APPENDIX 1

APPROPRIATE ASSESSMENT SCREENING REPORT

MKO Planning and Environmental Consultants

Article 6 (3) Appropriate Assessment Screening Report

Kilbarry-Knockraha No. 2 110 kV Line Refurbishment.

DOCUMENT DETAILS

Client:	EirGrid
Project Title:	Kilbarry-Knockraha No. 2 110 kV Line Refurbishment.
Project Number:	200532
Document Title:	Article 6 (3) Appropriate Assessment Screening Report
Document File Name:	200532 EirGrid CP0901 AASR 01.10.20 F
Prepared By:	MKO Tuam Road Galway Ireland H91 VW84

Planning and Environmental Consultants

Rev	Status	Date	Author(s)	Approved By
03	Draft	23/09/2020	OOG	JH
04	Final	01/10/2020	OOG	JH

Table of Contents

TABLE OF TABLES

TABLE OF PLATES

1. INTRODUCTION

1.1 Background

MKO has been appointed to provide the information necessary to allow the competent authority to conduct an Article 6(3) Screening for Appropriate Assessment of the proposed Kilbarry-Knockraha No. 2 110 kV Line refurbishment works, Co. Cork.

Screening for Appropriate Assessment is required under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). Where it cannot be excluded that a project or plan, either alone or in combination with other projects or plans, would have a significant effect on a European Site then same shall be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives. The current project is not directly connected with, or necessary for, the management of any European Site consequently the project has been subject to the Appropriate Assessment Screening process.

The assessment in this report is based on a desk study and field survey undertaken in August 2020. It specifically assesses the potential for the proposed development to result in significant effects on European sites in the absence of measures intended to avoid or reduce harmful effects.

This Appropriate Assessment Screening Report has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

In addition to the guidelines referenced above, the following relevant documents were also considered in the preparation of this report:

1. *EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence. Opinion of the commission.*
2. *EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.*

1.2 Appropriate Assessment

1.2.1 Screening for Appropriate Assessment

Screening is the process of determining whether an Appropriate Assessment is required for a plan or project. Under Part XAB of the Planning and Development Act, 2000, as amended, screening must be carried out by the Competent Authority. As per Section 177U of the Planning and Development Act, 2000, as amended 'A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site'. The Competent Authority's determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and should be recorded. The Competent Authority may request information to be supplied to enable it to carry out screening.

Consultants or project proponents may provide for the competent authority, the information necessary for them to determine whether an Appropriate Assessment is required and provide advice to assist them in the Article 6(3) Appropriate Assessment Screening decision.

Where it cannot be excluded on the basis of objective evidence at the Screening stage, that a proposed plan or project, individually or in combination with other plans and projects, would have a significant effect on the conservation objectives of a European site, an Appropriate Assessment is required.

Where an Appropriate Assessment is required, the Competent Authority may require the applicant to prepare a Natura Impact Statement.

The term Natura Impact Statement (NIS) is defined in legislation. As defined in Section 177T of the Planning and Development Act, 2000 as amended, an NIS means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own and in combination with other plans and projects, for a European site in view of its conservation objectives. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for the European site in view of its conservation objectives

An NIS, where required, should present the data, information and analysis necessary to reach a definitive determination as to 1) the implications of the plan or project, alone or in combination with other plans and projects, for a European site in view of its conservation objectives, and 2) whether there will be adverse effects on the integrity of a European site. The NIS should be underpinned by best scientific knowledge, objective information and by the precautionary principle such that no reasonable scientific doubt remains at the conclusion of the NIS.

This Article 6(3) Appropriate Assessment Screening Report has been prepared in compliance with the provision of section 177U of the Planning & Development Act 2010 as amended.

Statement of Authority

A baseline ecological survey was undertaken on the 19th of August 2020 by Olivia O' Gorman (B.Sc., M.Sc.) of McCarthy Keville O'Sullivan (MKO). This report has been prepared by Olivia O'Gorman. The report has been reviewed by John Hynes (B.Sc., M.Sc., MCIEEM) who has over 8 years' experience in ecological assessment.

2. DESCRIPTION OF THE PROPOSED DEVELOPMENT

2.1 Site Location

The existing Kilbarry-Knockraha No. 2 110 kV Line is an overhead cable connection which is located on the northern outskirts of Cork City and comprises c. 12.5km of overhead electricity transmission line traversing the townlands of Kilbarry, Ballincolly, Ballyvolane, Arderrow, Ballyharoon, Banduff, Poulacurry North, Poulacurry South, Ballinglanna, Corbally North, Corbally South, Ballynagarbragh, Lackenroe, Ballycurreen, Killeena, Ballynanelagh, Co. Cork.

The site location is shown in Figure 2.1.

2.2 Characteristics of the Proposed Development

2.2.1 Description of the project

In 2015, the Transmission Asset Owner (TAO), ESB Networks, carried out a Line Condition Assessment (LCA) of the Kilbarry – Knockraha No. 2 110 kV Transmission line in order to identify any potential safety and operational issues relating to the potential for mechanical failure of existing equipment, and subsequently, determine an overall programme of works. A ground level condition survey was completed in addition to a thorough review of maintenance records compiled for the line. A full model of the Kilbarry – Knockraha No. 2 110 kV Transmission line in its current condition was created using:

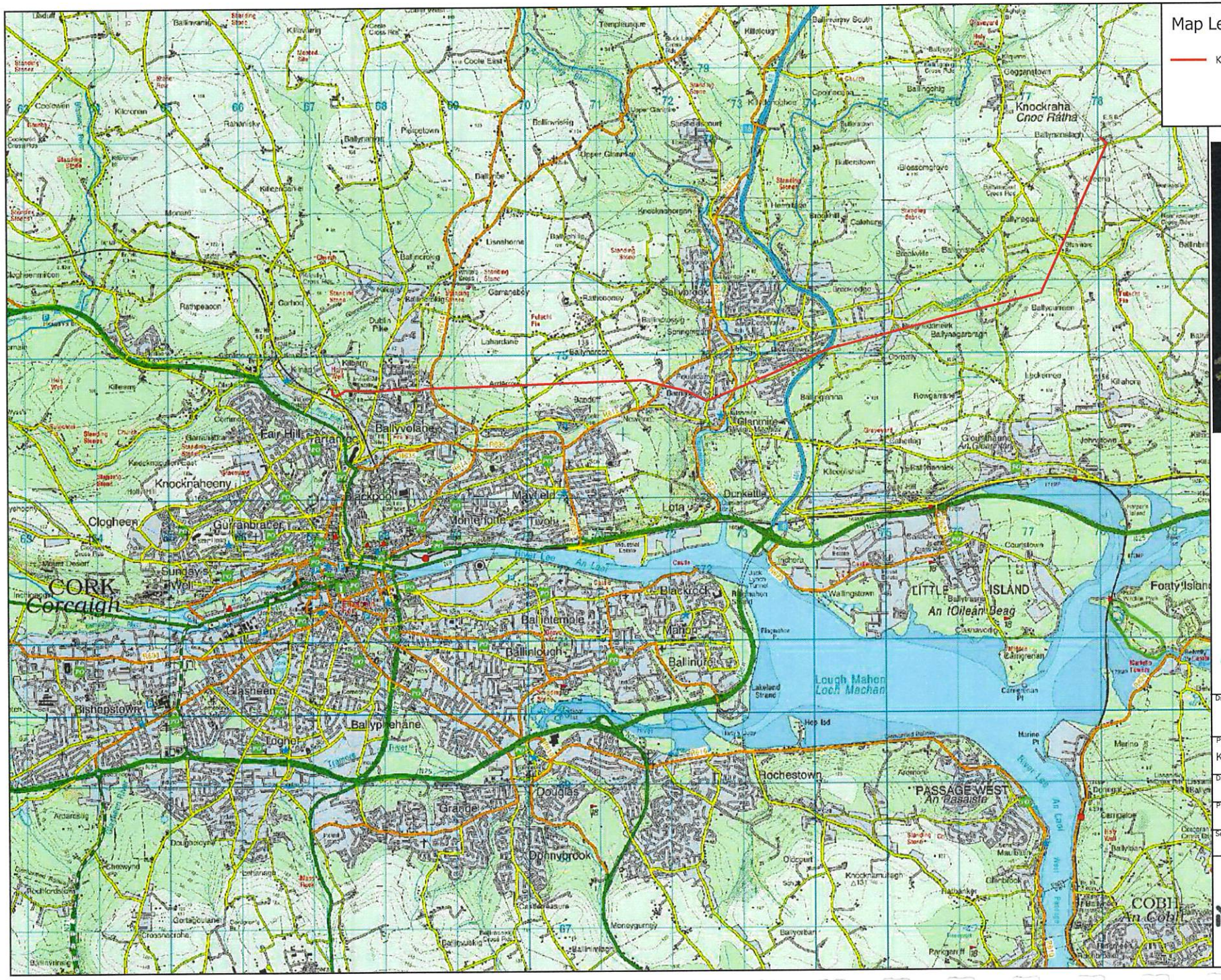
- Light Detection & Ranging (LiDAR) information collected from site;
- Information gathered from Kardex records;
- Site investigations & Site Surveys; and
- Standard established ESBI criteria for 110 kV overhead line design.

Corrective maintenance / renewal requirements are proposed which can be broadly grouped under the following headings:

1. ***Paint / Corrosion Treatment of Steel Towers***: Painting and corrosion treatment of existing steel structures;
2. ***Replacement of Wooden Polesets***: Removing of all hardware (including crossarm and insulators), installation of new poles and fittings / hardware, new or existing crossarm and new or existing insulators followed by the cutting and removal of old polesets;
3. ***Replacement of Existing Steel Intermediate Towers with Wooden Intermediate Polesets***: Removal of existing structure, fittings and foundations, followed by installation of new intermediate polesets and installation of fittings/hardware;
4. ***Replacement of Insulators and Hardware:*** Removal of existing hardware and insulators followed by the installation of new hardware and insulators;
5. ***Civil Works on Tower Shear Blocks:*** Reinforcement of shear blocks; and
6. ***Ancillary Works*** including the replacement and/or repair Anti-Climbing Guards

All works are within the development envelope of the existing equipment and the proposed works do not include for the extension of the line nor is it proposed to alter the overall functionality of the line in the context of the wider transmission system (e.g. no increase in the voltage of the line from the existing 110 kV). The replacement of wooden polesets will be located immediately adjacent to the locations of the in-situ structures on the same alignment and will not be materially different in the context of the overall alignment of the 110 kV OHL.

The proposed works to the 110 kV OHL will require access for heavy equipment such as tracked excavators, concrete delivery vehicles, mobile cranes, mobile elevated work platforms and etc. As a number of structures are located on agricultural lands and in close proximity to residential dwellings, gaining access



Map Legend

Kilbarry-Knockraha No. 2 110kV Line

N

Drawing Title: Site Location

Project Title: Kilbarry-Knockraha No. 2 110 kV Line refurbishment

Drawn By	Checked By
OOG	JH
Project No.	Drawing No.
200523	Figure 2.1
Scale	Date
1:68300	20.08.2020

MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: www.mkoireland.ie

to these lands to carry out the proposed works will be coordinated with relevant stakeholders in accordance with the relevant ESB/IFA Code of Practice and relevant statutory provisions.

It should also be noted that the undertaking of the proposed works is dependent on outage availability. Cork County Council and Cork City Council would be notified in advance of any work commencing on the line.

Overviews of the proposed renewal and alteration works, subject to this Section 5 Declaration of Exempted Development, are outlined below in the following sections.

2.2.1.1 Paint / Corrosion Treatment of Steel Towers

The site investigations and surveys undertaken as part of the LCA inspected all steel towers comprising the Kilbarry – Knockraha No. 2 110 kV line to assess existing conditions of galvanising/paint and to identify any damage to the structures. Paint damage and corrosion were recorded at several towers during the assessment.

Corrosion is treated by specialist contractors who climb the tower using safe tower climbing methods, treat the corrosion and paint the tower. The painting and corrosion treatment of the identified steel towers (01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 28, 45, 63, 75) will be undertaken in line with ESB's work practice as outlined below, to comply with technical requirements, and having regard for third party landowners:

- An impervious sheet will be laid on the existing ground under the mast base to prevent paint from dripping to the soil;
- A cleaning agent will first be applied to the towers and then cleaned by means of wire brushing or sanding. When dry, a primer and top coat of paint will be applied; and
- The paint specification will provide protection to the steel for a minimum of 15 no. years. The top coat of matt grey will remain the same and there will be no deviation to the visual appearance of these structures.

2.2.1.2 Replacement of Wooden Polesets

Thirty five wooden pole-sets will be replaced as part of the proposed renewal and alteration works.

The replacement of the identified wooden polesets may result in an increase in height of up to 2m at certain points along the 110 kV OHL dependent on local topographical variation. However, any minor height increase of a wooden poleset as a consequence of the proposed works will still be in proportion relative to other structures along the alignment. A typical wooden poleset (Portal IMP) for a 110 kV line is shown in Plate 2-1 below and Appendix 3 of the Section 5 Declaration Report.

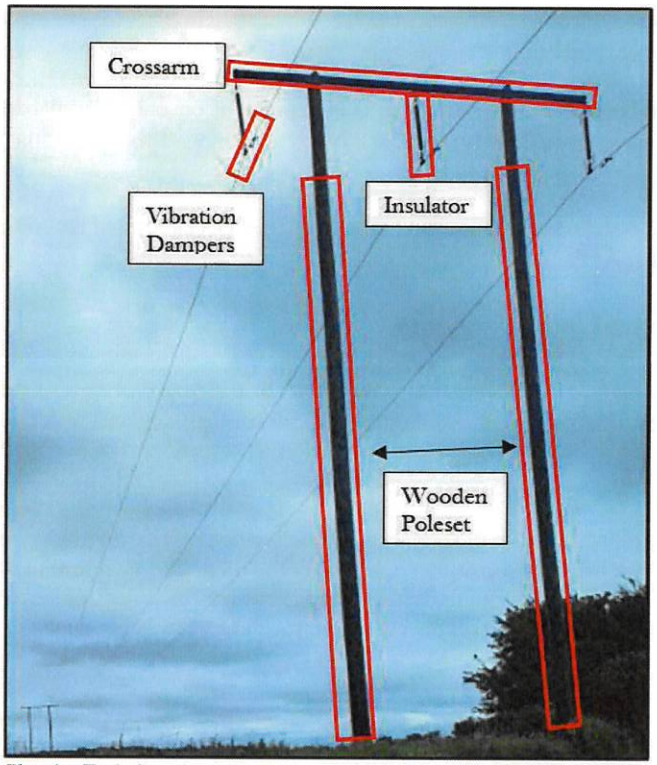


Plate 2- 1 Typical 110 kV Intermediate Wooden Poleset Structure (Portal IMP)

Where a wooden poleset is being replaced, the crossarm, insulators and hardware will either be reused, or alternatively, new crossarms and equipment will be installed. The final appearance of the newly installed wooden polesets will be consistent with the existing structures. Please refer to Appendix 3 of the Section 5 Declaration Report for typical plans of the proposed 110 kV 'Lines Suspension Portal Wood Pole Set' transmission structures.

The installation of replacement polesets will be undertaken as follows:

- Transportation of two wooden poles, crossarm (where required) and insulators and hardware (where required) to the area immediately adjacent to the poleset due to be replaced;
- The replacement poles will be installed to a minimum depth below ground of 2.3m. The average working area for construction of a wooden poleset is $10m^2$ around the base of the poleset. The excavation for each hole will be carried out using a wheeled or tracked excavator;
- Each of the two poles are lined up with the excavated holes and the machine operator will then drive forward pushing the pole up until the pole is in an almost vertical position. If the crossarm is to be replaced as part of the identified works, the new crossarm is attached to one pole;
- The pole is supported at all times and the holes manually backfilled initially to a minimum depth of 1.0m to ensure temporary stability prior to installing the sleepers. Should the ground conditions be poor, additional stability will be provided by installing stay wires. Following the initial backfilling, a strip approximately 2.7m long is excavated to a depth of 0.8m parallel to the line. This is necessary to install the rectangular wooden sleepers which add additional stability to the poleset and are attached to the poles using U-bolts; and
- The two installed poles are connected near the top by a steel crossarm from which insulators are attached. The existing conductor is then attached to these insulators. Where the existing crossarm is to be retained, the crossarm is detached from the decommissioned poles and lifted into place and attached to the newly installed poles

Once the new wooden poleset is installed, the decommissioned poleset will be cut at the base 1m below ground level and removed from the site for recycling by licensed waste contractors and hauliers.

2.2.1.3 Replacement of Existing Steel Intermediate Towers with Wooden Intermediate Polesets

Intermediate Mast 08 and Strain INT Mast 33 are to be replaced with wooden polesets due to their age and condition. Prior to commencing any works to the structures, it will be necessary to detach the conductor and fibre wrap from the towers. The detached conductor and fibre wrap will be disconnected from the mast and connected to temporary poles erected adjacent to the location. The temporary poles will be erected in the same manner as the replacement of wooden polesets, as discussed below. Once the conductors have been diverted to the temporary poleset, the body of the tower will be dismantled. Sections of the tower will be unbolted and lifted down to ground level. The final section, which includes the tower legs will be cut at ground level and removed. All steelwork will be removed from site for recycling by licensed waste carriers. An excavator will be used to excavate around the existing foundations to facilitate their removal. New wooden polesets will then be installed, subject to the requirements of the detailed design.

The installation of the replacement wooden polesets will follow the same methodology as set out above under Section 2.2.1.2.

2.2.1.4 Replacement of Insulators and Hardware

All insulators and hardware apparatus were inspected as part of the LCA for damage, corrosion, wear and fatigue. Conductors were also visually inspected along the entire length of the 110 kV OHL to check for any signs of damaged/broken conductor strands. The majority of insulators were found to be in good condition with associated hardware also in good condition at these sites. There were a number of glass anti-fog type insulators exhibiting corrosion in addition to several cases of corrosion and wear to associated hardware. Vibration dampers were also found to be fatigued or missing at a number of sites. Four polesets require the replacement of insulators and hardware only (18, 54, 72 and 74).

The insulators and hardware holding the conductor are attached to steel crossarms linking the wooden poles. The replacement of the insulators and hardware will require the disconnection of the conductor from existing insulators and hardware. The weight of the conductors can be supported by a strap attached to the crossarm. The insulators and hardware are then accessed by a mobile elevated work platforms (MEWP) where the insulator is supported by straps as it is unbolted and removed. New insulators and hardware are fitted, conductors are re-attached and decommissioned insulators and hardware / equipment are removed. Replacement crossarms, if required, will be lifted into position with a lifting device such as a pulley system or telescopic handler. A typical Transmission Tower Structure for a 110 kV line is shown in Figure 3 below and included within Appendix 3 of the Section 5 Declaration Report.

The decommissioned equipment will be stored under appropriate conditions until it can be recycled or disposed of through licensed waste contractors and hauliers.

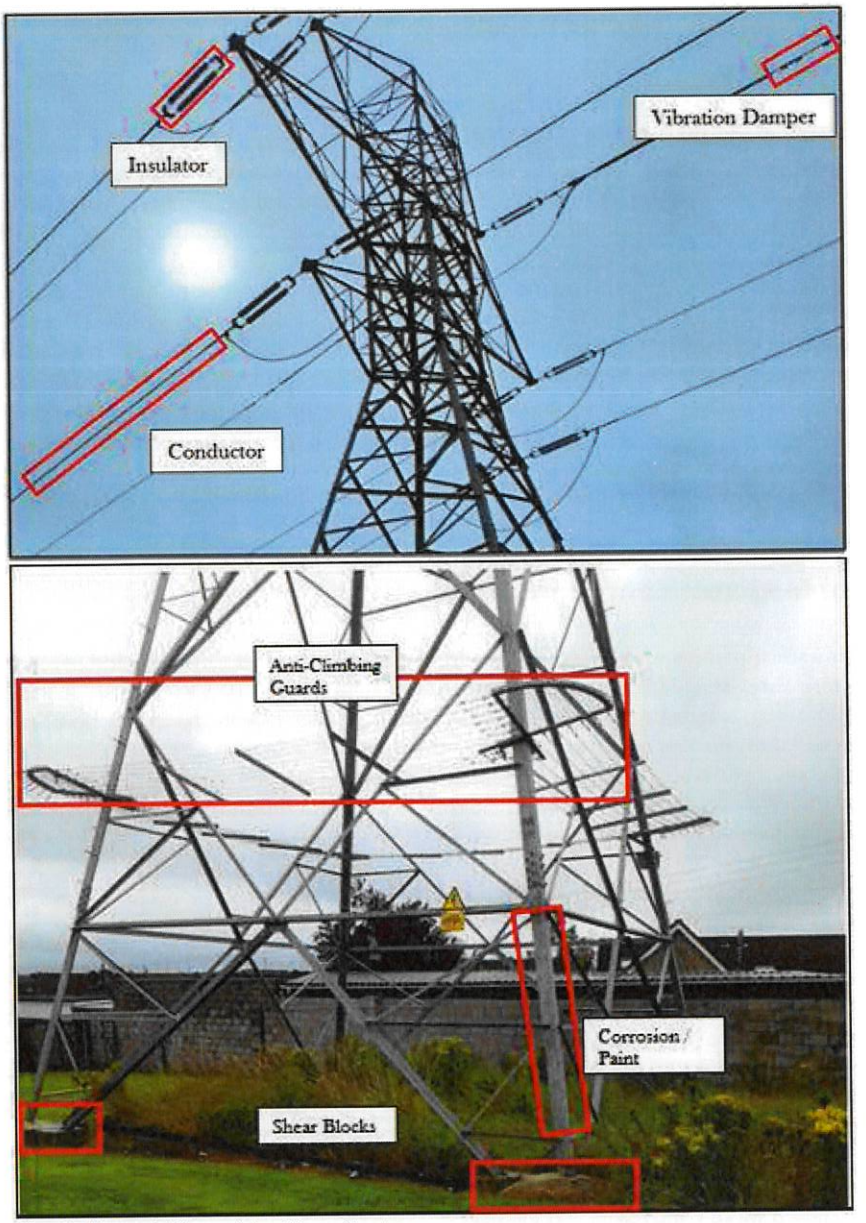


Plate 2- 2 Example Transmission Tower Structure

2.2.1.5 Civil Works on Foundations

Site investigation works of the existing tower foundations were undertaken as part of the LCA to determine the foundation dimensions and conditions along with the ground conditions of the tower sites. In line with ESB specifications, , the tower foundations were assessed to determine whether there were of sufficient size to cater for the overall weight of the OHL. Concrete cores were also retrieved to determine the compressive strength of the concrete within the existing foundations. The following information was gathered from the site investigations:

- Foundation size;
- Foundation concrete strength and condition; and
- Soil Characteristics and bearing capacity

Typical steel angle masts have four legs each with their own individual and independent foundation block; specifically, 2 no. of the legs will be in compression with the remaining 2 no. legs being in tension. In order to assess the stability of the steel angle mast, one compression leg foundation was exposed at each tower for investigation. The investigation methodology was as follows:

- Concrete cores were extracted and in-situ measurements recorded;
- Dynamic probing was carried out on all sites to establish the soil bearing capacity at the site; and
- Concrete cores were tested and the compression strength recorded.

The concrete shear blocks of all tower foundations were also visually examined during this survey. The shear blocks are used to form a watershed between the tower foundation and the tower legs. Part of the shear block will be visible above ground and work to it is considered maintenance to the tower. The following civil works were identified and are included as part of this proposed programme of works:

Table 2- 1 Proposed Civil Works to Kilbarry - Knockraha No. 2 110 kV Line Tower Structures

Kilbarry - Knockraha No. 2 110 kV Structure No.	Physical Description
Kilbarry - Knockraha No. 2 110 kV Structure within Cork Country	
03	Raise shear blocks
04	Raise shear blocks
05	Raise shear blocks
06	Raise shear block
07	Clear base & raise shear blocks
09	Raise shear blocks
10	Raise shear blocks
20	Clear base & raise shear blocks
28	Clear base & raise shear blocks
32	Clear shear blocks
34	Clear shear blocks
35	Clear base & raise shear blocks
45	Clear base & raise shear blocks
Kilbarry - Knockraha No. 2 110 kV Structure within Cork Country	
63	Clear base and raise shear block
75	Raise shear block

Raising the shear blocks will consists of re-pouring concrete around the bottom of the tower leg as the exposed shear block condition can degrade over time. Concrete trucks are brought as close as possible to the exposed shear blocks to pour directly around the bottom of the tower leg. In the event of this not being possible, concrete will be is transported in dumpers.

2.2.1.6 Ancillary Works

Anti-Climbing Guards (ACGs) installed on the steel tower structures comprising the 110 kV OHL were inspected as part of the line condition assessment to determine whether or not they complied with existing TAO standards and to note any repair/renewal works necessary. A number of existing anti-climbing guards were recorded as requiring replacement or repair and addition of locks in some cases.

Table 2- 2 Proposed Anti-Climbing Guards (ACGs) Refurbishment Works

Kilbarry - Knockraha No. 2 110 kV Structure No.	Anti-Climbing Guards (ACGs) Refurbishment Works
Kilbarry - Knockraha No. 2 110 kV within Cork City	
01	Replace ACG
02	Re-wire ACG
03	Replace ACG
04	Replace ACG
05	Replace ACG
06	Replace ACG
07	Replace ACG
09	Rewire ACG & fit locks
10	Rewire ACG & fit locks
20	Replace barb wire ACG
32	Re-wire ACG & fit lock
33	Re-tension barb wire ACG

Kilbarry – Knockraha No. 2 110 kV Structure No.	Anti-Climbing Guards (ACGs) Refurbishment Works
Kilbarry – Knockraha No. 2 110 kV within Cork City	
34	Re-tension barb wire ACG
35	Re-tension barb wire ACG
45	Re-wire ACG

Table 2-3 Summary of Proposed Works to Kilbarry – Knockraha No. 2 110 kV

Structure	Local Authority	Townland	Plan Sheet Number(s)[1]	Proposed Works
Summary of Proposed Works to Kilbarry – Knockraha No. 2 110 kV within Cork City				
01	Cork City Council	Cork City and suburbs	1	› Treat corrosion & paint › Replace Anti-Climbing Guards
02	Cork City Council	Cork City and suburbs	1	› Treat corrosion & paint › Replace single circuit insulators and hardware › Replace vibration dampers › Replace Anti-Climbing Guards
03	Cork City Council	Cork City and suburbs	1	› Treat corrosion & paint › Replace double circuit insulators and hardware › Replace vibration dampers › Civil works (reinforcement / reparation) to foundations › Replace Anti-Climbing Guards
04	Cork City Council	Cork City and suburbs	1	› Paint › Replace double circuit insulators and hardware › Replace U bolts › Replace vibration dampers › Civil works (reinforcement / reparation) to foundations › Replace Anti-Climbing Guards
05	Cork City Council	Ballincolly	1	› Paint › Replace double circuit insulators and hardware › Civil works (reinforcement / reparation) to foundations › Replace Anti-Climbing Guards
06	Cork City Council	Ballincolly	2	› Paint › Replace double circuit insulators and hardware › Replace U bolts › Replace vibration dampers › Civil works (reinforcement / reparation) to foundations › Replace Anti-Climbing Guards
07	Cork City Council	Ballincolly	2	› Paint › Replace double circuit insulators and hardware › Civil works (reinforcement / reparation) to foundations › Replace Anti-Climbing Guards
08	Cork City Council	Ballincolly	2	› Replace tower with 110 kV wooden poleset
09	Cork City Council	Ballincolly	2	› Paint

Structure	Local Authority	Townland	Plan Sheet Number(s)[1]	Proposed Works
				› Replace single circuit hardware › Civil works (reinforcement / reparation) to foundations › Rewire Anti-Climbing Guards and fit locks
10	Cork City Council	Ballincolly	2	› Paint › Replace single circuit insulators and hardware › Rewire Anti-Climbing Guards and fit locks
12	Cork City Council	Ballincolly	3	› Replace wooden poleset
13	Cork City Council	Ballyvolane	3	› Replace wooden poleset › Replace hardware
14	Cork City Council	Arderrow	4	› Replace wooden poleset › Replace hardware
15	Cork City Council	Arderrow	4	› Replace wooden poleset › Replace hardware
16	Cork City Council	Arderrow	4	› Replace wooden poleset › Replace hardware
17	Cork City Council	Arderrow	4	› Replace wooden poleset › Replace hardware
18	Cork City Council	Arderrow	5	› Replace hardware
20	Cork City Council	Banduff	5	› Replace J bolts › Civil works (reinforcement / reparation) to foundations › Replace barbwire Anti-Climbing Guards
21	Cork City Council	Banduff	5	› Replace wooden poleset
22	Cork City Council	Banduff	5	› Replace wooden poleset
24	Cork City Council	Banduff	6	› Replace wooden poleset › Replace hardware
25	Cork City Council	Banduff	6	› Replace wooden poleset
26	Cork City Council	Banduff	6	› Replace wooden poleset › Replace hardware
28	Cork City Council	Poulacurry North	7	› Paint › Civil works (reinforcement / reparation) to foundations
29	Cork City Council	Poulacurry North	7	› Replace wooden poleset
30	Cork City Council	Poulacurry South	7	› Replace wooden poleset
31	Cork City Council	Poulacurry South	7	› Replace wooden poleset
32	Cork City Council	Poulacurry South	8	› Civil works (reinforcement / reparation) to foundations

Structure	Local Authority	Townland	Plan Sheet Number(s)[1]	Proposed Works
				› Rewire Anti-Climbing Guards and fit locks
33	Cork City Council	Poulacurry South	8	› Replace tower with 110 kV wooden poleset
34	Cork City Council	Poulacurry South	8	› Replace vibration dampers › Civil works (reinforcement / reparation) to foundations › Re-tension barbwire Anti-Climbing Guards
35	Cork City Council	Poulacurry South	8	› Replace vibration dampers › Civil works (reinforcement / reparation) to foundations › Re-tension barbwire Anti-Climbing Guards
45	Cork City Council	Ballinglanna	10	› Paint › Replace single circuit insulators and hardware › Civil works (reinforcement / reparation) to foundations › Re-wire Anti-Climbing Guards
Summary of Proposed Works to Kilbarry - Knockraha No. 2 110 kV within Cork County				
46	Cork County Council	Ballinglanna	1	› Treat corrosion & paint › Replace single circuit insulators and hardware › Civil works (reinforcement / reparation) to foundations
47	Cork County Council	Ballinglanna	1	› Replace wooden poleset › Replace hardware › Replace vibration dampers
48	Cork County Council	Corbally North	1	› Replace wooden poleset
49	Cork County Council	Corbally North	1	› Replace wooden poleset
50	Cork County Council	Corbally North	1	› Replace wooden poleset
51	Cork County Council	Corbally North	2	› Replace wooden poleset ›
53	Cork County Council	Ballynagarbragh	2	› Replace wooden poleset › Replace hardware
54	Cork County Council	Ballynagarbragh	2	› Replace hardware
55	Cork County Council	Ballynagarbragh	3	› Replace wooden poleset

Structure	Local Authority	Townland	Plan Sheet Number(s)[1]	Proposed Works
56	Cork County Council	Ballynagarbragh	3	› Replace wooden poleset › Replace hardware
57	Cork County Council	Ballynagarbragh	3	› Replace wooden poleset
59	Cork County Council	Lackenroe	4	› Replace wooden poleset
60	Cork County Council	Lackenroe	4	› Replace wooden poleset
61	Cork County Council	Lackenroe	4	› Replace wooden poleset
63	Cork County Council	Lackenroe	5	› Treat corrosion & paint › Replace J bolts › Civil works (reinforcement / reparation) to foundations › Re-tension barbwire Anti-Climbing Guards
64	Cork County Council	Ballycurreen	5	› Replace wooden poleset › Replace hardware
65	Cork County Council	Ballycurreen	5	› Replace wooden poleset › Replace hardware
66	Cork County Council	Ballycurreen	5	› Replace wooden poleset › Replace crossarms › Replace hardware
67	Cork County Council	Killeena	6	› Replace wooden poleset › Replace hardware
68	Cork County Council	Killeena	6	› Replace wooden poleset › Replace hardware
69	Cork County Council	Killeena	6	› Replace wooden poleset › Replace hardware
70	Cork County Council	Killeena	6	› Replace wooden poleset › Replace hardware
71	Cork County Council	Killeena	6	› Replace wooden poleset
72	Cork County Council	Killeena	7	› Replace hardware

Structure	Local Authority	Townland	Plan Sheet Number(s)[1]	Proposed Works
73	Cork County Council	Killeena	7	› Replace wooden poleset › Replace crossarms › Replace hardware
74	Cork County Council	Killeena	7	› Replace hardware
75	Cork County Council	Killeena	7	› Paint › Civil works (reinforcement / reparation) to foundations

2.2.2 Description of the Baseline Ecological Environment

Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological Baseline conditions are those existing in the absence of proposed activities (CIEEM 2018).

A multidisciplinary walkover survey was conducted on the on the 19th of August 2020 in line with NRA (2009) guidelines (Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes) by Olivia O' Gorman (B.Sc., M.Sc.). The ecological survey was undertaken within the optimal time of year to undertake a habitat and flora survey (Smith et. al 2011).

The existing Kilbarry-Knockraha No. 2 110 kV Line passes over a number of different habitat types which are predominately comprised of residential areas and roadways classified as ***Buildings and Artificial Surfaces (BL3), Amenity Grassland (GA2), Improved Agricultural Grassland (GA1), Dry meadows and grassy verges*** **(GS2)** scattered areas of ***Scrub (WS1)*** *and* ***Hedgerows (WL1)*** which are often associated with ***Earthen banks (BL2)*** and stonewalls classified as ***Stonewalls and other stone work (BL1).***

The grasslands crossed by the existing 110kVline are predominately used for agricultural purposes many of which contained cattle and were highly grazed. These areas of grassland contained species including perennial ryegrass *(Lolium perenne),* meadow grasses *(poa spp.)* ribwort plantain *(Plantago lanceolate),* broadleaf dock *(Rumex obtusifolius),* creeping buttercup *(Ranunculus repens),* silverweed *(Potentilla anserine)* and creeping thistle *(Cirsium arvense).* There were sections of grassland crossed by the existing line used for tillage agriculture specifically maize production.

There were a number of polesets/masts which are adjacent to or within hedgerows comprised of species including ash *(Fraxinus excelsior)* , sycamore *(Acer pseudoplatanus),* hawthorn *(Crataegus monogyna),* gorse *(Ulex europaeus),* bramble *(Rubus fruticosus agg.),* ivy (*Hedera ssp.),* and herb-robert *(Geranium robertianum).* These hedgerows were associated with earthen banks and stone walls in places along the project route.

There were areas of grassland associated with hedgerows adjacent to roadway classified as **Dry meadow and grassy verges (GS1)** with a larger area of grassland within the vicinity of the Killbarry substation which also most closely resembled Dry meadow and grassy verges habitat. These areas were comprised of species including false oat grass *(Arrhenatherum elatius),* yorkshire fog *(Holcus lanatus),* bush vetch (*Vicia sepium),* tufted vetch *(Vicia cracca),* silverweed, grounsel *(Senecio vulgaris),* ribwort plantain, birds-foot trefoil *(Lotus corniculatus),* broadleaf dock, ragwort *(Jacobaea vulgaris)* and soft rush *(Juncus effuses)* with some young willow *(Salix spp.)* regenerating within the larger area of grassland.

The existing line route passes through residential areas composed of housing estates with associated roadways classified as ***Buildings and artificial surfaces (BL3).*** In these locations, the project infrastructure is situated within a variety of area including private gardens adjacent to the roadway comprised of amenity grassland with ornamental plant species such as Leydandii *(Cupressus × leylandii)* present, within open areas of amenity grassland and adjacent to hedgerows. The amenity grassland was generally comprised of dandelion *(Taraxacum officinale agg),* red clover (*Trifolium pratense),* white clover (*Trifolium repens),* ribwort plantain *(Plantago lanceolate),* greater plantain *(Plantago major),* curled dock *(Rumex crispus),* broadleaf dock (*Rumex obtusifolius),* creeping buttercup *(Ranunculus repens),* self-heal *(Prunella vulgaris)* and daisy *(Bellis perennis).* There was ***Scrub (WS1)*** in places composed predominantly of bramble and nettle *(Urtica dioica)* with non-native species butterfly bush *(Buddleja davidii)* and traveller's joy *(Clematis vitalba)* also recorded. The hedgerows were comprised of sycamore, elder *(Sambucus nigra),* hawthorn, ash and ivy.

The project route crosses six watercourses which from east to west include the Glashaboy [EPA code: 19G01], Rowgarrane [EPA code: 19R39], Lackinroe [EPA code: 19L50], Glenmore [EPA code: 19G82], Lisheenroe {EPA code: 19L40] and the Goganstown [EPA code: 19G68]. In all instances the existing line passes over the watercourses and there will be no bankside or instream works required as part of the refurbishment works.

There were no Qualifying Interests (QIs) of SACs, or Special Conservation Interests (SCIs) of SPAs recorded during the site visit.

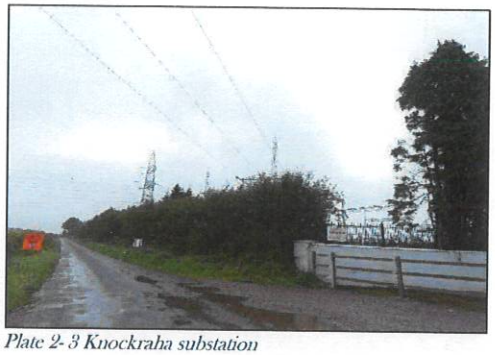


Plate 2- 3 Knockraha substation

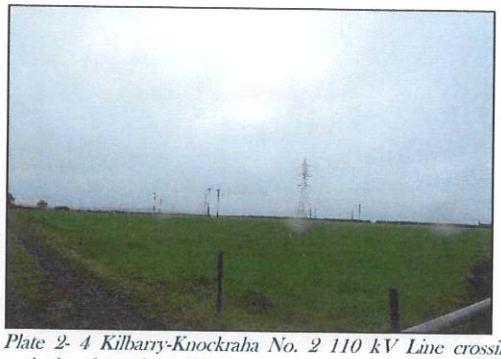


Plate 2- 4 Kilbarry-Knockraha No. 2 110 kV Line crossing agricultural grassland (GA1)

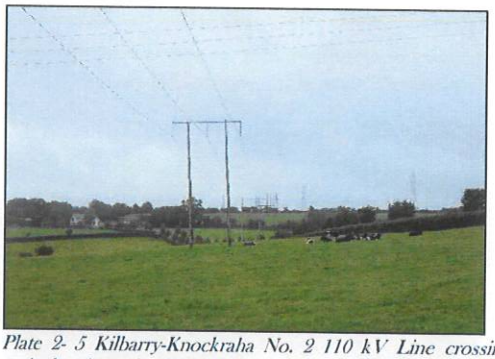


Plate 2- 5 Kilbarry-Knockraha No. 2 110 kV Line crossing agricultural grassland (GA1)

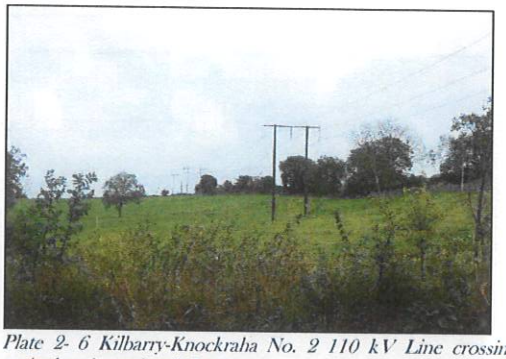


Plate 2- 6 Kilbarry-Knockraha No. 2 110 kV Line crossing agricultural grassland (GA1)

Plate 2- 7 Kilbarry-Knockraha No. 2 110 kV Line adjacent to residential dwelling

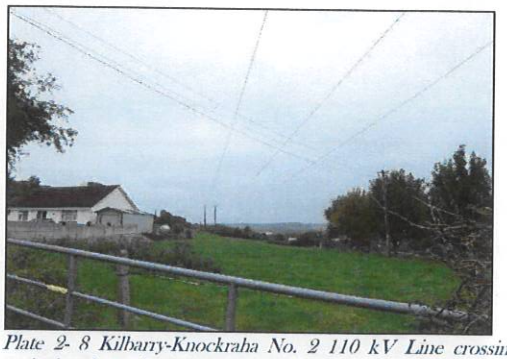


Plate 2- 8 Kilbarry-Knockraha No. 2 110 kV Line crossing agricultural grassland (GA1)

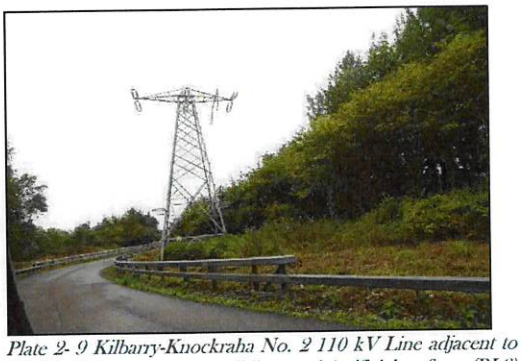


Plate 2- 9 Kilbarry-Knockraha No. 2 110 kV Line adjacent to the roadway classified as Buildings and Artificial surfaces (BL3)

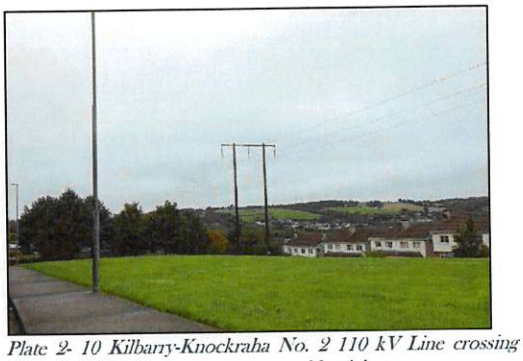


Plate 2- 10 Kilbarry-Knockraha No. 2 110 kV Line crossing amenity grassland (GA2) within a residential area

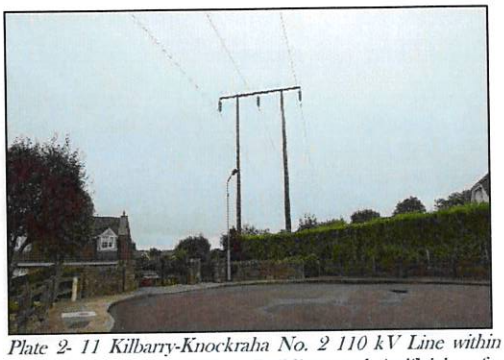


Plate 2- 11 Kilbarry-Knockraha No. 2 110 kV Line within a residential area classified as Buildings and Artificial surfaces (BL3)

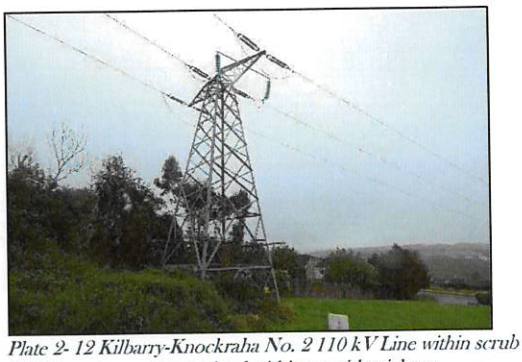


Plate 2- 12 Kilbarry-Knockraha No. 2 110 kV Line within scrub (WS1) and amenity grassland within a residential area

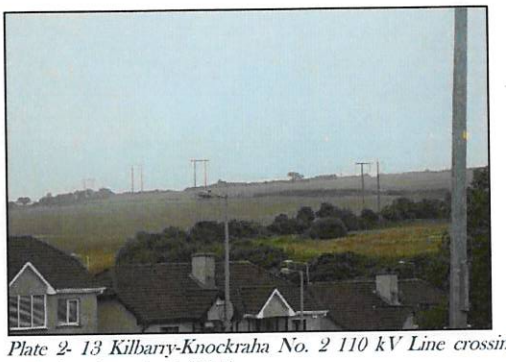


Plate 2- 13 Kilbarry-Knockraha No. 2 110 kV Line crossing agricultural grassland (GA1)

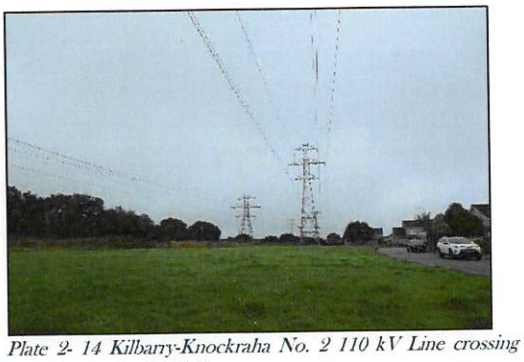


Plate 2- 14 Kilbarry-Knockraha No. 2 110 kV Line crossing amenity grassland (GA2)

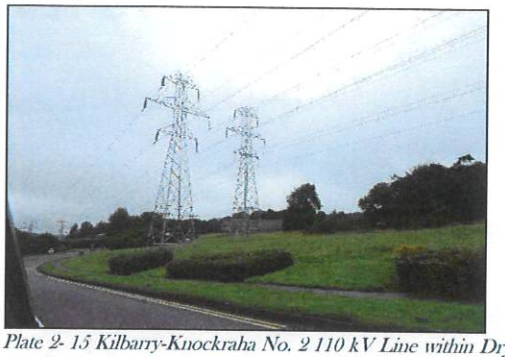


Plate 2- 15 Kilbarry-Knockraha No. 2 110 kV Line within Dry meadows and grassy verges (GS1)

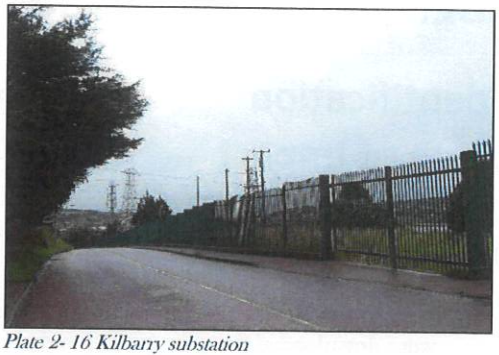


Plate 2- 16 Kilbarry substation

3. IDENTIFICATION OF RELEVANT EUROPEAN SITES

3.1 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- Initially the most up to date GIS spatial datasets for European designated sites and water catchments were downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie) on the 01/10/2020. The datasets were utilized to identify European Sites which could feasibly be affected by the proposed development.
- All European Sites within a distance of 15km surrounding the development site were identified and are shown on Figure 3.1. In addition, the potential for connectivity with European Sites at distances of greater than 15km from the proposed development was also considered (e.g. Ballymacoda Bay SPA and Ballymacoda (Clonpriest and Pillmore) SAC) in in this initial assessment. In this case, no potential connectivity with sites located at a distance of over 15km from the proposed development was identified.
- The catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any European Sites. The hydrological catchments are also shown in Figure 3.1.
- In relation to Special Protection Areas, in the absence of any specific European or Irish guidance in relation to bird dispersal and SPA connectivity, the Scottish Natural Heritage (SNH) Guidance, 'Assessing Connectivity with Special Protection Areas (SPA)' (2016) was consulted. This document provides guidance in relation to the identification of connectivity between proposed development and Scottish Special Protection Areas. The guidance takes into consideration the distances species may travel beyond the boundary of their SPAs and provides information on dispersal and foraging ranges of bird species which are frequently encountered when considering plans and projects.
- Table 3.1, provides details of all relevant European Sites as identified in the preceding steps and assesses which are within the likely Zone of Impact. Section 3.2 provides details of other relevant project and plans The assessment considers any likely direct or indirect impacts of the proposed development, both alone and in combination with other plans and projects, on European Sites by virtue of the following criteria: size and scale, land-take, distance from the European Site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction, operation and decommissioning were considered in this screening assessment
- The site synopses and conservation objectives of these sites, as per the NPWS website (www.npws.ie), were consulted and reviewed at the time of preparing this report 01/10/2020.

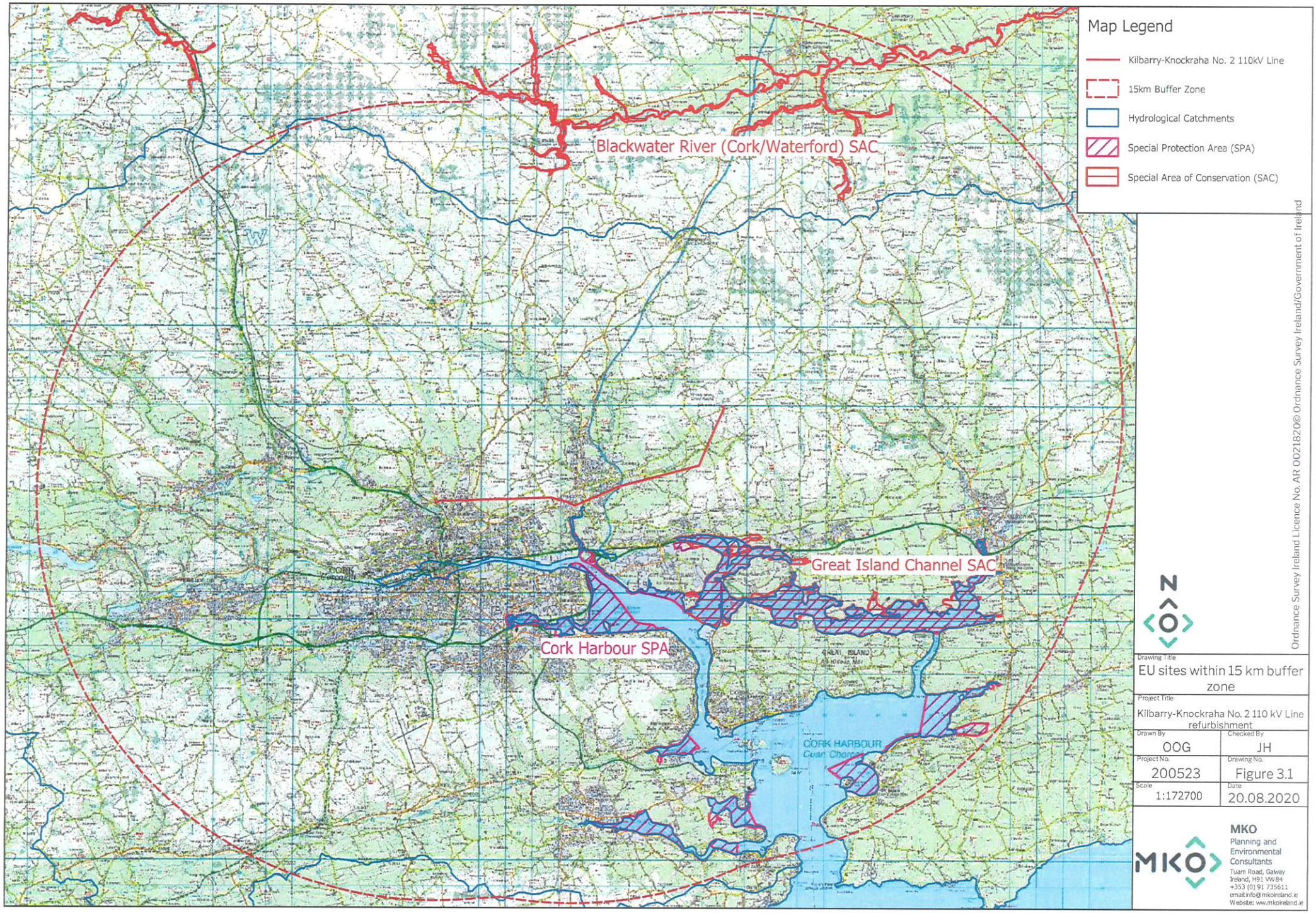

Blackwater River (Cork/Waterford) SAC
Great Island Channel SAC
Cork Harbour SPA
CORK HARBOUR
Map Legend
Kilbarry-Knockraha No. 2 110kV Line
15km Buffer Zone
Hydrological Catchments
Special Protection Area (SPA)
Special Area of Conservation (SAC)
N
Ordnance Survey Ireland Licence No. AR 0021820© Ordnance Survey Ireland/Government of Ireland
Drawing Title
EU sites within 15 km buffer zone
Project Title
Kilbarry-Knockraha No. 2 110 kV Line refurbishment
Drawn By
OOG
Checked By
JH
Project No.
200523
Drawing No.
Figure 3.1
Scale
1:172700
Date
20.08.2020
MKO
Planning and Environmental Consultants
Tuam Road, Galway
Ireland, H91 VW84
+353 (0) 91 735611
email:info@mkoireland.ie
Website: ww.mkoireland.ie

Table 3- 1 Identification of Designated sites within the Likely Zone of Impact

European Sites and distance from proposed development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 01/10/2020	Conservation Objectives	Likely Zone of Impact Determination
Special Areas of Conservation (SAC)			
Great Island Channel SAC (001058) **Distance:** 2.4 km	› Mudflats and sandflats not covered by seawater at low tide [1140] › Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330]	Detailed conservation objectives for this site, (Version 1, June 2014), were reviewed as part of the assessment and are available at www.npws.ie	There will be no direct effects as the project footprint is located entirely outside the designated site. The proposed works are small scale in nature and are fully associated with maintenance/refurbishment of the existing line infrastructure. No instream or bankside works are required. The proposed project works are located within the Butlerstown_030 sub basin. This basin discharges to the Glashaboy River which subsequently discharges into the transitional waters between the River Lee and Lough Mahon. As such, there is no direct hydrological connectivity between the proposed works and the SAC. Consequently, no potential for significant effect via any hydrological pathway exists. No source-impact-pathway exists in relation to the habitats listed as QI's of this European site. As such, there is no potential for impacts to occur on these habitats. There is no likelihood for significant effects and no further assessment is required.
Blackwater River (Cork/Waterford) SAC (002170) **Distance:** 9.1 km	› Estuaries [1130] › Mudflats and sandflats not covered by seawater at low tide [1140] › Perennial vegetation of stony banks [1220] › Salicornia and other annuals colonising mud and sand [1310] › Atlantic salt meadows (*Glauco-Puccinellietalia maritimae)* [1330] › Mediterranean salt meadows *(Juncetalia maritimi)* [1410]	Detailed conservation objectives for this site (Version 1, July 2012) were reviewed as part of the assessment and are available at www.npws.ie	There will be no direct effects as the project footprint is located entirely outside the designated site. The proposed development and the SAC are located within different hydrological catchments and no pathway for direct or indirect effect exists. There is no likelihood for significant effects and no further assessment is required.

	› Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] › Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] › Alluvial forests with *Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)* [91E0] › Freshwater Pearl Mussel *(Margaritifera margaritifera)* [1029] › White-clawed Crayfirsh *Austropotamobius pallipes* [1092] › Sea Lamprey *Petromyzon marinus* [1095] › Brook Lamprey *Lampetra planeri* [1096] › River Lamprey *Lampetra fluviatilis* [1099] › Twaite Shad *Alosa fallax fallax* [1103] › Salmon *Salmo salar* [1106] › Otter *Lutra lutra* [1355] › Killarney Fern *Trichomanes speciosum* [1421]		
Special Protection Area (SPA)			
Cork Harbour SPA (004030) **Distance:** 433m	› Little Grebe *(Tachybaptus ruficollis)* [A004] › Great Crested Grebe *(Podiceps cristatus)* [A005] › Cormorant *(Phalacrocorax carbo)* [A017] › Grey Heron *(Ardea cinerea)* [A028] › Shelduck *(Tadorna tadorna)* [A048] › Wigeon *(Anas penelope)* [A050] › Teal *(Anas crecca)* [A052] › Pintail *(Anas acuta)* [A054] › Shoveler *(Anas clypeata)* [A056] › Red-breasted Merganser *(Mergus serrator)* [A069] › Oystercatcher *(Haematopus ostralegus)* [A130] › Golden Plover *(Pluvialis apricaria)* [A140] › Grey Plover *(Pluvialis squatarola)* [A141] › Lapwing *(Vanellus vanellus)* [A142] › Dunlin *(Calidris alpina)* [A149] › Black-tailed Godwit *(Limosa limosa)* [A156] › Bar-tailed Godwit *(Limosa lapponica)* [A157] › Curlew *(Numenius arquata)* [A160]	Detailed conservation objectives for this site (Version 1.0, December 2014) were reviewed as part of the assessment and are available at www.npws.ie	There will be no direct effects as the project footprint is located entirely outside the designated site. The proposed project works are located within the same hydrological catchment as this European site. However, the works are terrestrially based and there is no direct surface water connectivity between the proposed works areas and the European site. The proposed works are small scale in nature and are fully associated with maintenance/refurbishment of the existing line infrastructure. No instream or bankside works are required. Consequently, no potential for significant effect on supporting wetland habitat for SCI species, via any hydrological pathway, exists. The proposed works are associated with the refurbishment of existing infrastructure. There will be no loss of supporting habitat for SCI species within or outside the SPA. Based on the nature and scale of the works, the nature of the habitats at the works areas and the intervening buffer between the existing

	› Redshank *(Tringa totanus)* [A162] › Black-headed Gull *(Chroicocephalus ridibundus)* [A179] › Common Gull *(Larus canus)* [A182] › Lesser Black-backed Gull *(Larus fuscus)* [A183] › Common Tern *(Sterna hirundo)* [A193] › Wetland and Waterbirds [A999]		line and the SPA; no potential for significant effect as a result of disturbance/displacement of any SCI species exists. There is no likelihood for significant effects and no further assessment is required.

3.2 Likely In-combination impacts of the Proposed Works on European Sites, in-combination with other plans and projects

The potential for the development to contribute to a cumulative impact on European sites was considered. The online planning system for Cork County Council and Cork City Council was consulted on 01/10/2020.

Additional projects within the townland of Kilbarry, Ballincolly, Ballyvolane, Arderrow, Ballyharoon, Banduff, Poulacurry North, Poulacurry South, Ballinglanna, Corbally North, Corbally South, Ballynagarbragh, Lackenroe, Ballycurreen, Ballynagaul, Killeena, Ballynanelagh. Co. Cork within the last 5 years include:

- Retention of existing 24m high telecommunications structure carrying associated antennae and link dishes and associated equipment cabin, associated cabinet, within security compound, and existing access track. The development will continue to form part of Vodafone Irelands Ltd's existing GSM and 3G/4G broadband telecommunications network [Pl. Ref. 15/6184]
- Permission for the construction of 2 no. semi-detached residential units and associated site works including provision of open space in lieu of crèche as granted under Planning Reg. No. 04/9737 [Pl. Ref. 165707]
- Retention of attic conversion to store-room including rooflights to front and rear of dwelling, and change of rooflight design to extension permitted under Pl. Reg. No. 05/4544 [Pl. Ref 166774]
- Retention of as constructed dwelling house and all associated site works [Pl. Ref. 174707]
- Retention of attic conversion including roof windows to front and rear elevations of dwelling house [Pl. Ref. 175512]
- Permission for a single storey rear and side extension to an existing dwelling and associated site works [Pl. Ref. 177314]
- Permission to convert the existing garage and car port attached to existing dwelling to a granny flat including and associated site works [Pl. Ref. 187027]
- Permission for retention for development of this site at Banduff, Ballyvolane, Co. Cork. The development consists of retention of an existing 15m telecommunications structure with all associated equipment and cabin within a fenced compound. Permission is also sought for an extension of the existing telecommunications structure to an overall height of 21 metres to allow for the repositioning of dishes and antenna in order to maintain and improve telecommunications services in the area [Pl. Ref. 1938927]
- Permission for the construction of 20 no. residential units and all ancillary site works consisting of 14 no. 2-storey 3-bedroom semi-detached units and 6 no. 2-storey 3-bedroom townhouses. The proposed development represents a change of plan and increase in density from that permitted under Cork County Council Planning Reference 09/6705 as extended by Planning Reference 14/6172. Ancillary site works to include landscaping and open space provision including a neighbourhood play area. Access to the site will be from Banduff Road via 2 no. proposed entrances to the neighbouring Ard na Rí Estate [Pl. Ref. 195326]
- Permission to construct a dwelling house, domestic garage, new entrance, install a septic tank and all associated site works [Pl. Ref. 186831]
- Permission for development comprising internal and external alterations to the existing Lidl Licensed Discount Foodstore and the adjoining Unit 1 retail unit along with amendments to the car park all at a site of approximately 0.419 ha located at Ballyhooly Road Ballyvolane Arderrow Co Cork. The proposed alterations will consist of the construction of an extension on the southern elevation of the existing Licensed Discount Foodstore along with the construction of a new trolley bay on the Eastern elevation of the building all resulting in a 229 sq m increase in the Gross Floor Area of the building in conjunction with revised elevational treatments the expansion of the existing Licensed Discount Foodstore into part of the adjoining Unit 1 retail unit increasing the Gross Retail Area of the Licensed Discount Foodstore by 191 sq m to accommodate enhanced staff welfare facilities , including canteen meeting room locker area shower toilets and lobby and storage facilities including cold storage. The internal reconfiguration of the Licensed Discount Foodstore to include the expansion of the existing storage area the repositioning and enhancement of the existing public facilities including lobby and toilets office plant room and bakery along with an increase in the Net Retail Sales Area from 1391 sq m to 1418 sq m an increase of 27 sq m Corporate Signage consisting of 2 no building mounted

corporate internally illuminated signs 1 no poster panel display sign and 1 no free standing externally illuminated poster display boards and the amendment of the car park to include the omission of 19 no car parking spaces along with new hard and soft landscaping treatments and all other ancillary and associated site development works above and below ground level [Pl. Ref. 2039326]

- Retention of alterations and extension to dwelling house including (A) change of use of attic to living area including rooflights to front and back elevations, door in lieu of window at first floor level to side (East) elevation, (b) garage/outhouse extension to side (West) elevation, (C) stone finish to front (South) elevation, (D) chimney to side (West) elevation [Pl. Ref. 2039326]
- Permission for the sub-division of the existing retail unit (existing gross area 970sqms gross floor area) located on the east side of the existing Lidl store, into two units (Unit 1 and Unit 2). Unit 1 would remain in retail use and have a gross floor area of 396sqms. Unit 2 will have a gross floor area of 540sqms and would be used as a Bingo Hall. As well as elevational adjustments to create a new point of public access to the Unit 2, the development includes new signage above the proposed access to Unit 2 on the north elevation of the property. Additional signage is also proposed on the southern elevation of the property to advertise the uses in both Units 1 and 2. All other associated works [Pl. Ref. 187173]
- Permission for the construction of a two-storey dwelling house and all associated site works [Pl. Ref. 156793]
- Permission for the demolition of an existing semi-detached cottage and construction of 6 no. dwellings, a new shared site entrance and all associated site works [Pl. Ref. 165481]
- Permission for the refurbishment and extension of existing dwelling to incorporate the following elements; A) Addition of a 1st floor element over existing ground floor side annex including 2 storey bay window and alignment of ridge line, B) Addition of front entrance porch and realignment of 1st floor ensuite window, C) Two storey extension to the rear of dwelling together with all associated site development works [Pl. Ref. 174725]
- Permission for a change of 3 number dwelling houses (house type A as granted under planning application 16/5481) to house type C and changes as necessary to ancillary works [Pl. Ref. 174976]
- Permission for the construction of no. 2 dwelling houses, connection to existing shared site entrance and all associated site works [Pl. Ref. 177378]
- Permission for the construction of a vehicular entrance to existing dwelling and all associated site works [Pl. Ref. 186755]
- Permission for the construction of a two-storey dwelling house domestic wastewater treatment system, vehicular entrance and all associated site works [Pl. Ref. 186756]
- Permission for the retention of (1) an attached garage converted to living accommodation and (2) a single storey extension, both to the side of an existing dwelling [Pl. Ref. 1887193]
- Permission for the demolition of existing domestic garage to west elevation and the construction of a new two storey extension to west elevation, entrance porch to south elevation to existing dwelling and all associated site works [Pl. Ref. 187445]
- The construction of a storey and a half dwelling (change of plan to that permitted under planning ref no. 15/4669), a detached garage, and all associated site works [Pl. Ref. 166650]
- Permission for the construction of a single storey extension to the rear and side of an existing two storey dwelling and all associated site works [Pl. Ref. 1743336]
- Permission for a single storey bungalow on site, adjacent to existing dwelling house, incorporating parking area and all associated drainage and site development works, (planning permission previously granted under planning reference 0631378) [Pl. Ref. 1636949]
- Permission for the construction of a new 110kV Gas Insulated Switchgear (GIS) building, located entirely within the footprint of the existing Kilbarry 110 kV Substation, measuring approximately 603.5m2 and 15m in height. The works will include the demolition of the existing disused control building and oil storage facility; the removal of three existing 110kV Overhead Line Towers and construction of four Line Cable Interface Masts (LCIM) with a height of up to 23.75m; connection of existing overhead lines to new LCIMs and 110 kV GIS Substation by means of underground cables and overhead line connections; modification to the existing entrance, the internal access roads, fences and internal access gates; temporary construction facilities, compounds, hardstands; and all associated and ancillary development and site works including provision and/or replacement of electrical structures and equipment, drainage works, laying of new or replacement cables and the diversion of existing cables. A Natura Impact Statement is submitted with this application [Pl. Ref. 1938211]
- Permission for alterations and to construct a single storey extension to side and rear of our dwelling with associated site works [Pl. Ref. 2039404]

In addition to the above, the objectives and policies of both the Cork County Development Plan 2014 and the Cork City Development Plan 2015-2021 (Table 3.2) were considered during the review of the plans and projects within the wider area of the development.

Table 3- 2: Review of plans and policies

Plans	Key Policies/Issues/Objectives Directly Related To European Sites, Biodiversity and Sustainable Development In The Zone of Influence	Assessment of development compliance with policy
Cork City Development Plan 2015-2021	**Objective 10.7 Designated areas and protected species** a). To protect enhance and conserve designated areas of natural heritage and biodiversity and the habitats, flora and fauna for which it is designated; b). To protect enhance and conserve designated species and the habitats on which they depend; c). To ensure that any plan/ project and any associated works, individually or in combination with other plans or projects are subject to Appropriate Assessment Screening to ensure there are no likely significant effects on the integrity (defined by the structure and function) of any Natural 2000 site (s) and that the requirements of Article 6 (3) and 6(4) of the EU Habitats Directive are fully satisfied. When a plan/project is likely to have a significant effect on a Natural 2000 site or there is uncertainty with regard to effects, it shall be subject to Appropriate Assessment. The plan/project will proceed only after it has been ascertained that it will not adversely affect the integrity of the site or where, in the absence of alternative solutions, the plan/project is deemed imperative for reasons of overriding public interest, all in accordance with the provisions of Article 6(3) and 6(4) of the EU Habitats Directive.	The proposed project works surveys will not adversely affect the Qualifying Interests/Special Conservation Interests associated with the Great Island Channel SAC, Blackwater River (Cork/Waterford) SAC or Cork Harbour SPA.
Cork County Development Plan 2014	**Objective HE 2-1: Site Designated for Nature Conservation** Provide protection to all natural heritage sites designated or proposed for designation under National and European legislation and International Agreements, and to maintain or develop linkages between these. This includes Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas, Statutory Nature Reserves, Refuges for Fauna and Ramsar Sites.	The proposed project works surveys will not adversely affect the Qualifying Interests/Special Conservation Interests associated with the Great Island Channel SAC, Blackwater River (Cork/Waterford) SAC or Cork Harbour SPA.
	Objective HE 2-7: Control of Invasive Species Control the spread of invasive plant and animal species within the county.	The proposed project will not cause the spread or cause invasive species to be spread within the areas associated with the proposed project works.

In the review of the plans and projects that was undertaken, no connection, that could potentially result in in-combination effects was identified. There was no potential for different (new) impacts resulting from the combination of the various projects and plans in association with the proposed retention and development identified.

Taking into consideration the reported impacts from other plans and projects in the area and the predicted impacts with the proposed development, no potential for cumulative impact exists.

The proposed works, by itself, does not have the potential to result in any significant direct or indirect effect on any European Site. As a result, the proposed project works will not contribute to any potential cumulative effect on any European Site when considered in combination with other plans and projects.

4. ARTICLE 6(3) APPROPRIATE ASSESSMENT SCREENING STATEMENT AND CONCLUSIONS

The findings of this Screening Assessment are presented following the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

4.1 Data Collected to Carry Out Assessment

In preparation of the report, the following sources were used to gather information:

- Review of NPWS Site Synopses, Nature Standard Forms and Conservation Objectives for the European Sites.
- Review of OS maps and aerial photographs of the site of the proposed project.
- Site visit conducted on the 19th August 2020 Olivia O'Gorman (B.Sc., M.Sc.).

4.2 Concluding Statement

It can be excluded on the basis of objective evidence, that there will be likely significant effects on European sites from the project alone, or in combination with other plans or projects.

BIBLIOGRAPHY

Bailey, M. and Rochford J. (2006) Otter Survey of Ireland 2004/2005. Irish Wildlife Manuals, No. 23. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. and Fuller, R.J. (2013). Bird Atlas 2007-11: the breeding and wintering birds of Britain and Ireland. BTO Books, Thetford, UK.

Birds Directive (2009/147/EC) - https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1601474475906&uri=CELEX:02009L0147-20190626

CIEEM, 2018, Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. V1.1

DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February, 2010. Department of the Environment, Heritage and Local Government.

EC (2018) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission.

EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC.

EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission.

EC (2006) Nature and biodiversity cases: Ruling of the European Court of Justice. Office for Official Publications of the European Communities, Luxembourg.

EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission, DG Environment.

Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council.

Natural England (March 2007). Draft Guidance: The Assessment of Regional Spatial Strategies and Sub-Regional Strategies Under the Provisions of the Habitats Regulations.

NPWS (2008) The Status of EU Protected Habitats and Species in Ireland. Conservation Status in Ireland of Habitats and Species listed in the European Council Directive on the Conservation of Habitats, Flora and Fauna 92/43/EEC.

NPWS of the DEHLG (2008) The Report on Status of Habitats and Species in Ireland: Technical Reports and Forms.

NPWS Protected Site Synopses and maps available on http://www.npws.ie/en/ProtectedSites/

NRA (2006) Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes. Dublin: National Roads Authority.

NRA (2009). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. Dublin: National Roads Authority.

NRA (2008). The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads. Dublin: National Roads Authority.

Stace, C. A. (1997). New Flora of the British Isles. Cambridge: Cambridge University Press.

Therivel R. (2009) Workshop Material on the Habitats Directive Assessment of Plans Levett-Therivel Sustainability Consultants on behalf of the Heritage Council, Kilkenny.

APPENDIX 2

EIA SCREENING REPORT