

## Protected Species (Existing Records)

The National Biodiversity Data Centre (NBDC) database was trawled to search for any protected flora or fauna species present within the vicinity of the project footprint.

Protected species included those listed on:

- Annex II of Habitats Directive;
- Schedules of The Wildlife Acts (excluding avifauna);
- The First Schedule of the Birds and Natural Habitats Regulations (all species listed in Annex IV and V of The Habitats Directive); and
- The Flora Protection Order 1999.

The 2km Grid Squares W76S and W76X, which incorporates the proposed redevelopment footprint were chosen for the search area. Table 15.8 presents protected species identified in the data trawl.

## Existing Protected Species Records

Species	W76S	W76X	Conservation Status
Hedgehog <i>Erinaceus europaeus</i>	X		WA
Leathery Turtle <i>Dermochelys coriacea</i>		X	Annex IV; WA
Pipistrelle <i>Pipistrellus pipistrellus</i>		X	Annex IV; WA
<b>Key To Table</b>			
WA - The Wildlife Acts			
Annex IV - Annex IV of The Habitats Directive			

Additional species of conservation concern identified in the data trawl include:

- Sharp-leaved Fluellen *Kickxia elatine* (Endangered);
- Winter Heliotrope *Petasites fragrans* (Invasive) and;
- Wall *Lasiommata megera* (Endangered).

## Existing Bat Records

A review of existing bat records held by Bat Conservation Ireland (National Bat Records Database) within 10km of the proposed development footprint revealed that seven out of the ten known Irish bat species have been recorded locally. These include common *Pipistrellus pipistrellus* and soprano *P. pygmaeus* pipistrelle, Leisler's *Nyctalus leisleri*, brown long-eared *Plecotus auritus*, Daubenton's *Myotis daubentonii*, Natterer's *M. nattereri* and whiskered *M. mystacinus* bats as shown in Table 15.9 below.

## Adjudged status of Irish Bat Species in the Immediate Area

Common name	Scientific name	Presence	Local roosts	Source
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Present	None known	BCIreland
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Present	2 known	BCIreland
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	Potential	None known	BCIreland
Leisler's bat	<i>Nyctalus leisleri</i>	Present	2 known	BCIreland
Brown long-eared bat	<i>Plecotus auritus</i>	Present	1 known	BCIreland
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	Absent	None known	BCIreland
Daubenton's bat	<i>Myotis daubentonii</i>	Present	None known	BCIreland
Natterer's bat	<i>Myotis nattereri</i>	Present	None known	BCIreland
Whiskered bat	<i>Myotis mystacinus</i>	Present	None known	BCIreland
Brandt's bat	<i>Myotis brandtii</i>	Potential	None known	BCIreland

The remaining Irish bat species; lesser horseshoe *Rhinolophus hipposideros*, Nathusius' pipistrelle, *P. nathusii* and Brandt's *M. brandtii* bat have not been recorded in the local area to date. The lesser horseshoe bat is largely confined to the west of the county and the nearest known record is adjacent

to the town of Ballincollig, approximately 20km to the west. The latter two species are both rare and may occur in the area occasionally.

### Existing Waterbird Records

Ringaskiddy - Luc Strand (OL455) incorporates the Ringaskiddy DWB and Paddys Point development footprint (EIS Volume III a - Appendix 15.8). With the exception of Cormorant, the peak mean counts between 2007/08 - 2001/12 suggests the sub-site is of relatively low importance to wintering waterbirds in the context of Cork Harbour as it is supporting low percentages of the overall Cork Harbour waterbird assemblage. This is likely reflective of limited tidal flat exposure at low tide and the availability of other undisturbed roost sites at high tide. The significance of the sub-site for Cormorants is likely related to the presence of a key roost site on the ADM Jetty.

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### Key To Tables

Special Conservation Interest of Cork Harbour SPA.

\*Listed on Annex 1 of The Birds Directive.

<sup>1</sup>Crowe *et al.*, 2012.

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### Most Recent 5-year I-WeBS Count Summary for OL455 2007/08 - 2011/12

Species	Peak	Mean	% of Most Recent Cork Harbour 5-year mean	1% National <sup>1</sup>	1% International <sup>1</sup>
Mute Swan	1	0	0	110	-
Light-bellied Brent Goose	16	5	0	-	400
Shelduck	11	4	2	150	3,000
Mallard	2	1	7	380	20,000
Great Crested Grebe	5	3	3	55	3,500
Cormorant	39	18	25	140	1,200
Oystercatcher	71	40	1	680	8,200
Grey Plover	16	6	1	65	2,500
Dunlin*	120	41	0	880	13,300
Bar-tailed Godwit	7	2	18	160	1,200
Redshank	25	3	0	310	3,900
Turnstone	7	30	2	120	1,400
Black-headed Gull	5	3	0	-	20,000
Herring Gull	2	1	0	-	10,200
Great Black-backed Gull	1	0	0	-	4,200

Monkstown Creek (OL496) sub-site incorporates both Monkstown Creek and Rafeen Creek, which together comprise the core intertidal foraging area within the vicinity of the proposed redevelopment footprint. The sub-site is also located entirely within Cork Harbour SPA. Counts between 2007/08 - 2001/12 indicate the sub-site, with the exception of Cormorant, Grey Heron and Great Black-backed Gull, is of relatively low importance to wintering waterbirds, supporting low percentages of the overall Cork Harbour waterbird assemblage. The significance of the sub-site for Cormorants and Grey Heron is likely related to the presence of a key roost site on the ADM Training Wall and the southern shoreline of Monkstown Creek.

### Most Recent 5-year I-WeBS Count Summary for OL496 2007/08 - 2011/12

Species	Peak	Mean	% of Most Recent Cork Harbour 5-year mean	1% National <sup>1</sup>	1% International <sup>1</sup>
Mute Swan	3	1	2	110	-
Light-bellied Brent Goose	2	2	5	-	400
Shelduck	99	70	6	150	3,000
Teal	77	46	5	450	5,000
Mallard	36	16	4	380	20,000
Red-breasted Merganser	5	1	2	35	1,700
Little Grebe	16	7	10	25	4,000
Great Crested Grebe	2	1	1	55	3,500
Cormorant	180	105	42	140	1,200
Little Egret*	1	1	1	-	1,300
Grey Heron	37	23	25	30	2,700
Oystercatcher	117	95	7	680	8,200
Lapwing	110	34	1	2,100	20,000
Dunlin*	46	12	0	880	13,300
Black-tailed Godwit	76	48	2	140	610
Curlew	79	46	3	550	8,400
Greenshank	4	3	4	20	2,300
Redshank	75	35	2	310	3,900
Turnstone	44	21	13	120	1,400
Black-headed Gull	209	124	7	-	20,000
Common Gull	17	5	3	-	16,400
Lesser Black-backed Gull	6	3	3	-	5,500
Herring Gull	14	9	14	-	10,200
Great Black-backed Gull	71	28	39	-	4,200
Sandwich Tern	7	4	5	-	-
Unidentified Tern	1	1	0	-	-

### NPWS 2010/11 Waterbird Survey

Fundamental to defining and achieving the conservation objectives of SPAs for wintering waterbirds is the need for scientific baseline information, from which to assess and monitor the conservation status of waterbirds and their habitats within these Natura 2000 sites, and to inform the ongoing determination and revision of site specific conservation objectives and management strategies.

Since 1994/95 the I-WeBS have largely fulfilled the requirement for scientific baseline information on the distribution and abundance of overwintering wetland birds in Ireland. Such counts as detailed above are primarily conducted at or near to high tide, when the birds are generally at roost and easier to count. The purpose of the NPWS 2010/11 waterbird survey programme was therefore designed to complement I-WeBS and to investigate how waterbirds are distributed across Irelands coastal wetland sites during the low tide period (Cummins & Crowe, 2011). Counts were conducted at 11 wetland sites including Cork Harbour.

#### *Cork Harbour Coverage*

Cork Harbour was divided into 74 sub-sites. An overview of the sub-site boundaries is presented in EIS Volume III a - Appendix 15.9. Only those sub-sites of most relevant to the proposed redevelopment footprint and the potential zone of influence are further discussed here and include:

- Monkstown Creek (OL496);
- Rafeen Creek (OL530);
- Ringaskiddy Port (OL528);
- Haulbowline to Spike Island (OL529); and

- Glenbrook (OL532).

Four low tide waterbird counts and one high tide waterbird count were undertaken within Cork Harbour over the 2010/11 wintering season. Table 15.12 to 15.15 present summary data for the above sub-sites.

It is important to note that the comparison of the NPWS 2010/11 waterbird survey programme with Cork Harbour SPA qualifying populations and 1% National and International thresholds (also presented in Tables 15.12 to 15.16) as derived from I-WeBS data should be treated with caution, given the obvious differences in count methodology between I-WeBS and the NPWS 2010/12 waterbird survey programme and given that the NPWS data represents one winter season only (Cummins & Crowe, 2011).

During the NPWS 2010/11 waterbird survey programme counts of waterbirds within Monkstown Creek (OL496) did not exceed the threshold international importance for any species. One species was recorded in nationally important numbers with a peak count of 31 Grey Herons recorded during the high-tide count, equates to ~66% of the SPA qualifying population. In total 13 species which are SCIs of Cork Harbour SPA were recorded.

#### NPWS 2010/11 Waterbird Data - Monkstown Creek (OL496)

Species	Low Tide		High Tide	1% National <sup>1</sup>	1% International <sup>1</sup>
	Peak	Mean			
Black-headed Gull	90	57	15	-	20,000
Black-tailed Godwit	38	18	0	140	470
Cormorant	15	9	15	140	1,200
Curlew	24	17	4	550	8,500
Dunlin*	35	25	0	880	13,300
Great Black-backed Gull	8	6	0	-	4,800
Greenshank	1	1	1	20	2,300
Grey Heron	23	7	31	30	2,700
Herring Gull	19	13	19	-	13,000
Lapwing	0	0	110	2,100	20,000
Lesser Black-backed Gull	4	4	2	-	4,500
Mallard	10	8	2	680	10,200
Oystercatcher	44	35	14	680	10,200
Redshank	18	14	21	310	3,900
Shelduck	66	49	46	150	3,000
Teal	27	14	14	450	5,000
Wigeon	4	4	0	820	15,000

Rafeen Creek (OL530) with the exception of gulls was of most significance to small waders and waterfowl, most notably Teal and Dunlin. No species were recorded in nationally or internationally important numbers. The peak low tide count of 104 Dunlin equates to c.2% of the SPA qualifying population and the peak low tide count of 52 Teal recorded equates to 6% of the SPA qualifying population.

Together Rafeen Creek (OL530) and Monkstown Creek (OL496) comprise the core intertidal foraging area adjacent to the proposed development footprint. In general counts of SCIs represent a very small proportion of the SPA qualifying populations, with the sub-sites being of most combined importance to

Black-headed Gull, Oystercatcher, Redshank, Dunlin, Black-tailed Godwit, Teal and Shelduck during low tide conditions.

**NPWS 2010/11 Waterbird Data - Rafeen Creek (OL530)**

Species	Low Tide		High Tide	1% National <sup>1</sup>	1% International <sup>1</sup>	SPA Population
	Peak	Mean				
Black-headed Gull	82	43	24	-	20,000	5%
Black-tailed Godwit	16	8	0	140	470	2%
Cormorant	1	1	0	140	1,200	0%
Curlew	11	9	0	550	8,500	1%
Dunlin*	104	68	0	880	13,300	1%
Greenshank	1	1	0	20	2,300	-
Grey Heron	2	2	2	30	2,700	4%
Herring Gull	5	4	4	-	13,000	-
Lesser Black-backed Gull	2	2	1	-	4,500	1%
Little Egret*	1	1	0	-	1,300	-
Little Grebe	6	6	9	25	4,000	9%
Mallard	18	10	7	380	20,000	-
Oystercatcher	21	15	32	680	10,200	2%
Redshank	13	12	18	310	3,900	1%
Shelduck	12	8	77	150	3,000	1%
Snipe	2	2	1	-	20,000	-
Teal	52	27	36	450	5,000	3%

With the exception of Gulls, counts of waterbirds within Ringaskiddy Port (OL528) which includes the marine and intertidal areas of the Ringaskiddy Basin and Paddy's Point were negligible. Eight species which are SCIs of Cork Harbour SPA were recorded, with the sub-site being of most importance to Black-headed Gull and Oystercatcher. The peak count of 38 Black-headed Gulls during low-tide conditions equated to ~4% of the SPA qualifying population, with the peak count of 34 Oystercatcher also equating to ~4% of the SPA qualifying population. No counts of waterbird species exceeded the thresholds for national or international importance.

**NPWS 2010/11 Waterbird Data - Ringaskiddy Port (OL528)**

Species	Low Tide		High Tide	1% National <sup>1</sup>	1% International <sup>1</sup>
	Peak	Mean			
Black-headed Gull	38	24	22	-	20,000
Cormorant	5	4	3	140	1,200
Curlew	6	5	0	550	8,500
Great Black-backed Gull	2	2	0	-	4,800
Grey Heron	2	2	1	30	2,700
Herring Gull	38	26	0	-	13,000
Lesser Black-backed Gull	6	6	0	-	4,500
Great Northern Diver*	3	3	1	-	50
Oystercatcher	34	20	17	680	10,200
Redshank	9	7	0	310	3,900
Shelduck	5	5	0	150	3,000
Sandwich Tern*	1	1	0	-	-

With the exception of Gulls, counts of waterbirds within between Haulbowline Island and Spike Island (OL529) which includes the marine and intertidal to the east of Paddy's Point were negligible. Ten species which are SCIs of Cork Harbour SPA were recorded, with the sub-site of most importance to Black-headed Gull, Oystercatcher and Pale-bellied Brent Goose. The peak count of 95 Black-headed Gulls during low-tide conditions equated to ~10% of the SPA qualifying population and peak count of 34 Oystercatcher also equating to ~7% of the SPA qualifying population. No counts of waterbird species exceeded the threshold for national or international importance.

**NPWS 2010/11 Waterbird Data - Haulbowline to Spike Island (OL529)**

Species	Low Tide		High Tide	1% National <sup>1</sup>	1% International <sup>1</sup>
	Peak	Mean			
Black-headed Gull	95	71	16	-	20,000
Cormorant	16	6	8	140	1,200
Common Gull	5	5	0	-	16,000
Curlew	5	3	0	550	8,500
Great Black-backed Gull	2	2	1	-	4,800
Great Crested Grebe	3	2	0	55	3,600
Greenshank	1	1	0	20	2,300
Grey Plover	3	3	0	65	2,500
Grey Heron	3	2	2	30	2,700
Herring Gull	35	25	9	-	13,000
Lesser Black-backed Gull	4	3	2	-	4,500
Oystercatcher	54	33	39	680	10,200
Pale-bellied Brent Goose	43	38	11	220	260
Redshank	28	13	15	310	3,900
Turnstone	8	8	25	120	1,500

With the exception of Gulls, counts of waterbirds at Glensbrook (OL532) which includes the marine and intertidal to the north of the ADM Jetty were negligible. Seven species which are SCIs of Cork Harbour SPA were recorded, with the sub-site of most importance to Black-headed Gull, Herring Gull, Oystercatcher and Lesser Black-backed Gulls. The peak count of 119 Black-headed Gulls during low-tide conditions equated to ~13% of the SPA qualifying population. No counts of waterbird species exceeded the threshold for national or international importance.

**NPWS 2010/11 Waterbird Data Glenbrook (OL532)**

Species	Low Tide		High Tide	1% National <sup>1</sup>	1% International <sup>1</sup>	SPA Population <sup>2</sup>
	Peak	Mean				
Black-headed Gull	119	79	67	-	20,000	8% (948 i)
Cormorant	5	5	3	140	1,200	1% (620 i)
Common Gull	12	12	12	-	16,000	<1% (2,630 i)
Great Black-backed Gull	3	2	3	-	4,800	-
Grey Heron	1	1	1	30	2,700	2% (47 i)
Herring Gull	44	30	8	-	13,000	-
Lesser Black-backed Gull	18	12	4	-	4,500	5% (261 i)
Mute Swan	6	4	2	110	110	-
Oystercatcher	16	15	7	680	10,200	2% (791 i)
Pied-billed Grebe	1	1	0	-	-	-
Redshank	3	2	0	310	3,900	<1% (1614 i)