



Comhairle Cathrach Chorcaí
Cork City Council

Screening for Appropriate Assessment

Banduff Road Scheme

May 2023

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Banduff Road Scheme

May 2023

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Contents

1	Introduction	1
1.1	Requirement for Appropriate Assessment	1
1.2	Legislation and Guidance	1
1.3	Process of Screening for Appropriate Assessment	2
1.4	Definitions	2
1.4.1	European Sites and Features	2
1.5	Statement of Competence	3
2	Methodology	4
2.1	Desk Study	4
2.2	Field Survey Data	4
2.2.1	Walkover Surveys	4
3	Project Description	5
3.1	Site Location	5
3.2	Baseline Description	5
3.3	Works Description	8
3.3.1	Construction Phase Activities	9
3.3.2	Operational Phase Activities	10
4	Screening for Appropriate Assessment	11
4.1	Management of European Sites	11
4.2	Potential Environmental Effects and Zone of Influence	11
4.3	Source Pathway Receptor Assessment	13
5	Assessment of Potential for Significant Effects	17
6	Potential for In Combination Effects	20
7	Screening Conclusion statement	23
8	References	25

Tables

Table 4.1: Noise Levels dB(A), at Various Distances from Construction Activities	12
Table 4.2: Source Pathway Receptor Assessment	14
Table 7.1: Findings of (No) Significant Effects Matrix	23

Figures

Figure 3.1: Project Location	5
Figure 3.2: Road realignment and junction radii reduction example	9
Figure 4.1: Site Location in Relation to European Sites	16

Photos

Photo 3.1: Treeline Recorded Along the Scheme	6
Photo 3.2: Hedgerow Recorded Within the Study Area	6
Photo 3.3: River Glen with surrounding scrub	7
Photo 3.4: Earth Banks (BL2), Improved Agricultural Grassland (GA1) and Treeline (WL2).	7
Photo 3.5: Amenity Grassland (GA2) bordering the road.	8

1 Introduction

1.1 Requirement for Appropriate Assessment

Article 6 of the Habitats Directive (92/43/EEC) requires that where a plan or project is likely to have a significant effect on a European site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".

Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 437 of 2011) (as amended) transposes Article 6 of the Habitats Directive into Irish law. The regulations require that before consent for a project is given, a screening for Appropriate Assessment of a project must be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.

The Project is not associated with the 'management' of a European Site having regard to Article 6 of the Habitats Directive. Therefore, the Project is not directly connected with or necessary to the management of any European Site and must undergo screening for Appropriate Assessment in accordance with Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations 2011.

This report has been prepared by Mott MacDonald on behalf of Cork City Council to inform the screening determination required under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

This report has been prepared in accordance with the following European Commission Guidance:

- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice C (2018) 7621
- EC (2001) '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'
- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010).

This report has similarly been prepared with regard to relevant rulings by the Court of Justice of the European Union (CJEU), the High Court, and the Supreme Court.

1.2 Legislation and Guidance

This report has been prepared having regard for the following European Commission and national guidance:

- EC (2021) 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 of the Planning Regulator (March 2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01.
- EC (2001) 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
- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010)¹
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice C (2018) 7621.

1.3 Process of Screening for Appropriate Assessment

The European Commission Guidance '*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*' (2021) prescribes a 4-step process in Screening for Appropriate Assessment as follows:

- Determine whether the project or plan is directly connected with or necessary to the management of the site;
- Describe the project or plan and describe and characterise other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site;
- Identify the potential effects on the Natura 2000 site;
- Assess the significance of any effects on the Natura 2000 site.

This report has been structured to reflect the 4-step screening process set out in the European Guidelines.

1.4 Definitions

1.4.1 European Sites and Features

A network of European sites of conservation importance has been identified by each Member State, hosting habitats and/or species identified in the Directives as needing to be either maintained at or returned to 'favourable conservation status'.

The sites of conservation importance known as European sites comprise the Natura 2000 network.

European sites comprise areas designated as Special Areas of Conservation (SACs) and/or Special Protection Areas (SPAs) in Ireland. The process of designating cSACs as SACs is ongoing in Ireland. Candidate sites (In Ireland, comprising cSACs) have the same legal protection as those whose designation is complete.

The designation features of SACs are referred to as Qualifying Interests (QIs), and these comprise both species (excluding birds), and habitats.

The designation features of SPAs are referred to as Special Conservation Interests (SCIs), and these comprise bird species, as well as wetland bird habitats.

The designation features of European sites are identified in the Statutory Instruments for European sites where such sites have completed the designation process. In all cases, designation features are also identified in Conservation Objectives published by the NPWS. Any Conservation Objectives referred to in this document are referenced to identify the date of publication and version number.

¹ DHLGH is updating this guidance on AA in Ireland, but the updated guidance had not been published at the time of writing this AA Screening Report

1.5 Statement of Competence

Authors and Surveyors

- **Dr Erin Johnston:** BSc (Hons), MSc, PhD, MCIEEM: (Senior Ecologist, Mott MacDonald) drafted this AA screening report. Erin is an Ecologist with ten years of post-graduate experience including three years in malacological research and six years in Ecological consultancy. She has prepared Ecological Impact Assessments, and Appropriate Assessments Screening Reports, and Natura Impact Statements for a variety of projects. Erin has experience carrying out field surveys for protected gastropods, along with vegetation, extended phase 1 habitat surveys, and targeted invasive species surveys. Other protected species surveys Erin has experience of include smooth newt, crayfish, badger, otter, marsh fritillary and bats.
- **Roger Macnaughton:** MSc, BSc (Hons), MCIEEM (Principal Ecologist. Mott MacDonald) reviewed and authorised this AA screening report. Roger is a qualified and experienced environmental consultant specialising in ecology. He has over twenty year's professional experience in the environmental consultancy sector and an additional seven years of primarily research-based experience in freshwater and marine ecology. He specialises in the delivery of Ecological Impact Assessment (EIA) and Appropriate Assessment (AA) for a broad range of projects potentially affecting; terrestrial, freshwater and marine ecology. His project related experience to date includes; two 400kV overhead lines, five 110kV overhead lines, overhead line up-rates, electricity substations, underground power cables, 35 terrestrial wind farms, two marine wind farms and five solar farms. Roger has extensive experience carrying out and co-ordinating walkover field surveys for protected species (birds, mammals, amphibians), along with Fossitt (2000) botanic/ habitat surveys, aquatic and fishery assessment, and targeted invasive species surveys.

2 Methodology

2.1 Desk Study

This assessment includes a desk-based review of available records of protected species and habitats including the following sources:

- Conservation Status Assessment Reports (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive
- Site Synopsis and Conservation Objective Reports available from NPWS
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans, and Conservation Management Plans
- Existing relevant mapping and databases e.g. waterbody status, species and habitat distribution etc. (sourced from the Environmental Protection Agency - <http://gis.epa.ie/>, the National Biodiversity Data Centre - <http://maps.biodiversityireland.ie> and the National Parks and Wildlife Services - <http://www.npws.ie/mapsanddata/>, and the Forestry Service (Department of Agriculture, Food and the Marine).

2.2 Field Survey Data

2.2.1 Walkover Surveys

A site walkover of the Banduff Road Scheme was conducted by Mott MacDonald Ecologist Dr. Erin Johnston on 24 October 2022.

The survey had regard for relevant guidance including, but not limited to, the NRA's *Ecological surveying techniques for protected flora and fauna during the planning of national road scheme*², which provides useful information on appropriate survey seasons and methods for many of Ireland's protected species.

Habitat survey methods had regard to 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., Heritage Council, 2011). Habitat classification was determined with reference to level 3 under Fossit (2000).

Particular attention was paid to the possible occurrence of:

- Annex 1 (and priority Annex 1) habitats designated under the EU Habitats Directive 92/43/EEC
- Protected plant species listed in the 2015 Flora Protection Order S.I. No. 256/2015
- Invasive plant species scheduled to the Birds and Habitats Regulations
- Species and habitats of special conservation significance

² National Roads Authority (2008). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes.

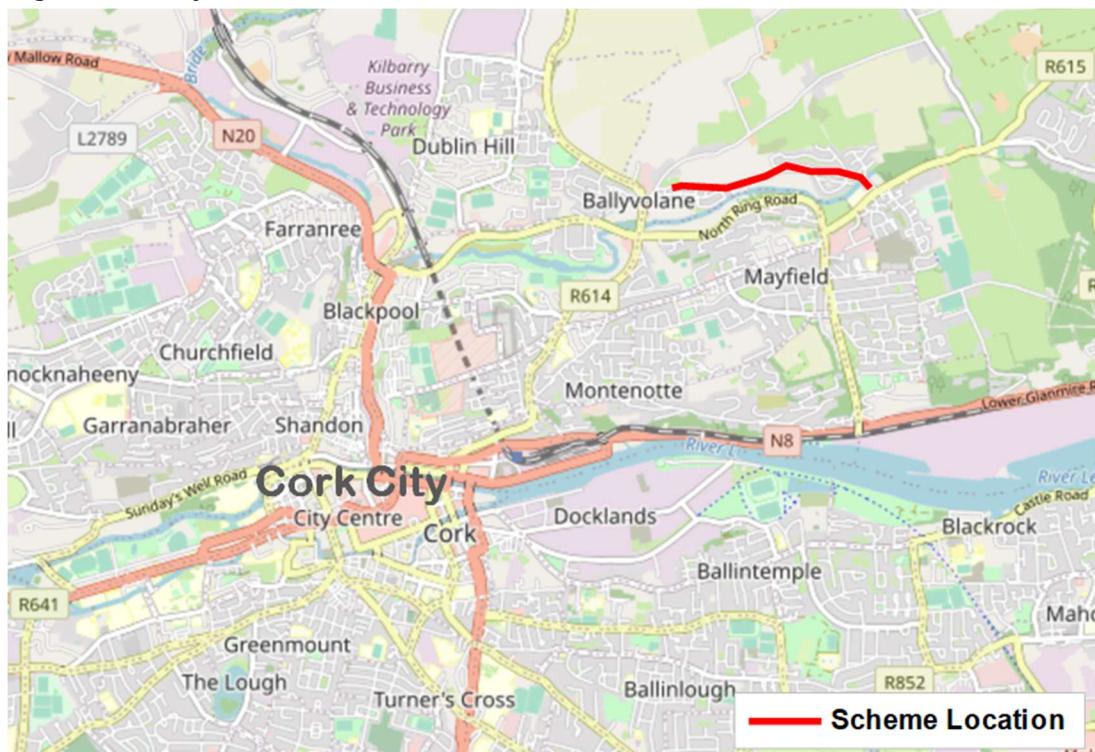
3 Project Description

3.1 Site Location

The project is located on the northside of Cork City on Banduff Road between the Rathcooney Road junction and the Old Youghal Road junction, as shown in **Figure 3.1** below. It is proposed to provide continuous pedestrian facilities on both sides of the Banduff Road, along with bus stops for new public transport links.

The overall objective of the scheme is to provide safe, high quality and continuous routes for pedestrians along the Banduff Road that will allow vulnerable road users to commute and access local amenities, along with the provision of bus stops for new public transport links.

Figure 3.1: Project Location



Source: Map data from © OpenStreetMap contributors (<https://www.openstreetmap.org/copyright>)

3.2 Baseline Description

The Banduff Road Scheme comprises the existing hardstanding road surface (BL3), with ornamental flower beds and borders (BC4), treelines (WL2), hedgerows (WL1), amenity grassland (GA2), earth banks (BL2), improved agricultural grassland (GA1) and scrub (WS1). A water crossing (FW2) was encountered, the River Glen, which was bordered by scrub (WS1).

Treelines were recorded in several locations along the scheme (Photo 3.1). Species recorded within treelines included sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), hawthorn (*Crataegus monogyna*), alder (*Alnus glutinosa*), ivy (*Hedera helix*), bramble (*Rubus fruticosus*), ribwort plantain (*Plantago lanceolata*), broad-leaved dock (*Rumex obtusifolius*) and common nettle (*Urtica dioica*).

Photo 3.1: Treeline Recorded Along the Scheme



Source: Mott MacDonald 2022

Hedgerows were typically managed (Photo 3.2) and dominated by hawthorn (*Crataegus monogyna*), along with species described under Treelines. Other species recorded in hedgerows included bramble (*Rubus fruticosus*) and common nettle (*Urtica dioica*).

Photo 3.2: Hedgerow Recorded Within the Study Area



Source: Mott MacDonald 2022

A crossing of the River Glen (Photo 3.3) was recorded at the eastern extent of the survey area. The river (FW2) was bordered by scrub (WS1). Species recorded in this area of scrub included winter heliotrope (*Petasites pyrenaicus*), elder (*Sambucus nigra*), willow (*Salix* spp.), oak (*Quercus petraea*), conifer, bramble (*Rubus fruticosus*) and common nettle (*Urtica dioica*). No instream vegetation was noted but fly tipping was recorded. Some areas of scrub within the scheme contained invasive Japanese knotweed (*Reynoutria japonica*) and butterfly bush (*Buddleja davidii*), along with hawthorn

(*Crataegus monogyna*), ivy (*Hedera helix*), dog rose (*Rosa canina*), foxglove (*Digitalis purpurea*) and gorse (*Ulex europaeus*).

Photo 3.3: River Glen with surrounding scrub



Source: Mott MacDonald 2022

Long stretches of earth banks (BL2) were recorded along the northern side of the road, bordered on the far side by improved agricultural grassland (GA1) (Photo 3.4). Typical species recorded within the earth bank included bracken (*Pteridium aquilinum*), Yorkshire fog (*Holcus lanatus*), cock's-foot (*Dactylis glomerata*), ivy (*Hedera helix*), common nettle (*Urtica dioica*), bramble (*Rubus fruticosus*) and cleavers (*Galium aparine*).

Photo 3.4: Earth Banks (BL2), Improved Agricultural Grassland (GA1) and Treeline (WL2).



Source: Mott MacDonald 2022

Species poor amenity grassland (GA2) was recorded in several locations along the scheme (Photo 3.5). Species present included dandelion (*Taraxacum spp.*), hogweed (*Heracleum sphondylium*), Creeping Buttercup (*Ranunculus repens*) and Yorkshire fog (*Holcus lanatus*).

Photo 3.5: Amenity Grassland (GA2) bordering the road.



Source: Mott MacDonald 2022

Several extensive stands of Japanese knotweed were recorded during the walkover survey, none of which appeared to be under treatment.

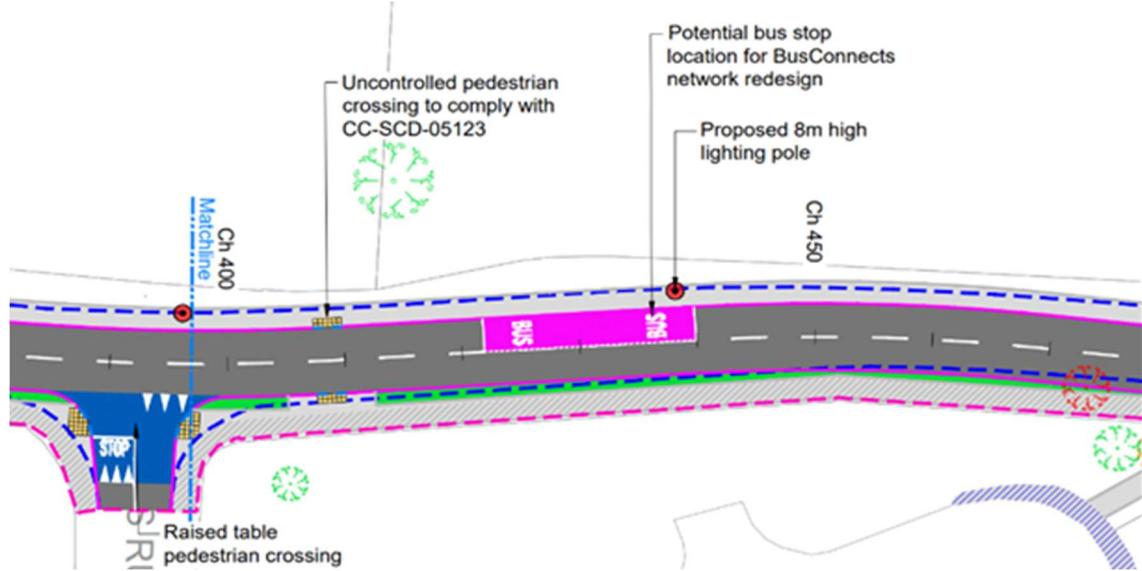
3.3 Works Description

The proposed works will comprise of the following (also refer to drawings 229101197-MMD-0000-XX-DR-C-0101 to 229101197-MMD-1300-XX-DR-C-0011):

- Realignment of the extent of the existing carriageway (see Figure 3.2), from approximately Ch 0+015 to Ch 1+511, a distance of approx. 1496 m.
- Provision of (8 no.) Bus Stops on Banduff Road in line with the Cork BusConnects scheme;
- New 2m wide concrete footpath on both sides of the carriageway, totalling a length of approximately 1900m;
- Upgrading of existing concrete footpath to provide a width of 2m, totalling a length of approximately 1420m
- Isolated reductions in footway width to 1.8m wide concrete footpath, totalling a length of approximately 65m at Ch 1+128 to Ch1+193;
- Isolated reductions in footway width to a minimum of 1.73m due to localised obstructions at Ch 1+165 to Ch 1+197, totalling a length of approximately 32m;
- Tie in to the "Ballyvolane Strategic Transport Corridor" project at chainage Ch 0+015;
- Provision of 14 No. Pedestrian Crossings and raised table at intersecting junctions including:
 - 3 No. uncontrolled pedestrian crossings at Ch 0+117, Ch 0+408 and Ch 1+026 to comply with CC-SCD-05123,

- 1 No. controlled zebra crossing with flashing beacons at Ch 1+260 to comply with CC-SCD-05125,
- 1 No. controlled puffin crossing at Ch 1+410 to comply with CC-SCD-05127,
- 9 No. Raised table pedestrian crossings at intersecting junctions at approximate chainages Ch 0+240, Ch 0+390, Ch 0+940, Ch 1+090, Ch 1+230, Ch 1+260, Ch 1+300, Ch 1+380 and Ch 1+450.
- Upgrades to 11 junctions including the reduction of junction radii to 4.5m typically;
- 36 No. new energy efficient 8m high public lighting columns;
- The provision of 8 No. formalised parking spaces at approximate chainages Ch 1+165 to Ch 1+212;
- Improved drainage infrastructure comprising of:
 - surface water drains ranging from 225mm to 450mm diameter, where no existing formalised drainage infrastructure exists,
 - relocation of existing roadside drainage gullies to the new kerbline connecting to the existing drainage network
 - a series of new roadside drainage gullies adjacent to the new footway where no existing formalised gully network exists, connecting to the existing drainage network;
- Enhanced permeability at chainages Ch 0+488, Ch 1+047 and Ch 1+148;
- Service and utilities diversions to facilitate the improvement works; and
- All associated works to facilitate the development.

Figure 3.2: Road realignment and junction radii reduction example



3.3.1 Construction Phase Activities

The proposed works will take place within public land, with the majority of the works area located within the existing roadway. However, additional land-take outside of these hardstanding areas will be required to cater for the works, including areas where works will take place within public lands. The following will therefore be required to facilitate the works:

- Vegetation clearance including the removal of trees along the route
- Breaking out of hardstanding surfaces
- Excavation and disposal of material from within the footprint of the works
- Pumping out of excavations should ground water levels be high
- Pouring of concrete

- Resurfacing of tarmac

This has potential to result in the following impacts:

- Surface water emissions
- Dust emissions
- Increased noise levels
- Accidental spread of Japanese knotweed
- Increased light levels during the works.

3.3.2 Operational Phase Activities

The proposed works comprise safety upgrades to the existing road. There will be no change of use, or increase in traffic, associated with these works.

Additional utilities including drainage will be included as part of these works. Discharge points will be located as they are currently, albeit with alterations as outlined previously relating to increased capacity, and headwalls. No additional outfalls to any surface water features will be added as part of these works.

New lighting will be installed along the route. This has potential to result in increased lighting levels along the proposed scheme.

4 Screening for Appropriate Assessment

4.1 Management of European Sites

The Proposed Development is not directly connected with or necessary to the 'management' of European sites within the Natura 2000 Network having regard to Article 6 of the Habitats Directive. As such it is appropriate that the proposed development is subjected to screening for AA.

This screening assessment investigates, in view of best scientific knowledge, whether the Proposed Development, individually or in combination with other plans and projects, would be likely to have a significant effect on European sites. This report considers the likelihood of significant effects on European sites from the construction, operation, and decommissioning of the Proposed Development.

4.2 Potential Environmental Effects and Zone of Influence

CIEEM guidelines³ states that the "*zone of influence (ZoI) is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities*" and that the "*zone of influence will vary for different ecological features depending on their sensitivity to an environmental change*".

The likely environmental effects associated with proposed development are set out having regard to the timing, frequency, duration, location, extent and magnitude of the works. The zones of influence associated with these project effects have been derived from relevant published literature and guidance documents. The duration of effect is defined with regard to the EPAs '*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*' (Draft, August 2017) which outlines categories for the description of durations: brief (less than 1 day); temporary (less than 1 year); short-term (1-7 years); medium-term (7-15 years); long-term (15-60 years); and permanent (>60 years).

All European sites within the defined zones of influence were identified using Geographical Information Systems.

The potential environmental effects of the proposed works, along with potential zone of influence for the works is outlined hereunder.

The potential effects of the proposed works, along with zone of influence for the works is outlined hereunder.

Surface water run-off

There is the potential for surface water emissions to be generated during the construction phase of the works.

The ZoI of surface water run-off is taken as being catchment wide.

³ CIEEM. 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine Version 1.1.

Dust

The proposed works have the potential to cause dust. The proposed construction works are likely to result in the temporary generation of dust. The Institute of Air Quality Management Guidance on the Assessment of the Impacts of Construction on Air Quality and the Determination of their Significance' (2014) prescribes potential dust emission risk classes to ecological receptors. The guidance specifies that the need for a detailed assessment arises "where there is an 'ecological receptor' within 50m of the works, or within 50m of the route(s) used by construction vehicles on the public highway, up to 500m from the site entrance" and that "Where the need for a more detailed assessment is screened out, it can be concluded that the level of risk is "negligible", and any effects will not be significant".

The Zol is, therefore, taken as 50m from the works and 500m along existing roadways from the works area.

Noise

There is potential for a temporary increase in noise during the construction of the proposed works. The zone of impact for noise will be dependent on the species being impacted. The British Standard 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites. Noise guidance prescribes typical noise level data for various construction plant and activities within 10m of the various sources. The inverse square law can be applied to determine likely noise levels at varying distances from the proposed works area. An estimate of the noise levels anticipated during the construction phase is presented below in Table 4.1

Table 4.1: Noise Levels dB(A), at Various Distances from Construction Activities

Plant Item	10m	100m	150m	200m	250m	300	350
Pneumatic breaker	95	72	68	64	62	60	58
Compactor rammer	91	68	64	60	58	56	54
Tracked excavator	85	62	58	54	52	50	48
Earthworks (Dozer)	81	58	54	50	48	46	44
Dump truck (empty)	88	65	61	57	55	53	51
Road planer	82	59	55	51	49	47	45
Asphalt paver (and tipper lorry)	84	61	57	53	51	49	47
Spreading chipping/fill (dozer)	82	59	55	51	49	47	45
Trenching	77	54	50	46	44	42	40
Vibratory roller	84	61	57	53	51	49	47
Handheld circular saw	87	64	60	56	54	52	50
Pumping water	65	42	38	34	32	30	28
All Above		75	71	68	65	63	62

Light Levels

There is potential for locally increased light levels associated with the works during both the construction and operational phases of the works. The lighting plan for the scheme will be fully determined at detailed design stage. As such, having regard to the precautionary principle the Zol for increased lighting levels is taken as 100m from the project boundary.

4.3 Source Pathway Receptor Assessment

Projects have the potential to impact on European sites beyond the footprint of the project itself. National Guidance⁴ states that screening for AA should be carried out for any European site within the likely Zol of a plan or project. For projects, the guidance recommends that Zol must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

To establish the Zol of the proposed works, desktop and field survey data on protected habitats and species was analysed. This data was interrogated for source-pathway-receptor connectivity.

The source (potential impacts from the proposed development), pathways (hydrological, physical or ecological connectivity) and receptors (QIs and SCIs of the European sites) were identified through a combination of bespoke field survey, and desktop survey including use of GIS software and through examination of aerial photography.

Any European sites identified to have a viable source-pathway-receptor link to the Proposed Development were then examined further to determine the potential for significant effects.

Table 4.2 below outlines European sites in the landscape surrounding the proposed development, and an assessment of any source-pathway-receptor links to each. The location of the proposed development in relation to European sites is presented in Figure 4.1.

⁴ Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009

Table 4.2: Source Pathway Receptor Assessment

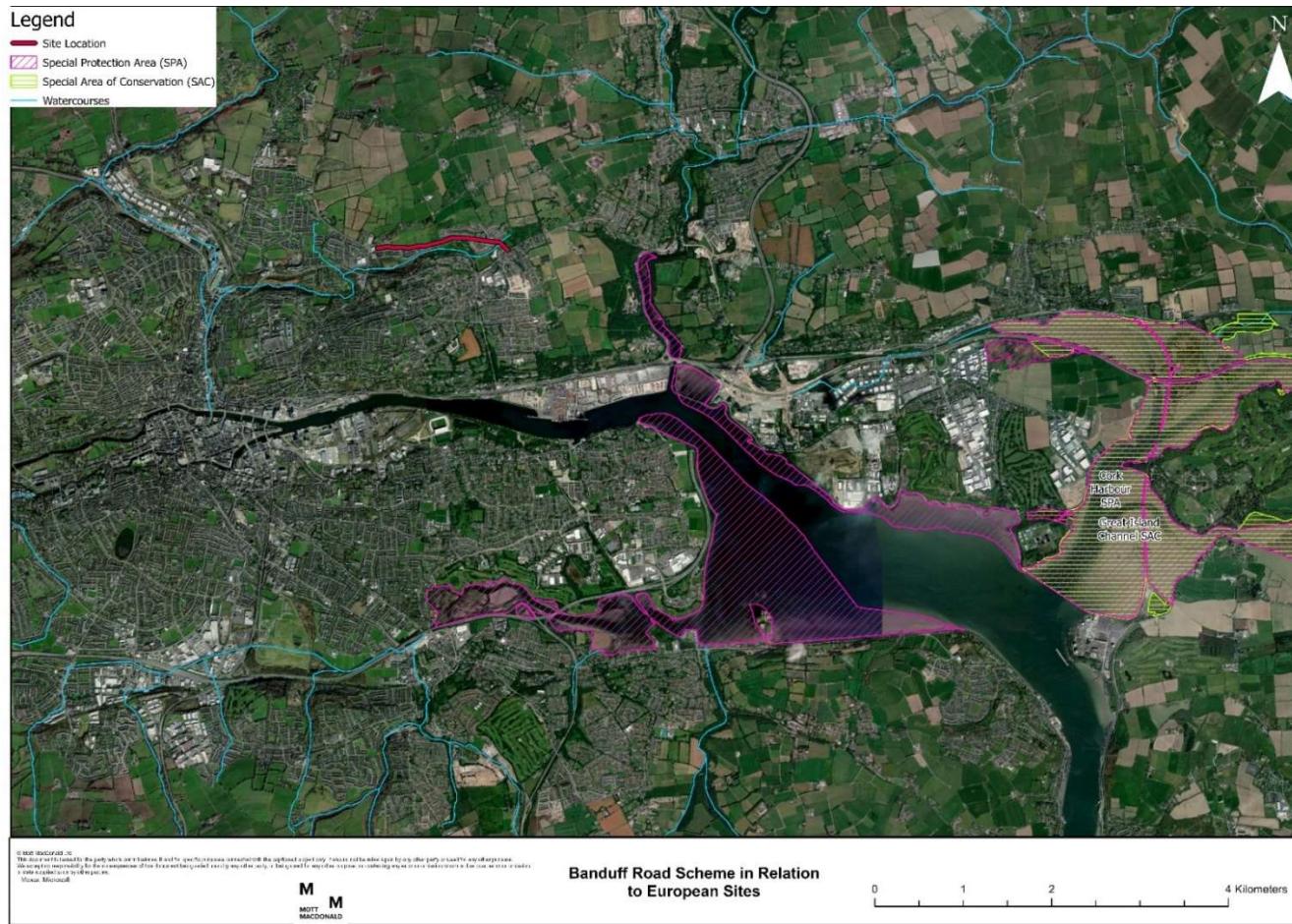
Site Name (Code), and Conservation Objectives	Distance between the proposed development and European site (straight line) at closest point	Qualifying Interests / Special Conservation Interests (SCI) of the European site (* denotes priority habitat, breeding birds only noted otherwise wintering)	Source-Pathway-Receptor Assessment
Great Island Channel SAC (001058) (NPWS, 2014)	5.6km	<ul style="list-style-type: none"> Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] 	<p>Great Island Channel SAC is located a significant distance from the site. Hydrological connectivity was identified with Great Island Channel SAC via the River Glen which flows through the site. The River Glen flows in a SW direction converging with the River Bride in Blackpool (becoming River Kiln) before joining the Lee River at Camden Quay. However, the hydrological connection is over a long distance (15.5km downstream⁵). As such, any surface water emissions would likely be attenuated prior to reaching the SAC boundary. However, given the hydrological connectivity, on the basis of the precautionary principle a viable source pathway receptor link is assumed.</p>
Blackwater River (Cork/Waterford) SAC (002170) (NPWS, 2012)	12.7km	<ul style="list-style-type: none"> 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 (<i>Glauco-Puccinellietalia maritimae</i>) [1330] Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation [3260] Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] <i>Margaritifera margaritifera</i> (freshwater pearl mussel) [1029] 	<p>No hydrological connectivity was identified to Blackwater River (Cork/Waterford) SAC. Given the location of the European Site relative to the proposed works, and the nature of the QIs for which it is designated, no viable source-pathway receptor links are identified.</p>

⁵ EPA Maps Accessed 8th February 2023

Site Name (Code), and Conservation Objectives	Distance between the proposed development and European site (straight line) at closest point	Qualifying Interests / Special Conservation Interests (SCI) of the European site (* denotes priority habitat, breeding birds only noted otherwise wintering)	Source-Pathway-Receptor Assessment
		<ul style="list-style-type: none"> • <i>Austropotamobius pallipes</i> (white-clawed crayfish) [1092] • <i>Petromyzon marinus</i> (sea lamprey) [1095] • <i>Lampetra planeri</i> (brook lamprey) [1096] • <i>Lampetra fluviatilis</i> (river lamprey) [1099] • <i>Alosa fallax fallax</i> (twait shad) [1103] • <i>Salmo salar</i> (salmon) [1106] • <i>Lutra lutra</i> (otter) [1355] • <i>Trichomanes speciosum</i> (Killarney fern) [1421] 	
Cork Harbour SPA (004030) (NPWS 2014)	1.5km	<ul style="list-style-type: none"> • Little grebe (<i>Tachybaptus ruficollis</i>) [A004] • Great crested grebe (<i>Podiceps cristatus</i>) [A005] • Cormorant (<i>Phalacrocorax carbo</i>) [A017] • Grey heron (<i>Ardea cinerea</i>) [A028] • Shelduck (<i>Tadorna tadorna</i>) [A048] • Wigeon (<i>Anas penelope</i>) [A050] • Teal (<i>Anas crecca</i>) [A052] • Pintail (<i>Anas acuta</i>) [A054] • Shoveler (<i>Anas clypeata</i>) [A056] • Red-breasted merganser (<i>Mergus serrator</i>) [A069] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Golden plover (<i>Pluvialis apricaria</i>) [A140] • Grey plover (<i>Pluvialis squatarola</i>) [A141] • Lapwing (<i>Vanellus vanellus</i>) [A142] • Dunlin (<i>Calidris alpina</i>) [A149] • Black-tailed godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Black-headed gull (<i>Chroicocephalus ridibundus</i>) [A179] • Common gull (<i>Larus canus</i>) [A182] • Lesser black-backed gull (<i>Larus fuscus</i>) [A183] • Common tern (<i>Sterna hirundo</i>) [A193] • Wetland and waterbirds [A999] 	<p>There is potential for SCI species to occur outside of the site boundary for the SPA. However, the lands within the Proposed Development, and within the Zol for disturbance effects have not been identified as supporting habitat for <i>ex situ</i> populations of SCI species.</p> <p>Tenuous hydrological connectivity was identified to Cork Harbour SPA via the River Glen which flows through the site. Cork Harbour SPA is located a relatively close distance to the site. However, the hydrological connection is over a significant distance (10.3km downstream⁶). The River Glen flows in a SW direction converging with the River Bride in Blackpool (becoming River Kiln) before joining the Lee River at Camden Quay. As such, any surface water emissions would likely be attenuated prior to reaching the SPA boundary. However, given the hydrological connectivity, on the basis of the precautionary principle a viable source pathway receptor link is assumed.</p>

⁶ EPA Maps Accessed 8th February 2023

Figure 4.1: Site Location in Relation to European Sites



Source: Mott MacDonald Ireland Limited

5 Assessment of Potential for Significant Effects

European and national legislation places a collective obligation on Ireland as a Member State to maintain/restore habitats and species in the Natura 2000 network at favourable conservation condition. Ireland has determined conservation objectives for European Sites which define favourable conservation condition for habitats and species protected under the Habitats Directive and Birds Directive. In addition, site-specific conservation objectives have been developed for a proportion of European Sites in Ireland which provide detailed measurable targets relative to the ecology of individual species or habitats for which a site is designated which must be achieved or maintained to meet favourable conservation status.

Favourable conservation condition of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing;
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and,
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for a site act as a reference point from which an assessment may be made of whether a project has potential for significant effects on a site. Where a project has potential to significantly affect the achievement / maintenance of the favourable conservation conditions, potential for significant effects must be assumed.

Size, Scale, Area, Land-Take

The works are located outside of any European site boundaries. There will be no land-take, or change of use, within any European sites associated with the works.

Given the nature and location of the project, there is no potential for impact to European Sites from the size, scale, area of the project.

Physical Changes

The works area is located entirely outside of any European Sites and is comprised of an existing road, and urban roadside habitats such as treelines, watercourses, and hedgerows. As such there is no potential for direct impact to any habitats within European Sites or supporting habitat for QI or SCI species.

As noted previously, Japanese knotweed was recorded on the edges of the scheme. Japanese knotweed is a Schedule 3 listed invasive species under the Birds and Natural Habitats Regulations. As such, under Article 49 (2) of the Regulations Article 49 (2) *“Save in accordance with a licence granted under paragraph (7), any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place specified in relation to such plant*

in the third column of Part 1 of the Third Schedule, any plant which is included in Part 1 of the Third Schedule, shall be guilty of an offence." Given the legislative obligations surrounding the species, any contractor undertaking the works is obliged to prevent its spread through the implementation of biosecurity measures.

There is no potential for impact to European Sites due to physical changes.

Resource Requirements

There is no requirement for abstraction from any watercourses associated with the Proposed Development. In addition, all fill required will be imported to site from a licensed facility. There is no potential for impact to European sites as a result of resource requirements.

Transportation Requirements

Transportation to the works area will be via the existing road network. The works will not result in an increase in local traffic volumes.'

There is no potential for effect on any European sites due to transportation requirements associated with the proposed scheme.

Emissions and Waste

Surface Water Emissions

There is potential for surface water run-off associated with site clearance, excavations, and stockpiled materials during the construction phase of the works. There are no instream works required to facilitate the Proposed Development. Surface water emissions associated with the construction phase of the scheme will likely be largely confined to the existing road and surrounding fields.

There is, however, the potential for sedimentation of the river during the construction phase of the works.

Given the nature of the works, it is anticipated that any surface-water emissions will have dissipated prior to entering into the closest European Site which is located approximately 10.3km downstream (hydrological route). This is due to the distance along the hydrological route, in addition to the dilution which would be associated with the transitional waters downstream. Further, the habitats associated with the European sites downstream are marine. These habitats are reliant on inputs of sediments as part of their natural processes. There are no relatively sensitive species or habitats associated with marine qualifying habitats in downstream European sites. As such, it is considered that there is no potential for significant effects to any European site from surface water emissions.

As outlined previously there is potential for a slight increase in the volumes discharged by the scheme;

Given the distance to European sites along the hydrological route, and the location of the downstream European sites in Cork harbour, this will not result in any impact to any European sites.

Given the nature, scale and location of the proposed development, there is no potential for any European sites to be impacted by surface water emissions during the construction and operational phases of the works.

Noise

The works will result in a temporary increase in noise at each ground investigation works location due to machinery operation.

Wetland birds have been documented to tolerate noise levels at or below 70dB(A) (Institute of Estuarine & Coastal Studies, University of Hull, 2009). As outlined in Table 4.1 noise levels (calculated on a worst-case scenario basis) fall below 70dB(A) within 200m of the works area. The proposed scheme is located a significant distance from the European site boundary. There will be no noise impacts to core habitat for any SCI species

As previously noted, SCI species for Cork Harbour SPA may occur outside of the SPA boundary. The footprint of the works is predominantly comprised of a busy road and roadside habitat (treelines and hedgerows) which do not comprise supporting habitat for SCI species.

The works area is generally surrounded by housing, and farmland. The existing infrastructure in place is such that the environment is subject to a high degree of disturbance. As such, any potential disturbance effects associated with the works would not constitute a significant effect to SCIs (including any *ex-situ* populations which may occur) in the context of their conservation objectives.

Dust

As previously noted, the Zol for dust is taken as 50m from the works and 500m along existing roadways from the works area. The closest European site is located approximately 5km from the proposed scheme. Given the location of the scheme relative to the European sites, with no sensitive receptors within the Zol, there is no potential for any European sites to be impacted by dust during the operational phase of the works.

Light Levels

As outlined previously the Zol for increased lighting levels is taken as 100m from the red line boundary. The works area is located along a busy road with residential housing, and a school located adjacent. The closest European site is located approximately 5km from the proposed scheme. Given the location of the proposed scheme relative to the nearest European site, there will be no potential for impacts to any European sites associated with increased lighting levels.

6 Potential for In Combination Effects

Article 6(3) of the Habitats Directive requires that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives”.

It is therefore required that the likely impacts of Proposed Development on any European sites are considered in combination with any other relevant plans or projects. Projects and plans included as part of the cumulative impacts assessment are detailed in below.

A search of planning applications in the vicinity of the works was undertaken to examine projects with potential for in combination effects. Planning applications which were made typically consisted of extensions, demolitions and renovations to existing houses and retail buildings. These are small scale developments which do not have the potential to result in cumulative impacts in association with the proposed works.

Other, larger scale, projects which were identified are outlined hereunder:

Ballyvolane Strategic Transport Corridor (STC)⁷

The Ballyvolane STC project comprises of improving and upgrading of existing Ballyhooly Road from North Ring Road junction to Fox & Hounds junction and onwards to Mervue Lawn. This includes improvement and upgrade works proposed for adjoining minor roads, including the Banduff Road. The Ballyvolane STC project will particularly impact the Banduff Road scheme at the Banduff Road/ Rathcooney Road Junction, where junction realignment and a change in traffic priority is expected. The Ballyvolane Strategic Transport Corridor was screened for Appropriate Assessment. The Cork City Council determination was that the proposed development was unlikely to effect European sites and it was not necessary to undertake any further stage of the AA process.

Strategic Housing Development – Granted (Case ref. ABP-312076-21)

275 no. residential units (205 no. houses, 70 no. apartments), creche and associated site works

Strategic Housing Development – Granted (Case ref ABP-306325-20)

753 no. residential units (531 no. houses, 222 no apartments), creche and associated site works.

Murnane & O’Shea Ltd. 2019 – Granted (Application Ref. 195326)

Permission for 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.

⁷ <https://consult.corkcity.ie/ga/consultation/ballyvolane-strategic-transport-corridor-scheme%20%93-north-ring-road-mervue>

This development is located directly adjacent to the north side of the Banduff Road Scheme. The works will cause permanent habitat loss but are not located within or adjacent to any European sites and do not provide supporting habitat to any *ex situ* SCI species. The hydrological connectivity between the development and Cork Harbour SPA is very weak. There is no potential for in combination effects to European sites related to this project.

Better Value Unlimited Company 2018 – Granted (Application Ref. 1838040)

Permission and permission for retention for development at this site. The development will consist of the completion of development commenced under planning ref: 13/35651 subject to the following changes:

- permitted extension along south elevation to be reduced in size from 453 sqm to 252 sqm including associated elevation changes;
- amendments to permitted mall entrance (mall entrance to be retained in its original location);
- amendments to Dunnes Stores permitted grocery floor area including provision of an instore off-licence (internal works completed but subject to change by proposed modified extension);
- amendments to Dunnes Stores permitted textile floor area (internal works completed but subject to changed by proposed modified extension);
- retain existing pharmacy and butcher shop units in original locations;
- retention of existing café unit;
- omission of rear stockroom extension (355 sqm);
- modification to site car park including new pedestrian priority circulation routes;
- replacement elevation signage;
- provision of 1no. additional sign along eastern elevation;
- amendments to permitted totem signage; and
- all other associated site/development works including the repainting of existing brick elevations grey.

Permission for 5 year duration is sought. Given the nature of this project, and the nature and scale of the Proposed Development, there is no potential for in combination effects to any European site.

Three Ireland (Hutchison) Limited 2019 – Granted (Application Ref. 1938927)

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.

Given the nature of this project, and the nature and scale of the Proposed Development, there is no potential for in combination effects to any European site.

Eircom Limited 2022 – Granted (Application Ref. 2241053)

For retention permission of an existing development at this site Banduff, Ballyvolane, Co. Cork. The development consists of an existing 25 metre high telecommunications support structure (total height with antennae 27m) carrying telecommunications equipment, together with existing equipment container and associated equipment within a fenced compound as previously granted under local authority reference 11/06679. The development will continue to form part of Eircom Limited's existing and future telecommunications and broadband network.

The scale, nature, locations, extent and duration of the proposed development are such that the project does not have the capacity to act in-combination with any other plan or project such as to cause likely significant effects as a direct consequence of its contribution. There are no identified plans or consented projects which have the potential to act in-combination with the proposed works in relation to any identified effects.

There are therefore no potential effects identified from the proposed development which could act in-combination with any other plans or projects to result in any likely significant effects on any European site.

7 Screening Conclusion statement

The screening assessment considered whether the proposed works, alone or in combination with other projects or plans, may have the potential to result in significant effects to any European sites.

It can be concluded on the basis of objective scientific information following appropriate assessment screening, that the proposed development, individually or in combination with other plans or project, will not have a significant effect on any European sites. This conclusion has not had regard to any measures intended to avoid or reduce harmful effects on European sites.

Table 7.1: Findings of (No) Significant Effects Matrix

Name of project or plan	Banduff Road Scheme
Name and location of European sites	<ul style="list-style-type: none">● Cork Harbour SPA (004030) located 1.5km from the proposed development● Great Island Channel SAC (001058) located 5.6km from the proposed development● Blackwater River (Cork/Waterford) SAC (002170) located 12.7km from the proposed development
Description of the project or plan	<p>The proposed development comprises:</p> <ul style="list-style-type: none">● Realignment of the extent of the existing carriageway, from approximately Ch 0+015 to Ch 1+511, a distance of approx. 1496 m.● Provision of (8 no.) Bus Stops on Banduff Road in line with the Cork BusConnects scheme;● New 2m wide concrete footpath on both sides of the carriageway, totalling a length of approximately 1900m;● Upgrading of existing concrete footpath to provide a width of 2m, totalling a length of approximately 1420m● Isolated reductions in footway width to 1.8m wide concrete footpath, totalling a length of approximately 65m at Ch 1+128 to Ch1+193;● Isolated reductions in footway width to a minimum of 1.73m due to localised obstructions at Ch 1+165 to Ch 1+197, totalling a length of approximately 32m;● Tie in to the "Ballyvolane Strategic Transport Corridor" project at chainage CH 0+15;● Provision of 14 No. Pedestrian Crossings and raised table at intersecting junctions including:<ul style="list-style-type: none">– 3 No. uncontrolled pedestrian crossings at Ch 0+117, Ch 0+408 and Ch 1+026 to comply with CC-SCD-05123,– 1 No. controlled zebra crossing with flashing beacons at Ch 1+260 to comply with CC-SCD-05125,– 1 No. controlled puffin crossing at Ch 1+410 to comply with CC-SCD-05127,– 9 No. Raised table pedestrian crossings at intersecting junctions at approximate chainages Ch 0+240, Ch 0+390, Ch 0+940, Ch 1+090, Ch 1+230, Ch 1+260, Ch 1+300, Ch 1+380 and Ch 1+450.● Upgrades to 11 junctions including the reduction of junction radii to 4.5m typically;● 36 No. new energy efficient 8m high public lighting columns;● The provision of 8 No. formalised parking spaces at approximate chainages Ch 1+165 to Ch 1+212;

Name of project or plan	Banduff Road Scheme
	<ul style="list-style-type: none">● Improved drainage infrastructure comprising of:<ul style="list-style-type: none">- surface water drains ranging from 225mm to 450mm diameter, where no existing formalised drainage infrastructure exists,- relocation of existing roadside drainage gullies to the new kerbline connecting to the existing drainage network- a series of new roadside drainage gullies adjacent to the new footway where no existing formalised gully network exists, connecting to the existing drainage network;● Enhanced permeability at chainages Ch 0+488, Ch 1+047 and Ch 1+148;● Service and utilities diversions to facilitate the improvement works; and● All associated works to facilitate the development.
Is the project or plan directly connected with or necessary to the management of the site?	No
Are there other projects or plans that together with the project or plan being assessed could affect the site?	No. There are no identified plans or consented projects which have the potential to act in-combination with the proposed works in relation to the identified effects.
The assessment of significance of effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	The works are being carried out outside any European Site boundaries.
Explain why these effects are not considered significant	The works are small scale, temporary and whilst locally intrusive, in all cases well removed from European site boundaries. No viable source pathway receptor links have been identified. There will be no measurable emissions, or physical changes to any European Sites associated with the works.
List of agencies consulted: provide contact name and telephone or e-mail address	None.
Response to consultation.	N/A
Data collected to carry out the assessment	
Who carried out the assessment?	Erin Johnston and Roger Macnaughton Ecologists with Mott MacDonald Ireland.
Sources of data?	Listed throughout this document.
Level of assessment?	Desktop and field study

8 References

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