

Legend

- Beatrice Offshore Wind Farm Site
- ✕ Pile Positions

Area of Permanent Physical Injury / Death

- 220 dB_(re) - Unweighted *(Inset Only)*

Area of Permanent Threshold Shift (PTS)

- 198 dB re. 1 $\mu\text{Pa}^2/\text{s}$ - Fleeing *(Inset Only)*
- 198 dB re. 1 $\mu\text{Pa}^2/\text{s}$ - Stationary

Area of Behavioural Effect

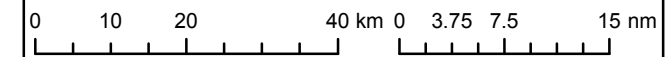
- 50 dB_(re)
- 55 dB_(re)
- 60 dB_(re)
- 65 dB_(re)
- 70 dB_(re)
- 75 dB_(re)
- 80 dB_(re)
- 85 dB_(re)
- 90 dB_(re)
- 100 dB_(re)
- 110 dB_(re) *(Inset Only)*
- 120 dB_(re) *(Inset Only)*
- 130 dB_(re) *(Inset Only)*

Bottlenose Dolphin Presence

Probability per 4 x 4 km Square

- 0
- <0.10
- 0.10 - 0.20
- 0.20 - 0.30
- 0.30 - 0.40
- 0.40 - 0.50
- 0.50 - 0.60
- 0.60 - 0.70
- 0.70 - 0.80

Data Source: Cheney et al 2011
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UK Offshore Development

Figure 12.7
**BOWL Simultaneous Piling Scenario
for Bottlenose Dolphin**

Drawn: SC	Checked: LHu	Approved: VR
Date: 26/01/2012	Scale: 1:1,000,000 @ A3	
Drawing Number: BEA-MAP-EWF-BOWL-190	Revision: 01	
Datum: WGS84	Projection: UTM30N	



Scenario Description:
 Hammer Size = 2300 kJ
 Pile Size = 2.4 m
 No. of Simultaneous Pile Driving Events = 2