

# European Offshore Wind Deployment Centre Environmental Statement

## Chapter 27: Other Marine Users





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## 27 OTHER MARINE USERS

### 27.1 Introduction

1 This section of the Environmental Statement (ES) considers other marine users in the EOWDC development area that could be potentially impacted by the development. This assessment was undertaken by Genesis Oil and Gas Consultants. The following activities were considered for assessment:

- oil and gas industry
- pipelines, cables and telecommunications
- other wind power resources
- dredging and disposal sites
- commercial shipping and navigation
- salmon net fisheries and recreational fishing
- Ministry of Defence firing range
- Drums Link firing range
- recreational sailing
- surfing
- kite surfing
- canoeing and sea kayaking

2 Figure 27.1 illustrates other marine users within the vicinity of the EOWDC.

3 A number of the other marine users are discussed in other sections of this ES (eg commercial shipping and navigation; and fisheries), such users will be discussed briefly here with further details provided in their appropriate sections.

#### *27.1.1 Methodology Consultation*

4 The following organisations and stakeholders were consulted during the assessment:

- RYA (14th February 2011)
- MoD (10th December 2009)

#### *27.1.2 Key Guidance Documents*

5 The assessment of other marine users was under taken based on the following guidance and literature:

- Aberdeen Harbour Board. (2005). Dredging Aberdeen Harbour: A Presentation to the Scottish Branch of the Hydrographic Society. Retrieved May 2011, from The Hydrographic Society: [http://www.ths.org.uk/documents/ths.org.uk/downloads/dredging\\_aberdeen\\_harbour.pdf](http://www.ths.org.uk/documents/ths.org.uk/downloads/dredging_aberdeen_harbour.pdf)
- Marine Scotland. (2008). Scottish Salmon and Sea Trout Catches, 2008, Fisheries Series No. Fis/2009/1. Retrieved 2011 May from <http://www.scotland.gov.uk/uploads/documents/SCSB08.pdf>.

- RenewableUK. (2011). Operational wind farms. Retrieved May 2011, from RenewableUK - the voice of wind and marine energy: <http://www.bwea.com/ukwed/operational.asp>
- RYA. (2009). The RYA's position on offshore energy developments - December 2009. The Royal Yachting Association (RYA).
- The BMF. (2010). UK leisure, superyacht and small commercial marine industry - key performance indicators 2009-10. Surrey: The British Marine Federation (BMF).
- Visit Scotland. (2009). Visit Scotland Tourism Statistics.
- RYA Personal Communication 14 February 2011

## 27.2 Impact Assessment Methodology

6 The structure of this assessment is as follows:

- a summary of the baseline data related to other users of the sea
- an assessment of the impact of the project on other users of the sea
- a summary of findings from the above for this ES

7 As a number of the other marine users have been dealt with in other parts of this ES, the baseline data will be included in this chapter as opposed to in a separate baseline report.

8 Potential impacts of the development on other marine users were identified and assessed. Potential impacts were assessed in terms of their magnitude (based on spatial duration and scale of effect) and the sensitivity of the receptor to the impact. A combination of the sensitivity of the receptor and the magnitude of effect was used to determine the significance of the impact Table 27.1. From this impacts were deemed either; major, moderate, minor or negligible. For those impacts that were considered to be significant (moderate or major) additional mitigation measures were considered to demonstrate that the risk was as low as reasonably practicable (ALARP).

Magnitude of Effect (spatial extent, duration of effect and scale)	Sensitivity of Receptor (based on importance and recoverability)			
	Very High	High	Medium	Low
Very High	Major	Major	Major	Moderate
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor
Low	Moderate	Minor	Minor	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

## 27.3 Baseline and Impact Assessment

9 This section presents a description of each of the marine users identified above and an assessment of the potential impacts caused by the proposed EOWDC. Additional mitigation measures for impacts that were deemed significant are discussed also, and impacts that are deemed negligible, or discussed in other sections of this ES, were not explored further.

### *27.3.1 Offshore Oil and Gas Industry*

- 10 As discussed in the socioeconomic assessment (Chapter 23), oil and gas exploration and production is a significant contributor to employment within Aberdeen and Aberdeenshire (ie the development area).
- 11 There are currently no oil and gas fields within the EOWDC nor is there any related infrastructure. The closest pipelines are gas pipelines entering into the St Fergus Gas Terminal, which is north of Peterhead. Therefore there would be no impact on oil and gas installations from the wind farm development.
- 12 Although no oil and gas infrastructure exists within the development area, Aberdeen harbour is an important communications link for the industry. The wind farm's impacts on shipping and navigation are detailed in Chapter 15 Shipping and Navigation.
- 13 Due to the location of the development and the measures in place to mitigate impacts on shipping and navigation it is anticipated that the impacts on the oil and gas industry would be negligible.

### *27.3.2 Pipelines, Cables and Telecommunications*

- 14 There are two abandoned telecommunications cables within the vicinity of the EOWDC (Figure 27.1), there are no other cables within development area.
- 15 It is possible, depending upon the chosen subsea cable route that the abandoned telecommunications cables may have to be crossed. The design of any crossing would be agreed with the owner of the cable to ensure that the integrity of all the assets is maintained. Thus, impacts on pipelines and cables are anticipated to be negligible.

### *27.3.3 Other Wind Farms*

- 16 A number of onshore wind farms are located within the Aberdeen area however, there are no offshore developments within the wider Aberdeen area (RenewableUK, 2011).

### *27.3.4 Dredging and Disposal Sites*

- 17 There are currently only two licensed dredging areas in Scotland, neither of which is located within the development area. However, occasional maintenance dredging activities occur in Aberdeen Harbour.
- 18 Maintenance dredging is required to widen the Harbour after sediment build up. Current proposals for Aberdeen harbour are for the mouth to be dredged by 8 m and dredging further in port to reach 7 m, this is scheduled for 2012. Previous dredging of the Harbour took place in 2005 with a total of 190,000 m<sup>3</sup> of material dredged and deposited approximately 90 km from the Harbour (57o07 N, 02o00 W)(Aberdeen Harbour Board, 2005). As this dredging is occasional and assuming a similar disposal site would be used, the impacts of the EOWDC on maintenance dredging are anticipated to be negligible.

- 19 There is a disused explosive dumping ground approximately 6.4 km from the EOWDC site. As this is no longer in use, and no activities associated with the development of the EOWDC would disturb this ordnance deposit, the impacts are considered to be negligible.

#### *27.3.5 Shipping*

- 20 The navigational impacts are assessed in more detail in the ES chapter on navigation (Chapter 15).

#### *27.3.6 Fishing*

- 21 There are 11 salmon fisheries along the coastline of the Aberdeen and Aberdeenshire area spanning across two fisheries districts, the Don and Ythan (see Figure 27.1).
- 22 The impact assessment Salmon and Sea Trout (Chapter 22) and Commercial Fisheries (Chapter 21) consider impacts to fisheries in more detail.

#### *27.3.7 Ministry of Defence Operations*

- 23 A firing range is situated to the north of the EOWDC, the Black Dog Firing Range (Figure 27.1). The Black Dog Firing Range is a small arms firing range on the coast with an associated exclusion zone at sea.
- 24 Following consultation with the Ministry of Defence (MoD) the layout of the wind farm was altered. Along with the wind turbines closest from shore being removed for shipping interests, the two northern most wind turbines were removed due to potential impacts on the Black Dog Firing Range, one of which was within the boundaries of the firing range's safety exclusion zone. . Other MoD operations are discussed in Chapter 17.

#### *27.3.8 Drums Link Firing Range*

- 25 The Drums Link Firing Range is situated to the north of the EOWDC. The Aberdeen Full Bore Gun Club owns this private range and uses it for small bore and low power rifles as well as muzzle loading pistol shooting. The exclusion zone extends 2 km offshore. No modifications to the gun clubs activity are required as part of the development of the EOWDC and the impact upon this user group is expected to be negligible.

#### *27.3.9 Surfing, Kite-surfing, Windsurfing and Canoeing*

- 26 There are a number of other widespread water-borne recreational activities of importance. The British Marine Federation (BMF) estimated that in 2009 across Scotland 52,869 adults participated in surfing, 23,952 in windsurfing and 37,416 in canoeing. Fraserburgh, which is located within the development area, is a particularly popular surfing location and regularly holds surf competitions and events such as the UK Surf Tour and Fraserburgh Surf Festival. There are a number of popular surfing and windsurfing sites along the coast of the development area including:

Lossiemouth, Spey Bay, Sandend Bay, Cullen, Banff, Pennan, Stonehaven and St Combs.

- 27 The principal surfing area within Aberdeen Bay is the beach, where depending upon the prevailing swell conditions surfers are either located at the northern area of the beach; south of the mouth of the Don, or to the north of the entrance to Aberdeen Harbour.
- 28 Kite surfing has become increasingly popular in recent years. The kite surfing areas are different from those chosen by surfers. The presence of groynes along Aberdeen beach creates suboptimal conditions for kite surfers. The main kite surfing locations are Cruden Bay, Fraserbough and Balmedie, with Balmedie being the most popular destination for kite surfing.
- 29 Kite surfers tend to surf within the immediate proximity from the shoreline where the waves are largest for performing aerial tricks. Kite surfers tend to transit back and forth along the shoreline area, and rarely venture more than 2 km offshore.
- 30 Windsurfing is lower in popularity than either surfing and kite surfing in Aberdeen. Windsurfers can be seen infrequently during all times of the year throughout Aberdeen Bay.
- 31 Surf kayakers can occasionally be seen amongst the surfers at Aberdeen beach and they utilise the same areas. The area south of Aberdeen along the sea cliffs is routinely used for sea kayaking, and this sport is typically done during the calmer summer months.
- 32 The EOWDC is located approximately 2 to 4.5 km from shore and north of the main surfing areas, but close to Balmedie which is used for kite surfing. There is not expected to be any detrimental effect upon the wave period, wind quality, as a result of the development of the EOWDC and the impacts upon these water sports is anticipated to be negligible.

#### *27.3.10 Recreational Sailing*

- 33 This section explores potential impacts of the wind farm on recreational sailing.
- 34 According to the Royal Yachting Association (RYA), recreational boating and sailing tourism contributes approximately £300 million to the Scottish economy. Sailing activity in the east of Scotland occurs mainly in the Firth of Tay and Firth of Forth and along the southern section of coastline in this region. The RYA (2009) highlights two potential impacts on recreational boating as a result of offshore wind farms:
- navigational safety
  - loss of routes and sailing and racing areas

#### *27.3.11 Navigational Safety*

- 35 This is covered within Chapter 15 Shipping and Navigation.



### *27.3.12 Loss of Routes and Sailing and Racing Areas*

- 36 The main concern associated with an offshore wind farm and recreational sailing routes is “squeezing.” Recreational routes differ from commercial routes as recreational crafts are essentially aiming to avoid major commercial routes by travelling in shallower adjacent waters or taking other routes entirely (RYA, 2009). The approaches to the port of Aberdeen harbour can be very busy with vessels entering and leaving. Many recreational vessels follow an inshore route from the Forth of Peterhead and vice versa, often at night to take advantage of favourable tidal flow. Only some recreational vessels are equipped with radar and AID and great care is needed to avoid commercial vessels entering or leaving Aberdeen. Therefore, there is the danger of “squeezing” recreational crafts between the commercial shipping routes and the development (RYA, Pers Comm., 14th February 2011).
- 37 The layout of the wind farm has been designed to minimise impacts on other users of the sea, including the removal of the eastern most wind turbine to increase distance from commercial shipping routes. This will, in turn, reduce the risk of squeezing recreational users between the development area and commercial shipping routes. Furthermore, due to small crafts being excluded from safety zones they can navigate within the EOWDC.
- 38 Some recreational vessels within the development area would choose to sail further offshore to avoid the development, therefore effective marking and lighting would be essential and needs to be considered from the point of view of recreational craft as well as much larger commercial vessels. (RYA, Personal Communication, 14th February 2011).
- 39 Wind farms can have significant negative impacts on an event site (eg racing areas) through interference with wind speed and / or turbulence. However, most general day sailing and racing areas are close to the shore and in more sheltered waters, thus the development is unlikely to impact such activities (RYA, 2009).

## **27.4 Summary of Impacts**

- 40 As discussed above the proposed development has the potential to impact a variety of other marine users, however, most impacts are anticipated to be negligible.

### *27.4.1 Mitigation and Monitoring*

- 41 Mitigation measures to control impacts on MoD operations, fishing, shipping and navigation and tourism are discussed in their own sections within this ES.

## **27.5 Summary**

- 42 There are a number of other marine users that could be potentially affected by the development, however, as this impact assessment has shown the impacts are anticipated to be negligible for all other marine users. With the appropriate mitigation measures in place, including all wind turbines being appropriately lit and marked, along with the layout of the development, it is

not anticipated that other marine users would be significantly impacted by the proposed development.