

Appendix 9A

Zone of Influence (Zol) Informing the Assessment

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APPENDIX 9A: ZOI INFORMING THE ASSESSMENT

Table 1: Zones of Influence Informing the Assessment.

ECOLOGICAL FEATURE	TYPE OF POTENTIAL IMPACT	ADOPTED ZONE OF INFLUENCE	RATIONALE
International nature conservation designations (e.g., European sites)	Direct and/or indirect habitat loss or disturbance to qualifying features.	Where a 'source-pathway-receptor' exists.	The Office of the Planning Regulator (OPR, 2021) states that "the zone of influence of a proposed development (in this case the Proposed Development) is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European Site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework".
National statutory nature conservation designations	Direct and/or indirect habitat loss or disturbance to nature conservation designations.	2km and/or where a 'source-pathway-receptor' exists.	Given the relatively minor nature of the Proposed Development, there are unlikely to be any impact pathways which could adversely affect sites more than 2km distant.
Habitats and plants	Direct habitat loss or indirect impacts to groundwater supply, yield or pollution impacts.	Site boundary or hydrologically connected.	Direct impacts on habitats and plants are restricted to within the Site boundary only. Indirect pollution impacts and/or ground water supply impacts could occur on habitats and plant species with relatively high surface-water dependency relative to terrestrial habitats (e.g., watercourses, mudflats, saltmarsh, reefs) or relatively high ground-water dependency relative to terrestrial habitats (e.g., turloughs and petrifying springs).
Bats and their roosts	Direct (e.g., noise, lighting) and indirect (e.g., fragmentation) disturbance of roost sites and on foraging/commuting bats.	For direct impacts, typically estimated as 50m from potential or confirmed roost sites but informed by light modelling on a case-by-case basis. For indirect fragmentation impacts, the Zoi varies by bat species; at least 13km in the case of long-distance	Distances are subject to case-by-case assessment however for direct impacts, it is generally accepted that disturbance of most roosting bats from typical construction activities is unlikely to occur beyond 50m from a source and that this can be considerably lower for minor works. For indirect fragmentation impacts, Leisler bats have been radio-tracked to demonstrate movements of at least 13km from nursery roost to feeding site (Shiels <i>et al.</i> , 2006).

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		foraging of Irish Leisler's bats.	
Otter	Direct physical disturbance to breeding or resting sites or fragmentation or commuting and/or foraging habitat.	Disturbance of otter from construction works is only likely to extend up to a distance of 150m for any holts at which breeding females or cubs are present, and 20m for active non-breeding otter holts (NRA, 2008).	Distances are subject to case-by-case assessment of local ground conditions (e.g., holes in unstable clay substrates are more sensitive than those protected from vibration from sheet rock).
Badger	Direct physical disturbance to breeding or resting sites or fragmentation or commuting and/or foraging habitat.	Disturbance of any badger setts during the breeding season (December to June inclusive) from construction works is only likely to extend up to a distance of 150m where pile driving will occur or up to 50m where other works will occur. Furthermore, disturbance to setts during the non-breeding season is only likely to extend up to a distance of 30m (NRA, 2006).	Distances are subject to case-by-case assessment of local ground conditions (e.g., holes in unstable clay substrates are more sensitive than those protected from vibration from sheet rock).
Other terrestrial mammals	Direct physical disturbance to breeding or resting sites or fragmentation or commuting and/or foraging habitat.	Within the Site boundary.	Other mammals could be impacted by habitat loss and susceptible to mortality during construction and/or operation of the Proposed Development. Significant disturbance effects are assumed to be unlikely beyond the Site boundary.
Marine mammals	Direct physical disturbance to dolphins within their critical habitat adjacent to the Site, or to other mammals within the Shannon Estuary.	Up to 135km	Marine mammals are highly mobile and can range over large distances. Seals typically travel up to 100km from haul out sites, but harbour porpoise and dolphin may range further.
Amphibians and Reptiles	Direct mortality and/or indirect pollution impacts to	Within the Site boundary.	Amphibians and reptiles could be impacted in suitable habitat within the Site. Significant effects are

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	breeding, foraging habitat.		assumed to be unlikely beyond the Site boundary.
Birds	Disturbance to nesting and wintering birds from construction works.	Typically, up to 300m from the Site for waterbirds (Cutts <i>et al.</i> 2013), but up to 650m in the case of curlew (Goodship and Furness, 2022)	<p>Nesting birds including any singing males could potentially be affected by habitat loss or noise from the Proposed Development, but significant disturbance effects are assumed to be unlikely beyond the Site boundary.</p> <p>Non-breeding wintering birds could also potentially be impacted by construction and/or operation-related disturbance, and certain species of waterbirds are particularly sensitive to noise and visual disturbance.</p>
Invasive non-native species	Spread of invasive non-native species.	50m	The Proposed Development could cause the spread of invasive non-native species within the Site boundary or immediate vicinity of the Site. The zone of influence is unlikely to be greater than 50m from the Site boundary.