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Comhairle Contae Chorcaí

L2471 Clarke's Hill Road Improvement Scheme Part 8 Planning Pack Volume 3

Screening for Appropriate Assessment Report

January 2018

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1 Introduction

1.1 Overview

Mott MacDonald has recently been commissioned by Cork County Council to provide consultancy services for the L2471 Clarke's Hill Road Improvement Scheme in Rochestown, County Cork

The road improvement scheme is an extension to the previous road improvement schemes to the L2471 and L2472 (between Maryborough Hill and the upper entrance to Mount Oval), and will involve road improvement works to Clarke's Hill from the Kensington housing estate entrance to the junction with the R610 Rochestown Road and will further include for upgrading a section of the R610 as part of the scheme. A brief description of the proposed development is given in Section 2.

1.2 Requirement for Appropriate Assessment

The proposed road development is considered under Part VIII of the Planning and Development Regulations, 2001 as amended.

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 (92/43/EEC) into Irish law. The regulations require that where a public authority wishes to progress a project (which is not directly connected with or necessary to the management of the site as a European Site), a **screening for Appropriate Assessment** of the 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 Regulations require that a screening for Appropriate Assessment must be carried out before a decision to undertake the project is taken.

1.2.1 Natura 2000 Sites (European Sites)

In accordance with the requirements of the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC), Member States have identified a network of sites of conservation importance, hosting habitats and/or species identified in the Directives as needing to be either maintained at or returned to favourable conservation status. These sites are known as the Natura 2000 network and in Ireland, Natura 2000 sites comprise areas designated as Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs), Special Protection Areas (SPAs) and candidate Special Protection Areas (cSPAs).

These Directives require that where a project is likely to have a significant effect on a Natura 2000 Site, while not directly connected with or necessary to the nature conservation management of the site, it shall be subject to 'Appropriate Assessment' to identify any implications for the site in view of the site's conservation objectives¹. 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

¹ The NPWS is currently developing Conservation Management Plans for all SACs nationally. Objectives for the conservation of the features of interest for which the site is designated are set out in the Conservation Management Plans and the principal pressures impacting the achievement of Favourable Conservation Status are identified. Strategies to meet the objectives are also identified.

*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".*

The proposed Clarke's Hill Road Improvement Scheme works are required to accommodate vulnerable road users, the bus route servicing the area and the general amenity of the area. **The works are not directly connected with or necessary to the management of any Natura 2000 sites and must therefore be subjected to screening for Appropriate Assessment.**

This report is a screening for Appropriate Assessment for the proposed Clarke's Hill road improvement scheme and is carried out in accordance with the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 437 of 2011) (as amended). The intention of this screening for Appropriate Assessment is to determine whether the proposed road scheme is likely to have a significant effect on a Natura 2000 site(s), either alone or in combination with other plans or projects. Where significant effects are determined to be likely the proposed works are statutorily required to be subjected to Appropriate Assessment.

This screening for Appropriate Assessment has been carried out in accordance with the following European Commission Guidance:

- EC (2000) 'Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC';
- 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'.

2 Description of the Project

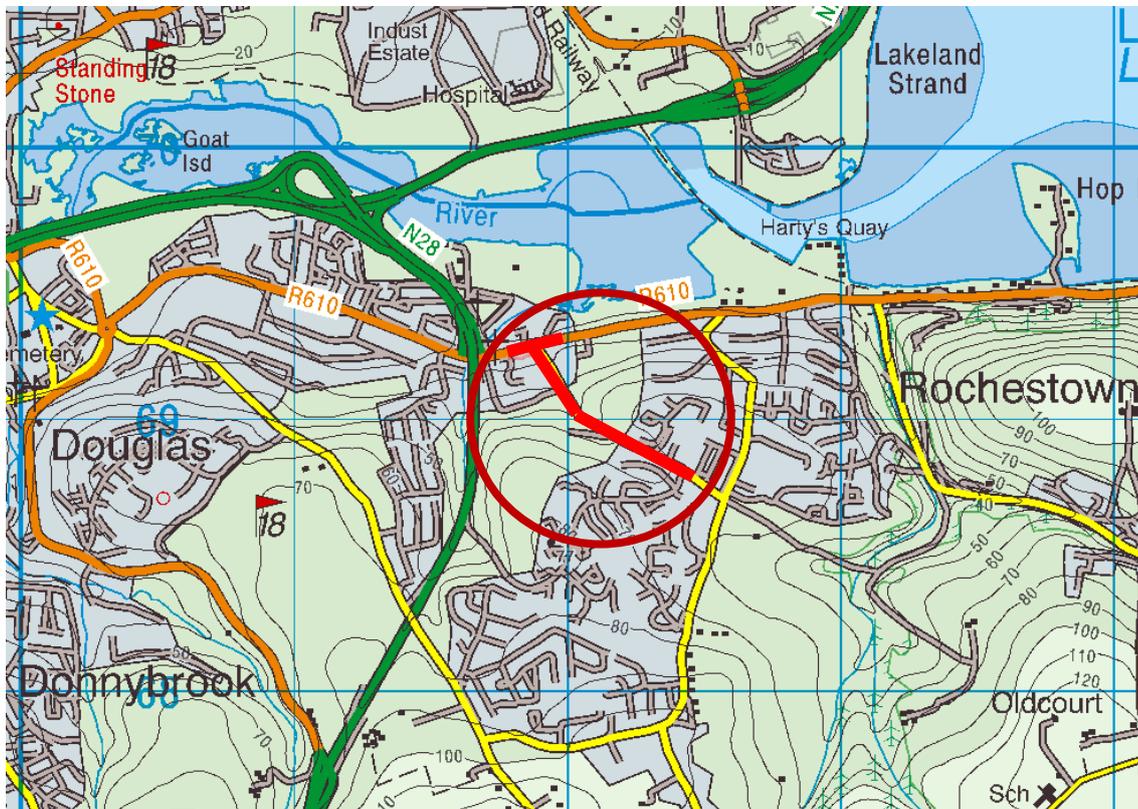
2.1 Project Overview

The L2471 Clarke's Hill Road is located in the townlands of Monfieldstown and Mounthovel in Rochestown County Cork just off the R610 Rochestown Road. Due to the construction of large residential housing developments in the area, the existing road width and alignment of the L2471 Clarke's Hill Road and associated junction with the R610 requires upgrading especially to accommodate vulnerable road users, and the bus route serving the local area.

It is proposed, in the current scheme – Phase 3, to upgrade the existing L2471 Clarke's Hill Road (approximately 1km in length) and associated junction with the R610 to the required standard (DMURS 2013), for a "Local Collector Road" with accommodation for vulnerable road users and local bus services.

The scheme will involve widening the roadway over a distance of approximately 1km between the entrance to the Upper Kensington Housing Estate at the top of Clarke's Hill and the R610 Rochestown Road. It is proposed to introduce a right-hand-turn lane at the R610/Clarke's Hill junction and to introduce two northbound lanes on the L2471 approach to the R610. A 2m wide footway will be provided for the full length of the roadway on both sides of the road going from the R610 junction to the top of Clarke's Hill. Two bus laybys will also be constructed for both northbound and southbound buses.

Figure 1: Proposed road development location



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2.2 Potential Environmental Impacts

The elements of the project that have the potential to cause environmental impact are identified in Table 1 in accordance with the European Commission Guidance (2001).

Table 1: Elements of the project with the potential to cause environmental impact

Characteristics	Details
Physical changes that will arise due to the project	<p>The development will require the breaking up and removal of the existing road pavement and footpaths.</p> <p>A section of mixed broadleaf woodland approximately 7m wide and 300m long on the southern side of the road beginning at the top of Clarkes Hill will also require removal. The canopy height is approximately 10m with understory of bramble, ground ivy and ferns. Tree species are dominated by Beech (<i>Fagus sylvatica</i>), with Sessile Oak (<i>Quercus petraea</i>), Holly (<i>Ilex aquifolium</i>), Ash (<i>Fraxinus excelsior</i>), Silver Birch (<i>Betula pendula</i>) and Sycamore (<i>Acer pseudoplatanus</i>) occasional throughout. There is a high level of human activity within the woodland with wide paths throughout to facilitate recreational activity. The majority of the trees show evidence of historical pruning or cutting. There is evidence of fly tipping within the woodland.</p> <p>A small stream running between the woodland and the road approximately 1m wide and 0.5m deep will be diverted by means of an open ditch or appropriately designed pipe system to maintain the existing flow regime such that the current flows are not obstructed or altered. The stream has a pebble/silt substrate and was covered in leaf debris at the time of survey. The stream is heavily modified in places and has a small weir at the end of the road that prevents fish migration. The gradient down Clarkes Hill is 1m/16m gradient (Mott MacDonald Engineering Calculation), and there are no pools or glide areas in the stream. The stream substrate is small pebble and silt and it is likely that during heavy rain there is a high level of sediment movement. The stream does not provide suitable spawning, nursery or holding habitat to support the life cycle of salmon, trout, or lamprey species with the exception of one small area approximately 150m south of the R610 which provides suitable lamprey spawning habitat.</p> <p>A stone wall approximately 2.5m in height, bordering a mature treeline of Cypress approximately 150m in length, will require removal beginning at the R610 junction on the western side of the Clarkes Hill road. The stone wall is predominantly a mortared structure with some areas that have become loose over time due to loss of mortar between the joints. Sections of the wall are covered with ivy and bramble.</p> <p>A habitat map of the road improvement scheme is presented in Figure 2.</p>
Resource requirements	<p>Significant earthworks (i.e. cutting and filling of ground) will not be required as part of the development.</p> <p>Material necessary to construct the road will include granular fill, bituminous material, concrete, paint for road markings. Signage and lighting will also be included.</p>
Emissions and waste	<p><u>Construction</u></p> <p>There is the potential that there will be an increase in sediment runoff to the existing road drainage and to the small stream that flows down Clarkes Hill, from the works areas during construction. Also there is potential for spills and leaks of oils, fuels and chemicals from storage areas, plant, and equipment during construction to enter the existing road drainage.</p> <p>The construction activities will cause a short-term localised increase in noise level.</p> <p>Existing road material removed during construction will be disposed of off-site to a licensed facility. There were no invasive alien plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) recorded from the desk study or during the field survey. Winter Heliotrope (<i>Petasites fragrans</i>) was identified along Clarkes Hill. Winter Heliotrope is not listed on the Third Schedule but is considered by Transport Infrastructure Ireland as an invasive species. It is likely to be included in the Third Schedule in the near future.</p> <p><u>Operation</u></p> <p>Road drainage for the road improvement scheme will be integrated into the existing drainage network.</p> <p>There is potential for accidental spills of oils /fuels/chemicals/other materials by vehicles using the road. Road runoff can be contaminated by metals and PAHs which are released in vehicular emissions. Such materials will runoff to the road drainage system. There will be no increase in traffic volumes because of the scheme. There will be no increase in vehicle emissions in association with the scheme. The scheme will not cause an increase in the risk of accidental spills of fuels / materials from vehicular traffic. The incorporation of bus laybys, and turning lanes is likely to have the effect of relieving traffic congestion and thus reducing pollution.</p>

Characteristics	Details
Transportation requirements	<p>Traffic management will be required during the construction phase of the works.</p> <p>The construction machinery that may be utilised during the works will consist of the following:</p> <ul style="list-style-type: none"> ● Track excavators; ● Two wheeled excavators ● Dumpers; ● Grading machine; ● Paving machine; ● Rollers ● Road sweeper; <p>Delivery trucks to site for a development of the scale proposed would typically number five per day for the duration of the works increasing to 10 delivery trucks per day during the pavement phases of the works.</p>
Duration of construction, operation, decommissioning, etc.	<p>It is anticipated that the construction works will last between 8 and 11 months.</p> <p>It is envisaged that normal working hours during the construction phase will be between 07:00 and 19:00. Traffic Management will play an important role in the delivery of the project especially at peak traffic hours.</p>

2.3 Plans and Projects Which Might Act In Combination

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.

The Cork County Council planning database was searched to determine if any plans or projects were likely to have an in-combination effect on the site. Planning applications in the surrounding Rochestown area predominantly relate to the conversion of/extension to domestic dwellings. There is no connectivity between these dwellings and the proposed road improvement works.

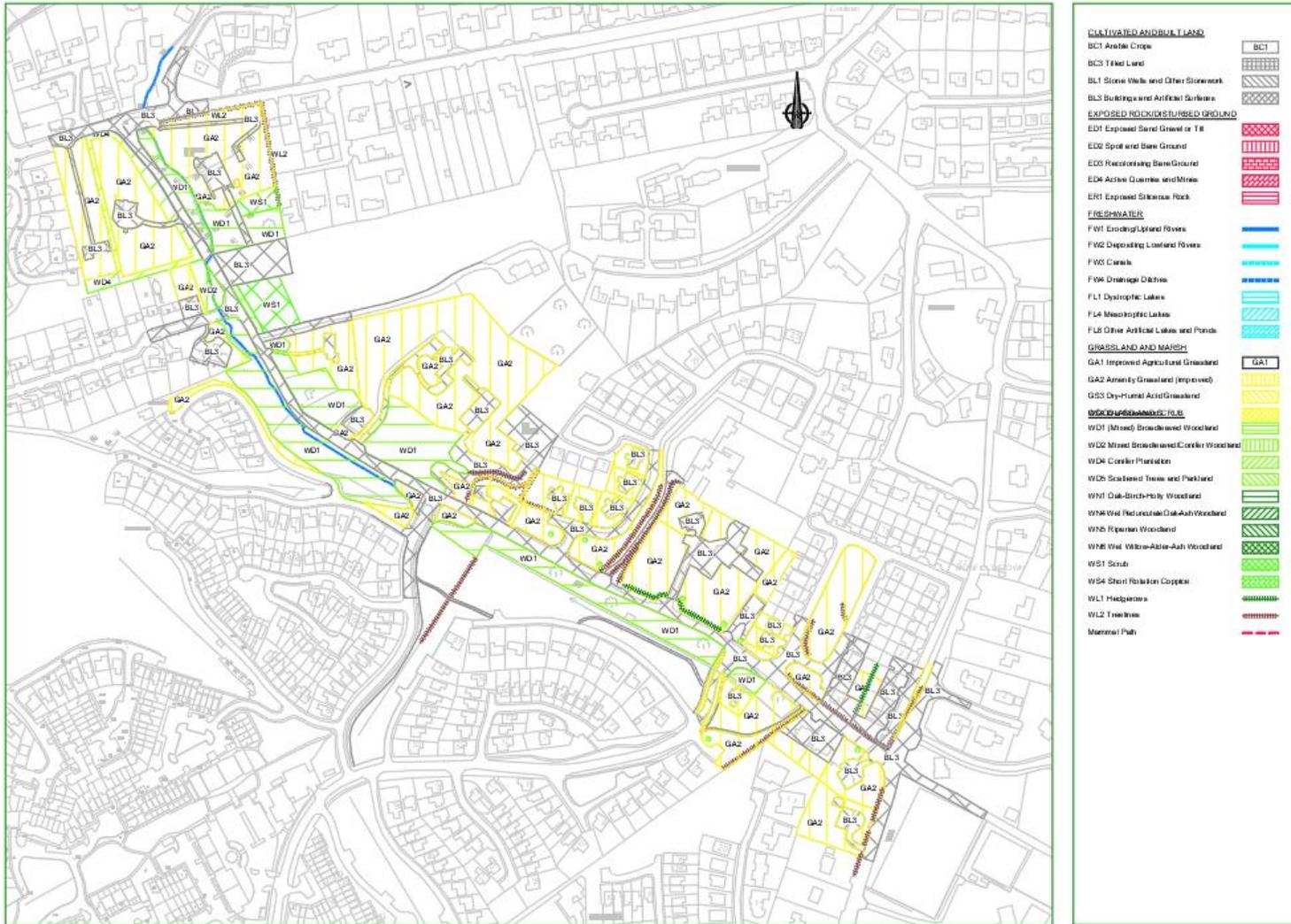
Transport Infrastructure Ireland (TII) in conjunction with Cork County Council are preparing proposals for the upgrade of the N28 between Bloomfield Interchange and Ringaskiddy village. The existing N28 is predominantly a single carriageway road and suffers from significant congestion leading to considerable delays and queuing at peak times, at certain locations.

An Environmental Impact Statement (EIS) for the scheme has been prepared. The Motorway order (MO) and EIS were published in May 2017, starting the statutory planning process.

Subject to An Bórd Pleanála approval and availability of funding, the scheme then advances to the procurement and construction phases. Construction may include several contracts in advance of the main construction contract for the scheme. It is estimated that the main construction contract will take at least 2-3 years subject to the grant of planning. It is anticipated that the N28 project will not begin construction for a number of years. It is envisaged that the Clarkes Hill Road local road improvement project will be complete at this stage.

There are no plans or projects likely to have an in-combination effect on Natura sites.

Figure 2: Habitat Map



3 Distance from Natura Sites or Key Features of the Sites

3.1 Zone of Influence

DEHLG Guidance² states that screening for Appropriate Assessment should be carried out for any Natura 2000 site within the likely Zone of Influence of a plan or project. For projects, the guidance recommends that the Zone of Influence must be evaluated on a case-by-case basis regarding the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects. Projects have the potential to impact on European sites beyond the confines of the individual sites themselves.

The Zone of Influence of a project is the area in which qualifying interests are present which are sensitive to the ecological impacts that may be caused by the activities associated with the project. The zone of influence will therefore vary relative to the scale of the impact and relative to the ecology of the sensitive receptor.

To establish the zone of influence, nationally available data on protected habitats and species was mapped using GIS. This data was interrogated for any physical, hydrological, or ecological connectivity to the activities associated with the proposed road improvement scheme.

The desk based assessment of available records of protected species and habitats included the following sources:

- Conservation Status Assessment Reports [1] (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive;
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans, and Conservation Management Plans; and
- 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/>);

The findings of the desk-based assessment were investigated and verified by ecological field assessment, carried out on 09th November 2016 by Mott MacDonald ecologists. The spatial scope of the field assessment was relative to the physical, hydrological, or ecological connectivity of the road improvement scheme and the qualifying features of the Natura 2000 sites within the zone of influence.

² DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities

^[1] Every six years, Member States of the European Union are required to report on the conservation status of all habitats and species listed on the annexes of the Habitats Directive as required under Article 17 of the Directive. Ireland submitted our conservation status report to the European Commission in June 2013. The assessment documents may be viewed on the NPWS website: <http://www.npws.ie/publications/article17assessments/article172013assessmentdocuments/>

3.2 Natura 2000 Sites within the Zone of Influence

The proposed Clarkes Hill Road Improvement Scheme is not located within the footprint of any Natura 2000 sites. There is therefore no potential for direct damage to or destruction of Annex I habitats protected under the Habitats Directive.

The Clarkes Hill improvement works will be located predominantly on the footprint of the existing road and will include the removal of a strip of mixed broadleaf woodland, earthen embankments, stone walls, Cypress treeline and the diversion of a small stream.

The drainage from the road improvement scheme will discharge to the existing network. The nearest surface water bodies are a small stream running the length of Clarkes Hill which discharges into Cork Harbour Special Protection Area (SPA), Site Code 004030, 150m north of the R610/Clarkes Hill junction. There is a network of existing drains along Clarkes Hill and the R610 that while at the time of writing this report it was unknown where they discharge, it is probable that they discharge to local streams and subsequently the SPA. There is potential for accidental leaks of fuels/oils from machinery to enter the drainage/stream during the road improvement works. It is highly unlikely however that an accidental leak would occur at a scale which would cause deterioration in water quality given the small scale of the works and given that fuels will not be stored on site. Pollution impacts are extremely unlikely.

It is a possibility that sediment runoff from works area will discharge to the drains and stream during construction and will ultimately be discharged to the Cork Harbour SPA. Given the localised scale of the road improvement works, combined with the fact that the receiving environment comprises mudflat, a minor temporary increase in sediment discharge to the SPA will not alter the availability or quality of feeding habitat of wetland birds. Nor will the area of wetland habitat within the SPA be altered. There will be no impacts on the SPA.

The Road Improvement Scheme will cause an increase in background noise levels during the construction period (anticipated to last between 8 and 11 months). The Cork Harbour Special Protection Area (SPA), Site Code 004030, is located 150m north of the R610/Clarkes Hill junction. Cork Harbour SPA is designated for 20 species of birds. The site provides both feeding and roosting sites for the various bird species that use it. The lands between Clarkes Hill and the SPA is heavily urbanised, has high traffic volumes and already has existing high noise levels. The localised increase in noise level during the construction phase is extremely unlikely to result in associated increase in noise levels that will impact on the Cork Harbour SPA.

Winter Heliotrope has been recorded within the footprint of the road improvement scheme during the site survey. Winter Heliotrope is not listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) (S.I. No. 477 of 2011), however, it is considered an alien invasive species (NRA 2010), by Transport Infrastructure Ireland, formerly the National Roads Authority (NRA). There is potential for translocation of Winter Heliotrope in waste material removed from the site, via the small stream adjacent to the Clarkes Hill Road and through plant and machinery movement beyond the works areas. It is extremely unlikely that Winter Heliotrope transported to the Cork Harbour SPA will spread due the saline nature of the habitat.

4 Summary of Findings and Screening Statement

4.1 Summary

Cork County Council proposes to develop a road improvement scheme along the L2471 Clarkes Hill Road to the R610/Clarkes Hill junction in Rochestown to accommodate vulnerable road users and the bus route serving the local area.

The proposed Road Improvement scheme was subjected to screening for Appropriate Assessment to determine whether the proposed road scheme is likely to have a significant effect on a Natura 2000 site(s), either alone or in combination with other plans or projects.

The current assessment identified the following potential impacts from the scheme:

- Physical changes to the existing environment;
- Increase in noise levels during construction;
- Increased sediment runoff to the existing drainage network and small stream adjacent to the road during construction;
- Translocation of invasive species Winter Heliotrope;

The proposed works will not result in any physical changes to Cork Harbour SPA 004030 which is located 150m north of the Clarkes Hill/R610 junction.

The physical, hydrological, and ecological connectivity between the activities (and potential impacts), associated with the proposed road improvement scheme and Natura 2000 sites (or qualifying interests of those sites), was investigated. It was determined that the Cork Harbour SPA 004030 was within the zone of impact of the scheme, however, potential impacts were determined as unlikely given the localised and temporary nature of the works, the existing urban landscape within the footprint of the proposed road improvement scheme, and the existing noise levels associated with current high traffic volume.

The assessment has determined, considering best available scientific data, that significant effects on Natura 2000 sites are not likely.

4.1.1 Recommendations

Notwithstanding that a finding of no significant effects has been determined, it is recommended that measures are implemented on site to control the dispersion/spread of Winter Heliotrope.

4.2 Screening Statement

Table 2: Screening Matrix – Findings of no Significant Effects

Name of project or plan	Clarkes Hill Road Improvement Scheme	
Name and location of Natura 2000 site	Cork Harbour (Site Code SPA 004030) 150m north of Clarkes Hill/R610 junction	
Description of the project or plan	<p>The road improvement scheme proposes to upgrade the existing L2471 Clarkes Hill Road (approximately 1km in length) and associated junction with the R610 to the required standard for a "Local Collector Road" with accommodation for vulnerable road users and local bus services.</p> <p>A 2m wide footway will be provided for the full length of the roadway on both sides of the road going from the R610 junction to the top of Clarkes Hill. Two bus laybys will also be constructed for both northbound and southbound buses.</p>	
Is the project or plan directly connected with or necessary to the management of the site?	No. The road improvement scheme is required due to the construction of large residential housing developments in the area. The existing road cross section and alignment of the L2471 Clarkes Hill Road and associated junction with the R610 requires upgrading especially to accommodate vulnerable road users and the bus route serving the local area.	
Are there other projects or plans that together with the project or plan being assessed could affect the site?	Transport Infrastructure Ireland (TII) in conjunction with Cork County Council have prepared proposals for the upgrade of the N28 between Bloomfield Interchange and Ringaskiddy village. This is currently at 'Planning' stage	
The assessment of significance of effects		
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	No likely effects determined. All potential impacts are determined as extremely unlikely given the localised and temporary nature of the works, the existing urban landscape within the footprint of the proposed road improvement scheme, and the existing noise levels associated with current high traffic volume. It is anticipated that the Clarkes Hill Road improvement scheme will be complete in advance of the beginning of the N28 upgrade.	
Explain why these effects are not considered significant	No impacts have been determined therefore there can be no alteration of the conservation condition or objectives of the Natura 2000 network due to the proposed works	
List of agencies consulted: provide contact name and telephone or e-mail address	N/A	
Response to consultation.	N/A	
Data collected to carry out the assessment		
Who carried out the assessment?	Sources of data	Level of assessment
Maurice O Connor, Ecologist with Mott MacDonald	Conservation Status Assessment Reports (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive; Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, National Biodiversity Data Centre datasets.	Desk top study plus field assessment

5 References

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