APPROPRIATE ASSESSMENT SCREENING REPORT

FOR THE PROPOSED

LEHENAGHMORE ROAD IMPROVEMENT SCHEME

southern scientific services ltd
with
MHL & Associates Ltd.
Consulting Engineers

APPROPRIATE ASSESSMENT

Screening report

Leghenaghmore Road Improvement Scheme, Togher, Cork

Requested By:	M.H.L. & Associates Ltd.
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Date Reported:	27/10/2020
Our Reference:	20P - 140

Issue Date	Reported by	Reviewed by	Revision	Comment
27/10/2020	B O'Connor	MM	01	Final Report to client

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1 Introduction

1.1 Background

Southern Scientific Services Ltd was commissioned by M.H.L. & Associates Ltd. to prepare a Natura Impact Statement for Appropriate Assessment, which would identify potential impacts, if any, arising from road realignment, road widening, pedestrian/cycle bridge construction with associated abutment and structural retaining works, signalisation of the Forge Hill junction, new 30.8m diameter roundabout at “Barrett’s Junction” road reconstruction and resurfacing, new footpath construction, new cycle facility construction, services diversions, new surface water drainage system, new road lighting scheme, new boundary treatments, retaining walls, embankments, accommodation works, new landscaping, traffic calming measures, roadside buildouts and road centre traffic island, new road markings, upgraded road signage and street furniture and all ancillary works necessary for completion on the L2455 and L2454 on nearby Natura 2000 sites.

An Appropriate Assessment (AA) is an assessment of the potential impacts of a project or plan on nearby Natura 2000 sites and the development where necessary of mitigation and /or avoidance measures to preclude negative effects. The impacts assessed must include the direct, indirect and cumulative impacts of approving the project, together with any current or proposed activities and developments impacting on the site. The potential impacts of projects/developments outside the Natura 2000 sites, but potentially impacting upon them must also be included in the assessment.

1.2 Brief Description of the Development Site

1.2.1 Description of the project

The road works scheme is to consist of the reassignment of the existing road corridor space and widening of this space into adjoining properties and road bed space to facilitate the construction of new pedestrian and cycle facilities along the length of the scheme. The scheme on the L2455 is to comprise of a segregated 2m cycle lane on one side of the road, 2m footpaths on both sides and a 6m carriageway. The cycle lane is to serve southbound (climbing) cyclists. A new pedestrian/cyclist bridge is also proposed alongside the existing disused railway bridge.

There will be road improvements consisting of 2m footpaths on both sides and a 6m carriageway on the L2454 Togher road.

Road surface water causes problems along the roads within the study area and a new positive drainage system will need to be designed and introduced over the full length of the road upgrade project. This is likely to comprise of a new surface water drainage network.

Acquiring lands and setting back private boundary lines will be necessary to deliver the road improvement project. This set back will involve the removal of existing roadside hedges and trees.

1.2.2 Site Location

The proposed development site starts at the junction of the Pouladuff road and the Tramore road, at the roundabout adjacent to Kelleher Electrical and proceeds up the L2455 local road to the top of Matthew Hill and the area adjacent to the Togher Community Grounds (Figure 1) a distance of approximately 2.5km. The site is located in the Lee, Cork Harbour and Youghal Bay WFD Catchment, within the Glasheen WFD Sub Catchment. The site is located adjacent to the Tramore River and 55m west of the Lehenagh Beg stream. The site is located within Irish National Grid square W66. Figure 2 shows the location of the SAC and SPA in relation to the development site. The Cork Harbour SPA is approximately 3.5km north east of the site, while the Great Island Channel SAC is 10.2km east of the site. The Tramore river and Lehenagh Beg stream have not been classified under the Water Framework Directive (WFD) and remain “Unassigned” (see Figure 3). According to Corine Land Cover 2018 (CLC) data, the proposed development site is situated in a number of different land uses which include Artificial Surfaces with Industrial, commercial and transport units, Artificial Surfaces with Urban fabric and finally Agricultural Areas with Arable land.

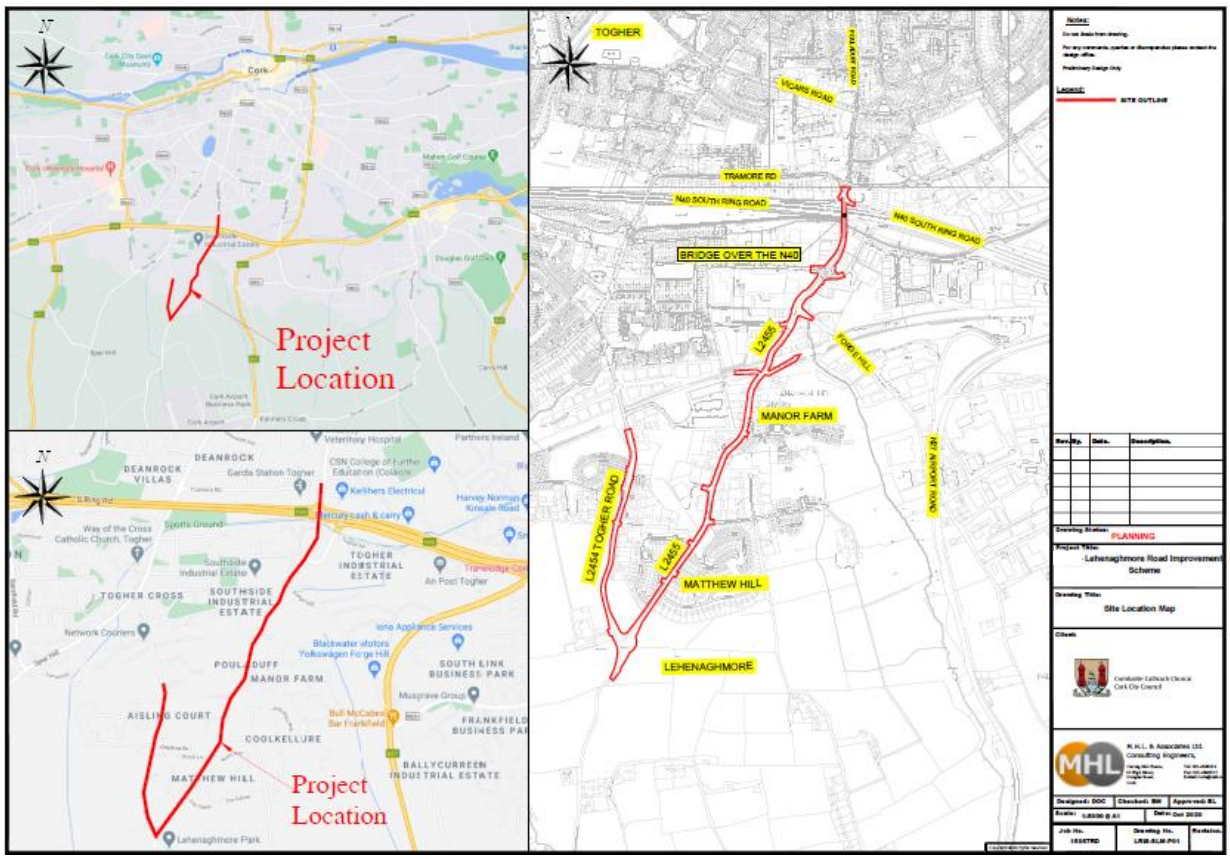

Figure 1: Site Location

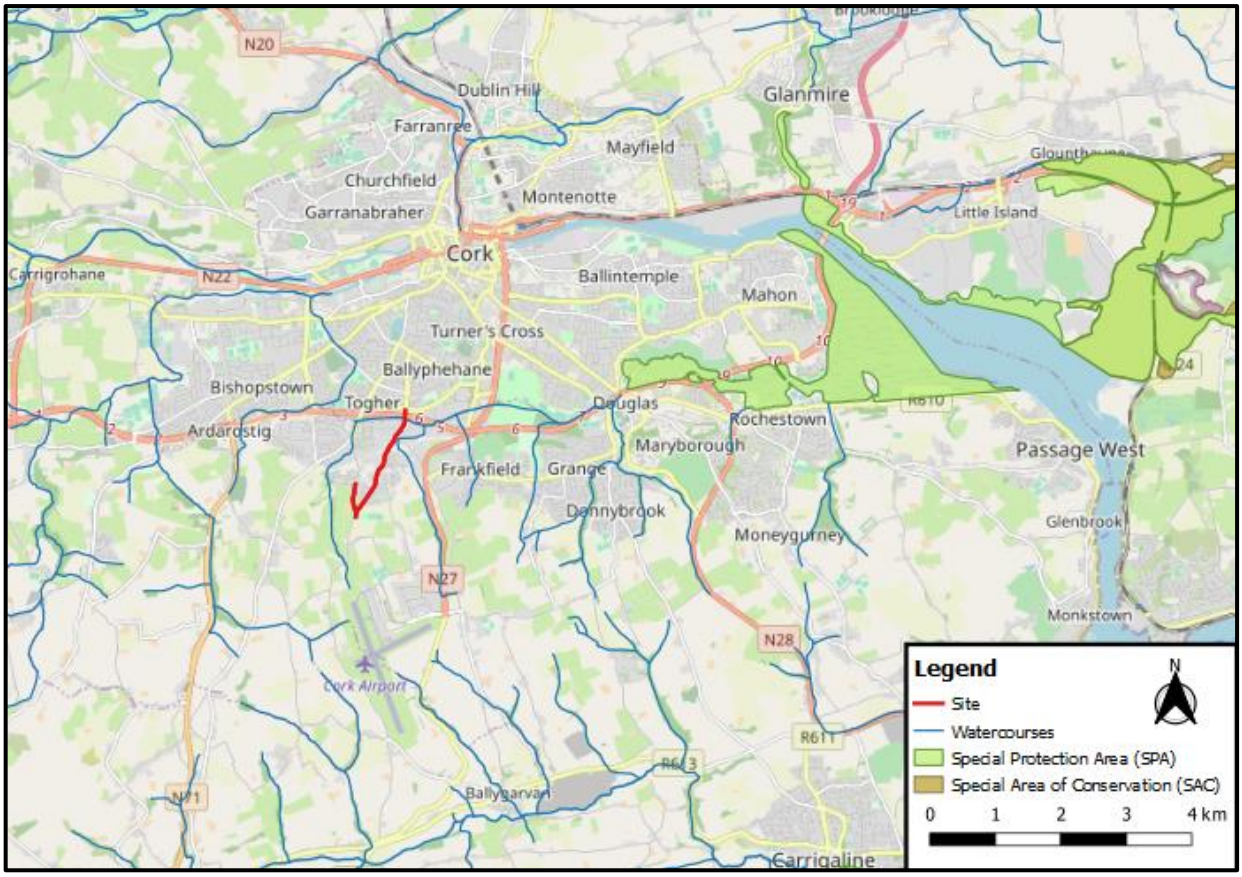

Figure 2: Location of the site in relation to the Cork Harbour SPA and the Great Island Channel SAC

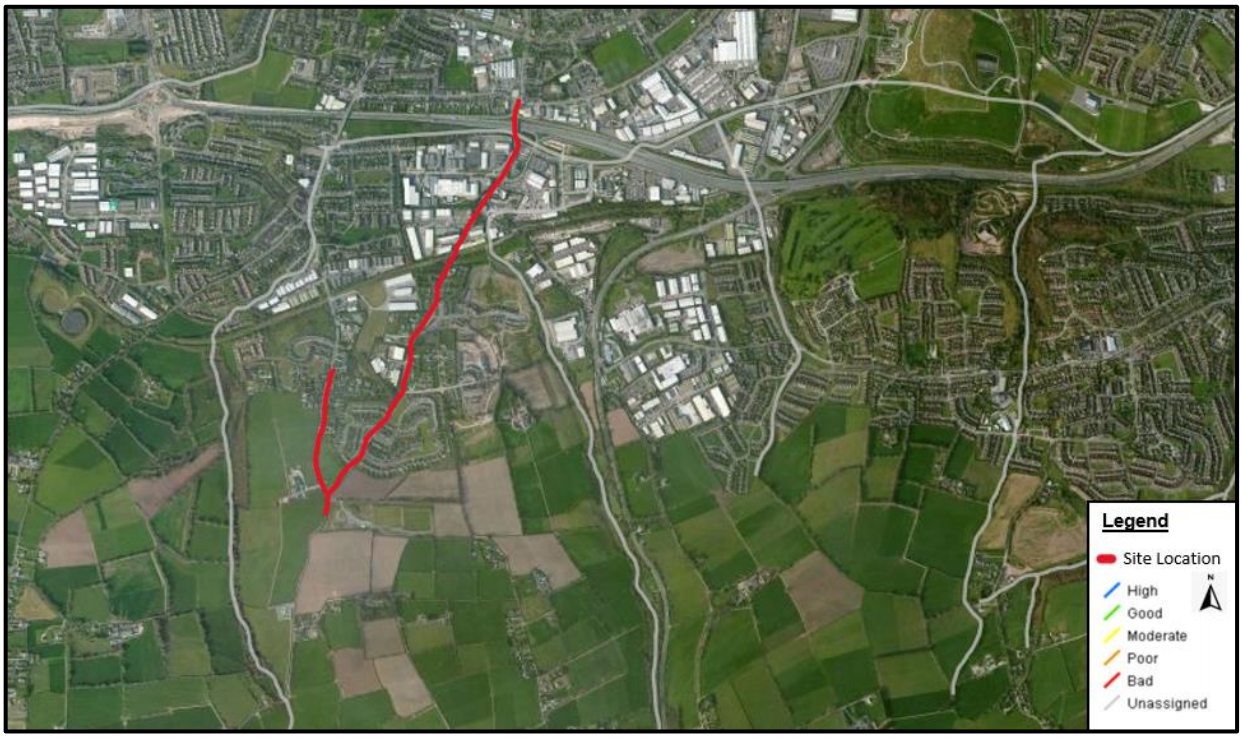

Figure 3: Location of development site in relation to nearby watercourses and their waterbody status

1.2.3 Site Description

The site is located along the L2455 local road at the southern end of the Pouladuff road and extends approximately 2km up to Lehenagh More, it then turns onto the L2454 Togher road. The site can be divided into a number of different parts, The area closest to Cork City is predominately commercial with a large number of commercial units, heading south along the L2455 the site becomes more residential with some one off housing and large housing estates interspersed along the route. The site grades to agriculture and more rural setting at the most southerly point of the planned route before entering a residential area along the L2454 Togher road. The existing road is quite narrow in places along the route and there is presently insufficient space for a footpath/cycle track. There is therefore a requirement to remove existing hedgerows and trees lines along the route where applicable.

The proposed development site itself does not occur within a Natura 2000 designated site. Site photos can be seen in Appendix I.

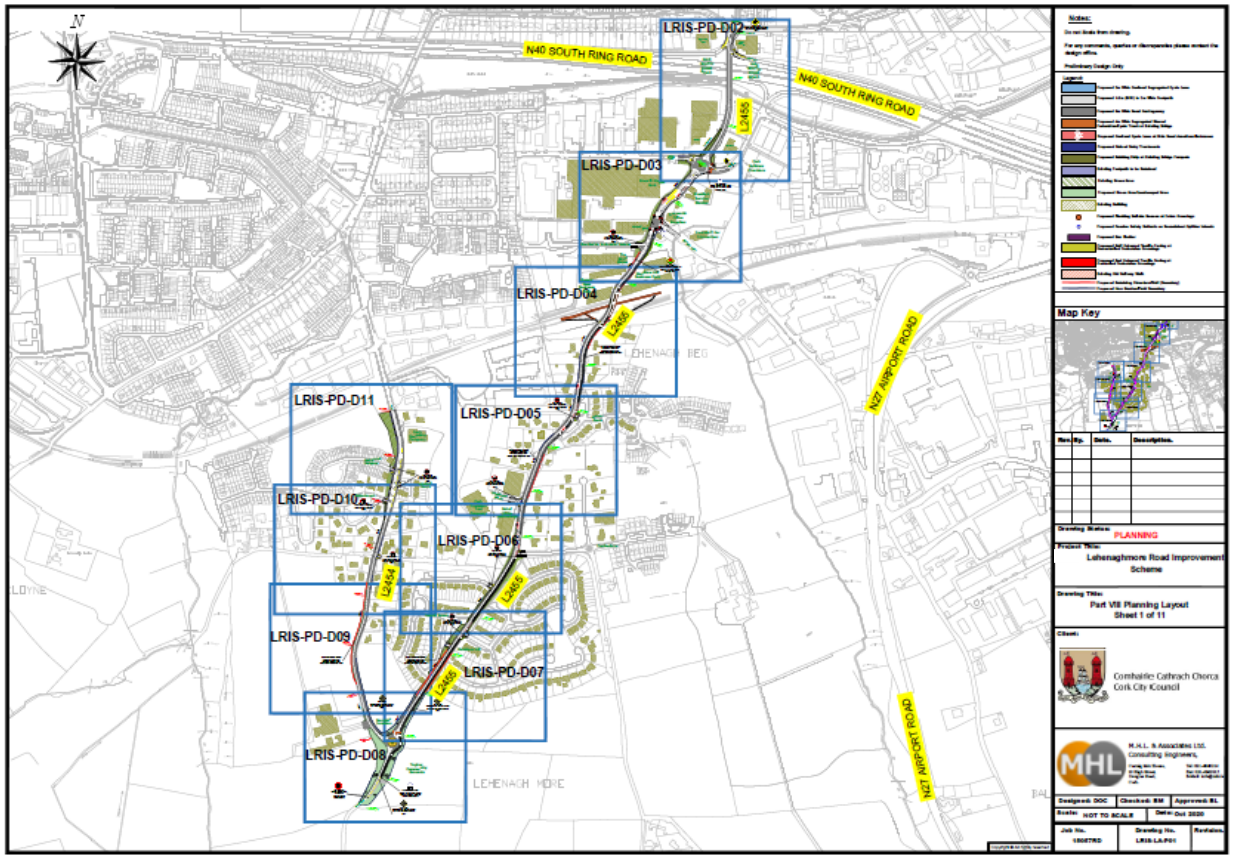

Figure 4. Showing proposed location of development and layout

1.3 Desktop Review

To carry out the Natura Impact Statement it was essential to gather information on the existing environment. A desktop review was performed to identify features of ecological importance within the study area and surrounding region. Information was sourced from a number of online sources which included:

- Cork County Council
- OSI Aerial photography and 1:50000 mapping
- National Parks and Wildlife Service (NPWS) Maps & Databases
- National Biodiversity Data Centre (NBDC) (on-line map-viewer)
- Environmental Protection Agency (EPA) water quality data
- Water Framework Directive (www.catchments.ie)

1.4 Field Survey

A site visit was carried out on the 23rd of September 2020. The purpose of the visit was:

- To identify potential pathways for pollutants to enter nearby watercourses
- To identify habitats within and surrounding the development site
- To identify plant species within and surrounding the development site

1.5 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora – Habitats Directive – provides a legal framework for the legal protection of habitats and species of European importance. Articles 3 to 9 of this Council Directive provides the legislative means to protect habitats and species of community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. Natura 2000 sites are those identified as sites of community importance, namely Special Areas of Conservation (SACs), under the habitats directive or classified as Special Protection Areas (SPAs) under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive outlines the decision-making tests for projects/plans likely to affect Natura 2000 sites. Article 6(3) establishes the requirement for appropriate assessment:

"*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".

The Commission's methodological guidance (EC, 2002) promotes a four-stage process to complete the AA. Stages 1-2 deal with the main requirements for assessment under Article 6(3), namely, 'Screening' and 'Natura Impact Statement'. Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4). Article 6(4) of the Directive deals with alternative solutions, the test of "imperative reasons of overriding public interest" and compensatory measures.

Stage 3 and Stage 4 of the AA are carried out by the appropriate authority if deemed necessary in Stages 1 & 2.

2 Methodology

This assessment has been undertaken in accordance with the European Commission "*Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC*" and the European Commission Guidance on "*Managing Natura 2000 Sites*".

In complying with the obligations under Article 6(3) and following the above guidelines, this assessment has been prepared using the following structure:

Stage 1: Screening

This includes:

- Description of the proposed development/project (and if the plan/project is necessary for the management of the Natura 2000 site(s)).
- Identification of all Natura 2000 sites potentially affected by the plan/project.
- Identification and description of individual and cumulative impacts likely to result from the plan/project.
- Assessment of the significance of the impacts identified above, on site integrity.
- Exclusion of sites where it can be objectively concluded that there will be no significant effects.
- Determination of the necessity or otherwise for a NIS.

Screening for AA examines the likely effects of a project or plan, alone and in combination with other projects or plans, upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. If it is determined during screening that the development may have a significant effect on a Natura 2000 site, then a NIS will need to be prepared.

Stage 2: Appropriate Assessment (Natura Impact Statement)

This includes:

- Description of the Natura 2000 site(s) which will be considered further in the assessment.
- Impact Prediction: description of significant impacts on the integrity of the Natura 2000 site(s) as defined by the conservation objectives and status of the site(s).
- Recommendations and mitigation measures.

3 Screening

3.1 Description of the Project

The overall length of the roads to be upgraded measures approximately 2.5km. The proposed road improvement scheme study area that is the subject of this Brief includes approximately 1.8km of the L2455 Lehenaghmore Road and approximately 0.7km of the L2454 Togher Road.

The project comprises of:

- an on-road segregated 2m wide uphill cycle lane, from N40 Pouladuff Road Roundabout South (Cork Builders Providers Roundabout) to the Togher Community Sports Grounds, south of a proposed new Roundabout at Barrett's Junction - 1.5km in length.
- There will be a minimum 3m wide footpath linking the Pouladuff Road Roundabout South over the N40 Flyover Bridge to N40 Pouladuff Road Roundabout North (Tramore Road) - 300m in length. This is widening of the existing footpath on the eastern side, while maintaining a 1.8m minimum footpath on the western side.
- A minimum 1.8m wide footpath will be maintained uphill inside the 2m wide cycle lane - 1.5kmAt the old Railway Bridge there will be a 4m wide bridge structure for pedestrians and cyclists on the uphill eastern side, with links down to the old Railway line (Future Greenway) on both sides of the road.
- A 2m wide footpath (1.8m minimum at pinch points is provided on the downhill, western side of Lehenaghmore Road, opposite side from the Cycle facility, for 1.5km, with the exception of a 30 to 40m stretch at the old railway bridge.
- The road alignment will be altered, widening and realigning, improving it to provide DMURS standard minimum horizontal and vertical radii curves.
- The facilities will continue through public road junctions as zebra crossings (N40 slip road and Barret's Junction) , a Toucan Crossing (Forge Hill), uncontrolled crossings (N40 north slip roads) and Raised Entry Treatment crossing at access roads (Southside Ind. Estate, Matthew Hill Business Park, Swan's Nest Business Park, Lehenaghmore Business Park, Manor Farm, Laurel Brook, Matthew Hill.

- A new 2m wide footpath will be provided on the eastern side of L2454 Togher Road from Togher Community Sports Grounds through Barrett's proposed new roundabout junction, to connect to the existing footpaths on Togher Road - 500m in length and

- A new 1.8m wide footpath on the western side of Togher Road along the built up area of road - 200m

- A minimum 6m wide road carriageway has been designed through the length of the project.

- As well as a new "City Gateway" Roundabout at Barrett's Junction, it is proposed to alter the roundabout at N40 Pouladuff Road Roundabout South to provide an additional traffic lane from the south and pedestrian crossing facilities, the signalisation of the Forge Hill/Pouladuff Road junction with additional traffic lanes and pedestrian/cycle facilities. The additional traffic lanes will extend between the new signalised junction at Forge Hill and the N40 Pouladuff Road Roundabout South.

- A new surface water drainage system for part of the project and new low energy LED public lighting scheme for the length of the project.

3.2 Identification of Natura 2000 sites

In relation to the proposed development at Lehenagh More, Cork a list of all Natura 2000 sites within a 15km radius of the site was compiled. Any potential impacts associated with the development will be identified and any likely significant impacts will be assessed. Designated Natura 2000 sites within 15km of the site and their distance to the site are shown in Table 1 and Figure 5 below.

Table 1: Designated Natura 2000 sites within 15km of the site

Designated Site	Site Code	Straight line distance and direction from development site
Cork Harbour SPA	004030	Approx. 3.5km east
Great Island Channel SAC	001058	Approx. 10.9km east

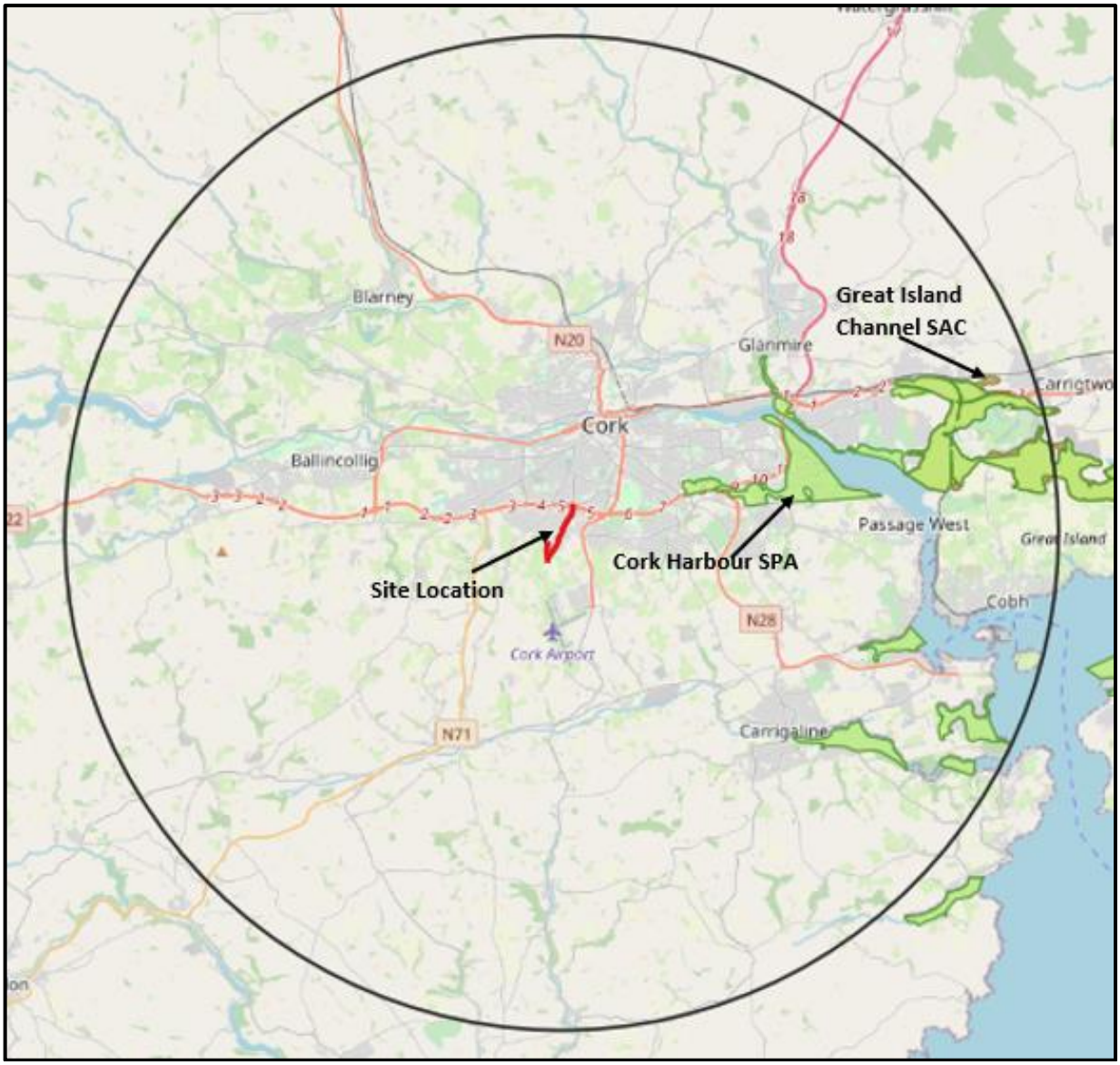

Figure 5: Natura 2000 sites (SAC- brown, SPA- green) located within a 15km radius of the proposed development site (red).

The proposed development site is sufficiently distant from, and not hydrologically linked with the Great Island Channel SAC. Therefore, it is highly unlikely that the proposed development will impact upon their conservation objectives and so this site has been screened out and will not be discussed further.

The proposed development site is located adjacent to the Tramore River which flows is an easterly direction for 3.5km before entering Cork Harbour and the Cork Harbour SPA. Associated species within the river could be potentially impacted by the above-mentioned development as the construction phase of such projects usually creates potential for the generation of contaminated runoff.

Therefore, the Cork Harbour SPA (Site Code 004030) is the only Natura 2000 sites considered to be potentially impacted by the development. A list of the qualifying features of conservation interest are shown in Table 2 below.

For full site synopsis and conservation objectives for the Cork Harbour SPA see Appendix II. Information pertaining to designated sites is from site synopses, conservation objectives, and other information available from the National Parks and Wildlife Service (NPWS) website.

Table 2: Designated sites with qualifying features of conservation interest

Designated Site	Qualifying features of conservation interest
Cork Harbour SPA (004030)	**Species** A004 Little Grebe Tachybaptus ruficollis A005 Great Crested Grebe Podiceps cristatus A017 Cormorant Phalacrocorax carbo A028 Grey Heron Ardea cinerea A048 Shelduck Tadorna tadorna A050 Wigeon Anas penelope A052 Teal Anas crecca A054 Pintail Anas acuta A056 Shoveler Anas clypeata A069 Red-breasted Merganser Mergus serrator A130 Oystercatcher Haematopus ostralegus A140 Golden Plover Pluvialis apricaria A141 Grey Plover Pluvialis squatarola A142 Lapwing Vanellus vanellus A149 Dunlin Calidris alpina alpina A156 Black-tailed Godwit Limosa limosa A157 Bar-tailed Godwit Limosa lapponica A160 Curlew Numenius arquata A162 Redshank Tringa totanus A179 Black-headed Gull Chroicocephalus ridibundus A182 Common Gull Larus canus A183 Lesser Black-backed Gull Larus fuscus A193 Common Tern Sterna hirundo A999 Wetlands

3.3 Conservation Objectives

According to the Habitat's Directive, the *conservation status of a natural habitat* will be taken as 'favourable' within its biogeographic range when:

- its natural range and areas it covers within that range are stable or increasing, and
- 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 as defined below.

According to the Habitat's Directive, the conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and

abundance of its populations. The conservation status will be taken as 'favourable' within its biogeographic range 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, and
- 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.

Conservation objectives for Natura sites, together with other designated site information, are available on http://www.npws.ie/protectedsites/.

3.4 Natura 2000 sites potentially impacted by the development

The Cork Harbour SPA is the only Natura 2000 sites considered to have been potentially impacted by the development.

The nearest point of the SPA is approximately 3.5km east of the proposed development. The Tramore river flows adjacent to the proposed site (See Figure 6). The river is downslope of the proposed development, so a source-pathway-receptor linkage is therefore present, and this presents the potential for significant impacts to occur within the SPA. However, there is a significant buffer area between the construction area and the river. The Lehenagh Beg stream is separated from the site by gradient and existing buildings and will not be impacted by the proposed construction works.

Associated species within the river and further downstream of the site could be potentially impacted by the above-mentioned development as the construction phase of such projects creates potential for the generation of contaminated runoff from the site. Potential impacts associated with the development could arise from:

- The risk of contaminated runoff during earth moving works to facilitate construction of the footpath/cycling track.
- Increased activity and noise emissions during construction works.
- Use of heavy equipment, vehicles, and plant and the associated potential for hydrocarbon contamination.
- The risk of accidental spillages of fuels/oils during construction activities.

For full site synopsis for the Cork Harbour SPA see Appendix II.

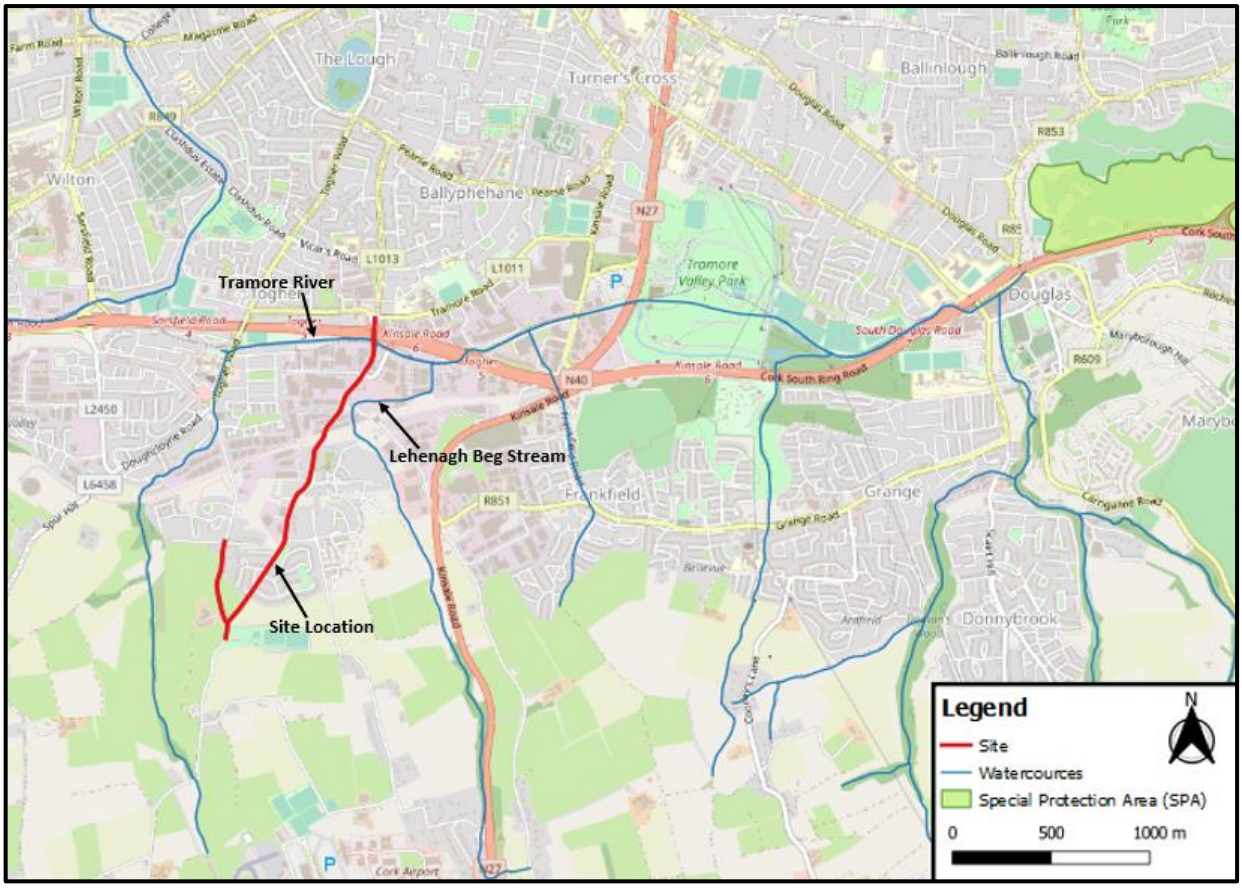

Figure 6: The watercourses which link the site to the Cork Harbour SPA

3.5 Identification of potential impacts

Only those features of the development that have potential to impact on the integrity of the Natura 2000 site are considered. For screening purposes, the potential impacts from the proposed development are examined regarding the following:

- Habitat loss and alteration
- Habitat or species fragmentation
- Potential impairment of water quality
- Disturbance and/or displacement of protected species
- Cumulative impacts

Habitat loss and alteration

The development site is not located within a Natura 2000 site and therefore direct habitat loss or alteration will not occur. There will be no interference with terrestrial habitats within the SPA arising from the development. Significant impacts within the SPA are unlikely due to the separation distance (Approximately 3.5km downstream).

Habitat or species fragmentation

The proposed development is located within an area with a combination of residential / commercial developments. Habitat or species fragmentation within the Cork Harbour SPA is unlikely to occur from the subject development. Direct barriers to aquatic species, such as otter, salmon, trout, or lamprey, will not result from the development. The Tramore river and its tributaries are not designated in the Salmonid Regulations (S.I. 293 / 1988). While indirect barriers to migration can sometimes occur through silted run-off from construction activities generally, it is considered that the location, scale, and the specific nature and design of the work to be undertaken along with other mitigating factors, as outlined above, mean that significant impacts are unlikely to occur as a result of the development.

Potential impairment of water quality

The Tramore river and its tributaries remains 'Unassigned' under the Water Framework Directive (WFD) (see Figure 3) within the vicinity of the development site. The Tramore river discharges into Cork Harbour which is classed as "Moderate" water quality under the WFD. Generally, there is potential for water quality impacts to occur indirectly through surface water run-off during the construction of developments. However, it is considered unlikely that this development will result in any significant impacts to water quality due to the location, scale, and the specific nature and design of the work to be undertaken, as outlined above. In addition, works will be carried out in accordance with Works on site will comply with CIRIA Guidelines – Control of Water Pollution from Construction Sites – Guide to Good Practice (2001) and Inland Fisheries Ireland – Guidelines on Protection of Fisheries during Construction Works in and adjacent to Waters (2016).

Disturbance and/or displacement of protected species

As the Cork Harbour SPA is located 3.5km from the proposed development site, it is highly unlikely that protected waterfowl species will be either directly or indirectly significantly impacted as a result of the construction or operational phases of the proposed development. The proposed development is far enough removed from the SPA and of such limited nature and scale, so as not to disturb or displace the avian species for which the SPA is designated. In addition, the proposed works are temporary in nature and transient as they move along the development site. It is estimated that the work will take approximately 12 months to complete.

Cumulative/In combination impacts

Activities that could potentially impact on ecological and water quality in combination with the planned development include agriculture, industrial discharges, wastewater treatment and other development/construction projects in the area. A search was conducted in October 2020 of planning applications within the vicinity of the proposed development, using the Cork County

Council Planning Enquiry System. The search was limited to the five-year period preceding the date of issue of this report (due to the typical five-year lifetime of planning permission).

Industries in the area are regulated by relevant licencing, IPPC licence (Brooks Haughton Limited) and Waste facility permits (Pouladuff Dismantlers Cork Ltd) and are therefore expected to conduct their activities in accordance with their licences and so are not expected to result in significant water quality effects on the receiving environment.

The CORINE 2018 Landcover map classes the area at the southern end of the development site as “Arable land” and “Pasture” *Land* Agricultural grassland predominantly used for grazing cattle is the main land use in the surrounding area. Such farming activities present potential point and diffuse sources of nutrients to the Tramore river and its tributaries. However, the spreading of inorganic or organic fertiliser, including slurry and farmyard manure is regulated under S.I. No. 605 of 2017- *Good Agricultural Practice for Protection of Waters.*

The in-combination effects of other project and plans have been assessed it has been concluded that there will be no impact on Natura 2000 sites connected to the proposed development.

Potential impacts can be mitigated further by making sure that industry best practice is followed during construction activities (CIRIA, 2001). Additionally, any future plans or projects in the area should be subject to the Appropriate Assessment process. Therefore, cumulative, or in-combination impacts are unlikely to occur.

Table 3: Potential impacts on the Cork Harbour SPA

Qualifying Interest	Observations	Potential Direct/ In-situ Impacts	Potential Indirect/ Ex-situ Impacts
A004 Little Grebe Tachybaptus ruficollis	No potential impact pathway evident	No	No
A005 Great Crested Grebe Podiceps cristatus	As above	No	No
A017 Cormorant Phalacrocorax carbo	As above	No	No
A028 Grey Heron Ardea cinerea	As above	No	No
A048 Shelduck Tadorna tadorna	As above	No	No
A050 Wigeon Anas penelope	As above	No	No
A052 Teal Anas crecca	As above	No	No
A054 Pintail Anas acuta	As above	No	No
A056 Shoveler Anas clypeata	As above	No	No
A069 Red-breasted Merganser Mergus serrator	As above	No	No
A130 Oystercatcher Haematopus ostralegus	As above	No	No

A140 Golden Plover Pluvialis apricaria	As above	No	No
A141 Grey Plover Pluvialis squatarola	As above	No	No
A142 Lapwing Vanellus vanellus	As above	No	No
A149 Dunlin Calidris alpina alpina	As above	No	No
A156 Black-tailed Godwit Limosa limosa	As above	No	No
A157 Bar-tailed Godwit Limosa lapponica	As above	No	No
A160 Curlew Numenius arquata	As above	No	No
A162 Redshank Tringa totanus	As above	No	No
A179 Black-headed Gull Chroicocephalus ridibundus	As above	No	No
A182 Common Gull Larus canus	As above	No	No
A183 Lesser Black-backed Gull Larus fuscus	As above	No	No
A193 Common Tern Sterna hirundo	As above	No	No
A999 Wetlands	As the location of the development is c. 3.5km upstream of the SPA it is concluded that the proposed development does not pose a significant risk to the water quality of the marine/estuarine SPA	No	No

3.6 Screening Assessment Conclusion

This screening assessment was carried out to identify potential significant impacts, if any, arising from the planned development of a construction of a segregated shared pedestrian/cycle track at Lehenagh More, Cork on nearby Natura 2000 sites.

The Cork Harbour SPA was considered to be the only Natura 2000 sites potentially impacted by the development. None of the threats, pressures or activities listed on the Natura 2000 Standard Data Forms for the Cork Harbour SPA will occur either inside or outside of this site as a result of the proposed development. Due to the location, scale, duration, and nature of the development, it has been objectively concluded that significant impacts to the integrity of the following Natura 2000 sites are unlikely to occur as a result of the proposed development:

4 References

CIRIA, 2001. Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors. pp.1–27.

S.I. No. 605 of 2017- European Union (Good Agricultural Practice for Protection of Waters) Regulations 2017

Appendix I - Site Photos

Plate A: Examples of habitats encountered on site

Plate B: Examples of habitats encountered on site

Roundabout - CEF	
Common Names	Latin Names
Alder	*Alnus glutinosa*
Ash	*Fraxinus excelsior*
Bindweed	*Convolvulus spp*
Birds foot trefoil	*Lotus corniculatus*
Blackthorn	*Prunus spinosa*
Bramble	*Rubus fructicosus*
Broad leaved dock	*Rumex obtusifolius*
Broad leaved willow herb	*Epilobium montanum*
Canidian flea bane	*Conyza canadensis*
Cats ear	*Hypochaeris radicata*
Common chickweed	*Stellaria media*
Common Sorel	*Rumex acetosa*
Creeping thistle	*Cirsium arvense*
Dandelion	*Taraxacum vulgaria*
Dog rose	*Rosa canina*
Elm sucker	*Ulmus*
Field butter cup	*Ranunculus acris*
Germander speedweel	*Veronica chamaedrys*
Goose grass	*Galium*
Grey wilow	*Salix cinerea subsp. oleifolia*
Ground elder	*Aegopodium podagraria*
Hearts tongue	*Asplenium scolopendrium*
Hogweed	*Heracleum sphondylium*
Ivy	*Hedera helix*
Knot grass	*Polygonum aviculare*
Lesser periwinkle	*Vinca minor*
Meadow vetch	*Lathyrus pratensis*
Nettle	*Urtica dioica*
Plantain	*Plantago spp*
Polypody	*Polypodium agg.*
Privit	*Ligustrum Ovalifolium*
Red clover	*Trifolium pratense*
Sleeps lettuce	
Sow cress	
Sow thistle	*Sonchus oleraceus*
Spurge	*Euphorbia hyberna*
Sycamore	*Acer pseudoplatanus*
Wild carrot	*Daucus carota*
Wild clematus	*Clematis virginiana*
Woody nightshade	*Solanum dulcamara*

CEF - Matthew Hill Pk	
Common Names	*Latin Names*
Ash (mature)	*Fraxinus excelsior*
Bracken	*Pteridium aquilinum*
Broad leaved plantane	*Plantago major*
Contonyaster	*Cotoneaster frigidus 'Cornubia'*
Common Figworth	*Scrophularia nodosa*
Fushia	*Fuchsia magellanica*
Hawthorn	*Crataegus monogyna*
Hearts tongue	*Asplenium scolopendrium*
Herb Robert	*Geranium robertianum*
Ivy	*Hedera helix*
Lady fern	*Athyrium filix-femina*
Madder	*Rubia tinctorum*
Maiden hair spleenworth	*Asplenium trichomanes*
Montbretia	*Crocosmia x crocosmiiflora*
Nipple worth	*Lapsana communis*
Old mans Beard	*Clematis vitalba*
Polypody	*Polypodium agg.*
Ragworth	*Jacobaea vulgaris*
Rusty back fern	*Ceterach officinarum*
Scaly male fern	*Dryopteris affinis*
Soft shield fern	*Polystitchum setiferum*
Spear thistle	*Cirsium vulgare*
Sweet gesely	
Sycamore (mature)	*Acer pseudoplatanus*
Wall rue	*Asplenium ruta-muraria*
Willowherb	*Chamaenerion angustifolium*
Hairy Bitter cress	*Cardamine hirsuta*

Matthew Hill Pk - Manor Farm Est	
Common Names	*Latin Names*
Birds foot trefoil	*Lotus corniculatus*
Camparlion	

Manor Farm Est - Industrial Est	
Common Names	*Latin Names*
Ash (mature)	*Fraxinus excelsior*
Birch	*Betula spp*

Domesticated ivy	*Hedera helix*	Blackthorn	*Prunus spinosa*
Foxglove	*Digitalis purpurea*	Broadleaved willowherb	*Epilobium montanum*
Goose grass	*Galium aparine*	Cow parcely	*Anthriscus sylvestris*
Grounsel	*Senecio vulgaris*	Cyperus hedge	
	Hipericum spp	Daisy	*Bellis perennis*
Ivy leaved toad flax	*Cymbalaria muralis*	Common Field-speedwell	*Veronica persica*
Liverworth	*Lunularia*	Griselinia	*Griselinia littoralis*
Honey Suckle	*Lonicera*	Hairy bitter cress	*Cardamine hirsuta*
Cape daisy	*Osteospermum spp*	Herb robert	*Geranium robertianum*
Pendulous Sedge	*Carex pendula*	Holly	*Ilex spp*
	Polyantus spp	Gorse	*Ulex europaeus*
Primrose	*Primula vulgaris*	Ivy	*Hedera helix*
Privit	*Ligustrum Ovalifolium*	Knot grass	*Polygonum aviculare*
Red clover	*Trifolium pratense*	Nipple worth	*Lapsana communis*
Ruberer		Polypody	*Polypodium agg.*
sea pink	*Armeria maritima*	Snow berry	*Symphoricarpos albus*
Common Vetch	*Vicia sativa ssp. segetalis*	Spurge	*Euphorbia hyberna*
Willow	*Salix*	Sycamore (mature)	*Acer pseudoplatanus*
Woodsage	*Teucrium scorodonia*	Hawthorn	*Crataegus monogyna*
		Winter heliotrope	*Petasites fragrans*
		Wood avens	*Geum urbanum*
		Woodsage	*Teucrium scorodonia*

Industrial Est - Fr Mathew Hill est.		Fr Mathew Hill est. - Leghnamore Pk	
Common Names	*Latin Names*	Common Names	*Latin Names*
Ash (young)	*Fraxinus excelsior*	Beach Trees	*Fagus spp*
Beach tree	*Fagus spp*	Bracken	*Pteridium aquilinum*
Bush vetch	*Vicia sepium*	Cherry laurel	*Prunus laurocerasus*
Cocksfoot grass	*Dactylis glomerata*	Cow slips	*Primula veris*
Creeping thistle	*Cirsium arvense*	Elm suckers	*Ulmus*
Cut-leaved Crane's-bill	*Geranium dissectum*	False oat grass	*Arrhenatherum elatius*
Dogwood	*Cornus spp*	Firs hedge	*Abies spp*
False oat grass	*Arrhenatherum elatius*	Goats beard	*Aruncus dioicus*
Hogweed	*Heracleum sphondylium*	Hawthorn	*Crataegus monogyna*

Hornbeem	*Carpinus betulus*	Holly	*Ilex spp*
Horsechestnut	*Aesculus hippocastanum*	Honey suckle	*Lonicera periclymenum*
	Hypericum spp	Polyanthus Primrose	
Lime tree	*Tilia*	Prickely sow thistle	*Sonchus asper*
March woundworth	*Stachys palustris*	Rhdodendron (Planted)	*Rhododendron ponticum*
	Pittosporum spp	Selfheal	*Prunella vulgaris*
Puff ball	*Lycoperdon perlatum*	Silverweed	*Potentilla anserina*
Sycomore	*Acer pseudoplatanus*	Smoth sow thistle	*Sonchus oleraceus*
Willow (rows)	*Salix spp*	Sweet vilot	*Viola odorata*
Willow herd Rosebay	*Chamaenerion angustifolium*	Western gorse	*Ulex gallii*
		Willow	*Salix spp*

Appendix III - Site Name: Cork Harbour SPA - Site code 004030

Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets. Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor and Corophium volutator. Green algae species occur on the flats, especially Ulva spp. Cordgrass (Spartina spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail, Shoveler, Redbreasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank,

Blackheaded Gull, Common Gull, Lesser Black-backed Gull and Common Tern. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five year mean peaks for the period 1995/96 to 1999/2000. Nationally important populations of the following 19 species occur: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Mallard (513), Pintail (57), Shoveler (103), Red-breasted Merganser (121), Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bartailed Godwit (233), Curlew (2,237) and Greenshank (46). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall (6), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site. A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter. Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed. Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary

Appendix IV - Synopsis of Appropriate Assessment Report

Description of Project	The client, M.H.L & Associates Ltd, proposes widening the existing carriage way in order to construct a footpath and cycle track at Lehenagh More Togher, Cork. The route is currently very narrow and therefore unsafe for pedestrians and cyclists alike.
Description of Natura 2000 site	The Cork Harbour SPA is a site of great ecological interest. It is of special conservation interest for several Annex listed species of the EU Birds Directive.
Description of Individual Elements of the Project likely to give rise to Impacts on the Natura 2000 Site	• None identified
Description of Likely Direct, Indirect or Secondary Impacts of the Project on the Natura site	• No potential for significant direct habitat loss/alteration, disturbance/displacement of species, negative impacts on water quality or cumulative/in combination impacts arising as a result of the proposed development.
Description of Likely Changes to the site arising as a result of: • **Reduction of habitat area** • **Disturbance to key species** • **Habitat or species fragmentation** • **Reduction in species density** • **Changes in key indicators of conservation value**	• None identified
Description of Likely Impacts on the Natura 2000 site as a whole in terms of: • **Interference with key relationships that define the structure of the site**	• None identified

• **Interferences with key relationships that define the function of the site**	
Indicators of Significance as a result of the identification of effects set out above in terms of: • **Loss** • **Fragmentation** • **Disruption** • **Disturbance** • **Change to Key Elements of the site (e.g. water quality etc)**	• None identified