and prey upon fish and crustaceans.
- Further, Sandeels have been recorded within Norwegian kelp forests.
- Interactions between Shags and kelp forests are therefore likely.

Ducks



- Members of Anatidae family that may feed within kelp forests along Irish coasts are seaducks such as the Common Eider (*Somateria mollissima*), Common Scoters (*Melanitta nigra*) and Red Breasted Merganser (*Mergus serrator*),
- all of which feed in inshore waters particularly at low tide when the bottom is easier to reach (Ferns, 1992).
- Sea ducks are thought to prefer rocky substratum communities that are often dominated by vegetation such as kelp....

Tern

- Although there appears to be no specific information available with regard to tern and kelp interactions,
- a common link between all tern species is that they breed predominantly at coastal sites and forage within shallow inshore waters for prey items including marine fish and invertebrates.
- They are therefore sensitive to local changes in food availability (Dunnet et al., 1990).
- Reef habitats with kelp are likely to form part of the foraging range of these birds (Cramp & Simmons, 1985b).



Seaward Fringe

- Foster and Schiel (1995) suggest that the seaward fringe of kelp forests (the interface between kelp and open waters) may support the greatest diversity of birds that exploit aggregations of fishes and invertebrates along the forest edge.

Shoreward Edge

- The shoreward edge of a kelp forest (sublittoral fringe) is also an important foraging habitat, particularly at low tide when kelp and associated fauna are partially exposed.
- Birds that exploit this habitat include
 - Oystercatchers,
 - Turnstones
 - Curlew and
 - various gull

Shoreward Edge 2

- Gulls and crows (e.g. Hooded Crow *Corvus corone cornix*) are both opportunistic foragers.
- Hooded Crows will take mussels, small fish and any opportunistic prey species.
- Great Black-Backed Gulls will prey upon fish, sea urchins (Echinoidea), sea cucumbers (Holothuroidea), starfish (Asteroidea) and crustaceans amongst others within this habitat (Cramp & Simmons, 1985a).
- Herring Gulls have been observed preying upon large quantities of the sea urchin *Echinus esculentus* near Millport, Scotland (J. Davenport, pers. comm.).

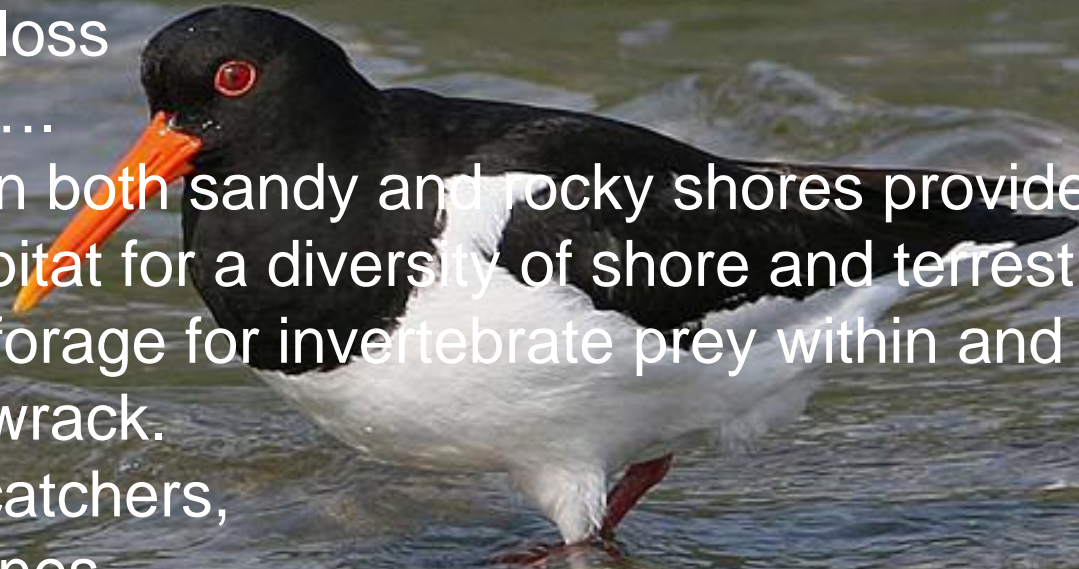


Drifting Kelp

- Accumulations of drift kelp in pelagic waters may provide a roosting site for seabirds (Foster & Schiel, 1985).
- Drifting kelp mats may also transport amphipods and sessile benthic invertebrates within their mass (Cherel et al., 2002) ...
- and are therefore attractive to foraging seabirds.

Wrack

- A considerable biomass of kelp is washed up onto rocky and sandy shores as a consequence of
 - natural loss
 - storms....
- Kelp wrack on both sandy and rocky shores provides an important habitat for a diversity of shore and terrestrial bird species that forage for invertebrate prey within and beneath the wrack.
 - Oystercatchers,
 - Turnstones,
 - Curlew,
 - Bar-Tailed Godwit,
 - Sanderling,
 - and various gull species.



- **Flies**



- Coelopid larvae...
- Abundant within wrack deposits...
- Utilised by Dunlin during autumn migration...
- Leads to a rapid fattening rate prior to onward migration
- Within Ireland, staging Whimbrel have also been observed to utilise this prey resource while...
- Barn Swallow take emerging kelp flies whilst on the wing.



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Foreshore Act

- **Power for Minister to grant licences of foreshore**
- 3(1) If, in the opinion of the appropriate Minister, it is in the public interest that a licence should be granted to any person in respect of any foreshore belonging to the State authorising such person to ... use or occupy such foreshore for any purpose, that Minister may, subject to the provisions of this Act, grant by deed under his official seal such licence to such person for such term not exceeding ninety-nine years commencing at or before the date of such licence, as that Minister shall think proper.
- **Public Notice**
- 19. The Minister may publish...
- 19A. Where a developer submits an EIS, the developer shall publish.
- **EIA**
- 13. Where a person proposes to carry out a development of a class for which an EIA is required, that person shall submit an EIS.

European Communities (Natural Habitats) Regulations, 1997 (SI No. 94 of 1997)

- **Regulation 31(1)**
- Where an operation or activity ... is neither directly connected with nor necessary to the management of a European site but likely to have a significant effect thereon, either individually or in combination with other operations or activities, and such operation or activity is to be undertaken by, or requires the concurrence, consent or approval (however expressed in the enactment) of any Minister of the Government, then that Minister shall ensure that an appropriate assessment of the implications for the site in view of the site's conservation objectives is undertaken.

- **Foreshore Act application, June 2009**
- **Public Notice published, 12 December 2009**
 - By developer
 - Under S19
 - Presumably directed to publish by Minister
- **Decision not to require EIA**
 - Not a category of activity for which an EIA could be required
- **Decision not to conduct appropriate assessment**
 - Not located in an SAC or SPA.
- **Licence granted, July 2014**
 - Conditions require agreement of monitoring programme.
 - Licence terminable on 3 months notice.



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EIA: Annex II Activities

- 1. AGRICULTURE, SILVICULTURE AND AQUACULTURE
- (b) Projects for the use of uncultivated land or semi-natural areas for intensive agricultural purposes;
- (d) Initial afforestation and deforestation for the purposes of conversion to another type of land use;
- (f) Intensive fish farming;

Habitats

- SPAs
 - Beara and Sheeps Head
 - Fulmar, Chough, Peregrine
 - Deenish, Scariff, Bull and Cow, Skelligs, Puffin Island
 - Fulmar, Manx Shearwater, Storm Petrel, Lesser Black-backed Gull, Arctic Tern, Gannet, Kittiwake, Guillemot, Puffin, Razorbill
- SACs
 - Glengariff
 - Otter, Common Seal
- Appropriate Assessment

Birds Directive 2009/147

National Parks and Wildlife Services
Map Viewer

Mapping Aerial 6 Inch

- Article 4
 - Special Protection Areas are protected under Article 6 of the Habitats Directive
- Article 5
 - Without prejudice to Articles 7 and 9, Member States shall take the requisite measures to establish **a general system of protection for all species of birds referred to in Article 1, prohibiting** in particular:
 - (d) **deliberate disturbance** of these birds particularly during the period of breeding and rearing, **in so far as disturbance would be significant** having regard to the objectives of this Directive;
- Article 1
 - 1. This Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States to which the Treaty applies. It covers the protection, management and control of these species and lays down rules for their exploitation.
 - 2. It shall apply to birds, their eggs, nests and habitats.

10 km
10 mi

OSI  esri Ireland

Planning and Development Act

- S225
 - Development which would adjoin the foreshore,
 - Not being exempted development.
- S4(4)
 - Development for which EIA or AA is required is not exempted.
- S160
 - Unauthorised development.

Fisheries (Consolidation) Act 1997

- 6.—(1) A person who, at any place or in any waters, engages in aquaculture except aquaculture. under and in accordance with an aquaculture licence, a trial licence, or an oyster bed licence or an oyster fishery order shall be guilty of an offence.
- 3.—(1) In this Act, unless the context otherwise requires—
“aquaculture” means the culture or farming of any species of fish, aquatic invertebrate animal of whatever habitat or aquatic plant, or any aquatic form of food suitable for the nutrition of fish

Remedies

- Injunction
 - Lack of specific power
 - General power of Irish Courts.
- Case C-213/89, Factortame
- Article 4.3 TEU
 - Sincere cooperation
 - Take any appropriate measure, general or particular, to ensure fulfilment of the obligations arising out of the Treaties or resulting from the acts of the institutions of the Union.
 - facilitate the achievement of the Union's tasks
 - refrain from any measure which could jeopardise the attainment of the Union's objectives.



Conclusion

- Kelp!
- 



Thank You.



