

Appendices
to
Environmental Impact Assessment Report
for
Kilshane Power Generation Station Project –
Phase Two
at
Kilshane, Co. Dublin



Kilshane Energy Ltd.

October 2024

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Appendices are provided in relation to the below listed chapters.

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APPENDIX TO SECTION 6

BIODIVERSITY

APPENDIX 6.1

Natura 2000 Sites, Natural Heritage Areas and proposed Natural Heritage Areas within 15km of the proposed development site

Appendix 6.1

Natura 2000 Sites, Natural Heritage Areas and proposed Natural Heritage Areas within 15km of the proposed development site in Kilshane (arranged by distance from proposed sites).

Site code	Site name	Distance (km)	Qualifying feature	Likelihood of significant in-combination effects
004024	South Dublin Bay and River Tolka Estuary SPA	9.47	Common tern (<i>Sterna hirundo</i>) [A193], Roseate Tern (<i>Sterna dougallii</i>) [A192], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Wetland and Waterbirds [A999], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Redshank (<i>Tringa totanus</i>) [A162], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina</i>) [A149], Arctic tern (<i>Sterna paradisaea</i>) [A194], Oystercatcher (<i>Haematopus ostralegus</i>) [A130]	No
000205	Malahide Estuary SAC	9.69	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	No
004025	Malahide Estuary SPA	9.77	Wetland and Waterbirds [A999], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Dunlin (<i>Calidris alpina</i>) [A149], Knot (<i>Calidris canutus</i>) [A143], Redshank (<i>Tringa totanus</i>) [A162], Goldeneye (<i>Bucephala clangula</i>) [A067], Shelduck (<i>Tadorna tadorna</i>) [A048], Pintail (<i>Anas acuta</i>) [A054], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141]	No
001398	Rye Water Valley/Cartron SAC	11.44	Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>) [1016], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Narrow-mouthed whorl snail (<i>Vertigo angustior</i>) [1014]	No
000206	North Dublin Bay SAC	11.80	Embryonic shifting dunes [2110], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Humid dune slacks [2190], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Annual vegetation of drift lines [1210], Mudflats and sandflats not covered by	No

Site code	Site name	Distance (km)	Qualifying feature	Likelihood of significant in-combination effects
			seawater at low tide [1140], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Petalwort (<i>Petalophyllum ralfsii</i>) [1395]	
004006	North Bull Island SPA	11.80	Redshank (<i>Tringa totanus</i>) [A162], Dunlin (<i>Calidris alpina</i>) [A149], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Shelduck (<i>Tadorna tadorna</i>) [A048], Wetland and Waterbirds [A999], Teal (<i>Anas crecca</i>) [A052], Sanderling (<i>Calidris alba</i>) [A144], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Curlew (<i>Numenius arquata</i>) [A160], Turnstone (<i>Arenaria interpres</i>) [A169], Shoveler (<i>Anas clypeata</i>) [A056], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Pintail (<i>Anas acuta</i>) [A054]	No
000210	South Dublin Bay SAC	12.14	Annual vegetation of drift lines [1210], Mudflats and sandflats not covered by seawater at low tide [1140], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Embryonic shifting dunes [2110]	No
000199	Baldoye Bay SAC	12.46	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	No
004016	Baldoye Bay SPA	12.46	Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Wetland and Waterbirds [A999], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Grey Plover (<i>Pluvialis squatarola</i>) [A141]	No
000208	Rogerstown Estuary SAC	12.58	Estuaries [1130], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]	No
004015	Rogerstown Estuary SPA	13.24	Grey Plover (<i>Pluvialis squatarola</i>) [A141], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Shoveler (<i>Anas clypeata</i>) [A056], Ringed Plover	No

Site code	Site name	Distance (km)	Qualifying feature	Likelihood of significant in-combination effects
			(<i>Charadrius hiaticula</i>) [A137], Wetland and Waterbirds [A999], Knot (<i>Calidris canutus</i>) [A143], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Dunlin (<i>Calidris alpina</i>) [A149], Redshank (<i>Tringa totanus</i>) [A162], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Greylag Goose (<i>Anser anser</i>) [A043], Shelduck (<i>Tadorna tadorna</i>) [A048]	
004236	North-west Irish Sea SPA	13.76	Cormorant (<i>Phalacrocorax carbo</i>) [A017], Guillemot (<i>Uria aalge</i>) [A199], Little Tern (<i>Sterna albifrons</i>) [A195], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Fulmar (<i>Fulmarus glacialis</i>) [A009], Red-throated Diver (<i>Gavia stellata</i>) [A001], Arctic Tern (<i>Sterna paradisaea</i>) [A194], Common Tern (<i>Sterna hirundo</i>) [A193], Herring Gull (<i>Larus argentatus</i>) [A184], Great Northern Diver (<i>Gavia immer</i>) [A003], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Puffin (<i>Fratercula arctica</i>) [A204], Manx Shearwater (<i>Puffinus puffinus</i>) [A013], Common Scoter (<i>Melanitta nigra</i>) [A065], Little Gull (<i>Larus minutus</i>) [A177], Roseate Tern (<i>Sterna dougallii</i>) [A192], Common Gull (<i>Larus canus</i>) [A182], Razorbill (<i>Alca torda</i>) [A200], Kittiwake (<i>Rissa tridactyla</i>) [A188], Great Black-backed Gull (<i>Larus marinus</i>) [A187], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]	No

APPENDIX 6.2

National Biodiversity Centre records

Appendix 6.2

The National Biodiversity Centre 10km hectad O14 displayed below, contains the proposed development on the Liffey.

National Biodiversity Data Centre hectad O14^{1,2}.



Invasive species records for the O14 hectad^{Error! Bookmark not defined.} relevant to the proposed development site.

* Species subject to restrictions (Third Schedule) under Regulation 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011

No invasive species recorded during ecological site visit on 3rd February 2022.

Common name	Scientific name	Record count
Ruddy duck*	<i>Oxyura jamaicensis</i>	1
Arthurdendyus triangulatus	<i>Arthurdendyus triangulatus</i>	1
Australoplana sanguinea	<i>Australoplana sanguinea</i>	1
Butterfly-bush	<i>Buddleja davidii</i>	12
Canadian Fleabane	<i>Conyza canadensis</i>	1
Cherry Laurel	<i>Prunus laurocerasus</i>	7
Common cord-grass*	<i>Spartina anglica</i>	1
Evergreen Oak	<i>Quercus ilex</i>	1
Giant hogweed*	<i>Heracleum mantegazzianum</i>	6
Himalayan Honeysuckle	<i>Leycesteria formosa</i>	3

¹ National Biodiversity Data Centre records. Accessed: 5th September 2022.

² Image: NBDC Maps database

Common name	Scientific name	Record count
Japanese knotweed*	<i>Fallopia japonica</i>	5
Russian-vine	<i>Fallopia baldschuanica</i>	2
Sycamore	<i>Acer pseudoplatanus</i>	9
Three-cornered leek*	<i>Allium triquetrum</i>	2
Wild Parsnip	<i>Pastinaca sativa</i>	1
Jenkins' Spire Snail	<i>Potamopyrgus antipodarum</i>	9
Red-eared Terrapin	<i>Trachemys scripta</i>	1
American mink*	<i>Mustela vison</i>	2
Brown rat* (Offshore Islands Only)	<i>Rattus norvegicus</i>	2
Eastern Grey squirrel*	<i>Sciurus carolinensis</i>	12
European Rabbit	<i>Oryctolagus cuniculus</i>	10

Rare and/or protected species known to occur within the 014 hectad containing the proposed development site (arranged by taxonomic group).

Taxonomic group	Common name	Scientific name	Designation	Record count
amphibian	Common Frog	<i>Rana temporaria</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts	9
amphibian	Smooth Newt	<i>Lissotriton vulgaris</i>	Protected Species: Wildlife Acts	3
bird	Barn Owl	<i>Tyto alba</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	5
bird	Barn Swallow	<i>Hirundo rustica</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	28
bird	Bar-tailed Godwit	<i>Limosa lapponica</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	3
bird	Black-headed Gull	<i>Larus ridibundus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	15

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Black-tailed Godwit	<i>Limosa limosa</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Brent Goose	<i>Branta bernicla</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	3
bird	Common Coot	<i>Fulica atra</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Common Goldeneye	<i>Bucephala clangula</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Common Grasshopper Warbler	<i>Locustella naevia</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Common Greenshank	<i>Tringa nebularia</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	4
bird	Common Kestrel	<i>Falco tinnunculus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	13
bird	Common Kingfisher	<i>Alcedo atthis</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	9
bird	Common Linnet	<i>Carduelis cannabina</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	16
bird	Common Pheasant	<i>Phasianus colchicus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species	17

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Common Pochard	<i>Aythya ferina</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	3
bird	Common Redshank	<i>Tringa totanus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	10
bird	Common Sandpiper	<i>Actitis hypoleucos</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	4
bird	Common Shelduck	<i>Tadorna tadorna</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	11
bird	Common Snipe	<i>Gallinago gallinago</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	5
bird	Common Starling	<i>Sturnus vulgaris</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	38
bird	Common Swift	<i>Apus apus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	16
bird	Common Tern	<i>Sterna hirundo</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Common Wood Pigeon	<i>Columba palumbus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species	41

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Corn Crane	<i>Crex crex</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	2
bird	Dunlin	<i>Calidris alpina</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	5
bird	Eurasian Curlew	<i>Numenius arquata</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	7
bird	Eurasian Oystercatcher	<i>Haematopus ostralegus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Eurasian Teal	<i>Anas crecca</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	4
bird	Eurasian Tree Sparrow	<i>Passer montanus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	17
bird	Eurasian Wigeon	<i>Anas penelope</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Eurasian Woodcock	<i>Scolopax rusticola</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	European Golden Plover	<i>Pluvialis apricaria</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	4
bird	Great Black-backed Gull	<i>Larus marinus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	5
bird	Great Cormorant	<i>Phalacrocorax carbo</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Great Crested Grebe	<i>Podiceps cristatus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Greater Scaup	<i>Aythya marila</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Grey Partridge	<i>Perdix perdix</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	2
bird	Grey Plover	<i>Pluvialis squatarola</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Hen Harrier	<i>Circus cyaneus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Herring Gull	<i>Larus argentatus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	10

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	House Martin	<i>Delichon urbicum</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	24
bird	House Sparrow	<i>Passer domesticus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	37
bird	Lesser Black-backed Gull	<i>Larus fuscus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Little Egret	<i>Egretta garzetta</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species	7
bird	Little Grebe	<i>Tachybaptus ruficollis</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	13
bird	Little Gull	<i>Larus minutus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species	2
bird	Mallard	<i>Anas platyrhynchos</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species	19
bird	Mediterranean Gull	<i>Larus melanocephalus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Mew Gull	<i>Larus canus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Mute Swan	<i>Cygnus olor</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	26
bird	Northern Goshawk	<i>Accipiter gentilis</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Northern Lapwing	<i>Vanellus vanellus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	16
bird	Northern Wheatear	<i>Oenanthe oenanthe</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Peregrine Falcon	<i>Falco peregrinus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species	5
bird	Pink-footed Goose	<i>Anser brachyrhynchus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species	1
bird	Red Kite	<i>Milvus milvus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Red Knot	<i>Calidris canutus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	4
bird	Red-breasted Merganser	<i>Mergus serrator</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species	2
bird	Rock Pigeon	<i>Columba livia</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species	18
bird	Ruddy Duck	<i>Oxyura jamaicensis</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	1
bird	Ruff	<i>Philomachus pugnax</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	4
bird	Sand Martin	<i>Riparia riparia</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	5

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Short-eared Owl	<i>Asio flammeus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	Sky Lark	<i>Alauda arvensis</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	11
bird	Slavonian Grebe	<i>Podiceps auritus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Snowy Owl	<i>Bubo scandiaca</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	1
bird	Spotted Flycatcher	<i>Muscicapa striata</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	6
bird	Stock Pigeon	<i>Columba oenas</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	17
bird	Tufted Duck	<i>Aythya fuligula</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	10
bird	Twite	<i>Carduelis flavirostris</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	1
bird	Velvet Scoter	<i>Melanitta fusca</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species	2
bird	Water Rail	<i>Rallus aquaticus</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	2
bird	White-tailed Eagle	<i>Haliaeetus albicilla</i>	Protected Species: Wildlife Acts	1

Taxonomic group	Common name	Scientific name	Designation	Record count
bird	Whooper Swan	<i>Cygnus cygnus</i>	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List	3
bird	Wood Lark	<i>Lullula arborea</i>	Protected Species: Wildlife Acts	1
bird	Yellowhammer	<i>Emberiza citrinella</i>	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List	21
bony fish (Actinopterygii)	European Eel	<i>Anguilla anguilla</i>	Threatened Species: OSPAR Convention Threatened Species: Critically Endangered	2
Flatworm (Turbellaria)	Arthurdendyus triangulatus	<i>Arthurdendyus triangulatus</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species	1
flatworm (Turbellaria)	Australoplane sanguinea	<i>Australoplane sanguinea</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	1
flowering plant	Blue Fleabane	<i>Erigeron acer</i>	Threatened Species: Endangered	1
flowering plant	Butterfly-bush	<i>Buddleja davidii</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	12
flowering plant	Canadian Fleabane	<i>Conyza canadensis</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	1
flowering plant	Cherry Laurel	<i>Prunus laurocerasus</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species	7
flowering plant	Common Cord-grass	<i>Spartina anglica</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	1
flowering plant	Evergreen Oak	<i>Quercus ilex</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	1
flowering plant	Giant Hogweed	<i>Heracleum mantegazzianum</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	6
flowering plant	Himalayan Honeysuckle	<i>Leycesteria formosa</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	3

Taxonomic group	Common name	Scientific name	Designation	Record count
flowering plant	Japanese Knotweed	<i>Fallopia japonica</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	5
flowering plant	Meadow Barley	<i>Hordeum secalinum</i>	Threatened Species: Endangered	7
flowering plant	Russian-vine	<i>Fallopia baldschuanica</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	2
flowering plant	Smooth Brome	<i>Bromus racemosus</i>	Threatened Species: Vulnerable	1
flowering plant	Sycamore	<i>Acer pseudoplatanus</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	9
flowering plant	Three-cornered Garlic	<i>Allium triquetrum</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	2
flowering plant	Wild Parsnip	<i>Pastinaca sativa</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	1
insect - beetle (Coleoptera)	Bagous	<i>Hydronomus alismatis</i>	Threatened Species: Critically Endangered	1
insect - beetle (Coleoptera)	Gyrinus urinator	<i>Gyrinus urinator</i>	Threatened Species: Near threatened	1
insect - beetle (Coleoptera)	Nebrioporus	<i>Nebrioporus depressus</i>	Threatened Species: Data deficient	1
insect - butterfly	Grayling	<i>Hipparchia semele</i>	Threatened Species: Near threatened	1
insect - butterfly	Marsh Fritillary	<i>Euphydryas aurinia</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Threatened Species: Vulnerable	1
insect - butterfly	Wall	<i>Lasiommata megera</i>	Threatened Species: Endangered	2
insect - hymenoptera n	Andrena	<i>Melandrena nigroaenea</i>	Threatened Species: Vulnerable	3
insect - hymenoptera n	Bombus	<i>Bombus magnus</i>	Threatened Species: Data deficient	1
insect - hymenoptera n	Large Red Tailed Bumble Bee	<i>Bombus melanobombus lapidarius</i>	Threatened Species: Near threatened	14

Taxonomic group	Common name	Scientific name	Designation	Record count
insect - hymenoptera n	Moss Carder-bee	<i>Bombus Thoracombus muscorum</i>	Threatened Species: Near threatened	4
insect - hymenoptera n	Red-tailed Carder Bee	<i>Bombus Thoracombus ruderarius</i>	Threatened Species: Vulnerable	2
insect - mayfly (Ephemeroptera)	Ephemerella notata	<i>Ephemerella notata</i>	Threatened Species: Endangered	1
liverwort	Fairy Beads	<i>Microlejeunea ulicina</i>	Threatened Species: Least concern	1
liverwort	MacKay's Pouncewort	<i>Marchesinia mackaii</i>	Threatened Species: Least concern	1
liverwort	Minute Pouncewort	<i>Cololejeunea minutissima</i>	Threatened Species: Least concern	1
liverwort	Rock Pouncewort	<i>Cololejeunea calcarea</i>	Threatened Species: Least concern	1
liverwort	Rossetti's Pouncewort	<i>Cololejeunea rossettiana</i>	Threatened Species: Least concern	2
liverwort	Toothed Pouncewort	<i>Drepanolejeunea hamatifolia</i>	Threatened Species: Least concern	1
mollusc	Jenkins' Spire Snail	<i>Potamopyrgus antipodarum</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	9
mollusc	Lake Orb Mussel	<i>Musculium lacustre</i>	Threatened Species: Vulnerable	1
mollusc	Mauge's Shelled Slug	<i>Testacella Testacella mauei</i>	Threatened Species: Near threatened	1
mollusc	Moss Chrysalis Snail	<i>Pupilla Pupilla muscorum</i>	Threatened Species: Endangered	1
moss	Archangelic Thread-moss	<i>Bryum archangelicum</i>	Threatened Species: Least concern	1
moss	Bird's-claw Beard-moss	<i>Barbula unguiculata</i>	Threatened Species: Least concern	1

Taxonomic group	Common name	Scientific name	Designation	Record count
moss	Bryum dichotomum	<i>Bryum dichotomum</i>	Threatened Species: Least concern	1
moss	Common Cord-moss	<i>Funaria hygrometrica</i>	Threatened Species: Least concern	1
moss	Common Extinguisher-moss	<i>Encalypta vulgaris</i>	Threatened Species: Near threatened	2
moss	Common Feather-moss	<i>Eurhynchium praelongum</i>	Threatened Species: Least concern	1
moss	Common Pottia	<i>Tortula truncata</i>	Threatened Species: Least concern	1
moss	Crimson-tuber Thread-moss	<i>Bryum rubens</i>	Threatened Species: Least concern	1
moss	Field Forklet-moss	<i>Dicranella staphylina</i>	Threatened Species: Least concern	1
moss	Intermediate Screw-moss	<i>Syntrichia intermedia</i>	Threatened Species: Least concern	1
moss	Lateral Cryphaea	<i>Cryphaea heteromalla</i>	Threatened Species: Least concern	1
moss	Lesser Bird's-claw Beard-moss	<i>Barbula convoluta</i>	Threatened Species: Least concern	1
moss	Pea Bryum	<i>Bryum ruderae</i>	Threatened Species: Least concern	1
moss	Pill Bryum	<i>Bryum violaceum</i>	Threatened Species: Least concern	1
moss	Pink-fruited Thread-moss	<i>Pohlia melanodon</i>	Threatened Species: Least concern	1
moss	Pointed Spear-moss	<i>Calliergonella cuspidata</i>	Threatened Species: Least concern	1
moss	Raspberry Bryum	<i>Bryum klinggraeffii</i>	Threatened Species: Least concern	1

Taxonomic group	Common name	Scientific name	Designation	Record count
moss	Rigid Aloe-moss	<i>Aloina rigida</i>	Threatened Species: Regionally Extinct	1
moss	Rough-stalked Feather-moss	<i>Brachythecium rutabulum</i>	Threatened Species: Least concern	1
moss	Rusty Feather-moss	<i>Sciurohypnum plumosum</i>	Threatened Species: Least concern	1
moss	Sausage Beard-moss	<i>Didymodon tomaculosus</i>	Threatened Species: Vulnerable	2
moss	Schreber's Forklet-moss	<i>Dicranella schreberiana</i>	Threatened Species: Least concern	1
moss	Shaw's Bristle-moss	<i>Orthotrichum striatum</i>	Threatened Species: Least concern	1
moss	Silver-moss	<i>Bryum argenteum</i>	Threatened Species: Least concern	1
moss	Small Hairy Screw-moss	<i>Syntrichia laevipila</i>	Threatened Species: Least concern	1
moss	Swartz's Feather-moss	<i>Oxyrrhynchium hians</i>	Threatened Species: Least concern	1
moss	Variable Forklet-moss	<i>Dicranella varia</i>	Threatened Species: Least concern	1
reptile	Red-eared Terrapin	<i>Trachemys scripta</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species Invasive Species: Invasive Species >> EU Regulation No. 1143/2014	1
terrestrial mammal	American Mink	<i>Mustela vison</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	2
terrestrial mammal	Brown Long-eared Bat	<i>Plecotus auritus</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	3
terrestrial mammal	Brown Rat	<i>Rattus norvegicus</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	2
terrestrial mammal	Daubenton's Bat	<i>Myotis daubentonii</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	24

Taxonomic group	Common name	Scientific name	Designation	Record count
terrestrial mammal	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)	12
terrestrial mammal	Eurasian Badger	<i>Meles meles</i>	Protected Species: Wildlife Acts	8
terrestrial mammal	Eurasian Pygmy Shrew	<i>Sorex minutus</i>	Protected Species: Wildlife Acts	3
terrestrial mammal	Eurasian Red Squirrel	<i>Sciurus vulgaris</i>	Protected Species: Wildlife Acts	1
terrestrial mammal	European Otter	<i>Lutra lutra</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	14
terrestrial mammal	European Rabbit	<i>Oryctolagus cuniculus</i>	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species	10
terrestrial mammal	Lesser Noctule	<i>Nyctalus leisleri</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	26
terrestrial mammal	Natterer's Bat	<i>Myotis nattereri</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	2
terrestrial mammal	Pine Marten	<i>Martes martes</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts	4
terrestrial mammal	Pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	22
terrestrial mammal	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts	15
terrestrial mammal	West European Hedgehog	<i>Erinaceus europaeus</i>	Protected Species: Wildlife Acts	45

APPENDIX TO SECTION 7

LAND, SOILS, GEOLOGY & HYDROGEOLOGY

APPENDIX 7.1
NRA CRITERIA FOR RATING THE MAGNITUDE AND SIGNIFICANCE OF IMPACTS AT EIA
STAGE NATIONAL ROADS AUTHORITY (NRA, 2009)

Table 1 Criteria for Rating Site Attributes – Estimation of Importance of Soil and Geology Attributes (NRA)

Importance	Criteria	Typical Example
Very High	<p>Attribute has a high quality, significance or value on a regional or national scale.</p> <p>Degree or extent of soil contamination is significant on a national or regional scale.</p> <p>Volume of peat and/or soft organic soil underlying route is significant on a national or regional scale.</p>	<p>Geological feature rare on a regional or national scale (NHA). Large existing quarry or pit.</p> <p>Proven economically extractable mineral resource</p>
High	<p>Attribute has a high quality, significance or value on a local scale.</p> <p>Degree or extent of soil contamination is significant on a local scale.</p> <p>Volume of peat and/or soft organic soil underlying route is significant on a local scale.</p>	<p>Contaminated soil on site with previous heavy industrial usage. Large recent landfill site for mixed wastes.</p> <p>Geological feature of high value on a local scale (County Geological Site).</p> <p>Well drained and/or high fertility soils.</p> <p>Moderately sized existing quarry or pit.</p> <p>Marginally economic extractable mineral resource.</p>
Medium	<p>Attribute has a medium quality, significance or value on a local scale.</p> <p>Degree or extent of soil contamination is moderate on a local scale.</p> <p>Volume of peat and/or soft organic soil underlying route is moderate on a local scale</p>	<p>Contaminated soil on site with previous light industrial usage. Small recent landfill site for mixed wastes.</p> <p>Moderately drained and/or moderate fertility soils.</p> <p>Small existing quarry or pit.</p> <p>Sub-economic extractable mineral resource.</p>
Low	<p>Attribute has a low quality, significance or value on a local scale.</p> <p>Degree or extent of soil contamination is minor on a local scale.</p> <p>Volume of peat and/or soft organic soil underlying route is small on a local scale.</p>	<p>Large historical and/or recent site for construction and demolition wastes.</p> <p>Small historical and/or recent landfill site for construction and demolition wastes.</p> <p>Poorly drained and/or low fertility soils.</p> <p>Uneconomically extractable mineral resource.</p>

Table 2 Criteria for Rating Site Attributes – Estimation of Importance of Hydrogeological Attributes (NRA)

Importance	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	Groundwater supports river, wetland or surface water body ecosystem protected by EU legislation e.g. SAC or SPA status.
Very High	Attribute has a high quality or value on a regional or national scale	Regionally Important Aquifer with multiple well fields. Groundwater supports river, wetland or surface water body ecosystem protected by national legislation – NHA status. Regionally important potable water source supplying >2500 homes. Inner source protection area for regionally important water source.
High	Attribute has a high quality or value on a local scale	Regionally Important Aquifer. Groundwater provides large proportion of baseflow to local rivers. Locally important potable water source supplying >1000 homes. Outer source protection area for regionally important water source. Inner source protection area for locally important water source.
Medium	Attribute has a medium quality or value on a local scale	Locally Important Aquifer. Potable water source supplying >50 homes. Outer source protection area for locally important water source.
Low	Attribute has a low quality or value on a local scale	Poor Bedrock Aquifer Potable water source supplying <50 homes

Table 3 Criteria for Rating Impact Significance at EIS Stage – Estimation of Magnitude of Impact on Soil/ Geology Attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute	Loss of high proportion of future quarry or pit reserves. Irreversible loss of high proportion of local high fertility soils. Removal of entirety of geological heritage feature. Requirement to excavate/remediate entire waste site. Requirement to excavate and replace high proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	Loss of moderate proportion of future quarry or pit reserves. Removal of part of geological heritage feature. Irreversible loss of moderate proportion of local high fertility soils. Requirement to excavate/remediate significant proportion of waste site. Requirement to excavate and replace moderate proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	Loss of small proportion of future quarry or pit reserves. Removal of small part of geological heritage feature. Irreversible loss of small proportion of local high fertility soils and/or high proportion of local low fertility soils. Requirement to excavate/remediate small proportion of waste site. Requirement to excavate and replace small proportion of peat, organic soils and/or soft mineral soils beneath alignment.
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	No measurable changes in attributes
Minor Beneficial	Results in minor improvement of attribute quality	Minor enhancement of geological heritage feature
Moderate Beneficial	Results in moderate improvement of attribute quality	Moderate enhancement of geological heritage feature
Major Beneficial	Results in major improvement of attribute quality	Major enhancement of geological heritage feature

Table 4 Criteria for Rating Impact Significance at EIS Stage – Estimation of Magnitude of Impact on Hydrogeological Attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute and/or quality and integrity of attribute	<p>Removal of large proportion of aquifer.</p> <p>Changes to aquifer or unsaturated zone resulting in extensive change to existing water supply springs and wells, river baseflow or ecosystems.</p> <p>Potential high risk of pollution to groundwater from routine run-off.</p> <p>Calculated risk of serious pollution incident >2% annually.</p>
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	<p>Removal of moderate proportion of aquifer.</p> <p>Changes to aquifer or unsaturated zone resulting in moderate change to existing water supply springs and wells, river baseflow or ecosystems.</p> <p>Potential medium risk of pollution to groundwater from routine run-off.</p> <p>Calculated risk of serious pollution incident >1% annually.</p>
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	<p>Removal of small proportion of aquifer. Changes to aquifer or unsaturated zone resulting in minor change to water supply springs and wells, river baseflow or ecosystems.</p> <p>Potential low risk of pollution to groundwater from routine run-off.</p> <p>Calculated risk of serious pollution incident >0.5% annually.</p>
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	<p>Calculated risk of serious pollution incident <0.5% annually.</p>

Table 5 Rating of Significant Environmental Impacts at EIS Stage (NRA)

Importance of Attribute	Magnitude of Importance			
	Negligible	Small Adverse	Moderate Adverse	Large Adverse
Extremely High	Imperceptible	Significant	Profound	Profound
Very High	Imperceptible	Significant/moderate	Profound/Significant	Profound
High	Imperceptible	Moderate/Slight	Significant/moderate	Profound/Significant
Medium	Imperceptible	Slight	Moderate	Significant
Low	Imperceptible	Imperceptible	Slight	Slight/Moderate




APPENDIX 7.2
SITE INVESTIGATION REPORT LOGS

Contract No: 5898		Cable Percussion and Rotary Corehole Log					Corehole No: BH01						
Contract:		Kilshane		Easting:		710778.385		Date Started:		03/11/2021			
Location:		Kilshane, Ballycookin, Dublin 15		Northing:		742304.266		Date Completed:		16/11/2021			
Client:				Elevation:		79.66		Drilled By:		D. McEoin / MEDL			
Engineer:				Rig Type:		Dando 150 / Sondeq		Status:		FINAL			
Depth (m)		Stratum Description		Legend	Level (mOD)		Samples		Rock Indices				Back
Scale	Depth				Scale	Depth			TCR/%	SCR/%	ROD/%	Film	
	0.20	TOPSOIL											
		Brown slightly sandy slightly gravelly silty CLAY with low cobble content.			79.5	79.46							
	0.5												
					79.0								
	1.0							N=15 (2,3/4,4,3,4) B / 1.00					
		Firm grey brown slightly sandy slightly gravelly silty CLAY with high cobble content.			78.5	78.56							
	1.5												
					78.0								
	2.0							N=25 (3,6/5,6,7,7) B / 2.00					
					77.5								
	2.30	Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content.				77.36							
					77.0								
	2.5												
					76.5			N=35 (4,7/8,8,8,9) B / 3.00					
	3.0												
					76.0			50 (25 for 5mm/50 for 5mm)					
	3.5												
		Moderately strong dark grey calcareous MUDSTONE interbedded with very strong grey argillaceous LIMESTONE with occasional fossils, pyrite crystals and calcite veins (up to 5mm). Fresh to slightly weathered.			75.5			3.60 - 4.60	96	30	0	Ni	
	4.0	Discontinuities - non-intact											
					75.0								
	4.5	Discontinuities - smooth, planar, tight to open, 40-50° dip occasionally sub-horizontal clean surfaces											
					74.5			4.60 - 5.60	100	100	13	26	
	5.0												
					74.0								
	5.5	Discontinuities - non-intact											
					73.5			5.60 - 6.60	96	80	0	Ni	
	6.0												
		Discontinuities - smooth, planar, tight to open, 40-50° dip, clean surfaces.			73.0							28	
	6.5												
	6.60	End of Corehole at 6.60m			72.0	73.06							



Contract No: 5898		Cable Percussion and Rotary Corehole Log						Corehole No: BH02																																																	
Contract: Kilshane		Easting: 710828.053		Date Started: 02/11/2021																																																					
Location: Kilshane, Ballycoolin, Dublin 15		Northing: 742278.441		Date Completed: 15/11/2021																																																					
Client:		Elevation: 78.61		Drilled By: D. McEoin / MEDL																																																					
Engineer:		Rig Type: Dando 150 / Sondaq		Status: FINAL																																																					
Depth (m)		Stratum Description		Level (mOD)		Samples		Rock Indices		Backfill																																															
Scale	Depth			Legend	Scale	Depth			TCR/%	SCR/%	ROD/%	Flm																																													
	0.20	TOPSOIL			78.5	78.41																																																			
	0.5	Brown slightly sandy slightly gravelly silty CLAY with low cobble content.			78.0																																																				
	0.80	Firm becoming very stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content.			77.81		N=14 (2,2/3,3,4,4) B / 1.00																																																		
	1.0				77.5																																																				
	1.5				77.0																																																				
	2.0				76.5		N=39 (4,8/10,9,9,11) B / 2.00																																																		
	2.5				76.0																																																				
	3.0				75.5		50 (7.10/50 for 80mm) B / 3.00																																																		
	3.30	Massive dark grey calcareous MUDSTONE interbedded with moderately strong grey argillaceous LIMESTONE with frequent fossils. Fresh to slightly weathered.			75.31		50 (25 for 5mm/50 for 5mm)					Ni																																													
	3.5	Discontinuities - non-intact.			75.0							25																																													
	4.0	Discontinuities - smooth, planar, tight to open, 40-50° and 70-80° dip, clean surfaces.			74.5		3.30 - 4.30		100	85	60																																														
	4.5	Discontinuities - smooth, planar, tight to open, 40-50° dip, clean with occasional brown and grey staining.			74.0							4																																													
	5.0	Discontinuities - smooth, planar, open to open, 40-50° dip, occasionally sub-vertical, clean with occasional brown and grey staining.			73.5		4.30 - 5.30		95	95	89																																														
	5.5				73.0							12																																													
	6.0				72.5		5.30 - 6.30		95	95	60																																														
	6.30	End of Corehole at 6.30m			72.31																																																				
	6.5				72.0																																																				
<table border="1"> <thead> <tr> <th colspan="3">Chiselling:</th> <th colspan="3">Water Strikes:</th> <th colspan="2">Water Details:</th> <th colspan="2">Installations:</th> <th colspan="2">Backfill:</th> <th colspan="2">Remarks:</th> <th rowspan="2">Legend B Bulk D Disturbed U Undisturbed ES-Environmental W Water</th> </tr> <tr> <th>From:</th> <th>To:</th> <th>Time:</th> <th>Strike:</th> <th>Rose:</th> <th>Sealed:</th> <th>Date:</th> <th>Hole Depth:</th> <th>Water Depth:</th> <th>From:</th> <th>To:</th> <th>Pipe:</th> <th>From:</th> <th>To:</th> <th>Type:</th> </tr> </thead> <tbody> <tr> <td>3.20</td> <td>3.30</td> <td>01:00</td> <td></td> <td></td> <td></td> <td>02/11</td> <td>3.30</td> <td>Dry</td> <td></td> <td></td> <td></td> <td>0.00</td> <td>6.30</td> <td>Arising</td> </tr> </tbody> </table>													Chiselling:			Water Strikes:			Water Details:		Installations:		Backfill:		Remarks:		Legend B Bulk D Disturbed U Undisturbed ES-Environmental W Water	From:	To:	Time:	Strike:	Rose:	Sealed:	Date:	Hole Depth:	Water Depth:	From:	To:	Pipe:	From:	To:	Type:	3.20	3.30	01:00				02/11	3.30	Dry				0.00	6.30	Arising
Chiselling:			Water Strikes:			Water Details:		Installations:		Backfill:		Remarks:		Legend B Bulk D Disturbed U Undisturbed ES-Environmental W Water																																											
From:	To:	Time:	Strike:	Rose:	Sealed:	Date:	Hole Depth:	Water Depth:	From:	To:	Pipe:	From:	To:		Type:																																										
3.20	3.30	01:00				02/11	3.30	Dry				0.00	6.30	Arising																																											
Cable percussion borehole terminated due to obstruction. Rotary core completed to confirm bedrock.																																																									




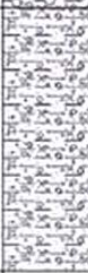
Contract No: 5898		Cable Percussion and Rotary Corehole Log						Corehole No: BH03								
Contract: Kilshane		Easting: 710874.843		Date Started: 03/11/2021												
Location: Kilshane, Ballycoolin, Dublin 15		Northing: 742327.339		Date Completed: 16/11/2021												
Client:		Elevation: 78.56		Drilled By: D. McEoin / MEDL												
Engineer:		Rig Type: Dando 150 / Sondeq		Status: FINAL												
Depth (m)		Stratum Description		Level (mOD)		Samples		Rock Indices		Backfill						
Scale	Depth			Legend	Scale	Depth			T:CR/%	SCR/%	ROD/%	Film				
	0.20	TOPSOIL			78.5											
	0.5	Brown slightly sandy slightly gravelly silty CLAY with low cobble content.			78.30											
	1.0	Stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content.			77.50		N=17 (2,3/4,5,4,4) B / 1.00									
	1.5				77.0											
	2.0				76.5		50 (5,9/50 for 40mm) B / 2.00									
	2.30	Obstruction - boulder.			76.20		50 (25 for 5mm/50 for 5mm)									
	2.5	Open hole drilling: driller reports returns of sandy gravelly CLAY with cobbles.			76.0											
	3.0				75.5											
	3.5				75.0											
	3.70	Moderately strong dark grey calcareous MUDSTONE interbedded with very strong grey argillaceous LIMESTONE with frequent fossils. Fresh to slightly weathered.			74.86							Ni				
	4.0	Discontinuities - non-intact. Discontinuities - smooth, planar, tight to open, 40-50° dip, occasionally sub-vertical, clean with occasional brown and grey staining.			74.5		3.70 - 4.70	96	75	14						
	4.5				74.0											
	5.0				73.5		4.70 - 5.70	94	85	27		14				
	5.5				73.0											
	6.0				72.5		5.70 - 6.70	79	79	14						
	6.5				72.0											
	6.70	End of Corehole at 6.70m			71.80											
Chiselling:		Water Strikes:		Water Details:		Installations:		Backfill:		Remarks:		Legend:				
From:	To:	Time:	Strike:	Rose:	Sealed:	Date:	Hole Depth:	Water Depth:	From:	To:	Pipe:	From:	To:	Type:	Cable percussive borehole terminated due to obstruction. Rotary core completed to confirm bedrock.	B: Bulk D: Disturbed U: Undisturbed ES: Environmental W: Water
2.20	2.30	01:00				03/11	2.30	Dry				0.00	6.70	Arising		




Contract No: 5898		Cable Percussion and Rotary Corehole Log					Corehole No: BH04						
Contract:		Kilshane		Easting:		710810.778		Date Started:		02/11/2021			
Location:		Kilshane, Ballycootin, Dublin 15		Northing:		742357.380		Date Completed:		15/11/2021			
Client:				Elevation:		80.23		Drilled By:		D. McEoin / MEDL			
Engineer:				Rig Type:		Dando 150 / Sondeq		Status:		FINAL			
Depth (m)		Stratum Description		Legend		Level (mOD)		Samples		Rock Indices		Back	
Scale	Depth					Scale	Depth			TCR/%	SCR/%	ROD/%	F/m
		TOPSOIL.											
0.30		Firm brown slightly sandy slightly gravelly silty CLAY with low cobble content.				80.0	79.93						
0.5						79.5							
1.0						79.0		N=15 (3,3/3,4,4,4) B / 1.00					
1.20		Very stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content.				79.0	79.03						
1.5						78.5							
2.0						78.0		N=36 (5,7/8,9,9,10) B / 2.00					
2.5						77.5							
3.0						77.0		N=50 (5,11/50 for 235mm) B / 3.00					
3.5						76.5							
3.50		Weak dark grey calcareous MUDSTONE interbedded with strong grey argillaceous LIMESTONE with occasional fossils and calcite veins (up to 10mm). Fresh to slightly weathered.				76.5	76.73	50 (25 for 5mm/50 for 5mm)					
4.0		Discontinuities - smooth, planar, tight to open, 40-50° dip, occasionally sub-horizontal and sub-vertical dip, clean with occasional brown staining.				76.0		3.50 - 4.50		90	90	33	16
4.5		Discontinuities - smooth, planar, tight to open, 40-50° dip, clean with occasional brown and grey staining.				75.5							
5.0						75.0		4.50 - 5.50		98	98	60	9
5.5		Discontinuities - smooth, planar, tight to open, 40-50° dip, occasionally sub-vertical dip, clean with occasional brown and grey staining and calcite veins.				74.5							24
6.0		Discontinuities - smooth, planar, tight to open, 40-50° dip, clean with occasional brown and grey staining.				74.0		5.50 - 6.50		98	98	35	6
6.5	6.50	End of Corehole at 6.50m				73.5	73.73						

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP01						
Contract:		Kilshane		Easting:		710543.292		Date:		02/11/2021			
Location:		Kilshane, Ballyoolin, Dublin 15		Northing:		742183.245		Excavator:		JCB 3CX			
Client:				Elevation:		80.62		Logged By:		M. Kaliskl			
Engineer:				Dimensions (LxWxD) (m):		3.90 x 0.60 x 2.60		Scale:		1:25			
Level (mbgl)		Stratum Description		Legend		Level (mOD)		Samples		Probe		Water Strike	
Scale: Depth:						Scale: Depth:		Depth: Type					
0.20		TOPSOIL.				80.5				1			
0.5		Firm becoming stiff light grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).				80.42				2			
								3					
								3					
								7					
								7					
								8					
								6					
								6					
								13					
								11					
1.0						79.5		1.00		B		10	
												8	
												7	
												7	
												6	
												7	
												7	
												8	
2.0		2.00				78.62						14	
										16			
										13			
										19			
										28			
										26			
										8			
										10			
										9			
										13			
2.5		2.60				78.0		2.50		B		14	
		Pit terminated at 2.60m										21	
												20	
												23	
												35	





Contract No: 5898		Trial Pit and Dynamic Probe Log				Trial Pit No: TP02	
Contract:		Kilshane		Easting:	710642.756	Date:	02/11/2021
Location:		Kilshane, Ballycoolin, Dublin 15		Northing:	742332.109	Excavator:	JCB 3CX
Client:				Elevation:	80.84	Logged By:	M. Kaliski
Engineer:				Dimensions (LxWxD) (m):	3.70 x 0.60 x 2.80	Scale:	1:25
Level (mbgl)		Stratum Description		Legend	Level (mOD)	Samples	
Scale	Depth				Scale	Depth	Depth
							Type
		TOPSOIL					
0.30		Firm becoming stiff light grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			80.54		
0.5							
1.0						1.00	B
1.5							
2.0							
2.10		Stiff becoming very stiff black slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter).			78.74		
2.5						2.50	B
2.80		Pit terminated at 2.80m			78.04		
3.0							
3.5							
4.0							
4.5							
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:		Key:	
Strength of soil		Pit walls stable.	Dry			B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental	



Contract No: 5898		Trial Pit and Dynamic Probe Log						Trial Pit No: TP03									
Contract:		Kilshane		Easting:		710596.166		Date:		02/11/2021							
Location:		Kilshane, Ballycoolin, Dublin 15		Northing:		742470.886		Excavator:		JCB 3CX							
Client:				Elevation:		82.85		Logged By:		M. Kaliski							
Engineer:				Dimensions (LxWxD) (m):		3.80 x 0.65 x 2.50		Scale:		1:25							
Level (mbgl)		Stratum Description		Legend		Level (mOD)		Samples		Probe		Water Strike					
Scale						Depth		Depth						Type			
0.30		TOPSOIL.				82.5		82.55		0.50		ES		1 2 2 3 5 6 5 5 7 5 7 6 7 6 6 6 7 7 9			
0.5		Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.				82.0				1.00		B		13			
1.0												5 7 6 7 6 6 7 7 9					
1.5						81.5								22			
2.0						81.0								18			
2.10						80.75		80.76		2.20		B		17			
2.5						80.5								18			
2.50						80.35								20			
														19			
														18			
														20			
														28			
														27			
														35			


Contract No: 5898		Trial Pit and Dynamic Probe Log				Trial Pit No: TP04	
Contract: Kishane		Easting: 710684.732		Date: 02/11/2021			
Location: Kishane, Ballycoolin, Dublin 15		Northing: 742619.034		Excavator: JCB 3CX			
Client:		Elevation: 83.06		Logged By: M. Kaliski			
Engineer:		Dimensions (LxWxD) (m): 4.20 x 0.65 x 2.80		Scale: 1:25			
Level (mbgl)		Stratum Description		Legend		Level (mOD)	
Scale	Depth					Scale	Depth
0.30		TOPSOIL				83.0	0
0.5		Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.				82.76	1
0.90		Firm becoming stiff grey brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).				82.5	2
1.0						82.16	3
1.5						82.0	4
1.90		Stiff becoming very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone.				81.5	5
2.0						81.16	6
2.5						81.0	7
2.80		Pit terminated at 2.80m				80.5	8
3.0						80.26	9
3.5						80.0	10
4.0						79.5	11
4.5						79.0	12
						78.5	13
							14
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Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP05						
Contract:		Kishane		Easting:		710828.477		Date:		02/11/2021			
Location:		Kishane, Ballycoolin, Dublin 15		Northing:		742750.035		Excavator:		JCB 3CX			
Client:				Elevation:		80.65		Logged By:		M. Kaliski			
Engineer:				Dimensions (LxWxD) (m):		3.50 x 0.60 x 2.70		Scale:		1:25			
Level (mbgl)		Stratum Description		Legend		Level (mOD)		Samples		Probe		Water Strike	
Scale						Depth		Depth					
0.30		TOPSOIL.				80.5							
0.5		Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.				80.35							
1.0						80.0							
1.5						79.5		1.00		B			
1.70		Stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content and frequent gravel laminas. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone.				79.0		2.00		B			
2.0						78.5							
2.5						78.0							
2.70		Obstruction - possible bedrock or boulders. Pit terminated at 2.70m				77.95							
3.0						77.5							
3.5						77.0							
4.0						76.5							
4.5						76.0							
		Termination:		Pit Wall Stability:		Groundwater Rate:		Remarks:		Key:			
		Obstruction - possible bedrock or boulders.		Pit walls stable.		1.90 Seepage		-		B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

Contract No: 5898		Trial Pit and Dynamic Probe Log						Trial Pit No: TP06	
Contract:		Kitshane		Easting:	710786.998		Date:	02/11/2021	
Location:		Kitshane, Ballycoolin, Dublin 15		Northing:	742609.299		Excavator:	JCB 3CX	
Client:				Elevation:	81.39		Logged By:	M. Kaliski	
Engineer:				Dimensions (LxWxD) (m):	3.80 x 0.60 x 2.40		Scale:	1:25	
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale	Depth			Scale	Depth	Depth	Type		
		TOPSOIL.							
	0.30	Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		81.00				1	
0.5	0.60	Firm becoming stiff grey brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).		80.79				2	
1.0	1.40	Stiff becoming very stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).		80.5		1.00	B	3	
1.5	2.30	Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter). Obstruction - possible bedrock or boulders. Pit terminated at 2.40m		80.0	79.99			10	
2.0	2.40			79.5		2.00	B	12	
2.5				79.0	78.99			8	
3.0				78.5				9	
3.5				78.0				10	
4.0				77.5				9	
4.5				77.0				10	
				76.5				9	
								16	
								20	
								22	
								35	
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:				Key:	
Obstruction - rock or boulders.		Pit walls stable.	Dry	-				B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental	

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP07				
Contract:		Kilshane		Easting:		710786.841		Date:		02/11/2021	
Location:		Kilshane, Ballyoolin, Dublin 15		Northing:		742471.531		Excavator:		JCB 3CX	
Client:				Elevation:		80.53		Logged By:		M. Kaliski	
Engineer:				Dimensions (LxWxD) (m):		3.40 x 0.60 x 2.50		Scale:		1:25	
Level (mbgl)		Stratum Description		Legend	Level (mOD)		Samples		Probe	Water Stroke	
Scale	Depth				Scale	Depth	Depth	Type			
		TOPSOIL.									
	0.30	Soft becoming firm light grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			80.23				1		
	0.5						80.0	0.50	ES	2	
										2	
										2	
										2	
	1.0						79.5	1.00	B	2	
										2	
										3	
										3	
	1.5						79.0			6	
							5				
							7				
							6				
							6				
							7				
	2.0	Stiff becoming very stiff grey brown slightly sandy slightly gravelly silty CLAY with medium cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).			78.53				8		
	2.30						78.23	2.20	B	12	
										14	
	2.50						78.03			14	
		Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles and boulders are angular to subangular of limestone (up to 300mm diameter). Pit terminated at 2.50m							35		
	3.0						77.5				
	3.5			77.0							
	4.0			76.5							
	4.5			76.0							
Termination:		Pit Wall Stability:		Groundwater Rate:		Remarks:		Key:			
Pit wall instability.		Pit walls unstable forcing completion.		2.30 Medium		-		B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP08				
Contract:		Kilshane		Easting:		710953.440		Date:		02/11/2021	
Location:		Kilshane, Ballycoolin, Dublin 15		Northing:		742658.661		Excavator:		JCB 3CX	
Client:				Elevation:		78.59		Logged By:		M. Kaliski	
Engineer:				Dimensions (LxWxD) (m):		4.70 x 0.60 x 2.00		Scale:		1:25	
Level (mbgl)		Stratum Description		Legend	Level (mOD)		Samples		Probe		Water Strike
Scale	Depth				Scale	Depth	Depth	Type			
	0.30	TOPSOIL			78.5					0	
	0.5	Firm becoming stiff grey brown slightly sandy gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).			78.29					1	
	1.0				78.0					2	
	1.5				77.5	1.00		B		3	
	2.0	Obstruction - possible bedrock or boulders. Pit terminated at 2.00m			77.0					4	
	2.5				76.5	2.00		B		5	
	3.0				76.0					6	
	3.5				75.5					7	
	4.0				75.0					8	
	4.5				74.5					9	
					74.0					10	
										11	
										12	
										13	
										14	
										15	
										16	
										17	
										18	
										19	
										20	
										21	
										22	
										23	
										24	
										25	
										26	
										27	
										28	
										29	
										30	
										31	
										32	
										33	
										34	
										35	



Termination:

Obstruction - possible bedrock or boulders.

Pit Wall Stability:

Pit walls stable.

Groundwater Rate:






Dry






Remarks:




-

Key:










B = Bulk disturbed
D = Small disturbed
CBR = Undisturbed CBR
ES = Environmental

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP09		
Contract:		Kitshane		Easting:	710939.386	Date:	02/11/2021		
Location:		Kitshane, Ballycoolin, Dublin 15		Northing:	742368.549	Excavator:	JCB 3CX		
Client:				Elevation:	78.30	Logged By:	M. Kaliski		
Engineer:				Dimensions (LxWxD) (m):	5.10 x 0.60 x 2.00	Scale:	1:25		
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale	Depth			Scale	Depth	Depth	Type		
		TOPSOIL.							
	0.30	Soft light brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		78.0	78.00	0.50	ES	1	
0.5	0.60				77.70			2	
		Firm grey brown slightly sandy gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		77.5		1.00	B	3	
1.0	1.20	Firm becoming stiff grey brown slightly sandy gravelly silty CLAY with high cobble and medium boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).			77.10			4	
1.5				77.0		1.80	B	5	
2.0	2.00	Obstruction - possible bedrock or boulders. Pit terminated at 2.00m			76.30			6	
				76.0				7	
2.5					76.5			8	
3.0				76.0				9	
3.5					74.5			10	
4.0				74.0				11	
4.5					73.5			12	
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:		Key:			
Obstruction - possible bedrock or boulders.		Pit walls stable.	Dry			B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			



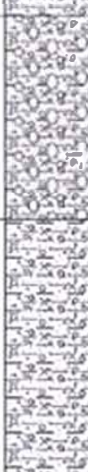

Contract No: 5898		Trial Pit and Dynamic Probe Log						Trial Pit No: TP10			
Contract:		Kishane		Easting:		710934.451		Date:		02/11/2021	
Location:		Kishane, Ballycoolin, Dublin 15		Northing:		742451.994		Excavator:		JCB 3CX	
Client:		P&P		Elevation:		78.72		Logged By:		M. Kaliski	
Engineer:		P&P		Dimensions (LxWxD) (m):		4.70 x 0.65 x 3.10		Scale:		1:25	
Level (mbgl)		Stratum Description		Legend	Level (MOD)		Samples		Probe	Water Strike	
Scale	Depth				Scale	Depth	Depth	Type			
0.30		TOPSOIL			78.5	78.42			1		
0.5		Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).			78.0		0.50	ES	2		
0.90		Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			77.82		1.00	B	2		
1.0					77.5				4		
1.5					77.0				7		
2.0					76.5		2.50	B	4		
2.6					76.0	75.92			3		
2.80		Stiff black slightly sandy gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone.			75.62				7		
3.0		Cobbles are angular to subangular of limestone.			75.5				8		
3.10		Pit terminated at 3.10m			75.0				10		
3.5					74.5				16		
4.0					74.0				29		
4.5									35		
Termination:		Pit Wall Stability:		Groundwater Rate:		Remarks:		Key:			
Scheduled depth.		Pit walls stable.		Dry		-		B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

Contract No: 5898		Trial Pit and Dynamic Probe Log						Trial Pit No: TP11					
Contract:		Kilshane		Easting:		710973.862		Date:		02/11/2021			
Location:		Kilshane, Ballycoolin, Dublin 15		Northing:		742525.011		Excavator:		JCB 3CX			
Client:				Elevation:		78.26		Logged By:		M. Kaliski			
Engineer:				Dimensions (LxWxD) (m):		4.50 x 0.65 x 1.50		Scale:		1:25			
Level (mbgl)		Stratum Description		Legend		Level (mOD)		Samples		Probe		Water Strike	
Scale:						Depth:		Depth					
0.30		TOPSOIL				78.0		77.96					
0.5		Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.				77.5							
1.00		Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).				77.28		1.10		B			
1.50		Obstruction - boulders.				76.76							
		Pit terminated at 1.50m				76.5							
2.0						76.0							
2.5						76.5							
3.0						75.0							
3.5						74.5							
4.0						74.0							
4.5						73.5							

Contract No: 5898		Trial Pit and Dynamic Probe Log				Trial Pit No: TP12			
Contract:		Kilshane		Easting:		710986.675			
Location:		Kilshane, Ballycoolin, Dublin 15		Date:		02/11/2021			
Client:				Northing:		742598.125			
Engineer:				Excavator:		JCB 3CX			
		Elevation:		77.96		Logged By:			
		Dimensions (LxWxD) (m):		4.90 x 0.65 x 3.00		Scale:			
						1:25			
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale	Depth			Scale	Depth	Depth	Type		
	0.20	TOPSOIL.			77.76				
	0.5	Soft becoming firm light brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			77.5	0.50	ES		
	0.80	Firm light grey slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			77.16				
	1.0				77.0	1.00	B		
	1.5				76.5				
	1.70	Stiff light grey slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.			76.26				
	2.0				76.0	2.00	B		
	2.20	Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone.			75.76				
	2.5				76.5	2.50	B		
	3.0	Pit terminated at 3.00m			75.0				
	3.00				74.96				
	3.5				74.5				
	4.0				74.0				
	4.5				73.5				
					73.0				
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:		Key:			
Scheduled depth.		Pit walls stable.	Dry			B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP13						
Contract:		Kilshane		Easting:		710901.565		Date:		02/11/2021			
Location:		Kilshane, Ballycoolin, Dublin 15		Northing:		742581.879		Excavator:		JCB 3CX			
Client:				Elevation:		78.74		Logged By:		M. Kaliski			
Engineer:				Dimensions (LxWxD) (m):		4.80 x 0.65 x 2.70		Scale:		1:25			
Level (mbg)		Stratum Description		Legend		Level (mOD)		Samples		Probe		Water Strike	
Scale: Depth:						Scale: Depth:		Depth Type					
0.20		TOPSOIL				78.54							
0.5		Soil becoming firm light brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.				78.5		0.50		ES			
0.90		Firm becoming stiff light grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 300mm diameter).				77.84		1.00		B			
2.20		Dark grey silty sandy fine to coarse angular GRAVEL of limestone with high cobble content. Sand is fine to coarse. Cobbles are angular of limestone.				78.54		2.50		B			
2.70		Obstruction - possible bedrock or boulders. Pit terminated at 2.70m				76.04							
3.0													
3.5													
4.0													
4.5													
										</			

Contract No: 5898		Trial Pit and Dynamic Probe Log				Trial Pit No: TP14			
Contract: Kilshane		Easting: 710822.578		Date: 02/11/2021					
Location: Kilshane, Ballycoolin, Dublin 15		Northing: 742313.118		Excavator: JCB 3CX					
Client:		Elevation: 79.48		Logged By: M. Kaliski					
Engineer:		Dimensions (LxWxD) (m): 3.50 x 0.60 x 2.50		Scale: 1:25					
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale	Depth			Scale	Depth	Depth	Type		
	0.20	TOPSOIL.		79.28				1	
	0.5	Soft becoming firm grey brown slightly sandy slightly gravelly silty CLAY with low cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		79.0	0.50	ES		2	
	1.0			78.5	1.00	B		3	
	1.5			78.0				4	
	1.80	Stiff becoming very light grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).		77.68				5	
	2.0			77.5	2.00	B		6	
	2.30	Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone.		77.18				7	
	2.50			77.0				8	
	3.0	PR terminated at 2.60m		76.5				9	
	3.5			76.0				10	
	4.0			75.5				11	
	4.5			75.0				12	
								13	
								14	
								15	
								16	
								17	
								18	
								19	
								20	
								21	
								22	
								23	
								24	
								25	
								26	
								27	
								28	
								29	
								30	
								31	
								32	
								33	
								34	
								35	
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:		Key:			
Strength of soil.		Pit walls stable.	Dry			B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

Contract No: 5898		Trial Pit and Dynamic Probe Log					Trial Pit No: TP15		
Contract:		Kilshane	Easting:		710759.726	Date:		02/11/2021	
Location:		Kilshane, Ballycoolin, Dublin 15	Northing:		742351.280	Excavator:		JCB 3CX	
Client:			Elevation:		80.58	Logged By:		M. Kaliski	
Engineer:			Dimensions (LxWxD) (m):		3.70 x 0.60 x 3.00	Scale:		1:25	
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale: Depth				Scale: Depth:	Depth: Type				
0.20		TOPSOIL		80.5				1	
		Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		80.38				3	
0.5						0.50	ES	2	
				80.0				2	
1.0						1.00	B	4	
				79.5				4	
1.40		Stiff grey brown slightly sandy slightly gravelly silty CLAY with high cobble and low boulder content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles and boulders are angular to subrounded of limestone (up to 400mm diameter).		79.18				5	
1.5								4	
2.0				78.0				6	
						2.50	B	7	
2.10		Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone .		78.48				7	
2.6								6	
				78.5				10	
3.0		Pit terminated at 3.00m		77.58				9	
								13	
3.5								12	
				77.0				17	
4.0								17	
								20	
4.5								19	
				78.5				19	
								18	
								19	
								19	
								25	
								24	
								28	
								28	
								29	
								28	
								27	
								25	
								23	
								27	
								25	
								26	
								35	
				78.0					
				</					

Contract No: 5898		Trial Pit and Dynamic Probe Log				Trial Pit No: TP16			
Contract: Kilshane		Easting: 710872.062		Date: 02/11/2021					
Location: Kilshane, Ballycoolin, Dublin 15		Northing: 742360.647		Excavator: JCB 3CX					
Client:		Elevation: 79.01		Logged By: M. Kaliski					
Engineer:		Dimensions (LxWxD) (m): 3.70 x 0.60 x 2.80		Scale: 1:25					
Level (mbgl)		Stratum Description	Legend	Level (mOD)		Samples		Probe	Water Strike
Scale	Depth			Scale	Depth	Depth	Type		
	0.20	TOPSOIL.							
	0.5	Firm becoming stiff grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		78.81					
	1.0			78.5	0.50	ES			
	1.5			78.0	1.00	B			
	2.0			77.5					
	2.5			77.0					
	2.70	Stiff becoming very stiff light grey brown slightly sandy slightly gravelly silty CLAY with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subrounded of limestone. Cobbles are angular to subrounded of limestone.		77.51					
	2.80	Very stiff black slightly sandy slightly gravelly silty CLAY with high cobble content. Sand is fine to coarse. Gravel is fine to coarse, angular to subangular of limestone. Cobbles are angular to subangular of limestone.		77.0	2.00	B			
	3.0			76.5					
	3.5			76.31					
	4.0			76.21					
	4.5			76.0					
				75.5					
				75.0					
				74.5					
Pit terminated at 2.80m									
Termination:		Pit Wall Stability:	Groundwater Rate:	Remarks:		Key.			
Strength of soil.		Pit walls stable.	Dry			B = Bulk disturbed D = Small disturbed CBR = Undisturbed CBR ES = Environmental			

APPENDIX 7.3

SOIL QUALITY TABLES

Table 1: Soil Quality Results

Sample ID					TP03	TP04	TP06	TP07	TP10	TP12
Laboratory					ALS	ALS	ALS	ALS	ALS	ALS
Report					622047	622047	622047	622047	622047	622047
Sample Type					Soil	Soil	Soil	Soil	Soil	Soil
Sample Depth					0.50	0.50	1.00	0.50	0.50	0.50
Sample Date					05/11/2021	05/11/2021	05/11/2021	05/11/2021	05/11/2021	05/11/2021
Parameters	Units	LOD	LQM/CIEH S4ul for HHRA Residential Threshold (mg/kg)	LQM/CIEH S4ul for HHRA Commercial Threshold (mg/kg)						
Metals										
Antimony	mg/kg	<0.6	nv	nv	1.62	1.34	nt	2.11	0.966	-
Arsenic	mg/kg	<0.6	40	640	35.8	13.6	nt	18.9	13.4	13.3
Barium	mg/kg	<0.6	nv	nv	60	61.7	nt	80.8	88.5	151
Cadmium	mg/kg	<0.02	85	190	1.73	1.88	nt	3.09	1.95	1.29
Chromium	mg/kg	<0.9	910	8,600	15.6	11.8	nt	18.1	16.3	18.9
Copper	mg/kg	<1.4	7,100	68,000	38	27.2	nt	43.6	26.8	20.8
Lead	mg/kg	<0.7	nv	nv	20.4	16.8	nt	25.7	23.2	23.9
Mercury	mg/kg	<0.1	1.2	58vap (25.8)	-	-	nt	-	-	-
Molybdenum	mg/kg	<0.1	nv	nv	2.48	3.08	nt	4.46	2.78	1.94
Nickel	mg/kg	<0.2	180	980	40	45.8	nt	77	52.1	56.2
Selenium	mg/kg	<1	430	12,000	1.15	-	nt	-	1.02	-
Zinc	mg/kg	<5	40,000	730,000	205	92.7	nt	145	120	107
PAH MS										
Naphthalene	mg/kg	<0.009	2.3	190(76.4)sol	-	-	-	-	-	-
Acenaphthylene	mg/kg	<0.012	170	83000(86.1)sol	-	-	-	-	-	-
Acenaphthene	mg/kg	<0.008	210	84000(57.0)	-	-	-	-	-	-
Fluorene	mg/kg	<0.01	170	63000(30.9)sol	-	-	-	-	-	-
Phenanthrene	mg/kg	<0.015	95	22,000	-	-	-	-	-	-
Anthracene	mg/kg	<0.016	2,400	520,000	-	-	-	-	-	-
Fluoranthene	mg/kg	<0.017	280	23,000	-	-	-	-	-	-
Pyrene	mg/kg	<0.015	620	54,000	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	<0.014	7.2	170	-	-	-	-	-	-
Chrysene	mg/kg	<0.01	15	350	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	<0.015	2.6	44	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	<0.014	77	1,200	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	<0.015	2.2	35	-	-	-	-	-	-
Indeno(1,2,3cd)pyrene	mg/kg	<0.018	nv	500	-	-	-	-	-	-
Dibenzo(ah)anthracene	mg/kg	<0.023	0.24	4	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	<0.024	320	3,900	-	-	-	-	-	-
Coronene	mg/kg	<0.2	nv	nv	-	-	nt	-	-	-
PAH 16 Total	mg/kg	<0.118	nv	nv	-	-	-	-	-	-
Mineral Oil (C10-C40)	mg/kg	<5	nv	nv	-	-	nt	-	-	-
TPH CWG										
Aliphatics										
>C5-C6	mg/kg	<0.001	42	3,200 (304) sol	-	-	-	-	-	-
>C6-C8	mg/kg	<0.001	100	7,800 (144)sol	-	-	-	-	-	-
>C8-C10	mg/kg	<0.001	27	2,000 (78)sol	-	-	-	-	-	-
>C10-C12	mg/kg	<1	130	9,700 (48)sol	-	-	-	-	-	-
>C12-C16	mg/kg	<1	1100	59,000 (24)sol	-	-	-	-	-	-
>C16-C21	mg/kg	<1	65,000 (combined)	1,600,000 (combined)	-	-	-	-	-	-
>C21-C35	mg/kg	<1	65,000	1,600,000	-	-	-	1.88	-	-
>C35-C44	mg/kg	<1	65,000	1,600,000	-	-	-	-	-	-
Total aliphatics C5-44	mg/kg	<5	nv	nv	-	-	-	-	-	-
Aromatics										
>C5-EC7	mg/kg	<0.001	370	26,000(1220)sol	-	-	-	-	-	-
>EC7-EC8	mg/kg	<0.001	860	56,000(869)vap	-	-	-	-	-	-
>EC8-EC10	mg/kg	<0.001	47	3,500(613)vap	-	-	-	-	-	-
>EC10-EC12	mg/kg	<1	250	16,000(364)sol	-	-	-	-	-	-
>EC12-EC16	mg/kg	<1	1800	36,000(169)sol	-	-	-	-	-	-
>EC16-EC21	mg/kg	<1	1900	28,000	-	-	-	-	-	-
>EC21-EC35	mg/kg	<1	1900	28,000	-	-	1.33	1.39	-	-
>EC35-EC40	mg/kg	<1	1900	28,000	-	-	-	-	-	-
Total aromatics C5-44	mg/kg	<5	nv	nv	-	-	-	-	-	-
Total aliphatics and aromatics(C5-44)	mg/kg	<10	nv	nv	-	-	-	-	-	-
Methyl Tertiary Butyl Ether	ug/kg	<5	nv	nv	-	-	-	-	-	-
Benzene	mg/kg	<0.005	0.38	27	-	-	-	-	-	-
Toluene	mg/kg	<0.005	880(869)vap	56,000(869)vap	0.0163	0.023	-	-	-	-
Ethylbenzene	mg/kg	<0.005	83	5,700(518)vap	-	-	-	-	-	-
m/p-Xylene	mg/kg	<0.005	m: 820 p: 790	m: 6,200(625)vap p: 5,900(576)sol	0.0168	0.0231	-	-	-	-
o-Xylene	mg/kg	<0.005	88	6,600(478)sol	-	-	-	-	-	-
PCB										
PCB 28	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 52	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 101	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 118	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 138	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 153	ug/kg	<3	nv	nv	-	-	nt	-	-	-
PCB 180	ug/kg	<3	nv	nv	-	-	nt	-	-	-
Total 7 PCBs	ug/kg	<21	nv	nv	-	-	nt	-	-	-
Natural Moisture Content	%	nv	nv	nv						
Moisture Content (% Wet Weight)	%	nv	nv	nv	7.7	8.2	9.1	16	21	19
Hexavalent Chromium	mg/kg	<0.6	6	33	-	-	nt	-	-	-
Total Organic Carbon	%	<0.2	nv	nv	0.456	0.593	nt	0.643	0.545	0.65
Legend										
0.45 Results exceed LQM/CIEH S4ul for HHRA Residential Threshold without homegrown produce at 1% SOM (mg/kg)										
0.45 Results exceed LQM/CIEH S4ul for HHRA Commercial Threshold at 1% SOM (mg/kg)										
- Results below LOD										
nv Guideline threshold value not available										
nt Not tested										
Notes										
HHRA 2015 - LQM/CIEH Suitable 4 Use Levels based on 'Commercial' and/or 'residential' land use using 1% SOM. Metals are compared against a 6% SOM										
Sol : sol S4UL presented exceed the solubility saturation limit, which is presented in brackets										
Vap: vap S4UL presented exceed the vapour saturation limit which is presented in brackets										
Dir: dir S4UL based on a threshold protective of direct skin contact with phenol (in brackets, based on health effects following long term exposure provided for illustration only)										

Sample ID					TP13	TP14	TP14	TP15	TP16
Laboratory					ALS	ALS	ALS	ALS	ALS
Report					622047	622047	622047	622047	622047
Sample Type					Soil	Soil	Soil	Soil	Soil
Sample Depth					0.50	0.50	1.00	1.00	0.50
Sample Date					05/11/2021	05/11/2021	05/11/2021	05/11/2021	05/11/2021
Parameters	Units	LOD	LQM/CI EH S4ul for HHRA Residential Threshold (mg/kg)	LQM/CI EH S4ul for HHRA Commercial Threshold (mg/kg)					
Metals									
Antimony	mg/kg	<0.6	nv	nv	1.21	1.95	nt	nt	1.66
Arsenic	mg/kg	<0.6	40	640	13.3	17.2	nt	nt	13.9
Barium	mg/kg	<0.6	nv	nv	63.6	81	nt	nt	58.2
Cadmium	mg/kg	<0.02	85	190	1.59	3	nt	nt	2.34
Chromium	mg/kg	<0.9	910	8,600	15.7	19.2	nt	nt	13.7
Copper	mg/kg	<1.4	7,100	68,000	30.4	35.1	nt	nt	29
Lead	mg/kg	<0.7	nv	nv	21.3	24	nt	nt	19.9
Mercury	mg/kg	<0.1	1.2	58vap (25.8)	-	-	nt	nt	-
Molybdenum	mg/kg	<0.1	nv	nv	2.47	3.56	nt	nt	3.62
Nickel	mg/kg	<0.2	180	980	59.3	69.1	nt	nt	50.8
Selenium	mg/kg	<1	430	12,000	1.04	1.81	nt	nt	1
Zinc	mg/kg	<5	40,000	730,000	108	170	nt	nt	122
PAH MS									
Naphthalene	mg/kg	<0.009	2.3	190(76.4)sol	nt	-	nt	nt	-
Acenaphthylene	mg/kg	<0.012	170	83000(86.1)sol	nt	-	nt	nt	-
Acenaphthene	mg/kg	<0.008	210	84000(57.0)	nt	-	nt	nt	-
Fluorene	mg/kg	<0.01	170	63000(30.9)sol	nt	-	nt	nt	-
Phenanthrene	mg/kg	<0.015	95	22,000	nt	-	nt	nt	-
Anthracene	mg/kg	<0.016	2,400	520,000	nt	-	nt	nt	-
Fluoranthene	mg/kg	<0.017	280	23,000	nt	-	nt	nt	-
Pyrene	mg/kg	<0.015	620	54,000	nt	-	nt	nt	-
Benzo(a)anthracene	mg/kg	<0.014	7.2	170	nt	-	nt	nt	-
Chrysene	mg/kg	<0.01	15	350	nt	-	nt	nt	-
Benzo(b)fluoranthene	mg/kg	<0.015	2.6	44	nt	-	nt	nt	-
Benzo(k)fluoranthene	mg/kg	<0.014	77	1,200	nt	-	nt	nt	-
Benzo(a)pyrene	mg/kg	<0.015	2.2	35	nt	-	nt	nt	-
Indeno(123cd)pyrene	mg/kg	<0.018	nv	500	nt	-	nt	nt	-
Dibenzo(ah)anthracene	mg/kg	<0.023	0.24	4	nt	-	nt	nt	-
Benzo(ghi)perylene	mg/kg	<0.024	320	3,900	nt	-	nt	nt	-
Coronene	mg/kg	<0.2	nv	nv	-	-	nt	nt	-
PAH 16 Total	mg/kg	<0.118	nv	nv	nt	-	nt	nt	-
Mineral Oil (C10-C40)	mg/kg	<5	nv	nv	-	-	nt	nt	-
TPH CWG									
Aliphatics									
>C5-C6	mg/kg	<0.001	42	3,200 (304) sol	nt	-	nt	nt	-
>C6-C8	mg/kg	<0.001	100	7,800 (144) sol	nt	-	nt	nt	-
>C8-C10	mg/kg	<0.001	27	2,000 (78) sol	nt	-	nt	nt	-
>C10-C12	mg/kg	<1	130	9,700 (48) sol	nt	-	nt	nt	-
>C12-C16	mg/kg	<1	1100	59,000 (24) sol	nt	-	nt	nt	-
>C16-C21	mg/kg	<1	65,000 (combined)	1,600,000 (combined)	nt	-	nt	nt	-
>C21-C35	mg/kg	<1	65,000	1,600,000	nt	-	nt	nt	-
>C35-C40	mg/kg	<1	65,000	1,600,000	nt	-	nt	nt	-
Total aliphatics C5-44	mg/kg	<5	nv	nv	nt	-	nt	nt	-
Aromatics									
>C5-EC7	mg/kg	<0.001	370	26,000(1220)sol	nt	-	nt	nt	-
>EC7-EC8	mg/kg	<0.001	860	56,000(869)vap	nt	-	nt	nt	-
>EC8-EC10	mg/kg	<0.001	47	3,500(613)vap	nt	-	nt	nt	-
>EC10-EC12	mg/kg	<1	250	16,000(364)sol	nt	-	nt	nt	-
>EC12-EC16	mg/kg	<1	1800	36,000(169)sol	nt	-	nt	nt	-
>EC16-EC21	mg/kg	<1	1900	28,000	nt	-	nt	nt	-
>EC21-EC35	mg/kg	<1	1900	28,000	nt	-	nt	nt	-
>EC35-EC40	mg/kg	<1	1900	28,000	nt	-	nt	nt	-
Total aromatics C5-44	mg/kg	<5	nv	nv	nt	-	nt	nt	-
Total aliphatics and aromatics(C5-44)	mg/kg	<10	nv	nv	nt	-	nt	nt	-
Methyl Tertiary Butyl Ether	ug/kg	<10	nv	nv	nt	-	nt	nt	-
Benzene	mg/kg	<0.009	0.38	27	nt	-	nt	nt	-
Toluene	mg/kg	<0.007	880(869)vap	56,000(869)vap	nt	-	nt	nt	-
Ethylbenzene	mg/kg	<0.004	83	5,700(518)vap	nt	-	nt	nt	-
m/p-Xylene	mg/kg	<0.01	m: 820 p: 790	m: 6,200(625)vap p: 5,900(576)sol	nt	-	nt	nt	-
o-Xylene	mg/kg	<0.01	88	6,600(478)sol	nt	-	nt	nt	-
PCB									
PCB 28	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 52	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 101	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 118	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 138	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 153	ug/kg	<3	nv	nv	-	-	nt	nt	-
PCB 180	ug/kg	<3	nv	nv	-	-	nt	nt	-
Total 7 PCBs	ug/kg	<21	nv	nv	-	-	nt	nt	-
Natural Moisture Content	%	nv	nv	nv					
Moisture Content (% Wet Weight)	%	nv	nv	nv	18	20	11	15	15
Hexavalent Chromium	mg/kg	<0.6	6	33	-	-	nt	nt	-
Total Organic Carbon	%	<0.2	nv	nv	0.58	0.682	nt	nt	0.478
Legend									
0.45 Results exceed LQM/CI EH S4ul for HHRA Residential Threshold without homegrown produce at 1% SOM (mg/kg)									
0.45 Results exceed LQM/CI EH S4ul for HHRA Commercial Threshold at 1% SOM (mg/kg)									
- Results below LOD									
nv Guideline threshold value not available									
nt Not tested									
Notes									
HHRA 2015 - LQM/CI EH Suitable 4 Use Levels based on 'Commercial' and/or 'residential' land use using 1% SOM. Metals are compared against a 6% SOM									
Sol : sol S4UL presented exceed the solubility saturation limit, which is presented in brackets									
Vap: vap S4UL presented exceed the vapour saturation limit which is presented in brackets									
Dir: dir S4UL based on a threshold protective of direct skin contact with phenol (in brackets, based on health effects following long term exposures provided for illustration only)									

APPENDIX TO SECTION 8

WATER & HYDROLOGY

APPENDIX 8.1

HYDROLOGY IMPACT RATING AND ASSESSMENT CRITERIA

Appendix 8.1 - NRA Criteria for Rating the Magnitude and Significance of Impacts at EIA Stage National Roads Authority (NRA, 2009)

Table 1 Criteria for Rating Site Attributes – Estimation of Importance of Hydrological Attributes (NRA)

Importance	Criteria	Typical Examples
Extremely High	Attribute has a high quality or value on an international scale	River, wetland or surface water body ecosystem protected by EU legislation e.g. 'European sites' designated under the Habitats Regulations or 'Salmonid waters' designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988.
Very High	Attribute has a high quality or value on a regional or national scale	River, wetland or surface water body ecosystem protected by national legislation – NHA status. Regionally important potable water source supplying >2500 homes. Quality Class A (Biotic Index Q4, Q5). Flood plain protecting more than 50 residential or commercial properties from flooding. Nationally important amenity site for wide range of leisure activities.
High	Attribute has a high quality or value on a local scale	Salmon fishery. Locally important potable water source supplying >1000 homes. Quality Class B (Biotic Index Q3-4). Flood plain protecting between 5 and 50 residential or commercial properties from flooding. Locally important amenity site for wide range of leisure activities.
Medium	Attribute has a medium quality or value on a local scale	Coarse fishery. Local potable water source supplying >50 homes. Quality Class C (Biotic Index Q3, Q2- 3). Flood plain protecting between 1 and 5 residential or commercial properties from flooding.
Low	Attribute has a low quality or value on a local scale	Locally important amenity site for small range of leisure activities. Local potable water source supplying <50 homes Quality Class D (Biotic Index Q2, Q1). Flood plain protecting 1 residential or commercial property from flooding. Amenity site used by small numbers of local people.

Table 2 Criteria for Rating Impact Significance at EIS Stage – Estimation of Magnitude of Impact on Hydrological Attribute (NRA)

Magnitude of Impact	Criteria	Typical Examples
Large Adverse	Results in loss of attribute	Loss or extensive change to a waterbody or water dependent habitat. Increase in predicted peak flood level >100mm. Extensive loss of fishery. Calculated risk of serious pollution incident >2% annually. Extensive reduction in amenity value.
Moderate Adverse	Results in impact on integrity of attribute or loss of part of attribute	Increase in predicted peak flood level >50mm. Partial loss of fishery. Calculated risk of serious pollution incident >1% annually. Partial reduction in amenity value.
Small Adverse	Results in minor impact on integrity of attribute or loss of small part of attribute	Increase in predicted peak flood level >10mm. Minor loss of fishery. Calculated risk of serious pollution incident >0.5% annually. Slight reduction in amenity value.
Negligible	Results in an impact on attribute but of insufficient magnitude to affect either use or integrity	Negligible change in predicted peak flood level. Calculated risk of serious pollution incident <0.5% annually.
Minor Beneficial	Results in minor improvement of attribute quality	Reduction in predicted peak flood level >10mm. Calculated reduction in pollution risk of 50% or more where existing risk is <1% annually.
Moderate Beneficial	Results in moderate improvement of attribute quality	Reduction in predicted peak flood level >50mm. Calculated reduction in pollution risk of 50% or more where existing risk is >1% annually.
Major Beneficial	Results in major improvement of attribute quality	Reduction in predicted peak flood level >100mm

Table 3 Rating of Significant Environmental Impacts at EIS Stage (NRA)

Importance of Attribute	Magnitude of Importance			
	Negligible	Small Adverse	Moderate Adverse	Large Adverse
Extremely High	Imperceptible	Significant	Profound	Profound
Very High	Imperceptible	Significant/moderate	Profound/Significant	Profound
High	Imperceptible	Moderate/Slight	Significant/moderate	Profound/Significant
Medium	Imperceptible	Slight	Moderate	Significant
Low	Imperceptible	Imperceptible	Slight	Slight/Moderate

APPENDIX TO SECTION 10

NOISE & VIBRATION

APPENDIX 10.1

Glossary of acoustic terminology

APPENDIX 10.1 - GLOSSARY OF ACOUSTIC TERMINOLOGY

ambient noise	The totally encompassing sound in a given situation at a given time, usually composed of sound from many sources, near and far.
background noise	The steady existing noise level present without contribution from any intermittent sources. The A-weighted sound pressure level of the residual noise at the assessment position that is exceeded for 90 per cent of a given time interval, T ($L_{AF90,T}$).
broadband	Sounds that contain energy distributed across a wide range of frequencies.
dB	Decibel - The scale in which sound pressure level is expressed. It is defined as 20 times the logarithm of the ratio between the RMS pressure of the sound field and the reference pressure of 20 micro-pascals (20 μ Pa).
dB L_{pA}	An 'A-weighted decibel' - a measure of the overall noise level of sound across the audible frequency range (20 Hz – 20 kHz) with A-frequency weighting (i.e. 'A'-weighting) to compensate for the varying sensitivity of the human ear to sound at different frequencies.
Hertz (Hz)	The unit of sound frequency in cycles per second.
impulsive noise	A noise that is of short duration (typically less than one second), the sound pressure level of which is significantly higher than the background.
$L_{Aeq,T}$	This is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period (T). The closer the L_{Aeq} value is to either the L_{AF10} or L_{max} value indicates the relative impact of the intermittent sources and their contribution. The relative spread between the values determines the impact of intermittent sources such as traffic on the background.
L_{AFN}	The A-weighted noise level exceeded for N% of the sampling interval. Measured using the "Fast" time weighting.
L_{AFmax}	is the instantaneous slow time weighted maximum sound level measured during the sample period (usually referred to in relation to construction noise levels).
$L_{Ar,T}$	The Rated Noise Level, equal to the L_{Aeq} during a specified time interval (T), plus specified adjustments for tonal character and impulsiveness of the sound.
L_{AF90}	Refers to those A-weighted noise levels in the lower 90 percentile of the sampling interval; it is the level which is exceeded for 90% of the measurement period. It will therefore exclude the intermittent features of traffic and is used to estimate a background level. Measured using the "Fast" time weighting.
$L_{AT(DW)}$	equivalent continuous downwind sound pressure level.
$L_{FT(DW)}$	equivalent continuous downwind octave-band sound pressure level.
L_{day}	L_{day} is the average noise level during the day time period of 07:00hrs to 19:00hrs

L _{night}	L _{night} is the average noise level during the night-time period of 23:00hrs to 07:00hrs.
low frequency noise	LFN - noise which is dominated by frequency components towards the lower end of the frequency spectrum.
noise	Any sound, that has the potential to cause disturbance, discomfort or psychological stress to a person exposed to it, or any sound that could cause actual physiological harm to a person exposed to it, or physical damage to any structure exposed to it, is known as noise.
noise sensitive location	NSL – Any dwelling house, hotel or hostel, health building, educational establishment, place of worship or entertainment, or any other facility or other area of high amenity which for its proper enjoyment requires the absence of noise at nuisance levels.
octave band	A frequency interval, the upper limit of which is twice that of the lower limit. For example, the 1,000Hz octave band contains acoustical energy between 707Hz and 1,414Hz. The centre frequencies used for the designation of octave bands are defined in ISO and ANSI standards.
rating level	See L _A , T.
sound power level	The logarithmic measure of sound power in comparison to a referenced sound intensity level of one picowatt (1pW) per m ² where: $L_w = 10 \log \frac{P}{P_0} \text{ dB}$
	Where: p is the rms value of sound power in pascals; and P ₀ is 1 pW.
sound pressure level	The sound pressure level at a point is defined as: $L_p = 20 \log \frac{P}{P_0} \text{ dB}$
specific noise level	A component of the ambient noise which can be specifically identified by acoustical means and may be associated with a specific source. In BS 4142, there is a more precise definition as follows: 'the equivalent continuous A-weighted sound pressure level at the assessment position produced by the specific noise source over a given reference time interval (L _{Aeq} , T)'.
tonal	Sounds which cover a range of only a few Hz which contains a clearly audible tone i.e. distinguishable, discrete or continuous noise (whine, hiss, screech, or hum etc.) are referred to as being 'tonal'.
1/3 octave analysis	Frequency analysis of sound such that the frequency spectrum is subdivided into bands of one-third of an octave each.

APPENDIX TO SECTION 17

INTERACTIONS & CUMULATIVE EFFECTS

APPENDIX 17.1

List of key other projects considered for assessment of cumulative effects

APPENDIX 17.1

List of key other projects considered for assessment of cumulative effects

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
FW20A/0126	GRANT PERMISSI ON	<p>The development will comprise the provision of 4 No. warehouses with marshalling offices, ancillary office space, staff facilities and associated development. The buildings will have a maximum principal height of 17.070 No. metres to the top of the parapet above ground floor level and will comprise the following areas: Unit 1 will have a gross floor area of 21,578 sq.m. including a warehouse (20,252 sq.m.), marshalling office (66 sq.m.), ancillary office space (1,216 sq.m.) and plant (44 sq.m.); Unit 2 will have a gross floor area of 9,206 sq.m. including a warehouse (8,347 sq.m.), marshalling office (66 sq.m.), ancillary office space (757 sq.m.) and pant (36 sq.m.); Unit 3 will have a gross floor area of 16,525 sq.m. including a warehouse (15,478 sq.m.), ancillary office space (944 sq.m.) and plant (37 sq.m.); and Unit 4 will have a gross floor area of 7,342 sq.m. including a warehouse (6,648 sq.m.), marshalling office (66 sq.m.), ancillary office space (589 sq.m.) and plant (39 sq.m.). A gate house with a gross floor area of 14 sq.m. will be positioned to the south-west corner of the site.</p> <p>The development will also include the repositioning of the access from the L3125 Road to the north of the site to provide a new entrance and a second vehicular access will be provided from the R135/Elm Road to the south-west. Road upgrade works are proposed along the L3125 to the north of the site which include the partial upgrade of Kilshane Cross signalised junction to incorporate a left turning lane and upgraded signals on the L3125 Local Road eastern approach arm and the provision of cycle paths and pedestrian footpaths.</p> <p>There will also be internal roadways; pedestrian access; 502 No. ancillary car parking spaces; bicycle parking; HGV parking and yards; level access goods doors; hard and soft landscaping; boundary treatments; ESB substations; signage; PV panels; lighting and associated site development works above and below ground. The total gross floor area of the development is 5,763 sq.m. (including warehouse structures, gate house and ESB substations).</p> <p>Add Info received 24th November 2020.</p>	2021-03-08	142706.10	423.35
FW22A/0204	GRANT PERMISSI ON	<p>The proposed development will consist of the following:</p> <ol style="list-style-type: none"> 1. The construction of a new Gas Turbine Power Generation Station with an output of up to 293 Megawatts. The proposed station will consist of 1 no. Gas Turbine and 1 no. 28 m high Exhaust Stack partially 	2023-06-23	134671.30	0.00

¹ Project Area (sq m) calculated using QGIS

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
		<p>enclosed by a 12 m high acoustic wall. 1 no. single storey Admin Building and Warehouse (c. 926 m²), 1 no. single storey Packaged Electronic/Electrical Control Compartment (PEECC) (c. 72 m²), 1 no. single storey Continuous Emission Monitoring System (CEMS) Shelter (c. 14.8 m²), 1 no. 16.2m high x 024.4m Fuel Oil Tank, 1 no. 15.3m high x 09.2m Raw/Fire Water Tank, 1 no. 16.2m high x 018.3m Demin Water Tank, and miscellaneous plant equipment.</p> <p>2. The demolition of a detached residential dwelling (c. 142 m² GFA) and associated farm buildings (c. 427 m² GFA) located in the north west corner of the subject site to facilitate the proposed development.</p> <p>3. Road improvement works to 493.34 m Kilshane Road (L3120), including the realignment of a portion of the road (293.86 m) within the subject site boundary and the provision of new footpaths, off-road cycle ways, together with the construction of a new roundabout linking the proposed realignment of Kilshane Road back to the existing road network to the northeast of the subject site and to the proposed internal road network to serve the proposed development.</p> <p>4. The construction of entrance gates, low wall and railings fronting the realigned Kilshane Road and a private internal road network providing for vehicular, cyclist and pedestrian access to serve the development. Construction of 3 m high security fencing within development.</p> <p>5. Total provision of 26 no. car parking spaces including 1 no. disabled persons parking space and 2 no. EV electrical charging points.</p> <p>6. Provision of security lighting columns to serve the development and the installation of Closed-Circuit Television System (CCTV) for surveillance and security purposes.</p> <p>7. Provision of 20 no. sheltered bicycle parking spaces.</p> <p>8. Provision of hard and soft landscaping works, tree planting and boundary treatments including 3 m high security fence along Kilshane Road and the perimeter of the subject site boundary.</p> <p>9. Provision of new on-site foul sewer pumping station to serve the development.</p>			

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
		<p>10. Provision of underground surface water attenuation areas to serve the development.</p> <p>All associated site development and excavation works, above and below ground, necessary to facilitate the development.</p> <p>An Environmental Impact Assessment Report has been prepared in respect of the proposed development. This application relates to a development that will require an Industrial Emissions Directive licence from the Environmental Protection Agency. A subsequent application will be submitted for an Above Ground Installation (AGI) compound, underground gas supply installation and a subsequent Strategic Infrastructure Development (SID) Application will also be submitted for a Gas-Insulated Switchgear Substation (GIS), Air Insulated Switchgear Substation (AIS) and grid connection to serve the development.</p> <p>AI received 11/01/23 SAI received 18/01/23 CAI Recieved 24/04/2023 SAI received 03/05/23</p>			
F18A/0146	GRANT PERMISSI ON	<p>A storage and distribution centre for new imported vehicles with a total capacity for 5,951 no. vehicles and comprises vehicle storage, internal circulation roadways, vehicle loading and unloading area and transporter parking spaces. the surface treatment of the vehicle storage areas comprises recycled plastic modular porous paving. Associated facilities include: a vehicle wash area, fuelling area and valet enclosure (approx. 120 sq.m.). The development also includes a vehicle inspection and fit out building (approx. 2656 sq.m. and 9.14m high) incorporating operation control room, offices, meeting room, canteen, toilets, plant area and building signage. Other site development works include: 1 no. security hut (11 sq.m); staff car parking (28 no. spaces) and staff bicycle parking spaces (14 no. spaces); boundary treatments including landscape berm and boundary fence over wall (approx. 3.33m high) new primary gated vehicular entrance onto the R135; emergency gated vehicular entrance onto Kilshane Road (L3125); lighting and CCTV poles (approx. 12m high); on-site substation (24.6 sq.m); external plant area (76 sq.m.); underground drainage and electricity infrastructure; the removal of existing vegetation and new landscaping works. The development also includes road improvement works to the Kilshane Road (L3125) comprising the reconfiguration of the existing roadway (including extending existing culvert);</p>	2019-03-06	133855.90	419.05

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
		<p>provision of a left turn lane at the junction with the R135; and dedicated cycle and pedestrian facilities. All development to take place on a site of approx. 13.1 hectares.</p> <p>Add Info received 8th February 2019.</p>			
SID/02/18	Approved By An Bord Pleanala	<p>Component 1 - Ringsend WwTP, Pigeon House Road, Dublin 4</p> <p>Permission is sought for development comprising revisions and alterations to the 2012 Approval on an overall site. The Proposed Development consists of:</p> <ul style="list-style-type: none"> Reconfiguration and retrofitting of the existing Sequential Batch Reactor (SBR) Tanks, up to 24no. in total, to facilitate the use of a new AGS technology. Associated works, including the provision of: <ul style="list-style-type: none"> A Sludge Pasteurisation Building (approximately c.31.5m x c.14.5m x c.8.5m high). A Phosphorus Recovery Building (approximately c.38.5m x c.15.5m x c.20m high). Ancillary site development works (pipework and electrical works), plant (new and adjustments to existing) and landscape works (including boundary treatments) to accommodate the above development, including: <ul style="list-style-type: none"> The use on a permanent basis of a vehicular entrance off Pigeon House Road, and associated landscaping and internal road, along the eastern boundary of the site, previously granted a temporary permission under ABP Ref. 29N.YM0002. A new underground electrical connection to an existing underground ESB cable, along the southern boundary of the site (at the south west corner only) and at the edge of, and extending to within the South Dublin Bay and River Tolka Estuary SPA. Bypass Culvert, Ultraviolet (UV) Lamps, internal road reconfigurations and additional car parking. The continued use of 2 no. temporary construction compounds (C1 and C2) for the 10 year duration of the permission sought. These compounds were previously permitted under ABP Ref. 29N.YM0004 for a period of 3 years. Proposals for the temporary Construction Compound C1 includes a pedestrian connection to the south-west corner of the Ringsend WwTP. Temporary Construction Compound C1 is partially located within the Poolbeg West Strategic Development Zone as defined by Statutory Instrument No. 279 of 2016. A protected structure (Pigeon House Fort) (RPS No. 6794) is partially located within temporary Construction Compound C2. The omission of the permitted 9 km Long Sea Outfall (in tunnel) for the purposes of discharging into the 	2019-04-24	110083.70	248.89

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		<p>Dublin Bay area from an onshore inlet shaft approximately 350 metres east of the existing Ringsend WwTP (including any associated construction works) which in turn provides for the continued use of the existing outfall to the River Liffey serving the Ringsend WwTP.</p> <ul style="list-style-type: none"> The omission of two no. temporary construction compounds located to the west of the Ringsend WwTP and also the omission of one temporary construction compound on Pigeon House Road to serve the Long Sea Outfall (in tunnel); all of which were previously permitted under ABP Ref. 29N.YA0010. <p>The overall application site area of the development proposed at the Ringsend WwTP is approximately 17.9 Ha and includes a protected structure (RPS No. 6794).</p> <p>The overall existing Ringsend WwTP is 14.7 ha and is divided into two sites by Pigeon House Road; 11.2 Ha to the south of the road where the Ringsend WwTP is located, with a further 3.5Ha located to the north of the road.</p> <p>The 2no. temporary construction compounds which are the subject of this application amount to approximately 3.79 Ha, part of which is located within the 14.7 Ha site of the Ringsend WwTP.</p> <p>Part of the application site is within the Poolbeg West Strategic Development Zone as defined by Statutory Instrument No. 279 of 2016.</p> <p>The Ringsend agglomeration including the WwTP has an existing discharge authorisation licence in accordance with the requirements of the Waste Water Discharge (Authorisation) Regulations 2007, as amended. A licence review will be carried out in accordance with the requirements of the licence review process.</p> <p>Component 2 - Proposed Development of a Regional Biosolids Storage Facility at Newtown, North Road (R135), Dublin 11</p> <p>Permission is also sought for development of a Regional Biosolids Storage Facility at a separate 11 Ha site comprising:</p> <ul style="list-style-type: none"> Demolition of existing single storey structures on site comprising of a security kiosk (approx. 22 sq.m gfa), the weighbridge kiosk (approx. 19 sq.m gfa), an ESB Sub-Station (approx. 16 sq.m gfa) and an administration building (approx. 85 sq.m gfa), together with the partial removal of existing internal roads and partial removal / diversion of existing drainage infrastructure as appropriate to accommodate the development. Provision of 2no. biosolids storage buildings, each approximately 50m wide, 105m long and 15m in height, including solar panels on the roof of one building. These 			

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		<p>buildings have a combined capacity to store up to 48,000 cubic metres of biosolids waste at any one time.</p> <ul style="list-style-type: none"> • Provision of 4no. odour control units, each with 18.2m high discharge flues. • Mechanical and electrical control building (approx. 35 sq.m gfa, 4 m high). • Provision of a single storey site administration building for office, welfare facilities and meeting rooms (approx. 130 sq.m gfa) and associated staff car parking. • Use of the existing vehicular access off the R135, including provision of new 2.7m high entrance gates to serve the Regional Biosolids Storage Facility. • All ancillary landscape and site development works, including: <ul style="list-style-type: none"> o Provision of 2no. new weighbridge facilities (1no. weighbridge on entry and exit of the Regional Biosolids Storage Facility). o Provision of new ESB Sub-Station (approx. 40 sq.m gfa). o Landscaping and boundary treatments, including new 2.7m high boundary to North Road/R135. o Provision of fire protection holding tank (approx. 6.7m high). o Provision of a HGV cleaning and set down area. o Formation of new footpath and landscaped verge to R135 along site frontage. o Provision of drainage, water, external lighting, and other utilities. o Diversion of 450mm surface water pipe. o 1no. signage structure, 5.2m in height erected on posts accommodating 2no. signage zones: 2.4m x 1.7 and 2.4m x 1.2m, located at the site entrance. <p>The Regional Biosolids Storage Facility will require a Certificate of Registration for the activity of storing biosolids (treated wastewater sludge).</p> <p>An Environmental Impact Assessment Report and a Natura Impact Statement have been prepared and accompany this planning application. The Environmental Impact Assessment Report and a Natura Impact Statement considers the Proposed Upgrade Project which is described as the elements of the 2012 Approval being progressed and the Proposed Development being applied for under this Section 37E application.</p> <p>The application for permission, Environmental Impact Assessment Report and Natura Impact Statement, may be inspected free of charge or purchased on payment of a specified fee (which shall not exceed the reasonable cost of making such copy) during public opening hours for a</p>			

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		<p>period of 7 weeks commencing on 12th June 2018 at the following locations:</p> <ul style="list-style-type: none"> The Offices of An Bord Pleanála, 64 Marlborough Street, Dublin 1; The Offices of Dublin City Council, Civic Offices, Wood Quay, Dublin 8; The Offices of Fingal County Council, County Offices, Grove Road, Blanchardstown, Dublin 15; The Offices of Fingal County Council, Fingal County Hall, Main Street, Swords, Fingal, Co. Dublin. <p>The application may also be viewed at/downloaded from the following website: www.ringsendwwtpupgrade.ie</p>			
FW24A/0178E	REQUEST ADDITIONAL INFORMATION	<p>The subject site currently has planning permission for 4 no. buildings which are under construction. Units 3, 4 and 5 were granted under Reg. Ref. FW20A /0211 and Unit 6 was granted under FW22A/0068. All units are under construction with units 3, 4 and 5 substantially completed</p> <p>Retention permission is sought for:</p> <ul style="list-style-type: none"> Omission of green roof to offices (Units 3 & 4) Upgrade of Marshalling Yard Oil Interceptor from Bypass to Full Retention Separator (Units 3 & 4) Landscape works (ground profiling) to Unit 3 Omission of 1no. grade level access door on Unit 3 North-West Elevation 9sqm of precast concrete wall has been replaced with curtain walling on the Unit 5 Office North-West Elevation Hall parapet heights for Units 3,4,5,6 are 235mm lower than Hall parapet heights shown on the 'Permitted including compliance' Elevations <p>Permission is sought for:</p> <ul style="list-style-type: none"> Reduction in size of swale adjacent to Unit 3 and relocation of western swale northwards (unit 6) Amendment of car parking layout to the Unit 4 carpark (reduced from 64 to 63) and Unit 5 (reduced from 58 to 57) Omission of green roof to offices (units 5 and 6) Upgrade of Marshalling Yard Oil Interceptor from Bypass to Full Retention Separator (unit 5) The Vertical feature trims on unit 3, 4, 5 and 6 elevations are omitted All associated site works. 	N/A	92977.10	449.18

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FW20A/0211	GRANT PERMISSI ON	<p>The development will consist of 3 no. buildings for industrial/warehouse/logistics use (Units 3,4 and 5) with gross floor area of 24,356sq.m. Each building will measure 18.1m high (at parapet level) and have 2 storey ancillary offices. Elevational signage will be provided. The units will form Phase 2 of the Vantage Business Park, with Phase 1 to the south (units 1 and 2) under construction. The proposed development includes 39 HGV parking spaces, 224 car parking spaces, 134 cycle parking spaces, 29 dock levellers and 7 grade loading bays. All associated site works including diversion of existing foul rising main, boundary treatments, landscaping, service yards, internal road and footpaths, swales, lighting, 3 no. free standing signs, signage at entrance, refuse storage, substation, foul pumping station, extension of foul infrastructure from Phase 1, modified vehicular entrance off the R135 (including new entrance gate and pillars) and dedicated new footpath and cycleway along the east side of the R135.</p> <p>Add Info received 5th March 2021.</p> <p>Add Info deemed Significant 9th March 2021.</p> <p>Revised Public Notices received 18th March 2021.</p>	2021-04-13	66835.70	449.18
FW22A/0066	GRANT PERMISSI ON	<p>The proposed development consists of the following:</p> <p>Construction of a high technology manufacturing unit (for the manufacturing of high technology electrical components), with a total gross floor area (GFA) of 23,6000 sq.m (including ancillary office space of 2,318 sq.m. at ground and first floor levels), and with a main parapet height of c. 12 metres and maximum height of 14.5 metres. The proposed unit will be known as Unit 901;</p> <p>Provision of a link corridor between the proposed high technology manufacturing unit and Unit 900 to the south (logistics/warehouse unit permitted under Reg. Ref. FW21A/0146);</p> <p>The provision of 562 no. car parking spaces, dedicated bus drop off and 275 no. bicycle parking spaces along with HGV loading bays and a service yard to the west of the proposed unit.</p> <p>The vehicular access to the unit will be provided via two entrances from the roundabout proposed under Reg. Ref. FW21A/0146, which provides access to Kilshane Avenue to the east.</p> <p>The development also includes rooftop plant for the proposed unit, an ESB substation with switchroom, 2 no. emergency generators, 2 no. sprinkler/water tanks and 2 no. pumphouses, 2 no. smoking shelters, bicycle shelters, landscaping, boundary treatments, entrance gates, site</p>	2022-06-01	58974.60	396.51

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
		<p>lighting, all associated site development works, underground foul and storm water drainage services and attenuation areas including connections to existing/permitted services infrastructure and all ancillary works.</p> <p>An Environmental Impact Assessment Report (EIAR) will be submitted to the Planning Authority with the planning application and the EIAR will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.</p> <p>The application site (with an area of c. 5.9 hectares) is located to the north of the warehouse/logistics development (Unit 900) permitted under Reg. Ref. FW21A/0146, to the northeast of Kilshane Avenue, to the south of Bay Lane and is bound by greenfield lands to the west.</p>			
FW23A/0100	GRANT PERMISSIO N FOR RETENTIO N	<p>Retention permission is sought for the following:</p> <ul style="list-style-type: none"> -Provision of solar panels (with an area of c.335 sq.m in total) at roof level of the warehouse/logistics unit. -Amendments to the permitted northern boundary treatment, to comprise 1.8m high fencing atop a plinth wall, pending the delivery of future development to the north of site (under Reg. Ref.: FW22A/0066). <p>The application site is located to the west of Kilshane Avenue, to the south of Bay Lane and is bound by greenfield lands to the west.</p>	2023-06-01	54919.40	321.26
FW22A/0142	GRANT PERMISSIO N & GRANT RETENTIO N	<p>Planning permission for the retention and completion of amendments to the development permitted under Reg. Ref.: FW21A/0146 on a site to the north of Northwest Logistics Park, Ballycoolin, Dublin 15 (formerly known as Northwest Business Park). The application site is located to the west of Kilshane Avenue, to the south of Bay Lane and is bound by greenfield lands to the west.</p> <p>The proposed amendments relating to permitted warehouse / logistics development (Unit 900) comprise the following:</p> <ul style="list-style-type: none"> • Amendments to the permitted northern security fence boundary, relocating it southwards to accommodate future development to the north of the site (under Reg. Ref.: FW22A/0066). • Provision of an access control barrier at the entrance to the development; • Amendments and rearrangement of permitted bicycle & smoking shelters due to proposed alteration to northern fence line. 	2022-09-05	54685.40	321.98

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		<ul style="list-style-type: none"> Amendments to the permitted ESB substation including relocation and provision of an ESB vehicle set down area. Amendments to the permitted plant areas: the permitted external yard plant enclosure is increased to accommodate mechanical plant requirements, and an additional electrical plant room with a gross floor area of c.115 sq.m is proposed to the southern façade of the main warehouse / logistics building. Amendments to the permitted sprinkler tank and pump house, which are repositioned, and the sprinkler valve house area which is reduced in scale. Amendments to perimeter footpaths along the northern and western building frontages. Amendments to the permitted grade doors, including the omission of 1 no. grade door and repositioning of 1 no. grade door along the northern facade. Amendments to and reconfiguration of the internal layout of the permitted warehouse / logistics unit including provision of an additional storeroom, relocation of a server room and the reconfiguration of a driver access room & pallet truck charging points. Associated amendments to building facades, including alterations to the location of permitted green walls, and provision of an external fire escape stair to the southern façade. Provision of a communications antenna c. 2 metres in height at roof level. Alteration to the route of permitted underground foul sewer connection to the southwest of the site, including associated alteration to the development boundary to facilitate the alteration. All associated and ancillary works. 			
FW21A/0146	GRANT PERMISSI ON	<p>We, Hantise Limited, intend to apply for planning permission for development at a site (known as Site A) located to the north of Northwest Logistics Park (NWLP), Ballycoolin, Dublin 1 (formerly known as Nothwest Business Park), The application site is located to the west of Kilshane Avenue, to the south of Bay Lane and is bound by greenfield lands to the west.</p> <p>The proposed development consists of the following:</p> <ul style="list-style-type: none"> Construction of 1 no. warehouse / logistics unit, including 16,840 sq.m of warehouse/ logistics floorspace and 1,441 sq.m of ancillary office floorspace (over two levels), resulting in a total GFA of 18,281 sq.m, and with a 	2022-01-06	54685.40	321.98

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		<p>maximum building height of 17.09 metres. The proposal includes a signage zone for the proposed unit;</p> <ul style="list-style-type: none"> • The provision of 181 no. car parking spaces, 60 no. cycle parking spaces, HGV loading bays and service yard area; • The access to the unit will be provided by extending the existing Kilshane Avenue access road serving Northwest Logistics Park (including alterations to the existing road layout) to a proposed new roundabout within the subject site, which will provide access to the current development proposal, and provide access arrangements for future potential development on adjoining lands; • The development also includes an ESB substation, a smoking shelter, a sprinkler tank with a pumphouse and valvehouse, landscaping, boundary treatments, entrance gates, site lighting, and all associated site development works, underground foul and storm water drainage services (including a connection to an existing pumphouse to the southwest of the proposed warehouse / logistics unit) and attenuation areas. <p>An Environmental Impact Assessment Report (EIAR) will be submitted to the Planning Authority with the planning application and the EIAR will be available for inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.</p> <p>AI received 18/11/21</p>			
FW22A/0206	Decided	Permission for development and retention permission for development at this c. 3.71Ha. site at Newtown, Kilshane Cross, Co. Dublin. The development amends a permitted warehouse development (as granted	2022-11-07	37355.00	432.86
FW23A/0182	GRANT PERMISSI ON	<p>The proposed development consists of:</p> <ul style="list-style-type: none"> a. Illuminated building signage at high level on four facade locations. b. A non-illuminated entrance totem sign. c. Brand flags on fiberglass poles outside the office entrance. d. Various ground mounted signs consisting of directional signs at vehicular entrances, GDPR and Health & Safety signs at entrance and within the carpark. <p>Along with all associated site works.</p>	2023-08-10	34910.70	433.51
FW22A/0318	GRANT PERMISSI ON	<p>Minor amendments to unit 1 of the existing permission ref fw20a/0126</p> <p>A) 5982sqm of additional warehouse floor area within the existing building footprint, through the addition of two</p>	2023-04-04	34910.70	433.51

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		<p>internal mezzanine levels over part of the floor plan, and internal warehouse office pods.</p> <p>B) the addition of three freezer containers and two chilled lobbies along with associated dock shelters. (totalling 192sqm). Fixed externally to the existing loading docks,</p> <p>C) the provision of external mechanical plant elements at ground level along the north facade of the building, to include condenser units. Air handling units with associated ducting, all with associated enclosing screens & protective barriers,</p> <p>D) the provision of an enclosing acoustic louvred screen for the standby generator to the west of the building. Along with all associated site works.</p> <p>Ai received 20/02/23</p>			
FW24A/0372E	N/A	Construction and operation of an aggregate processing plant to produce construction-grade sand and gravel from quarry fines / screenings generated by extraction activities at the surrounding quarry complex (previously approved under Planning Ref. FW12A/0022).	N/A	33306.70	327.72
FW23A/0052	GRANT PERMISSIO N & GRANT RETENTIO N	<p>The development part amends a permitted warehouse development (as granted under FCC Reg. Ref. FW20A/0126, subsequently part amended by FCC Reg. Ref. FW22A/0108 (Unit No. 2), FCC Reg. Ref. FW22A/0193 (Unit No. 3), FCC Reg. Ref. FW22A/0199 (Unit No. 4) and FCC Reg. Ref. FW22A/0206 (Unit 1), and proposed to be part amended by a live application (FCC Reg. Ref. FW22A/0318 – Unit No. 1).</p> <p>The proposed development amendments will principally consist of: the provision of new entrance and wayfinding signage as follows: 1 No. totem sign at the southern entrance of the development (7 metres high), 1 No. totem sign at the northern entrance of the development (7 metres high), 1 No. totem sign at the gatehouse entrance towards the south of the site (3.5 metres high), 1 No. totem sign to the south-east of Unit No. 1 (2 metres high), 1 No. totem sign to the south-west of Unit No. 2 (2 metres high), 1 No. totem sign to the north-west of Unit No. 3 (2 metres high), 1 No. totem sign to the north-east of Unit No. 4 (2 metres high), 1 No. 'park and amenities' information sign to the north-east of Unit No. 4 (2 metres high), and 1 No. 'parks and amenities' directional sign located at the southern entrance to the running track (0.89 metres high); and all associated development works above and below ground.</p> <p>Retention permission is sought for the following modifications: a multi-use games area (MUGA) (c. 295 sq m) to the west of Unit No. 4 with an outdoor gym area (c. 135 sq m) and a perimeter gravel walkway; a running track along the western/north-western boundary of the site;</p>	2023-05-03	28826.30	416.98

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		alterations to the permitted gatehouse at the southern site entrance including the reorganisation of the internal layout, minor decrease in overall width from 3.4 metres to 3.33 metres (c. 67 mm reduction), minor decrease in overall length from 5.599 metres to 5.532 metres (c. 67 mm reduction), minor increase in overall height from 3.35 metres to 3.385 metres (c. 35 mm increase), elevational changes including the addition of 4 No. aluminium feature fins to the east elevation and relocation of the pedestrian entrance door on the east elevation to accommodate the internal layout changes, and modifications to the roof design to include the provision of an aluminium brise soleil surround to the perimeter of the gatehouse; and all associated development works above and below ground.			
FW20A/0082	GRANT PERMISSIO N & GRANT RETENTIO N	For changes to planning granted under reference no. FW19A/0086, for the reposition of a generator to avoid underground drainage and omission of enclosure screen for generator & associated flue along with changes to planning granted under reference no. FW18A/0181, for the relocation & redesign of the bike shelter, additional 9 no. bicycle spaces, relocation & redesign of the temporary modular building unit, installation of a smoking shelter. Minor revisions to the carpark layout & revision of the site layout, additional 15 no. car park space, addition of a pedestrian entrance gate, omission of small grassed area & security hut, reduced landscaping plan, addition of external air conditioning plant & revised design for the sprinkler pump house, addition of an external caged access ladder & edge protection railing to the rear of the original building. Changes to the fenestration of the north elevation to include louvers replaced with windows in the office block, additional louvres & larger double doors installed in the plantroom & a louvered lantern roof section constructed above the plantroom.	2020-07-27	27365.80	353.24
FW19A/0086	GRANT PERMISSIO N	To relocate a standby generator with flue and associated fuel tank. All to be enclosed within a newly installed 83sqm steel framed clad structure to match existing building facade, with associated steps and railings along with all associated civil, development and site services.	2019-07-22	27364.80	353.24
FW18A/0181	GRANT PERMISSIO N & GRANT RETENTIO N	To construct a 1,733 m2 extension to the existing premises to include office space, reception area, staff amenity spaces & plant room areas, the erection of a 41 m2 temporary modular building unit, construction of a 27 m2 security hut and fast action security gates, the construction of a 14 m2 extension to the existing sub-station, the construction of a 350 m3 water tank and associated 33 m2 sprinkler pump house, the realignment & expansion of the site boundary to include a new entrance, access gates, site fencing and a 136 space car park, revised visitor & universal parking areas, relocated attenuation area, 24 additional bicycle spaces and associated bicycle shelter, retention of a generator & associated tank and all	2019-01-30	27114.10	353.48

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		associated civil, site development, site services and landscaping works.			
FW24A/0339E	N/A	<p>The proposed development consists of the following:</p> <p>The demolition of two no. existing detached dwellings (Bloomburn Cottage, Kilshane, Dublin 11, D11F1W8 and Kilmonan Lodge, Kilshane, Dublin 11, D11 XP89) and associated garages and shed structures, and permission for the use of the subject site (c. 2.52 Ha) as a storage container depot with a maximum capacity of c. 1,270 no. containers in 9 no. blocks ranging in height between 3 no. and 6 no. containers high, with 2 no. 8.7 mt. high reefer gantries, construction of ancillary single storey detached office and workshop building (c. 363 m2 GFA), construction of single storey detached prefabricated security hut (c. 9.5 m2 GFA), provision of 9 no. car parking spaces including 1 no. disabled persons car parking space and 1 no. electric vehicle charging space, 2 no. motorcycle parking spaces, 6 no. bicycle spaces and bicycle shelter and provision of 8 no. truck parking spaces, new onsite wastewater treatment system and percolation area, surface water attenuation area, hard and soft landscaping works, new boundary treatment and vehicle entrance onto L3120 Kilshane Road, 9 no. 20mt. high, 7 no. 10mt. high and 5 no. 6mt. high lighting columns with LED luminaries and all associated site works necessary to facilitate the development.</p> <p>The Planning Application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours. Fingal County Council, Fingal County Hall, Main Street, Swords, Fingal, Co. Dublin, K67 X8Y2 (to inspect Planning Applications on all lands). A submission or observation in relation to the Application may be made in writing to the Planning Authority on payment of a fee of €20, within the period of 5 weeks, beginning on the date of receipt by Fingal County Council of the Application, and such submissions or observations will be considered by the Planning Authority in making a decision on the application. The Planning Authority may grant permission subject to or without conditions or may refuse to grant permission.</p>	N/A	25493.60	240.48
FW23A/0126	GRANT PERMISSI ON	The development will consist of: Alterations to three access points to the existing site from Kilshane Avenue to provide revised vehicular and pedestrian access, including new fencing and gates (c. 2.5m in height). Additional fencing within the site to sub divide the site. The provision of 11 security poles (c. 8.5m height) throughout the site to accommodate CCTV and other security measures. New sustainable transport measures including a staff bus stop to the north of the site on Kilshane Avenue, the provision of secure 64 cycle spaces, 5 motorbike, scooter parking and the provision of EV charging points to 12 existing spaces. The proposals' revised site layout and fencing will	2023-06-19	25204.40	352.15

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		reduce onsite parking from 160 spaces to 146 spaces. Minor elevational changes to the existing building are proposed at low level on each elevation compromising duct pullups. And all other associated site works.			
FW23A/0014	GRANT PERMISSI ON	<p>The proposed development consists of the construction of 1 no. warehouse/ logistics unit (proposed Unit 735), including ancillary office floorspace over two levels, with a maximum height of c. 17.09m and total GFA of 5,132 sq.m.</p> <p>The proposal includes three vehicular access points (for staff/ visitors and service vehicles) off the existing road network serving the Business Park. The proposal includes 51 no. car parking spaces and 20 no. cycle spaces. The development also includes a signage zone for the unit, PV panels at roof level, HGV service yard areas, landscaping, pedestrian and cycle infrastructure, boundary treatments, entrance gates, lighting, foul and surface water drainage, site clearance and all associated site works.</p> <p>The application site is bound by Kilshane Drive to the south.</p> <p>AI received 09/05/23 SAI received 17/05/23</p>	2023-06-09	15181.00	477.61
FW22A/0199	GRANT PERMISSI ON & GRANT RETENTIO N	<p>Permission for development and retention permission for development at this c. 3.71Ha. site at Newtown, Kilshane Cross, Co. Dublin. The development amends a permitted warehouse development (as granted under FCC Reg. Ref. FW20A}o126, subsequently part amended by FCC Reg. Ref. FW22A/0108 (Unit No. 2) and proposed to be part amended by two live applications (FCC Reg. Ref. FW22A/0193 - Unit No. 3 and FCC Reg. Ref. FW22A/0199 - Unit No. 4). The subject application pertains to lands relating to Unit No.1.</p> <p>The proposed amendments will principally consist of the following modifications to permitted Warehouse Unit No. 1: Revisions to the marshalling office and ancillary office layouts including the increase in size of the marshalling office from c. 65.9 sq.m m to c. 211-4 sq.m m and the increase of the first floor mezzanine plant room in the ancillary office from c. 44.25 sq.m m to c. 60.50 sq.m m (these changes will result in a decrease to the ground floor warehouse area from c.17,242.58 sq.m m to c. 17,202.8 sq.m m - no change to the total permitted gross floor area), and the replacement of office space, toilet blocks, staff facility, changing rooms and tea station with 'grey box' area (space that is subject to future tenant fit-out), with associated addition of an internal door to the staircore and to the warehouse modification of the roof design including a minor increase of the ancillary office</p>	2022-10-24	14092.40	445.80

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		<p>parapet height from 11.85 metres s to 11.9 metres (50mm increase), revised PV panel layout, revisions to the roof light layout including provision of additional roof lights, provision of additional AOVs (Automatic Opening Vents), addition of roof access hatch/ladders, and amendments to the roof hip pitch; revisions to HGV entrance/exit layout to the east comprising the addition of traffic islands, bi-fold gates and fencing; reduction of HGV spaces from 21 No. to 19 No.; amendments to paving and landscaping; the addition of covered bike spaces in lieu of previously uncovered stands (no change to total spaces provided); modifications to boundary treatments including the addition of a security gate to the fire tender access to the west; addition of 2 No. sprinkler tanks (c. 56.7 sq.m m each) and a pump room (c. 72 sq.m m); revised Variable Refrigerant Flow Heat Pump compound location and layout; provision of an additional backup generator plinth slab (c. 22 sq.m m); addition of external protection bollards; elevational changes including the removal of 4 No. standard loading docks, addition of 2 No. graded access doors to loading bays, repositioning of 2 No. graded access doors, reduction of concrete facade on the eastern elevation, amended glazing arrangement, repositioning of fire escape doors, the addition of fire escape doors, and the repositioning of green walls; and all associated development works above and below ground.</p> <p>Retention permission is sought for the following modifications to permitted Warehouse Unit No.1: Revised ESB substation/switch room location (no change to permitted size) and the addition of a transformer room (c. 22.76 sq.m m)i provision of an acoustic soil berm and acoustic timber fencing (overall height is c. 5.010 metres) in lieu of permitted 4 metre high acoustic gabion wall; and all associated development works above and below ground.</p>			
FW22A/0213	GRANT PERMISSI ON	<p>The development is within a total site area of up to c. 1 ha. to include 1 no. DSO (Distribution System Operator) electrical substation building. 1 no. customer switchgear, electrical inverter / transformer station modules. 40 no. containerised battery storage units on concrete support structures, heating, ventilation and air conditioning units (HVAC units), access tracks and upgraded site entrance, underground cabling route c. 1.45 km to existing ESB 220kV Finglas Electricity Substation, associated electrical cabling and ducting, security gates, palisade perimeter security fencing, CCTV security monitoring system and landscaping works and all associated ancillary site infrastructure.</p> <p>AI received 21/12/22</p>	2023-01-19	10816.90	471.23

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
FW23A/0269	GRANT PERMISSI ON	Permission for extension (594 m2) to north east of existing industrial unit, extension to existing car parking area and relocation of existing vehicular access. AI Rcvd 11/12/23	2024-01-09	8780.10	238.17
FW18A/0165	GRANT PERMISSI ON	Permission for alterations to an existing building granted under planning Reg no. F07A/1297 consisting of an increase in internal floor space by the addition of a training room (100sq.m) and storage Room (66sq.m) at first floor level and construction of an internal access stairwell at Unit 622 Phase 3 Northwest Business Park, Kilshane Avenue, Ballycoolin, Dublin 15, D15VN36	2019-01-10	6147.90	298.68
FW21A/0233	GRANT PERMISSI ON	Alterations to an existing building granted under planning reg. no. F07A/1297consisting of an external extension of 190 sq.m at ground and first floor level consisting of a training room, stairwell and offices.	2022-01-27	5367.00	305.96
FW20A/0219	GRANT PERMISSI ON	Permission for an amendment to the original planning permission, at this site, for a gas peaking facility with 10 no. containerised gas fired generating units, with an export capacity of 20 megawatts (MV) under planning reference FW19A/0090. Amendments are proposed to the gas peaking will consist of the installation of 6 no. battery storage units with an export electricity capacity of 10-15 MV and 4 no. containerised gas fired generating units with an export electricity capacity of 10 MV, in replacement for the 10 no. containerised gas fired generating units, granted under planning reference FW19A/0090. 3 no. inverter transformers will also be added to the site , being the battery storage units. Other elements of the development will remain the same as FW19A/0090 and include an underground cabling route c 1.45km along the R135 road. 1 no. single storey electrical substation building, 1 no. customer switch entrance, security gates gear , electrical inverter/transformer station modules, concrete support structures, heating, ventilation and air conditioning units (HC/AV units), underground gas pipework and connection points, access tracks and new site entrance, security gates, perimeter security fencing, CCTV security monitoring system, landscaping works, and all associated ancillary infrastructure.	2021-02-25	4348.60	470.65
FW22A/0268	GRANT PERMISSI ON	For permission for the development of a generator kiosk with a height of 3.4m within a natural gas above Ground Installation (Kilshane AGI, Kilshane Road, Northwest Business Park, Mitchelstown, Dublin 15. The development will also include new underground pipework, heat exchangers, gas boilers, metering and pressure reduction skids inside the main building and the relocation of a light column.	2022-12-20	4097.70	348.87
FW19A/0090	GRANT PERMISSI ON	The proposed development will consist of the installation of 10 No. containerised gas fired generating units with an export electricity capacity of 20 megawatts and	2019-11-21	3658.80	488.17

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
		<p>underground cabling route c 1.45 km along the R135 road. The development will include 1 no. single storey electrical substation building, 1 no. customer switchgear, electrical inverter/transformer station modules, concrete support structures, heating, ventilation and air conditioning units (HVAC units), underground electrical cabling, underground gas pipework and connection points, access tracks and new site entrance, security gates, perimeter security fencing, CCTV security monitoring system, earth bund and landscaping works and all associated ancillary infrastructure on land at Newtown & Coldwinters, North Road, Fingal, Co. Dublin.</p> <p>Significant Additional Information Public Notices received on 21st August 2019.</p> <p>Clarification of Significant Additional Information received on 25th October 2019.</p>			
FW23A/0352	GRANT PERMISSIO N	Planning permission to erect 370.00m ² or 75.40 kWp of photovoltaic panels on the roof of our existing building with all associated site works.	2024-01-03	1788.00	309.92
FW22A/0005	GRANT PERMISSIO N	The proposed development comprises the fitting out as a canteen, with accompanying sanitary accommodation and office areas of the second floor level of an existing extension to the north of Unit 624, Northwest Business Park, Ballycoolin, Dublin 15, D15 ND71. All of the proposed works are to be carried out within an area of 380 sq.m. on the existing second floor level. No changes are proposed to the existing elevations other than the addition of 4 No. 1800 mm wide x 600 mm high ventilation louvres above the existing second floor glazing. Otherwise the appearance of the extension will be retained as permitted under Reg. Ref. FW18A/0181 and as subsequently amended by Planning Permission Reg. Ref: FW20A/0082.	2022-03-07	246.60	433.58
ABP case ID	Date	Decision	Description		Distance from proposed dev. (m)
301798	2019-04-24	Grant Perm. w Conditions	10-year permission for development of the Ringsend wastewater treatment plant upgrade project including a regional biosolids storage facility		250
301908	2019-11-11	Grant Perm. w Conditions	Greater Dublin Drainage Project consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility		243
309855	2021-10-11	Contribution Appeal Decided	The development will comprise the provision of 4 No. warehouses with marshalling offices, ancillary office space, staff facilities and associated development.		423
312131	N/A	Case is ongoing	Greater Dublin Drainage Project consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility		243

Project Code	Decision	Description	Grant Date	Project Area (sq m) ¹	Distance from Proposed Development (m)
314894	2023-08-24	Approve with Conditions	Proposed development of a 220kV Gas Insulated Switchgear (GIS) substation on lands at Kilshane Road, and an underground 220kV transmission line connection to the existing Cruiserath 220kV substation.		0
317480	2024-05-16	Grant permission with revised conditions	Demolition of buildings, road improvement works and construction of gas turbine power generation station with all associated site works. An Environmental Impact Assessment Report has been prepared. EPA licence is required.		0