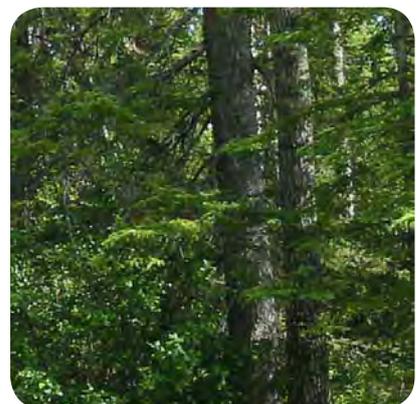


# N40 - Tramore Valley Park Pedestrian Bridge Environmental Assessments

March 2017





# N40 -Tramore Valley Park Pedestrian Bridge Environmental Impact Assessment Screening

## Document Control Sheet

Client:	Cork County Council
Project Title:	N40 – Tramore Valley Park Pedestrian Bridge
Document Title:	Environmental Impact Assessment Screening
Document No:	MCT0649Rp0002F01

Text Pages:	24	Appendices:	3
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Rev.	Status	Date	Author(s)		Reviewed By		Approved By	
F01	Final	23 <sup>rd</sup> March 2017	SOM KB	<i>Sandra Mahony</i>	AF	<i>Alfie Ryan</i>	KR	<i>Kieran Ryan</i>

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# 1 INTRODUCTION

The Tramore Valley Park in Cork City is a redeveloped 70 hectare open space amenity which will potentially draw thousands of visitors from both near and far once it is opened to the public on a full time basis. Located to the west of the N27 / South Link Road which is a main artery to Cork City, the site is easily accessible by private and public transport, however; connectivity to some of the closest residential areas remains a problem.

Grange is a suburb of Cork City located to the south east of the City, between Frankfield and Douglas, which is comprised primarily of low density housing estates. A wooded area located between the N40 and Grange has been identified as a prime location to extend the Tramore Valley Park (TVP) and therefore also connect the two areas.

The proposed works consist of creating a pedestrian and cycle route, linking Grange Road to Tramore Valley Park. The proposed route would commence in an open area immediately west of Grange Terrace, travelling northward, along an existing woodland walkway route, before crossing the N40 Southern Ring Road and into the Tramore Valley Park. The works will involve the installation of a new bridge over the N40 which will enable pedestrians and cyclists to access the Tramore Valley Park and the City from the Grange/Frankfield area.

This Environmental Impact Assessment Screening Report will assess the study area surrounding the proposed project and works as described below and examine any likely significant impacts which have the potential to occur as a result of the project in the surrounding area.

## 1.1 BACKGROUND

Open space in the Grange / Frankfield area is currently limited to either formal private uses, such as the former Frankfield Golf Course lands and the Motocross track at Vernon Mount grounds, or the woodland area identified to be used in this project. However this tract of land, which runs from Grange Terrace to the N40 and then east towards, before terminating at Douglas GAA grounds, does not have adequate footpaths or lighting to cater as a safe outdoor amenity suitable for all members of the surrounding population.

Grange, along with adjoining suburbs such as Donnybrook, Douglas and Frankfield are separated both visually and physically from Cork City to the north by the busy N40 Southern Ring Road and are also limited in development scope by the Metropolitan Green Belt to the south, which maintains the city's identifiable boundary.

The existing woodland walkway route does not connect through to Grange Road at the southern end and it is closed off by the Ring Road at its northern end. The area is subject to anti-social behaviour and Cork County Council believes that increased use and through movement of pedestrians and cyclists would result in an amenity of greater value to the area and also a decreased risk of anti-social behaviour.

Cork City Council adopted the Tramore Valley Park Masterplan in 2013 which identified the importance of promoting and providing high quality, formal and informal open spaces in the City as well as increasing connectivity between Grange / Frankfield and the City. The Park has recently undergone remediation work to transform the space from a former landfill site to a green open

space which will provide a range of activities and facilities to the public. Proposals include a children's play area, BMX trails, biodiversity areas, walking / cycling paths and a multi-use events space.

Objective 11.5 from the Cork City Development Plan 2015-2021 contains the following objective in relation to the Park:

*(It is an objective) "To pursue the delivery of the Tramore Valley Park and the proposed landbridge that will connect the areas of the park to the north and south of the N40, subject to Ecological Assessment and Appropriate Assessment Screening"*

The proposed new route, which incorporates a bridge crossing of the N40 Southern Ring Road, will physically connect Grange not only to Cork City for pedestrians and cyclists but, also to a significant amenity resource within the surrounding area. Utilising the woodland and upgrading / replacing the existing paths which run alongside the stream result in extending the overall catchment area for the park to the Grange / Frankfield area and gives the people of those suburbs an amenity on their doorsteps.

## **1.2 DESCRIPTION OF THE PROPOSED PROJECT**

### **1.2.1 Overview of the Proposed Project**

The proposed works comprise the creation of a new walkway from Grange Road, through the existing woodland, to Tramore Valley Park, including the provision of a new pedestrian/cyclist bridge over the N40 Southern Ring Road. The proposed route will allow pedestrians and cyclists direct access to Tramore Valley Park and also easier access to Cork City than is presently provided from this area south of the N40 Southern Ring Road.

The walkway will commence at a currently vacant plot on Grange Road, west of Grange Terrace. A redesigned access and landscaped walking/cycling path will be provided on this plot, connecting down to the eastern side of the stream, where there is an existing informal walking route. Given the topography of this land, which slopes steeply from south to north, the newly created paths will likely involve cycle steps, to ensure the paths are constructed at maximum 5% gradient is acceptable to all users. It may be necessary to implement blockwork or gabion retaining walls adjacent to the path in order to provide a level area.

The existing walking track through the woodland will be formalised and widened to 4m in all areas and will include, where necessary, a separate cycle route constructed at maximum 5% gradient, to ensure the route is accessible and usable for all users. It will be approximately 800m in length. The footpath will be constructed of impermeable surfaces such as:

- 45/6F or 45/10F hot rolled asphalt wearing course to EN13108:4 (BS 594:1);
- 0/6 or 0/10 Dense Bitumen macadam surface wearing course to EN13108:1 BS 4987:1; and
- Close graded SMA (10mm to 6mm aggregate) to EN 13108-5.

A number of mature trees in the immediate vicinity of the existing walkway will need to be felled, in order to accommodate the widened walking route. There may also be a need to strengthen specific

areas of the stream bank, given the steep nature of the bank adjacent to the stream in certain locations. The requirement to strengthen any area of the stream bank will be confirmed on completion of topographical surveys of the route.

The proposed route will involve 2 no. stream crossings of the Grange Stream; to the south of the site close to the existing informal access from Amberley Drive and further north in the area between Alden Grove and Amberley, in order to align with the southern side of the proposed bridge over the N40 Southern Ring Road. These crossings will comprise box culverts, the final size of which will be determined at detailed design stage. For the purposes of this EIA Screening exercise we have adopted the precautionary approach and assumed that instream works will be required.

The proposed bridge will likely be a single spanning structure of 40m – 50m in length and 4m in width, designed so that it can be erected in place in a single movement. This will minimise disruption to the N40 Southern Ring Road during construction. The design of the bridge will be optimised to ensure that it appears as slender as possible.

On the northern side of the N40 Southern Ring Road there will also be a ramped walkway, to accommodate access to the northern side of the bridge. This walkway will connect to an existing bridge of the Tramore River, which provides access to Tramore Valley Park.

### 1.3 CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

A Construction Environmental Management Plan (CEMP) (see **Appendix A**) has been prepared for the proposed works. This outlines the methodologies to be adopted for each of the work activities proposed to be carried out. The methodologies were drawn up to minimise potential for environmental impact of the works, in particular to prevent or minimise potential for silt runoff to the Grange Stream and avoid the potential to spread invasive species. The CEMP also specifies general environmental management procedures to be followed.

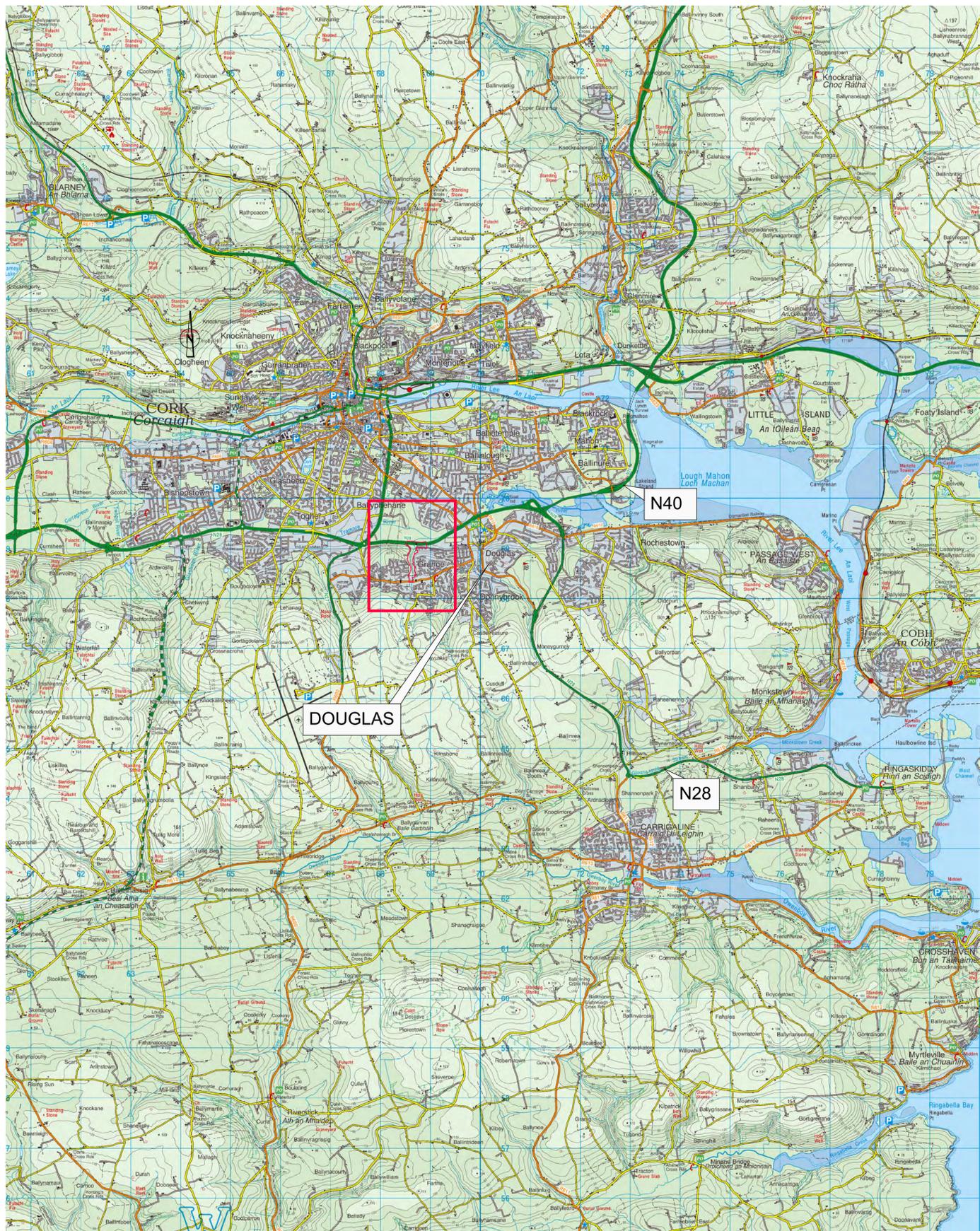
The proposed works will be carried out by a competent contractor experienced in this type of work at other locations. This contractor will be required to employ all construction and environmental measures outlined in the EMP.

The following guidelines and documents have informed the method statements and will be consulted by the contractor during the detailed planning and implementation of the works phase:-

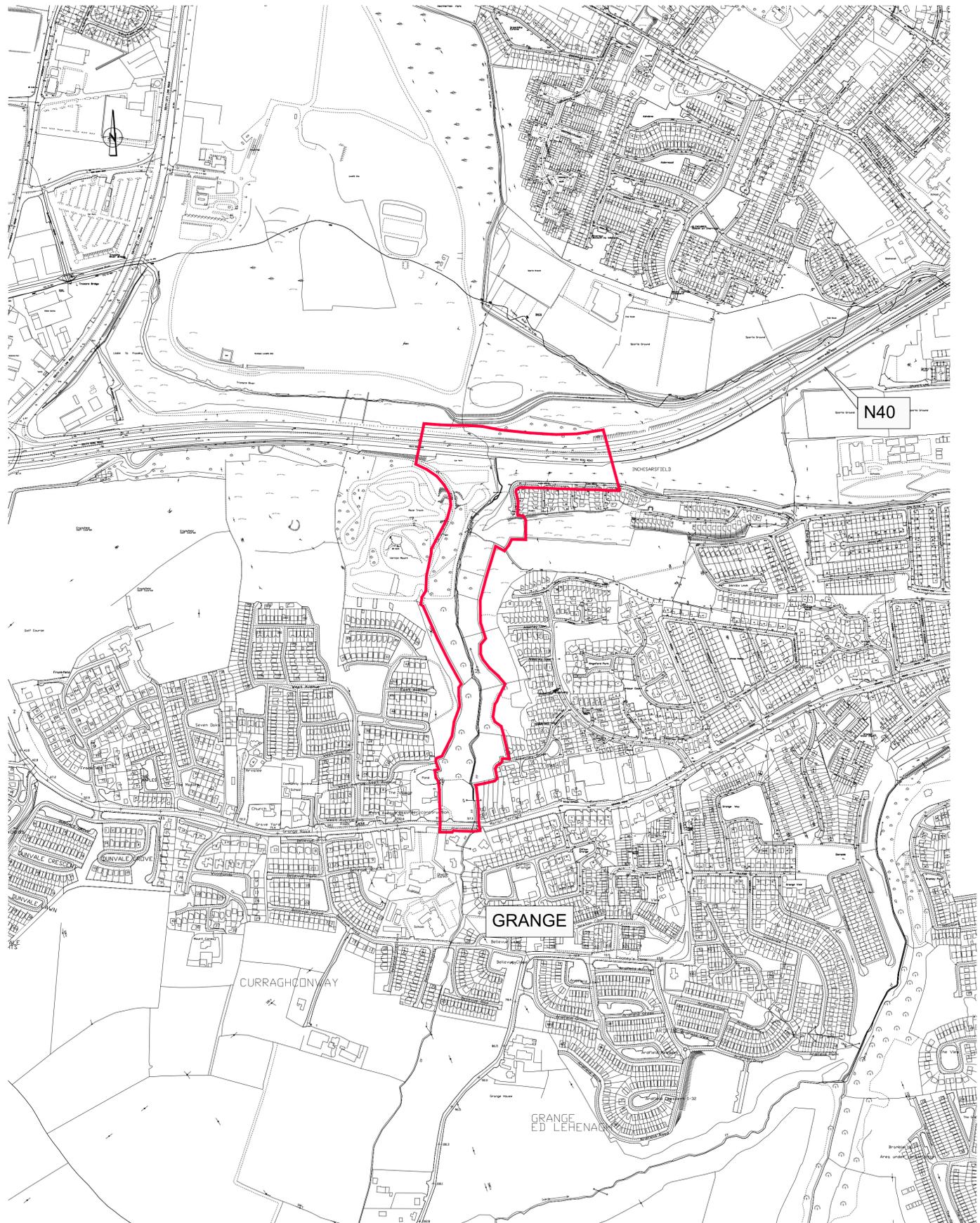
- IFI (2016) Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland, Dublin;
- NRA (2010) Guidelines for the Management of Noxious Weeds and Non- Native Invasive Plant Species on National Roads. National Roads Authority, Dublin;
- CIRIA (2016) Environmental Good Practice on site pocket book (4th Edition);
- DOMNR (1998). Fishery guidelines for Local Authority works. Department of the Marine and Natural Resources, Dublin;
- H. Masters-Williams et al (2001) Control of water pollution from construction sites. Guidance for consultants and contractors (C532), CIRIA;
- E. Murnane, A. Heap and A. Swain. (2006) Control of water pollution from linear construction projects. Technical guidance (C648), CIRIA; and

- E. Murnane et al., (2006) Control of water pollution from linear construction projects. Site guide (C649), CIRIA.

Special measures for the protection of birds, invasive species, habitats, species, watercourses and water quality are included in the CEMP for the proposed works in **Appendix A**.



**SITE LOCATION**  
(Scale 1 : 50,000)



**SITE LOCATION**  
(Scale 1 : 5,000)

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County Hall, Cork

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P01	Nov '16	KR	ISSUE FOR PART VIII	KR



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Drawn	KT
Checked	TW
Approved	KR
Date	Oct. 2016
Scale	Half @ A3
As Shown	@ A1

**Project**  
**GRANGE ROAD TO TRAMORE VALLEY PARK**  
**PEDESTRIAN / CYCLE LINK (INC. N40 OVERBRIDGE)**

**Title**  
**SITE LOCATION MAP**

Job No.	MCT0649	File Ref.	MCT0649DG0101.dwg	Dwg. No.	DG0102	Rev	P01
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## 2 ENVIRONMENTAL IMPACT ASSESSMENT

### 2.1 MANDATORY EIA

EU Directive 85/337/EEC (Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment) as amended is commonly referred to as the EIA Directive and has been further codified by Directive 2011/92/EU. Directive 2011/92/EU requires a process of assessment of environmental impacts for all projects listed in the Directive, which are likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location. The types of developments or projects to be included within the assessment obligation were originally set out under two separate annexes - Annex I classes of development automatically require EIA, whereas Annex II projects only require EIA to be carried out if certain thresholds are met.

In addition, provision is made for sub-threshold development where, although not meeting or exceeding the thresholds set out in Annex II, a development could still be likely to have significant effects on the environment. The method of assessing those effects for the purposes of deciding whether or not sub-threshold development does in fact create a significant effect on the environment are set out in Annex III to Directive 2011/92/EU.

At the National level, and with regard to this particular project, Section 50 (1)(a)(iii) of the Roads Act, 1993 and Article 8 (b) of the Roads Regulations, 1994 together state that “*the construction of a new bridge or tunnel which would be 100 metres or more in length*” would require EIA.

This proposal is not one which requires a Mandatory EIA (i.e. does not fall in to a category as defined in Annex I or II of the Directive and the proposed bridge is less than 100 metres in length). However it is necessary to assess whether significant effects on the environment are likely as a result of the proposed development and if a sub-threshold EIA may be required.

### 2.2 SUB-THRESHOLD EIA

Projects which are deemed to be likely to have significant effects on the environment also require EIA as sub-threshold development. The 1997 amending Directive (97/11/EC) introduced guidance for Member States in terms of deciding whether or not a development is likely to have ‘*significant effects on the environment*’. The guidance is provided by way of criteria set out in Annex III of consolidated Directive 2011/92/EU, as amended by Directive 2014/52/EU.

The criteria for evaluation are grouped under three headings as follows:

- Characteristics of the Proposed Development
- Location of the Proposed Development
- Type and characteristics of Potential Impacts

In order to inform the screening evaluation, consideration was given to the potential for impacts on particular aspects of the environment, as set out in Section 3 of this report. These environmental topics are set out in the EIA Directive as follows:-

- population and human health;
- biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;
- land, soil, water, air and climate;
- material assets, cultural heritage and the landscape; and
- the interaction between the factors referred to above

It will be noted that the wording of the factors to be identified, described and assessed in an environmental impact assessment has been amended very slightly under Directive 2014/52/EU, as set out above.

Directive 2014/52/EU also requires that identification, description and assessment of the above-mentioned factors should also include the unexpected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project.

It should be noted that Section 2.4.7 of the EPA (2002) *'Guidelines on the Information to be Contained in Environmental Impact Statements'* states that *"Where reasonable concerns exist that a single or very limited number of environmental topics may be adversely affected by a development proposal then an appropriate evaluation of the relevant topic(s) may be carried out."*

A screening exercise is carried out for this project under subsequent sections in this report.

## 3 LIKELY EFFECTS ON THE ENVIRONMENT FROM THE PROPOSED WORKS

### 3.1 INTRODUCTION

As detailed in **Section 2** the proposed development does not meet any of the thresholds which require EIA to be undertaken. Therefore in order to inform the EIA screening evaluation, in accordance with Section 2.4.7 of the EPA Guidelines (2002), consideration was given to the potential for impacts on particular aspects of the environment, as set out in **Section 2.2**.

### 3.2 POPULATION AND HUMAN HEALTH

It is expected that this proposal will have a positive impact on human beings in the area, by providing an amenity and tourism resource for residents and visitors in the area and providing a pedestrian and cycle link for the residents of Grange/Frankfield to the Tramore Valley Park and Cork City. The route of the proposed walkway / cycleway, which involves approximately 800m of works and includes a bridge over the N40 with a span of approximately 40/50m, is located in an urban area where adjacent land use is in the form of residential and local amenity / open space areas.

Land cover adjacent to the project area mainly comprises of woodland habitat, together with parcels of open space which are composed of a mosaic of formal grasslands and unkempt heath / scrubland. There are also a number of housing estates adjacent to the project area and the nearest dwelling is approximately 20m to the east. There will likely be a short term impact on adjoining dwellings from construction activities at the site in terms of noise and possibly dust arising from construction activities as well as inconvenience when the existing track is closed to enable works, but these impacts will be temporary in nature. A long term positive impact is likely to accrue to residents in the area as a result of the amenity aspect of the project.

There will likely be a requirement to close the N40 for one night, to facilitate installation of the bridge. This will result in a short-term adverse impact to road users, as well as residents in the area, as diversions will be required to be put in place. These impacts will however be short-term in nature, for the length of time required to install the bridge and will ideally be in place for no more than 1 night. All other disturbance to human beings and material assets will be minimal and temporary.

The project will have an overall positive impact on population and human health as it will improve the quality and reliability of the outdoor resources for the local population in the area and the amenity of the area is likely to be improved from a residential point of view. It will also improve connectivity from the residents of Grange/Frankfield to the Tramore Valley Park and the City.

There are no scenic routes in or adjacent to the project area. The closest scenic route is the S56 which runs between Frankfield (starting at the Kinsale Roundabout) and Ballygarvan, approximately 1.5km to the west of the site. The Cork County Development Plan 2014 interactive mapping resource (accessible via: [http://www.corkcocodevplan.com/images/documents/stage4/CCDP\\_Volume\\_4.pdf](http://www.corkcocodevplan.com/images/documents/stage4/CCDP_Volume_4.pdf)) confirms that the scenic route follows the route of the N27 as it branches off from the Kinsale Roundabout. Any eastward views from the northern-most end of S56, which could have a glimpsed view of the proposed bridge, are substantially blocked by the elevated section of the N40 Southern Ring Road where it passes over the Kinsale Roundabout. In addition, if there are any glimpsed views

of the proposed bridge these would be set against the backdrop of an existing visual mass (the N40 Southern Ring Road flyover), which together with the number of very large gantry signs which populate both sides of the N40, is a significant intrusion on any available views. The proposed bridge is therefore not considered to have a significant negative impact on views from Scenic Route S56.

The Grange Stream runs from south to north through the project area, which is a tributary of the Tramore River. The Tramore River is of limited fisheries potential<sup>1</sup>, which would limit its potential as a local fishing amenity. It is noted though that the Tramore River does contain brown trout so it may have some local amenity value. Through the production and subsequent implementation of an appropriate Construction Environmental Management Plan, which includes measures for the protection of watercourses during construction (Refer to Appendix A)) it is considered likely that there will be no adverse impact on this fishing resource.

Overall the proposed project will have a long-term positive effect to human beings.

### 3.3 MATERIAL ASSETS

It is expected that this proposal will have a negligible impact on Material Assets in the area.

The primary Material Assets in the immediate area are Vernon Mount House (Cork Co. Co. RPS No. 00480), Vernon Mount motocross track, and the N40 Southern Ring Road.

Vernon Mount House is a substantial house on the outskirts of Cork City which was built at the time of the 1<sup>st</sup> Edition Ordnance Survey maps in 1840. It would previously have formed part of a large demesne of around 158 acres but much of this land has now been developed for other purposes. The proposed development would be visible from the vicinity of the House, but it would be seen as part of the N40 Southern Ring Road streetscape and would not have a significant impact on views.

Vernon Mount motocross track sits immediately adjacent to Vernon Mount House, spanning the attendant grounds immediately around the House. The track is popular with motocross enthusiasts and appears to be operated by the Munster Motorcycle Club. Two informal carparks at the north east of the motocross track, immediately south of the N40 are used by the Motorcycle Club however the extent to which they are utilised and frequency are unknown. One such carpark is owned by Cork City Council. The development will impinge on a portion of this space and therefore reduce the area of carparking available to the Club. This is a slight negative impact, however Cork City Council is in consultation with the Club in order to minimise disruption to activities.

There are no significant or permanent negative impacts perceived to the track as a result of the proposed development.

As has been discussed in **Section 3.2**, the primary impact on the N40 will relate to the installation of the pedestrian bridge and disruption to traffic flows.

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<sup>1</sup> Source: Cork County Council Douglas Flood Relief Scheme Constraints Report (October 2014)

### 3.4 ECOLOGY (FLORA AND FAUNA)

The land in which the proposed project is situated has no designated conservation areas. The study area is situated within 15 kilometres of Great Island Channel SAC (7.5km) and Cork Harbour SPA (1.2km). There are 21 pNHAs within 15km of the study area, but no NHAs. For the purpose of this study, the Douglas River Estuary pNHA is considered to be the most relevant as the Tramore River discharges into this pNHA approximately 1.2km downstream of the study area.

In the absence of protective measures, there is potential for the release of suspended solids into waterbodies along the proposed route. Should large quantities of suspended solids enter waterbodies in the vicinity of the proposed development it could potentially affect the riverine habitat. An accidental spillage and release of hydrocarbons to watercourses in the immediate surroundings could have significant adverse impacts on the Grange Stream, the Tramore River and in turn Cork Harbour SPA, Great Island Channel SAC and Douglas River Estuary pNHA. There is therefore potential for indirect impacts on water quality and on the qualifying water-dependent species and habitats of the European Sites. These qualifying interests and the potential for impacts have been considered as part of the Appropriate Assessment screening of the project under Article 6(3) of the EU Habitats Directive, which is presented separately to this report.

In addition to potential impacts on water quality, the proposed project will result in the permanent loss of mixed broadleaved woodland. This habitat is not semi-natural, but is considered to be of local importance due to its potential to support protected species of fauna.

The high impact invasive species Japanese Knotweed has been recorded to the north of the N40, adjacent to the Tramore River in the vicinity of the entrance to Tramore Valley Park. As set out in the works method statement, these species will be managed in accordance with the recommendations set out in the NRA document *Guidelines for the Management of Noxious Weeds and Non- Native Invasive Plant Species on National Roads (Revision December 2010)*. In addition, it will be specified in the Works requirements and ensured by the Works Contractor that the source locations for materials which are introduced to the site during the construction phase of the project should be free from non-native invasive species.

The woodland habitats and associated watercourses (Grange Stream and Tramore River) in the study area provide foraging and commuting habitat for bats. There are also a number of mature trees in the wooded valley that have been identified as potential bat roosts. Therefore, in the absence of mitigation, there is potential that the proposed pedestrian/ cycle link may result in the loss of potential or actual roosting sites for bats in mature trees. It is likely that the foraging area for bats within the woodland will be reduced as a result of the proposed works. An inspection of the potential bat roost features within the trees and a bat activity survey will be required before construction commences. Where bats are identified within a tree during pre-construction survey, it will be necessary to seek derogation from the National Parks and Wildlife Services (NPWS) to exclude the bats and fell. There is also potential for disturbance of bats due to lighting during the construction and operational phases. Bat activity surveys are therefore required, and are stipulated in the CEMP, in order to gain information on their foraging and commuting areas and to inform the final lighting design for the project.

No evidence of otter was recorded during the site surveys and it is considered unlikely that they forage along Grange Stream. There are historical records of otter in the Tramore River area. However, the proposed development will not require works to the river banks of the Tramore River,

therefore no direct impacts on otter are anticipated. There is a risk of indirect impact as a result of pollutants and sedimentation decreasing water quality in the watercourse crossed by the proposed pedestrian/ cycle link, and in turn Tramore River. Potential significant impacts would be limited to a reduction in prey. However, any reduction in prey would be temporary and reversible and the potential impacts on otter are not anticipated to be significant. Further, as set out in the works method statement stringent protective measures for water quality have been built into the programme design.

No signs of use of the area by badger or red squirrel were observed during the site surveys undertaken in 2015 and 2017. However, Red Squirrel have been recorded in Ballybrack Woods, Douglas, therefore it cannot be discounted that Red Squirrel use the wooded valley in the study area for foraging and shelter. Other species that may occur in the study area include Hedgehog. All of these species are protected under Irish Law (Schedule 5 Wildlife Act 1976 (as amended)). Pre-construction surveys for badger and red squirrel will be undertaken as a precautionary measure.

Eleven common resident bird species were recorded during the site visit on 27<sup>th</sup> February 2017. The conservation status of bird species attributed as part of the Birds of Conservation Concern in Ireland (BoCCI) (Colhoun and Cummins, 2013) categorises Red-listed species as those of highest conservation priority, Amber listed species as those which are of moderate conservation priority and Green-listed species those of least conservation priority. Of the species recorded in the study area on 27<sup>th</sup> February 2017, no species are listed as being of High Conservation Concern. One Amber listed species considered to be of Moderate conservation concern was identified: Robin. If the felling of trees is not timed appropriately, there is potential that nests containing eggs or young chicks could be destroyed. The timeframe for avoidance of tree felling is set out in the CEMP contained in **Appendix A**.

### 3.5 SOILS, GEOLOGY AND HYDROGEOLOGY

Information on the soils, geology and hydrogeology of the study area has been obtained from the Geological Survey of Ireland (GSI) online mapping.

Within the boundary of the study area the National Generalised Bedrock Geology Map indicates the underlying bedrock is composed of Devonian Old Red Sandstone (DORS) as far north as Inchisarsfield. Moving northwards on either side of the N40 Dinantian Mudstones and Sandstones (DMSC) of the Cork group form the bedrock. There is no limestone bedrock within the study area; therefore there is no potential for the development of karst features. There are no landslide incidents recorded on the GSI Landslide Viewer for the study area.

The study area is underlain by a Locally Important Aquifer (LI) bedrock which is moderately productive only in local zones.

Groundwater vulnerability is classed at 'extreme' over most of the site with rock at the surface immediately adjacent to the stream (X) and close to the surface (E) moving outwards. Immediately north and south of the N40 the groundwater vulnerability is classed as 'high'.

The surrounding area is served by mains water supply. There are no private wells indicated on the GSI well database within 750m of the site boundary and there are no public water supply sources located in the area.

The Teagasc Subsoil Map for the area confirms the presence of shallow bedrock adjacent to the Grange Stream, with shallow bedrock to north east of stream valley also. To the east and west of the outcropping bedrock areas of Sandstone Till are depicted. Further north, to the north and south of the N40, the study area is located on made ground.

The soils data indicates shallow well drained mineral soil (AminSW) in the immediate vicinity of the Grange Stream. Moving outwards from the stream channel, to the east and west, the soil is classified as deep well drained mineral soil (AminDW).

There are no geological heritage areas located within 2km of the proposed project indicated on the GSI website.

There will be temporary minor impacts on soils where the new walkway and cycle ways are installed. There will be no significant impacts on the bedrock geology resulting from the construction of pathways or cycleways as no significant excavations (cut areas) into bedrock are proposed. The potential exists for contamination of groundwater as a result of spillages associated with construction operations, however; with implementation of the CEMP this impact is considered unlikely. Depending on the type of bridge proposed there may be potential for localised vertical migration of groundwater adjacent to piles / foundations which would be a slight permanent negative impact. The construction of areas of hardstanding will increase runoff to surface water and reduce the recharge to groundwater however this impact is considered to be a permanent imperceptible impact.

Significant effects therefore with regard to soils, geology and hydrogeology are not considered likely.

### 3.6 WATER

The proposed project area encompasses the Grange Stream which feeds into the Tramore River. This stream's source is approximately 1.3km south of the project area and enters the site through a culvert under the R851 / Grange Terrace Road. It then continues to flow north through the woodland area, under the N40 via a culvert and joins the Tramore River at the southern portion of the Tramore Valley Park. The Tramore River then flows east into Lough Mahon which is part of the Cork Harbour Special Protection Area (SPA) as well as a Natural Heritage Area (NHA).

Water quality monitoring has not taken place at any point on the stream within the project area according to EPA mapping; however, the stream is identified as being within a nutrient sensitive area. The stream is a tributary of the Tramore River, which is identified as having a Water Framework Directive (WFD) risk score of '*at risk of not achieving good status*'<sup>2</sup> while the WFD mapping illustrated that both the stream and the Tramore River were unassigned a current WFD status for the 2010 – 2012 period.

With regard to Lough Mahon, the surface water quality of this body of transitional water is considered to be '*intermediate*' in the 2010 – 2012 period and has a WFD risk score of '*at risk of not achieving good status*'. The WFD status of Lough Mahon is noted to have been '*Moderate*' for the 2010-2012 period, a slightly lower grading than the '*Good*' status it previously received during 2007-2009.

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<sup>2</sup> EU Member States must aim to achieve '*Good*' status in all waters by 2015 and must ensure that status does not deteriorate in any waters

It is considered improbable that Salmon (*Salmo salar*), which is listed on Annex II of the Habitats Directive would occur in the Tramore River due to poor water quality, limited channel size, lack of holding pools, barriers to migration and lack of spawning habitat. Lamprey species are of high conservation value and all three Irish species (Sea Lamprey (*Petromyzon marinus*), River Lamprey (*Lampetra fluviatilis*) and Brook Lamprey (*Lampetra planeri*) are listed on Annex II of the EU Habitats Directive. The presence of migratory lamprey species (sea lamprey and river lamprey) is unlikely due to barriers to migration and lack of spawning habitat. Brook lamprey could potentially occur within suitable areas of habitat but was not recorded in 2014. The Grange stream is a small stream which is generally less than 1m in width. No fish were noted during the site survey (DixonBrosnan, 2016), although suitable spawning/nursery areas were noted. Any recolonization would be effectively precluded by culverts in the lower section of the watercourse. The watercourse is small and therefore highly susceptible to pollution events when flows would be minimal.

Key impacts during the construction phase relate to the potential for siltation and pollution of the stream, the Tramore River and downstream to Lough Mahon from works and/or spillages. These sensitivities have been taken into account in the design and the detailed method statements which have been prepared for the project and therefore no significant impacts are anticipated (Refer to **Appendix A**).

The potential for significant impacts arising from non-native invasive species is not considered likely given the construction methodology proposed (see Section 3.2 above and **Appendix A**)

Loss of river corridors, river or riparian habitats or damage to potential spawning beds is not considered to be likely in this instance due to the habitats present in the study area and the nature of the works proposed. 2 No. stream crossings are required however it will be identified at a detailed design stage if these will comprise culverts, the sizes of which will be determined at the detailed design stage. For the purposes of this EIA screening instream works are assumed under the precautionary approach.

The proposal is located immediately adjacent to a river and therefore there exists the potential for flooding in close proximity to the works. There are few records of flooding incidents in close proximity to the study area and according to [www.floodmaps.ie](http://www.floodmaps.ie) there have been no recent flooding events recorded by the OPW in the study area. The most recent record available in the surrounding area is from 2009, at Douglas, which involved the Tramore River at a location approximately 800m downstream (east) of the project area. Because the works are proposed near a river Figure No. 2019/MAP/38/A, from the Preliminary Flood Risk Assessment Mapping available at <http://www.cfram.ie/pfra/interactive-mapping/> shows that this area is partly-located within a 1% AEP flooding event area. It is likely that the Tramore River and its tributaries would be subject to flash flooding during periods of sustained or high rainfall. However it is considered that the proposed scope of works will not contribute to flooding or that flooding will not be affected by the proposed works.

Having regard to the nature, extent and location of the proposal, flood risk is not considered to be likely to be a significant concern in this instance.

### 3.7 AIR, CLIMATIC FACTORS, NOISE AND VIBRATION

It is considered that air quality in the area is not likely to be significantly impacted upon by way of this proposal. Standard dust control construction measures, including water spraying and sweeping of roads have been incorporated into the proposal.

Potential sources of noise and vibration during this project include construction-related machinery and vehicles, which will operate for the construction period of the works. There are internationally recognised criteria for noise and vibration levels including those levels which would be likely to lead to complaints, and vibration levels which would be likely to lead to structural damage (BS6472: 1992 Guide to Evaluation of human exposure to vibration in buildings (1Hz to 80Hz), and BS7385: Part 2 1990: Guide to damage levels from ground-borne vibration).

The closest sensitive receptors for noise and vibration impacts are the dwellings located to the east of the route at Amberley Drive and Alden Grove, some of which are within 20m of the study area. Houses to the west in the Park Gate development, located closest to the project area, may also be affected however this is considered to be unlikely.

The potential exists for construction stage noise and vibration to occur. The scale of the construction at the proposed walkway and bridge site will comprise something in the order of <20 truckloads of materials, excavation of foundations and construction of a precast concrete bridge structure over the N40. No blasting will be required as part of the proposed path and bridge construction works however rotary core reinforced piles will be necessary as part of the bridge foundations. While construction activity will take place over several months the intensity of the activity on any day will typically be limited to a delivery of materials, some vehicle and personnel movement around the site and typical construction activities.

Subbase and bituminous materials will be delivered to the greenfield area to the south of the site off Grange Road by dumper trucks and it is expected light machinery will be used to distribute such materials for the walkways through the steeper woodland areas of the site e.g. quad bikes pulling trailers or small front dumpers.

The intensity at any instant in time will not be such to cause any significant noise or vibration impact and long periods of the construction will comprise manual labour with minimal noise and vibration impact. Given the urban, densely populated nature of the area and the location of dwellings relative to the proposed works, it is considered that a slight negative impact on human receptors are likely to occur in this instance, however these are considered to be temporary and not significant.

### 3.8 LANDSCAPE, CULTURAL AND BUILT HERITAGE

Under the Cork County Development Plan 2014 *Landscape Character Types* the landscape of the study area is designated as 'City and Harbour Estuary' which is of very high value and very high sensitivity, with a national importance.

The S56 Scenic Route passes approximately 1.5km to the west of the site and the proposed bridge may be visible to motorists on the Route; however, any eastward views from the northern-most end of S56, which could have a glimpsed view of the proposed bridge, are substantially blocked by the elevated section of the N40 Southern Ring Road where it passes over the Kinsale Roundabout. In

addition, if there are any glimpsed views of the proposed bridge these would be set against the backdrop of an existing visual mass (the N40 Southern Ring Road flyover) which together with a number of very large gantry signs which populate both sides of the N40 is a significant intrusion on any available views. The proposed bridge would be no taller than the tallest point of these gantry signs. Furthermore good design principals have been utilised when designing the bridge to ensure it assimilates into the local landscape. The resulting piece of infrastructure is of such a scale that it should be both a landmark feature as well as integrated with the surrounding landscape and therefore not cause a significant negative visual impact.

The project area involves an informal walking route through woodland which will be negatively impacted during the construction period. However it is expected that the temporary and migratory nature of the works will ensure the negative impact is not permanent, and the resulting improved walkway and cycleway will result in a permanent positive impact.

There are 6 Sites and Monuments Records (SMRs) within 1km of all of the proposed works according to the Archaeological Survey of Ireland, along with 16 structures which are listed on the Record of Protected Structures (RPS) and 12 on the National Inventory of Architectural Heritage also all located within 1km of the proposed works. The closest site to the works is recorded on all three inventories; Vernon Mount House located approximately 70m west of the study area, directly south of the N40 Southern Ring Road. The house (SMR Ref CO074-060, NIAH Ref 20871029, RPS Ref 00480), will not be impacted by the proposed works. The proposed development would not have a significant impact on any of these structures due to its confined nature.

### **3.9 INTERRELATIONSHIP BETWEEN THE ENVIRONMENTAL TOPICS**

The greater the number of different aspects of the environment which are likely to be affected and the greater the links between the effects, the more likely significant effects may occur.

Impact interrelationships/interactions relate to the reactions between impacts within a project and the interrelationship between impacts identified under one topic with impacts identified under another topic.

The consideration of impact interrelationships and interactions provides an opportunity to consider the overall impacts of a scheme which might not be immediately apparent.

All above factors contribute to the distinctive character of the area. Cumulative impacts on the suite of these features may be significant in scale, nature and duration.

The most important interaction in this case is that between ecology and water quality. It is very important that the project is undertaken in such a manner so as to ensure that water quality of the Grange Stream and Tramore River and downstream is not unduly harmed. It is considered that the proposal as outlined contains such safeguards as integral components of the overall project and that the potential for interrelationship of impacts is adequately addressed within the proposed design and method statement.

## 4 EIA SCREENING

### 4.1 CHECKLIST OF CRITERIA

**Section 1.3** of this document outlines that this project is not considered to meet the criteria set out in either Annex I or Annex II to Directive 2011/92/EU, nor does it meet the threshold set out at Article 8 (b) of the Roads Regulations, 1994.

The Checklist of Criteria for Evaluating the Significance of Environmental Effects – as per S5.39 of the ‘*Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development*’ (DOEHLG, 2003) - is designed to help competent/consent authorities decide whether EIA is required, based on the characteristics of the likely impacts of a project (i.e. to decide whether the effects of a project are likely to be significant). The checklist was originally proposed in ‘*Guidance on EIA – Screening*’ (June, 2001; prepared for the European Commission by ERM (UK)). Consideration has been given to the potential impacts of this project, under each question to be considered.

**Table 4-1 Questions to be considered in EIA Screening**

Question	Response
1. Will there be a large change in environmental conditions?	No – the proposed works has proposed protective measures outlined in Appendix A which ensure no significant environmental effects. There will be 2 No. stream crossings and a minor direct landtake.
2. Will new features be out-of-scale with the existing environment?	No – the project comprises the creation of a footpath/pavement through a woodland area and a bridge over the N40 Southern Ring Road. The footpath/pavement will follow the route of the existing informal walking route through the woodland and will require the removal of only individual trees along the route. The proposed bridge over the N40 Southern Ring Road would be no taller than the existing gantry signs which populate this road and would be a character and scale in keeping with the existing environment.
3. Will the effect be particularly complex?	No – any effects will be limited to the immediate vicinity of the project. Protection measures will ensure that there are no long term effects on flora and fauna within the woodland, human beings, material assets or landscape.
4. Will the effect extend over a large area?	No - effects will be limited to the immediate vicinity of the project and protection measures proposed would ensure that there are no significant effects within the project area.
5. Will there be any potential for transfrontier impact?	No.
6. Will many people be affected?	Local residents and other users will be positively impacted due to the creation of a new, dedicated walking route which connects the area to Tramore Valley Park and the wider area north of the N40 Southern Ring Road for pedestrians and cyclists. There will likely be some minor negative impacts to the residents in the vicinity of the proposed route during the

Question	Response
	construction phase and there will also be a short term impact on motorists using the N40 Southern Ring Road when the bridge is being installed. This will take place over one night therefore impacts will be slight and of a very temporary nature. However these will be temporary impacts and mitigation measures will be put in place to minimise any negative impacts.
7. Will many receptors of other types (fauna and flora, businesses, facilities) be affected?	There will be no significant or long-term effects on flora and fauna as the protective measures outlined in the CEMP will be implemented in full and overseen by CCC.  There may be some temporary minor negative impacts to the local businesses during the construction works where road closures and diversions may be required. However these will be temporary and no adverse impact is expected on businesses.
8. Will valuable or scarce features or resources be affected?	No valuable or scarce features will be affected by this development.
9. Is there a risk that environmental standards will be breached?	The protective measures as outlined in Appendix A will ensure that environmental standards will not be breached.
10. Is there a risk that protected sites, areas, features will be affected?	An Appropriate Assessment Screening Report was prepared by RPS in 2017. Significant effects on European Sites are not considered likely based on the design provided and the CEMP to be implemented during construction works. The closest recorded cultural heritage feature is Vernon Mount approximately 70m west of the site however there will be no negative impacts to this structure as a result of the development.
11. Is there a high probability of the effect occurring?	Best practice construction methods will ensure that there is a very low probability of an impact occurring.
12. Will the effect continue for a long time?	No. There is a very low probability of an impact occurring. The potential impacts are short term and localised restricted to the construction phase.
13. Will the effect be permanent rather than temporary?	No. Any potential construction phase impacts will be temporary short-term and localised. There are no likely significant impacts associated with the operational phase.
14. Will the impact be continuous rather than intermittent?	Any potential impacts will be short term in nature and would relate to the construction phase only. Once completed there are no significant impacts associated with the proposal.
15. If it is intermittent will it be frequent rather than rare?	Any impact would be rare. Any potential impacts will be short term in nature and would relate to the construction phase. Once completed there are no significant impacts associated

Question	Response
	with the proposal.
16. Will the impact be irreversible?	There is a very low probability of an impact occurring. The potential impacts are short term, localised and restricted to the construction phase.
17. Will it be difficult to avoid, or reduce or repair or compensate for the effect?	No – this proposal is not a particularly complex or large proposal. Potential negative effects can be avoided by way of the standard environmental protection measures contained in the overall proposal.

#### 4.1.1 Screening selection criteria

Article 4(3) of Directive 97/11/EC, as amended by Directive 2014/52/EU, requires that Competent Authorities must take into account the selection criteria set out in Annex III of the Directive when making screening decisions on a case-by-case basis and when setting thresholds and criteria for projects requiring EIA. The updated criteria, as set out in Annex III of the Directive 2014/52/EU, have not yet been transposed into Irish legislation. In carrying out this EIA Screening we have therefore had regard to the criteria set out at Annex III of the Directive 2014/52/EU.

The criteria in Annex III are grouped under three headings:-

- (i) Characteristics of projects,
- (ii) Location of projects, and
- (iii) Type and characteristics of the potential impact

Although yet to be transposed into Irish law, competent/consent authorities must have regard to these criteria in forming an opinion as to whether or not a sub-threshold development is likely to have significant effects on the environment. The key issue is ‘are the likely effects “significant” in the context of these criteria’. These criteria are listed below and the project is considered under each criterion.

**Table 4-2 Selection Criteria from Annex III of the EIA Directive**

1. Characteristics of development	
The size and design of the whole project	This is considered to be a small scale project to be constructed along an existing woodland walking route, within an existing roadway and on amenity grassland.
Cumulation with other existing and/or approved projects	The Tramore Valley Masterplan (Cork City Council) sets out a plan to create a multi-functional space which will cater for both individuals as well as clubs and events in a reclaimed former landfill area. The plan identifies possible linkages with Grange and the subject site therefore the proposed development will provide a positive impact in cumulation with the masterplan to provide access to the park. There are no other significant developments/projects in the area

<b>1. Characteristics of development</b>	
	which would contribute to any cumulative impacts.
The use of natural resources, in particular land, soil, water and biodiversity	The proposed development will involve the creation of a formalised 4m wide walking/cycling route along a stretch of approximately 800m between Grange Terrace and Tramore Valley Park. The majority of the route is currently in use as an informal walking route. There will be a requirement to clear an area of approximately 1.5 – 2m alongside the existing informal walking route, in order to provide the formal walking/cycling route, which will involve the felling of individual trees and clearance of vegetation. There will be a requirement to provide a 'new' section of pavement at the Grange Terrace entrance to the route, on land which is currently vacant and overgrown. There will also be a requirement to provide an additional 'new' section of pavement adjacent to the N40, to access the pedestrian bridge. The proposal will require 2 No. stream crossings; to be provided in the form of box culverts over the stream.
The production of waste	No large-scale wastes will be generated.
Pollution and nuisances	This proposal has the potential to generate water pollution and also localised nuisances associated with noise at the construction stage. Potential negative effects will be avoided by way of the standard environmental protection measures contained in the overall proposal and accompanying CEMP.
The risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge	<p>There is no hazardous activity either on site or on any adjoining site which would pose a significant risk to a habitat or human environment. In addition there is no hazardous activity proposed as part of this development which would present a major accident risk at another.</p> <p>There is a risk that the pedestrian bridge over the N40 Southern Ring Road may collapse, falling into oncoming traffic and causing a major accident. The design of the bridge shall be undertaken in accordance with current design standards and best practice. Construction of the bridge will be undertaken by a competent contractor with experience in large scale civil engineering works and subject to stringent control and monitoring in order to ensure any such risk is minimised.</p> <p>There is a slight risk of small scale spillage of pollutants such as concrete and oils / hydrocarbons however protection measures have been proposed to minimise those risks.</p>
The risks to human health (for example due to water contamination or air pollution)	This proposal has the potential to generate water pollution and also localised nuisances associated with noise at the construction stage, however; potential negative effects will be avoided by way of the standard environmental protection measures contained in the overall proposal.
<b>2. Location of Proposed Development</b>	
The existing and approved land use	The project area is in use as (a) a transport corridor, (b) amenity grassland and (c) forestry
The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground	<p>There will be no soil removed from the site.</p> <p>There is potential for direct and indirect impacts to fauna and flora, and indirect impacts to aquatic ecology during the construction of the formalised walking/cycling route. However, protective measures have been proposed in the project proposals (Appendix A) to include pre-construction bat survey, appropriate timing of works and</p>

2. Location of Proposed Development	
	adherence to best practice guidelines. With the implemented in of protective measures full, it is considered that impacts will not be significant.
<p>The absorption capacity of the natural environment, paying particular attention to the following areas:</p> <ul style="list-style-type: none"> <li>▪ Wetlands, riparian areas, river mouths;</li> <li>▪ Coastal zones and the marine environment;</li> <li>▪ Mountain and forest areas;</li> <li>▪ Nature reserves and parks;</li> <li>▪ Natura 2000 sites;</li> <li>▪ Areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;</li> <li>▪ Densely populated areas</li> <li>▪ Landscapes and sites of historical, cultural or archaeological significance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Wetlands, riparian areas and river mouths: There is potential for direct impacts on a riparian area, given that the Grange Stream runs along the route of the proposed walking/cycling route and the Tramore River is adjacent to the northern most part of the route. However, protective measures have been built into the project proposals to include appropriate timing of works, the control of construction methods and pre-construction survey. Provided the protective measures are implemented in full, it is considered that impacts will not be significant.</li> <li>▪ Coastal Zone and marine environment: There is potential for indirect impacts on the marine environment, given the connectivity of the proposed walking/cycling route to Cork Harbour via the Grange Stream. However, protective measures have been built into the project proposals to include appropriate timing of works, the control of construction methods and pre-construction survey. Provided the protective measures are implemented in full, it is considered that impacts will not be significant.</li> <li>▪ Mountain and forest areas: There is potential for direct impacts on a forested area, given the proposed walking/cycling route runs through a woodland area for a significant part of its route. However, protective measures have been proposed in the AA Screening and Ecological Report to include appropriate timing of works, the control of construction methods and pre-construction survey. Provided the protective measures are implemented in full, it is considered that impacts will not be significant.</li> <li>▪ Nature reserves and parks: The proposed development is situated in a close proximity to Tramore Valley Park, at its northern end, but would have no physical impact on the park. It would have a direct positive effect in terms of allowing walking and cycling access to a greater proportion of the population residing south of the N40 Southern Ring Road.</li> <li>▪ Natura 2000 sites: The proposed project is not located within any designated sites and an AA Screening undertaken separately by RPS indicated there are no potential for significant effects.</li> <li>▪ Areas in which environmental quality standards laid down by the EU have already been exceeded: None</li> <li>▪ Densely populated areas: The proposed walking and cycling route runs through an area which is relatively densely populated but which is isolated from these areas by the topography of the land and landscaping / screening. There will be a direct impact for the closest adjoining properties during construction in terms of noise but these properties will experience a long term positive impact arising from the provision of this new route which allows access to the nearby Tramore Valley Park</li> <li>▪ Landscape and sites of historical, cultural or archaeological significance: The proposed project is located within a landscape area which is recognised in the Cork County Development Plan as a High Value Landscape. The proposed walking/cycling route will be designed to assimilate into the local landscape, utilising existing</li> </ul>

<b>2. Location of Proposed Development</b>	
	<p>land contours where possible to ensure there is no disruption to the character of the area and ensuring that the removal of any trees as part of the development is minimised to ensure the existing characteristics of this landscape remain intact. The proposed bridge over the N40 Southern Ring Road will be a significant visual mass when seen from available views but it will be set against the local landscape which is dominated by significant transport-related infrastructure.</p> <p>There are a number of buildings of historic and cultural significance in the area, in particular Vernon Mount House and the motocross track which is laid out within its attendant grounds. The proposed walking/cycling route would be enclosed from views from Vernon Mount by the existing forest canopy and as such will not be a prominent feature in any views and, whilst there is a requirement to utilise a small section of the motocross carpark as part of the development, consultation is ongoing with the club in order to minimise any impact to ongoing activities.</p>
<b>3. Characteristics of Potential Impacts</b>	
<p>The likely significant effects of projects on the environment must be considered in relation to the criteria set out in 1 &amp; 2 above taking into account:</p>	
<p>The magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected)</p>	<p>Whilst the project area is relatively long, at around 800m in length, it encompasses quite a narrow strip of land. As such construction phase impacts will be focussed and localised. There will likely be slight disruption to adjoining residents during construction arising from noise however through the operational phase there will be a significant benefit to a wider population south of the N40 Southern Ring Road, in the Grange area and beyond, given there will a safe walking/cycling route to a large local amenity (Tramore Valley Park).</p>
<p>Extent of the Impact (geographical area and size of affected population)</p>	<p>For the construction phase it is considered noise and dust impacts will be confined to those residential properties at Park Gate, Amberley Drive and Alden Grove which skirt the woodland area and which are closest to the walking/cycling route area. There will be a short-term impact for users of the N40 Southern Ring Road whilst the bridge is hoisted into position but this activity will be managed to ensure disruption to motorists is minimised (i.e. through night-time installation). For the duration of any such disruption there will be diversions in place, to ensure the impact is minimised.</p> <p>For the operational phase the positive impact of the new walking/cycling route will be extended into the wider Grange area, with a significant local amenity (Tramore Valley Park) within safe and convenient walking distance of a sizeable proportion of this community. It is possible that there will also be benefits for the wider area, although this is expected to be on a decreasing scale with increased distance from the route.</p>
<p>The nature of the impact</p>	<p>For the construction phase it is anticipated that impacts for those residents at Park Gate, Amberley Drive and Alden Gove will consist of primarily construction-related noise and dust. This will be controlled by a construction management plan to ensure there are procedures in place to control and minimise any potential noise and dust sources. For motorists on the N40 Southern Ring Road the impact will consist of a requirement to divert onto an alternative route whilst the bridge is hoisted into place. The installation of the bridge will be</p>

### 3. Characteristics of Potential Impacts

The likely significant effects of projects on the environment must be considered in relation to the criteria set out in 1 & 2 above taking into account:

	<p>discussed with relevant authorities to ensure that an installation methodology and programme are devised to minimise any disruption.</p> <p>For the operational phase the impact of the development will be positive, providing a new walking/cycling route within convenient walking distance of a sizeable proportion of the Grange area and also providing a safe and convenient walking access for the local population south of the N40 Southern Ring Road to access Tramore Valley Park.</p>
<p>The transboundary nature of the impact</p>	<p>There will be no transboundary implications associated with this project.</p>
<p>The intensity and complexity of the impact</p>	<p>It is considered that the construction-related impacts for nearby properties will be slight, given the relative distance from the construction area</p> <p>For users of the N40 Southern Ring Road during installation of the pedestrian bridge the impact would be moderate, given the requirement to divert onto an alternative route during installation. The installation process will be coordinated to ensure any such disruption is minimised.</p> <p>For the operational phase, the presence of this walking/cycling route and access to Tramore Valley Park is likely to be a significant benefit to the population in its immediate vicinity, whilst for more remote communities the impact would become moderate, slight and then negligible as one progresses further from convenient walking distance</p>
<p>The probability of the impact</p>	<p>Construction phase impacts for both close-adjointing residents and motorists using the N40 Southern Ring Road are very likely, as set out previously.</p> <p>The positive impact of the development in the immediate vicinity is very likely to occur but the probability of positive impacts decreases as one progresses further from convenient walking distance of the route.</p>
<p>The expected onset, duration, frequency and reversibility of the Impact</p>	<p>Construction risks and nuisances (noise, traffic disruption, and dust) are likely to be temporary in nature, limited to the duration of construction of the route and installation of the new walking route.</p> <p>Some permanent and direct impacts on grassland and woodland habitats will result from the proposed development, however; it is considered that these impacts will be reversible once the construction phase of the project is completed, with appropriate mitigation.</p> <p>With the implementation of protection measures, risks to water quality and water dependent habitats and species during the construction phase have been minimised.</p> <p>Pollution within the Grange Stream running through the woodland could have an adverse impact on the Tramore River. However robust protection measures have been built into the project proposals and are adequate to provide protection from pollution.</p>

### 3. Characteristics of Potential Impacts

The likely significant effects of projects on the environment must be considered in relation to the criteria set out in 1 & 2 above taking into account:

<p>The Cumulation of the impact with the impact of other existing and/or approved projects</p>	<p>The proposed walking/cycling route is programmed and designed so that it will provide greater access for the communities south of the N40 Ring Road to Tramore Valley Park. It is not considered there are any negative cumulative impacts arising from both projects.</p>
<p>The possibility of effectively reducing the impact</p>	<p>Construction phase impacts will be reduced and minimised through appropriate programming of construction, to ensure impacts for residents and motorists are minimised and are also confined to acceptable times of the day (i.e. when residents are not sleeping and outside of rush hour traffic times)</p>

### 4. Recommendation and conclusion

Having regard to the above, and the information outlined in detail in the accompanying ecological report and Appropriate Assessment Screening Report, and in particular to the nature, scale and location of the proposed project, by itself and in combination with other plans and projects, it is considered that this proposal is not likely to have significant effects on the environment and that an EIA is not required in this instance.

## 5 CONCLUSIONS

A pedestrian/ walkway and bridge is proposed at Tramore Valley Park, Co. Cork. Works entail the creation of a new walkway from Grange Road, through the existing woodland, to Tramore Valley Park, including the provision of a new pedestrian/cyclist bridge over the N40 Southern Ring Road.

This Section 177AE Planning Report details the planning and environmental aspects which have been considered. The environmental topics have been outlined and it is concluded that the project is not listed under Annex I or Annex II of the EIA Directive (2011/92/EU).

A Screening for Appropriate Assessment (**Appendix B**) has been prepared which concludes that with the implementation of robust protective measures there will be no significant effects on any European Sites.

An Ecological Report (**Appendix C**) has been prepared which assesses the potential for impacts on those ecological elements not assessed within the AA Screening. The report concluded that with protective measures and pre construction surveys there the potential for significant effects can be avoided.

Having regard to the above, and the information outlined in detail in the accompanying ecological report and Appropriate Assessment Screening Report, and in particular to the nature, scale and location of the proposed project, by itself and in combination with other plans and projects, it is considered that this proposal is not likely to have significant effects on the environment and that an EIA is not required in this instance.

## **APPENDIX A**

### **Construction Environmental Management Plan**

## ENVIRONMENTAL MANAGEMENT PLAN

This Environmental Management Plan outlines the methodologies to be adopted for each of the work activities proposed to be carried out. The methodologies were drawn up to minimise potential for environmental impact of the works, in particular to prevent or minimise potential for silt runoff to the Grange Stream and avoid the potential to spread invasive species. The EMP also specifies general environmental management procedures to be followed.

The proposed works will be carried out by a competent contractor experienced in this type of work at other locations. This contractor will be required to employ all construction and environmental measures outlined in the EMP.

A mechanism for reporting of pollution incidents will be agreed in advance between the contractor(s) and the awarding authority.

The following guidelines and documents have informed the method statements and will be consulted by the contractor during the detailed planning and implementation of the works phase:-

- CIRIA (2016) Environmental Good Practice on site pocket book (4th Edition);
- Good practice guidelines on the control of water pollution from construction sites developed by the Construction Industry Research and Information Association (CIRIA) in particular;
- H. Masters-Williams et al (2001) Control of water pollution from construction sites. Guidance for consultants and contractors (C532), CIRIA;
- Murnane et al., (2002) Control of water pollution from construction sites – guide to good practice (SP156), CIRIA;
- E. Murnane, A. Heap and A. Swain. (2006) Control of water pollution from linear construction projects. Technical guidance (C648), CIRIA;
- E. Murnane et al., (2006) Control of water pollution from linear construction projects. Site guide (C649), CIRIA.
- Requirements for the protection of fisheries habitat during construction and development works at river sites developed by the ERFB.  
<http://fishingireland.net/environment/fullconstructionanddevelopment.htm>
- NRA (2008) Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes. National Roads Authority, Dublin.
- NRA (2010) Guidelines for the Management of Noxious Weeds and Non- Native Invasive Plant Species on National Roads. National Roads Authority, Dublin.
- Murphy, D. (2004) Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites. Eastern Regional Fisheries Board, Dublin.
- DOMNR (1998). Fishery Guidelines for Local Authority works. Department of the Marine and Natural Resources, Dublin.
- IFI (2016) Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland, Dublin;

### 1.1 GENERAL MEASURES INCLUDED IN THE METHOD STATEMENT

- Site managers, foremen and workforce, including all subcontractors, shall be trained in pollution risks and preventative measures
- In-stream works, bank-side clearance and earthworks in the immediate area of the Grange Stream crossings, and works at or adjacent to the stream bank have the potential to impact on the water quality of the stream whereby silt and other construction debris may enter the water column. In-stream works shall be kept to a minimum and adequate measures will be put in place to control or minimize the risk of siltation, including silt fencing, coir to stabilize exposed banks, silt traps, temporary settlement ponds etc.
- The risk of this occurring in the case of bank excavation will be reduced or eliminated by operating in dry conditions along the river bank.
- Sediment controls will be maintained and monitored throughout the works to protect aquatic ecology.
- Temporary diversions must be installed in the IFI approved operational window for in-stream works (May to September inclusive) (note that the timing of such works should always be considered on a site specific basis and in agreement with the IFI).
- If water needs to be pumped from the work zone, it should be pumped to land or otherwise settled before re-entering the river.
- The contractor will contact IFI prior to the commencement of the works.
- Machinery used will not be re-fuelled near the river and no fuels, oils etc. will be stored on-site.
- In the event that concrete is required, raw or uncured waste concrete will be disposed of by removal from the site.
- Fuels, lubricants and hydraulic fluids for equipment used on the site, as well as any solvents, oils, and paints will be carefully handled to avoid spillage, the equipment properly secured against unauthorised access or vandalism, and spill containment will be provided according to codes of practice.
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained and the contaminated soil removed from the site and properly disposed of.
- Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or re-cycling.
- Disruption of riparian vegetation will be kept to a minimum to prevent loss of habitat and destabilisation of river banks.

## **1.2 ADDITIONAL MEASURES FOR PROTECTION OF WATER QUALITY**

### **1.2.1 Concrete**

Wet concrete and cement/mortar are very alkaline and corrosive and can cause serious pollution to watercourses.

- Disposal of raw or uncured waste concrete must be controlled to ensure that the watercourse will not be impacted.
- Best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering / form-work, adequate curing times must be adhered to.
- Where shuttering is used, measures must be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils.

- Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline. Lorries and mixers and all concrete delivery equipment (wheelbarrows, buckets etc.) must be washed out off site.
- Cement dust must be controlled as it is alkaline and harmful to the surrounding ecology. Activities which result in the creation of cement dust must be controlled by dampening down areas.
- The timing of the works must be specified and agreed with the IFI in relation to fish migration and spawning periods.

### **1.2.2 Hydrocarbons**

- Careful consideration will be given to the location of any fuel storage facilities. These will be designed in accordance with guidelines produced by CIRIA.
- Any diesel or fuel oils stored on site must be bunded to 110% of the capacity of the storage tank. Design and installation of fuel tanks must be in accordance with best practice guidelines BPGCS005, oil storage guidelines. Drip trays and spill kits must be kept available on site.
- All stationary plant must be placed on drip trays to prevent leaking oils reaching the river or entering groundwater.
- No washings or waste materials of any kind can be directed into the stream.
- Machinery on site must have pollution control kits on hand in the event of an emergency.

### **1.2.3 Construction waste**

- All old concrete and road surface debris must be collected and removed regularly during works and correctly disposed of, off-site. No debris shall enter the stream/ river. Works must occur during good weather with speedy removal of debris including removal of dust and fines from the road surface. Dust must be damped down if necessary to prevent it mobilising to the water surface below the road bridge.
- All construction related waste, e.g., plastics, cable ties, geotextile etc. must be collected and disposed of correctly offsite so that they don't enter river channels.

## **1.3 FLORA AND FAUNA**

### **1.3.1 Bats**

- Where possible, woodland and mature trees shall be avoided and retained intact. Any existing mature trees adjacent to the works or construction sites to be retained shall be protected from root damage by machinery by an exclusion zone of at least seven metres or equivalent to canopy height.
- Impacts have been predicted on trees categorised as being of moderate to high suitability for bats along the proposed pedestrian/cycle link footprint during the ground level surveys. Consequently, further surveys such as PRF inspection surveys or presence/ absence surveys are required before construction commences. All trees with moderate roost potential shall be examined by a suitably qualified ecologist prior to felling.

Survey options to be followed prior to commencement of construction include the following:

- A PRF inspection survey, which involves the use of tree climbing or access equipment such as cherry pickers to gain access to PRFs to assess in more detail their likely suitability for bats and to look for evidence of bats. The aim of this survey is to reclassify PRFs and determine the presence/ absence of bats at the time of survey and the need for further survey and/ or mitigation.
- Presence/ absence surveys, which include dusk and/or dawn visits to watch, listen for and record bats exiting or entering bat roosts.
- Should removal of mature trees be unavoidable, these trees shall be felled in the period late August to late October, or early November, in order to avoid the disturbance of any roosting bats as per NRA guidelines<sup>1</sup>. Tree felling shall be completed by Mid-November at the latest because bats roosting in trees are very vulnerable to disturbance during their hibernation period (November – April). Once felled, trees that have potential bat roost features shall be left intact on-site for 24 hours prior to disposal to allow bats to escape overnight.
- Derogation Licence. Where bats are identified within a tree during pre-construction survey, it will be necessary to seek derogation from the National Parks and Wildlife Services (NPWS) to exclude the bats and fell. The roost must not be altered or affected in any way prior to the time and the measures stipulated in the licence for the exclusion of bats and felling must be carried out under the supervision of a bat specialist named on the licence.
- Should the removal of mature broadleaved trees be unavoidable, it is recommended that 2 bat boxes for each felled mature broadleaved tree shall be attached to suitable alternative trees in order to compensate for the loss of potential roosting space. The principle recommended type along the route corridor is the Schwegler 1FF bat box. Boxes shall be erected in pairs and all boxes placed in sites that will be protected from disturbance.
- In general, artificial light creates a barrier to bats so lighting should be avoided where possible. No night time works are planned as part of the proposed scheme, however, should lighting be required, directional lighting (i.e. lighting which only shines on work areas and not nearby countryside) shall be used to prevent overspill. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvers and shields to direct the light to the intended area only.
- There shall be no direct illumination of known bat roosts during the construction or operational phase. Lights shall be positioned to avoid sensitive areas and restricted so that there are dark areas. When works are conducted adjacent to known or potential bat roosts (as identified in **Figure 3.6**), the timing of lights shall be restricted to avoid bat activity (i.e. from dusk until dawn).
- Further survey work will be undertaken before construction commences to identify bat roosts and foraging areas. This survey work will in turn inform the final design of lighting along the proposed route.
- Lighting used during the operational phase shall be designed in accordance with Bat Conservation Trust (2014): *Artificial Lighting and Wildlife Interim Guidance: Recommendations to Help Minimise the Impact of Artificial Lighting*<sup>2</sup>.

### 1.3.2 Badger

A pre-construction survey shall be undertaken prior to the commencement of construction to identify active badger setts occurring within the site.

<sup>1</sup> National Roads Authority (2005): Guidelines for the Treatments of Bats Prior to the Construction of National Road Schemes. National Roads Authority, Dublin.

<sup>2</sup> Available for download at: [http://www.bats.org.uk/pages/bats\\_and\\_lighting.html](http://www.bats.org.uk/pages/bats_and_lighting.html)

In the event of badger setts being identified within proximity to the proposed works area, the following mitigation measures are proposed to ensure no disturbance of the local badger population during the construction phase of the proposed works (NRA 2005):-

- A buffer distance of 10m from sett entrances should be employed in instances where light works such as digging by hand or in the event of scrub clearance.
- A buffer distance of 20m from Badger sett entrances should be incorporated where light machinery (generally wheeled vehicles) are in operation within the site.
- A buffer distance of 30m from Badger setts should be employed where heavy machinery is in operation within the site.
- None of the above activities should be undertaken within 50m of active setts during the breeding season (1<sup>st</sup> December to 31<sup>st</sup> June inclusive).

In the unforeseen event that the project requires works to be undertaken within the recommended buffer distances outlined above, further measures as outlined in NRA (2009) will be adopted in liaison with local NPWS staff.

### **1.3.3 Other Mammals**

A pre-construction survey for red squirrel shall be undertaken prior to the commencement of construction to identify squirrel dreys occurring within the footprint of the proposed route.

### **1.3.4 Birds**

- No scrub clearance, tree felling or other removal of vegetation will occur during the bird breeding season from 1<sup>st</sup> March to 31<sup>st</sup> August.

### **1.3.5 Invasive Species**

The presence of invasive alien species has the potential to lead to an offence under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). Regulation 49 of the 2011 Regulations prohibits (unless under licence) the breeding, release, or allowing or causing the dispersal from confinement of any animal listed in the Third Schedule of the Regulations; or the planting, allowing or causing dispersal, and spreading of any plant listed in the Third Schedule.

It is an offence to plant or encourage the spread of invasive alien species by moving contaminated soil from one place to another, or incorrectly handling and transporting contaminated material or plant cuttings. Persons must therefore take all reasonable steps and exercise due diligence to avoid committing an offence under the 2011 Regulations.

- Cherry Laurel and Japanese Knotweed have both been recorded in the study area. The primary method of mitigation will be avoidance of known areas of non-native invasive species.
- The Japanese Knotweed recorded during the site survey is located on the banks of the Tramore River, outside of the footprint of the proposed project. This area of Japanese Knotweed will be fenced off and signed and will not be disturbed by the proposed works (a specimen sign is presented in the Environment Agency 2013 publication – “The Knotweed Code of Practice. Managing Japanese Knotweed on Development sites V3”).

- A pre-construction invasive species survey shall be undertaken prior to the commencement of construction to establish the current status of invasive species within the study area. In the event that invasive species have spread into the works area an Invasive Species Management Plan must be prepared by the Contractor. The treatment and control of invasive alien species within the Invasive Species Management Plan will follow guidelines issued by the National Roads Authority – *The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads* (NRA 2010) and *Best Practice Management Guidelines Rhododendron ponticum and Cherry Laurel Prunus laurocerasus* (Maguire, C.M., Kelly, J. and Cosgrove, P.J., 2008).<sup>3</sup>
- The introduction of invasive alien plant species (including Japanese Knotweed (*Fallopia japonica*)) will be avoided during the construction and operation phase of the proposed scheme by ensuring that appropriate precautionary measures are in place.
- All plant and equipment employed on the construction site (e.g. excavator, footwear, etc.) must be thoroughly cleaned down using a power washer unit prior to arrival on site to prevent the spread of invasive plant species such as Japanese knotweed, Rhododendron and Himalayan Balsam.

## 1.4 AIR QUALITY

In order to mitigate dust emissions during the construction phase, the contractor should be cognisant of the industry guidelines such as the Building Research Establishment document entitled ‘Control of Dust from Construction and Demolition Activities’ and the Construction Industry Research and Information Association (CIRIA) ‘Environmental Good Practice on Site’. ‘Good practice’ site procedures will be adopted to limit dust on the construction site itself and to minimise potential for secondary impacts due to dust and dirt being transported onto the surrounding road network. The degree of active control measures necessary to be adopted at the subject site will depend on the time of year and the weather conditions prevalent at that time.

Air quality protective measures include the following:-

- Site roads will be regularly cleaned and maintained as appropriate.
- Any site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and/or windy conditions (also applies to vehicles delivering material with dust potential).
- All vehicles exiting the site will make use of a wheel wash facility prior to entering onto public roads, to ensure mud and other wastes are not tracked onto public roads. Wheel washes will be self-contained systems that do not require discharge of the wastewater to water bodies.
- Public roads outside the site will be regularly inspected for cleanliness, and cleaned as necessary.
- Material handling systems and site stockpiling of materials will be designed and laid out to minimise exposure to wind.
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy periods.

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<sup>3</sup> <http://invasivespeciesireland.com/wp-content/uploads/2012/01/Rhododendron-BPM.pdf>

**APPENDIX B**  
**Ecology Report**



# N40 -Tramore Valley Park Pedestrian Bridge

## Ecological Report

### Document Control Sheet

Client:	Cork County Council
Project Title:	N40 – Tramore Valley Park Pedestrian Bridge
Document Title:	Ecological Report
Document No:	MCT0649Rp0003D01

Text Pages:	36	Appendices:	0
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Rev.	Status	Date	Author(s)		Reviewed By		Approved By	
D01	Draft	24 <sup>th</sup> March 2017	KB	<i>Wbachs</i>	AF	<i>also report</i>	KR	<i>Kieran Quinn</i>

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# 1 INTRODUCTION

The Tramore Valley Park in Cork city is a redeveloped 70 hectare open space amenity located to the west of the N27 / South Link Road, which is a main artery to Cork City. Grange is a suburb of Cork City located to the south-east of the City, between Frankfield and Douglas. A linear area located between the N40 and Grange has been identified as a potential area to extend the Tramore Valley Park (TVP) and also connect the two areas.

The proposed works consist of creating a pedestrian and cycle route linking Grange Road to Tramore Valley Park. The proposed route would commence in an open area immediately west of Grange Terrace, travelling northward along an existing woodland walkway before crossing the N40 Southern Ring Road into Tramore Valley Park. The works will involve the installation of a new bridge in order for pedestrians and cyclists to cross the N40 Southern Ring Road.

The purpose of this Ecological Report is to:

- Present data gathered on existing ecological conditions in the Tramore Valley Park study area;
- Evaluate the ecological features present;
- Present the scope for notable species or habitats;
- Identify potential ecological constraints to the proposed project;
- Identify the potential for significant effects; and
- Outline key ecological mitigation measures.

## 1.1 DESCRIPTION OF THE PROPOSED PROJECT

The proposed works comprise the creation of a new walkway from Grange Road, through the existing woodland, to Tramore Valley Park, including the provision of a new pedestrian/cyclist bridge over the N40 Southern Ring Road. The proposed route will allow pedestrians and cyclists direct access to Tramore Valley Park and also easier access to Cork City than is presently provided from this area south of the N40 Southern Ring Road.

The walkway will commence at a currently vacant plot on Grange Road, west of Grange Terrace. A redesigned access and landscaped walking/cycling path will be provided on this plot, connecting down to the eastern side of the stream, where there is an existing informal walking route. Given the topography of this land which slopes steeply from south to north, the newly created paths will likely involve cycle steps to ensure the paths, constructed at maximum 5% gradient, are acceptable to all users. It may be necessary to implement blockwork or gabion retaining walls adjacent to the path in order to provide a level area.

The walking route through the woodland will be formalised and widened to 4m in all areas and will include, where necessary, a separate cycle route constructed at maximum 5% gradient, to ensure the route is accessible and usable for all users. The footpath will be constructed of impermeable surfaces such as:

- 45/6F or 45/10F hot rolled asphalt wearing course to EN13108:4 (BS 594:1);
- 0/6 or 0/10 Dense Bitumen macadam surface wearing course to EN13108:1 BS 4987:1; and

- Close graded SMA (10mm to 6mm aggregate) to EN 13108-5.

A number of trees in the immediate vicinity of the existing walkway will need to be felled, in order to accommodate the widened walking route. There may also be a need to strengthen specific areas of the stream bank, given the steep nature of the bank adjacent to the stream in certain locations. The requirement to strengthen any area of the stream bank will be confirmed on completion of topographical surveys of the route.

The proposed route will involve 2 no. crossings of the Grange Stream; to the south of the site close to the existing informal access from Amberley Drive and further north in the area between Alden Grove and Amberley, in order to align with the southern side of the proposed bridge over the N40 Southern Ring Road. These will comprise of box culverts, the size of which will be determined at detailed design stage. For the purposes of this report the precautionary approach has been adopted and it has been assumed that instream works will occur.

The proposed bridge will likely be a single spanning structure of 40m – 50m in length and 4m in width, designed so that it can be erected in place in a single movement. This will minimise disruption to the N40 Southern Ring Road during construction. The design of the bridge will be optimised to ensure that it appears as slender as possible.

On the northern side of the N40 Southern Ring Road there will also be a ramped walkway, to accommodate access to the northern side of the bridge. This walkway will connect to an existing bridge of the Tramore River, which provides access to Tramore Valley Park.

## 2 METHODOLOGY

### 2.1.1 Desktop Study

A desktop study was undertaken in order to identify the ecological features within the study area, assess the ecological value of habitats within the study area and to assess possible impacts on flora and fauna. The survey area was examined with the aid of ortho-photography and Ordnance Survey maps. The following bodies, websites and reports provided information for this report, either via publicly available documents or direct consultation:

- National Parks and Wildlife Service (NPWS); npws.ie;
- Environmental Protection Agency (EPA); gis.epa.ie/Envision;
- Water Framework Directive Ireland (WFDI); wfdireland.ie/maps.html;
- National Biodiversity Data Centre (NBDC); maps.biodiversityireland.ie;
- Arup (2014) Douglas Flood Relief Scheme Constraints Report;
- Cork County Council (2013) Ballybrack Valley Greenway, Douglas: Ecology Report. Atkins;
- Inland Fisheries Ireland (IFI);
- Water Framework Directive Ireland (WFDI); and
- Douglas Flood Relief Scheme (Including Togher Culvert) - Response from Inland Fisheries Ireland (IFI, 2014).

### 2.1.2 Site Walkover

Ecological surveys of the study area were conducted by an RPS ecologist on 2<sup>nd</sup> November 2015 and 27<sup>th</sup> February 2017. Areas highlighted during the desktop assessment were investigated further, and a note of habitats present was made. Habitats on site were classified in accordance with the Heritage Council publication 'A Guide to Habitats in Ireland' (Fossitt, 2000). The classification is a standard scheme for identifying, describing and classifying wildlife habitats in Ireland. The walkover included an assessment of the presence, or likely presence, of a range of protected species, including badger, otter and red squirrel. In addition, any field signs of protected species, such as well-used pathways, droppings, places of shelter and features or areas likely to be of particular value as foraging resources were recorded.

A ground level preliminary roost assessment of the trees within the study area was undertaken on 27<sup>th</sup> February in accordance with the methodology detailed in *Bat Surveys for Professional Ecologists: Good Practice Guidelines*<sup>1</sup>.

Aquatic survey was conducted by Dixon Brosnan Environmental Consultants on the 15<sup>th</sup> July and 28<sup>th</sup> of August 2016.

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<sup>1</sup> Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3<sup>rd</sup> edn). The Bat Conservation Trust, London.

### 2.1.3 Criteria for Identification of Ecological Constraints

The information gathered from the desk study and aquatic and terrestrial field surveys has been used to make an ecological assessment of the proposed project upon the identified ecological features. The assessment has been undertaken following the methodology set out in CIEEM (2016). An ecological assessment is based upon a source-pathway-receptor model, where the source is defined as the individual elements of the proposed development that have the potential to affect identified ecological features. The pathway is defined as the means or route by which a source can affect the ecological features. An ecological feature is defined as the species, habitat or ecologically functioning unit of natural heritage importance. Each element can exist independently however an effect is created where there is a linkage between the source, pathway and feature.

A significant effect is defined in CIEEM (2016) as:-

*“an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project. A significant effect is a positive or negative ecological effect that should be given weight in judging whether to authorise a project: it can influence whether permission is given or refused and, if given, whether the effect is important enough to warrant conditions, restrictions or further requirements such as monitoring”.*

### 3 EXISTING ENVIRONMENT

#### 3.1 DESIGNATED SITES

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are designated under the EU Habitats Directive (92/43/EEC) and the EU Birds Directive (2009/147/EC), respectively, and as such form part of the Natura 2000 network.

The land in which the proposed Tramore Valley Park is situated has no designated conservation areas. The site is situated within 15 kilometres of Great Island Channel SAC (7.5km) and Cork Harbour SPA (1.2km) as detailed in **Table 3.1**, and **Figure 3.1**. An Appropriate Assessment Screening of the proposed Tramore Valley Park project under Article 6(3) of the EU Habitats Directive has been completed and is presented separately to this Ecological Report.

**Table 3-1- European Sites within 15km of the Proposed Development**

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development	Connectivity
001058	Great Island Channel SAC	<p><b>Annex I Habitats:</b></p> <p>Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) [1330]</p> <p>Mudflats and sandflats not covered by seawater at low tide [1140]</p> <p><b>Annex II Species:</b></p> <p>-</p>	7.5km	Remote indirect connectivity via the Grange stream, which confluences with the Tramore River before flowing into Cork Harbour approximately 1.3km downstream and Great Island Channel approximately 7.2 downstream again.
004030	Cork Harbour SPA	<p>[A004] Little Grebe <i>Tachybaptus ruficollis</i>; [A005] Great Crested Grebe <i>Podiceps cristatus</i>; [A017] Cormorant <i>Phalacrocorax carbo</i>; [A028] Grey Heron <i>Ardea cinerea</i>; [A048] Shelduck <i>Tadorna tadorna</i>; [A050] Wigeon <i>Anas Penelope</i>; [A052] Teal <i>Anas crecca</i>; [A054] Pintail <i>Anas acuta</i>; [A056] Shoveler <i>Anas clypeata</i>; [A069] Red-breasted Merganser <i>Mergus serrator</i>; [A130] Oystercatcher <i>Haematopus ostralegus</i>; [A140] Golden Plover <i>Pluvialis apricaria</i>; [A141] Grey Plover <i>Pluvialis squatarola</i>; [A142] Lapwing <i>Vanellus vanellus</i>; [A149] Dunlin <i>Calidris alpina alpina</i>; [A156] Black-tailed Godwit <i>Limosa limosa</i>; [A157] Bar-tailed Godwit <i>Limosa lapponica</i>; [A160] Curlew <i>Numenius arquata</i>; [A162] Redshank <i>Tringa tetanus</i>; [A179] Black-headed Gull</p>	1.2km	Indirect via the Grange stream, which confluences with the Tramore River before flowing into Cork Harbour approximately 1.3km downstream.

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development	Connectivity
		<i>Chroicocephalus ridibundus</i> ; [A182] Common Gull <i>Larus canus</i> ; [A183] Lesser Black-backed Gull <i>Larus fuscus</i> ; [A193] Common Tern <i>Sterna hirundo</i> ; A999 Wetlands.		

Natural Heritage Areas (NHAs) are designated in national legislation under the Wildlife (Amendment) Act 2000. While proposed Natural Heritage Areas (pNHAs) have not been statutorily proposed or designated, they do receive some protection under agri-environment schemes, Coillte and Planning and Licensing Authorities. There are 21 pNHAs within 15km of the study area, but no NHAs, as shown in **Table 3.2** and **Figure 3.2**. For the purposes of this study, the Douglas River Estuary pNHA is considered to be the most relevant as the Tramore River discharges into this pNHA approximately 1.3km downstream of the study area.

The majority of Douglas River Estuary pNHA is an essential part of the Cork Harbour complex, and forms part of Cork Harbour SPA. Cork Harbour SPA is selected as a Special Protection Area because it regularly supports over 20,000 waterbirds during the non-breeding season, making this a site of international importance. Species recorded at Douglas Estuary include Wigeon, Golden Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew and Black-headed Gull<sup>2</sup>. Douglas Estuary is also a Wildfowl Sanctuary: an area that has been excluded from the 'Open Season Order' so that game birds can rest and feed undisturbed. Shooting of game birds is not allowed in these sanctuaries.

**Table 3-2- Proposed NHAs within 15km of the Proposed Works**

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
001046	Douglas River Estuary	This is a large site situated in the north-west corner of Cork Harbour, stretching from Blackrock to Passage West. It is an integral part of Cork Harbour, which contains several other N.H.A.'s. This site occurs within the upper harbour and consists of extensive mudflats, formed from fine silts, bisected by the Douglas River. Damp grassland occurs on part of the southern side, extending to some low islands which are inundated in extreme tides. This site is of interest because it is an essential part of the Cork Harbour complex and contains much higher densities of waders than would be	1.31	Indirect connectivity via the Grange Stream and the Tramore River, which flows into Douglas Estuary approximately 1.3km downstream.

<sup>2</sup> Cork Harbour Special Protection Area (Site Code: 004030): Conservation Objectives Supporting Document. Version 1. National Parks and Wildlife Service, November 2014.

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
		expected from its relative size. It is ranked as the second most important area within the harbour.		
001081	Cork Lough	This small lake is situated in the north-west of Cork City, 1km. north of the River Lee.  The site is a N.H.A. of local important for its bird community.	2.35	No connectivity
001082	Dunkettle Shore	This site is located at the mouth of Glashaboy River, where it meets the Lee estuary, on the eastern edge of Cork city. It is adjacent to Glanmire Wood, N.H.A., and is an integral part of Cork harbour, which contains several other N.H.A.'s. The site is of value because its mudflats provide an important feeding ground for waterfowl and it acts as a significant roost for birds in the upper harbour. Furthermore, it is an integral part of Cork harbour which is an internationally important wetland, regularly holding flocks of over 20,000 waterfowl.	4.98	Indirect and remote connectivity via the Grange Stream and the Tramore River, which flow into Cork harbour.
000094	Lee Valley	This site occupies five separate sections of the valley of the River Lee, immediately to the west of Cork City. The diverse range of intact semi-natural habitats in the Lee Valley makes this a site of regional conservation importance.	4.98	No connectivity
001054	Glanmire Wood	Glanmire Wood occurs on the east bank of the Glashaboy River, immediately south of Glanmire village. The main habitat of interest is mixed broad-leaved woodlands dominated by oak ( <i>Quercus</i> sp.), beech ( <i>Fagus sylvatica</i> ) and sycamore ( <i>Acer pseudoplatanus</i> ) with a few conifers. This site is of interest because this type of woodland is rare in east Cork.	5.38	No connectivity
001074	Rockfarm Quarry, Little Island	Rock Farm Quarry is located c. 9km west of Cork City on Little Island in the River Lee estuary. The area is of considerable interest botanically because of its species diversity and the presence of 'varieties' for the region, such as the dense-flowered orchid and the Portland spurze.	6.93	No connectivity
001979	Monkstown Creek	Monkstown Creek is situated between Monkstown and the major seaport of Ringaskiddy on the western shores of Cork Harbour. The area is of value because its	7.33	Indirect and remote connectivity via the Grange Stream

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
		mudflats provide an important feeding area for waterfowl and it is a natural part of Cork Harbour which, as a complete unit, is of international importance for waterfowl.		and the Tramore River, which flow into Cork harbour.
001990	Owenboy River	Cork Harbour consists of a central basin with a number of narrow estuaries running E-W in line with the ridge structure of this part of Ireland. The Owenboy River is the most southerly of these bays on the western side and runs from Carrigaline to Crosshaven. It consists of two expanded sections with extensive mudflats at low tide, separated by a much narrower channel. Only the upper part is included in the NHA because it is here that the great majority of birds congregate in winter.	7.42	Indirect and remote connectivity via the Grange Stream and the Tramore River, which flow into Cork harbour.
001058	Great Island Channel	<p>The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest.</p> <p>The main habitats of conservation interest are the sheltered tidal mudflats and Atlantic salt meadows, both habitats listed on Annex I of the EU Habitats Directive. These habitats, along with brackish pools and open water, support a rich invertebrate fauna.</p> <p>The site is of major importance for the three habitats listed on the EU Habitats Directive that it contains, as well as for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.</p>	7.74	Indirect and remote connectivity via the Grange Stream and the Tramore River, which flow into Cork harbour.
001857	Blarney Bog	<p>Blarney Bog is a small area of Reed grass (<i>Phalaris arundinacea</i>) fen, situated in the flat valley floor of the River Blarney. It is located a half km west of Blarney Town and 4.5 km north west of Cork City.</p> <p>The main habitats of the area are lowland wet grassland, both grazed and ungrazed and freshwater marsh/fen. The area as whole is used by a variety of bird species, birds noted to be breeding in the site include: the Sedge and Grasshopper Warblers, Reed Bunting, Stonechab,</p>	7.85	No connectivity

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
		Meadow Pipet, Snipe and Mallard. In the water Snipe and Mallard are seen feeding in the area and also Teal. Hen Harriers, a species listed in Annex 1 of the EU Bird's Directive and also a Red Data Book species whose status is threatened in Ireland, are regularly seen in this area, hunting over the wetter ground and sometimes nesting in the reed beds.		
000103	Shournagh Valley	This site includes two lower sections of the Shournagh/river c. 8km west of Cork City; this river flows south-east to join the River Lee which flows through the City. The woods along the Shournagh Valley included in this site (103) are recommended for conservation and are noted to be of regional importance and deserving of NHA status.	8.37	No connectivity
001798	Blarney Lake	This site is situated 1km south west of Blarney, close to Blarney Castle. This site is one of three sites occurring in close proximity to one another and includes Blarney Castle Woods (1039) and Ardamadare Wood (1799). This site contains an interesting wetland community which is one of three closely situated rich and varied sites.	9.37	No connectivity
001039	Blarney Castle Woods	This site is situated 1km. south-west of Blarney in the grounds of Blarney Castle. The woodland is of interest for its birdlife. Woodcock occur within the woodlands during winter. The base-rich woodland is an example of a habitat not widely found in Cork where acid uplands predominate.	9.51	No connectivity
001249	Ballincollig Cave	Ballincollig is a satellite town of Cork City and lies about 5km to the west in the same linear depression, based on limestone. The site is relatively species-rich, even for limestone, with some uncommon native and introduced plants. It is also an example of natural habitat in an area of intensive agriculture and also rapid urbanisation. The cave deposits are interesting from a geological viewpoint.	9.53	No connectivity
001799	Ardamadare Wood	Ardamadare Wood is located north of Blarney village, 6km north-west of Cork City. It is situated along the banks of the River Martin. As a whole, the three sites compose a very caved area including	9.74	No connectivity

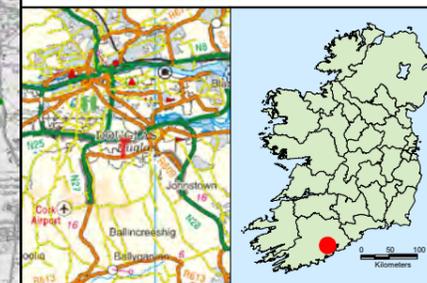
Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
		interesting aquatic and terrestrial habitats. The base-rich woodland (Blarney Castle Woods) is an example of a type not widely found in Cork County, where acid upland woods are more common.		
001066	Lough Beg (Cork)	Lough Beg is a constituent part of Cork Harbour, occurring south of Ringaskiddy in the lower harbour. As part of the Harbour complex, Lough Beg plays a part in supporting internationally important numbers of waders (over 20,000) and of two particular species, the Black-tailed Godwit (peak in 1991/92: 2,077) and Redshank (1,859). There are also nationally important flocks of nineteen others. Wildfowl are relatively numerous as compared to other parts of the Harbour, but the area is perhaps more valuable as a secure roosting site for flocks of all shorebirds when their feeding areas on the mudflats are covered by the tide.	9.91	Indirect and remote connectivity via the Grange Stream and the Tramore River, which flow into Cork harbour.
001987	Cuskinny Marsh	This site is located 2.5km east of the centre of Cobh on the shores of Cork Harbour. Cuskinny Marsh is of interest because it contains a nice mix of habitats, within a small area, and supports locally important numbers of wildfowl.	12.09	No connectivity
001966	Minane Bridge Marsh	The narrow Ringabella estuary runs W-E to the mouth of Cork Harbour and is fed by a stream from Ballyfeard and Minane Bridge. The area is listed for its unusual vegetation type which throughout much of the country has been drained.	12.81	No connectivity
000107	Templebreedy National School, Crosshaven	This is a nursery roost for Leisler's bats ( <i>Myctalus leisleri</i> ) which roost in the attic of a Church of Ireland primary school building. As approximately 100 bats were recorded at the house in 1987, this is a site of international importance.	13.16	No connectivity
000371	Fountainstown Swamp	This site is located in the end of a stream valley on the northern side of Ringabella Bay, just before it flows into the sea. A former lake or inlet of the sea has grown over by a mixture of marsh plants and woodland, giving rise to a quaking swamp of unusual character. The undisturbed nature of the site means that bird numbers are quite high.	13.45	No connectivity

Site Code	Site Name	Qualifying Interests	Distance From Boundary of Proposed Development (km)	Connectivity
001084	Whitegate Bay	This site is situated in the south-east corner of Cork Harbour, immediately to the west of Whitegate in County Cork. Whitegate Bay is an NHA of local significance for its waterfowl. This status is enhanced, though, as the whole of Cork Harbour is of international importance and as such is a proposed Special Protection Area.	13.92	Indirect and remote connectivity via the Grange Stream and the Tramore River, which flow into Cork harbour.



Legend

-  Site Extent
-  15km Buffer on Site
-  Special Area of Conservation
-  Special Protection Area



Client

**Cork County Council**



Project  
**GRANGE ROAD TO TRAMORE VALLEY PARK  
 PEDESTRIAN / CYCLE LINK (INC. N40  
 OVERBRIDGE)**

Title  
**European Sites  
 Within 15km**

Figure 3.1

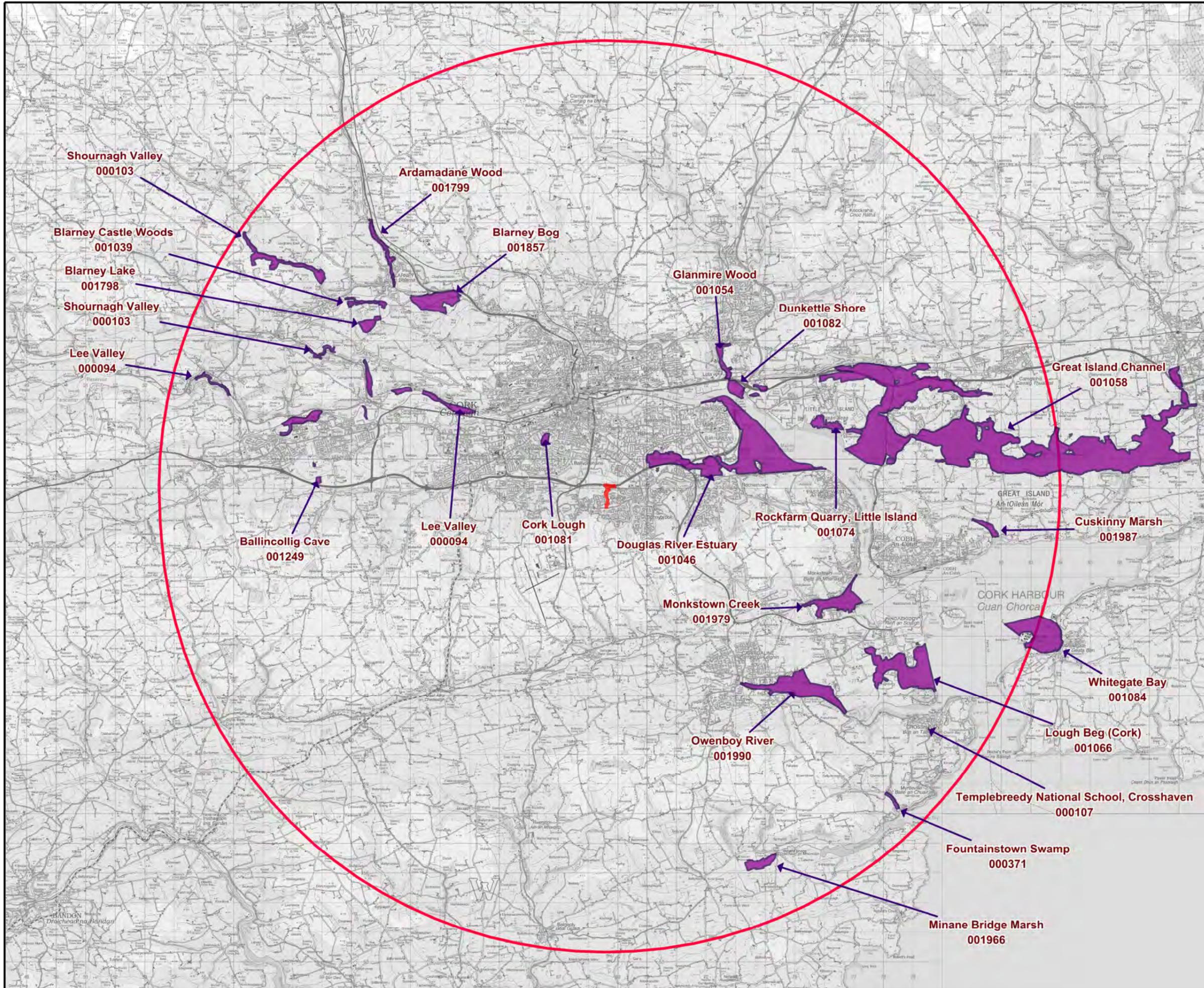


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Legend

- Site Extent
- 15km Buffer on Site
- Natural Heritage Areas (NHA's)
- Proposed Natural Heritage Areas (pNHA's)

**Note: No NHA's within 15km of site**



Client  
**Cork County Council**

Project  
**GRANGE ROAD TO TRAMORE VALLEY PARK PEDESTRIAN / CYCLE LINK (INC. N40 OVERBRIDGE)**

Title  
**NHA's and pNHA's Within 15km**

Figure 3.2

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## 3.2 HABITATS AND FLORA

The following section provides an overview of habitats present in the study area based on the aquatic surveys undertaken by Dixon Brosnan Environmental Consultants in 2016.

### 3.2.1 Aquatic Ecology

#### Tramore River

The study area is located in the catchment of the Tramore River, which discharges to Cork Harbour in Douglas. The main channel of this small river, which has been extensively culverted, runs west to east through urban areas with residential and industrial development. It is a slow flowing, low gradient watercourse along most of its length but it is joined by a number of fast flowing tributaries flowing from higher agricultural grassland and suburban areas to the north, including the Grange Stream. The Tramore River discharges directly into the estuary at Douglas.

Due to its urban location, water quality issues have occurred in the past in the Tramore River and are an ongoing concern. However the Tramore does support viable fish populations. A fish stock survey in 2014<sup>3</sup> recorded viable populations of brown trout, eel and stickleback. Grey mullet occur in the lower estuarine sections of the river.

It is considered improbable that Salmon (*Salmo salar*), which is listed on Annex II of the Habitats Directive would occur in the Tramore River due to poor water quality, limited channel size, lack of holding pools, barriers to migration and lack of spawning habitat. Lamprey species are of high conservation value and all three Irish species (Sea Lamprey (*Petromyzon marinus*), River Lamprey (*Lampetra fluviatilis*) and Brook Lamprey (*Lampetra planeri*) are listed on Annex II of the EU Habitats Directive. The presence of migratory lamprey species (sea lamprey and river lamprey) is unlikely due to barriers to migration and lack of spawning habitat. Brook lamprey could potentially occur within suitable areas of habitat but was not recorded in 2014.

Under the Water Framework Directive the water quality status of the Tramore River is classed as **Moderate**. The Tramore River is considered **1a - At risk of not achieving Good Status**. The objective for the Tramore River is to **Restore by 2021**.

#### The Grange Stream

The Grange stream is a small stream which rises in the townland of Ballinvuskig, south of Grange and flows for approximately 2.5km before joining the Tramore River. As the stream crosses the N40 it has been extensively culverted. An overview of the Tramore catchment showing the Grange stream is provided in **Figure 3.3**. The Tramore River is also referred to as the 'Douglas (Lee)' in EPA mapping.

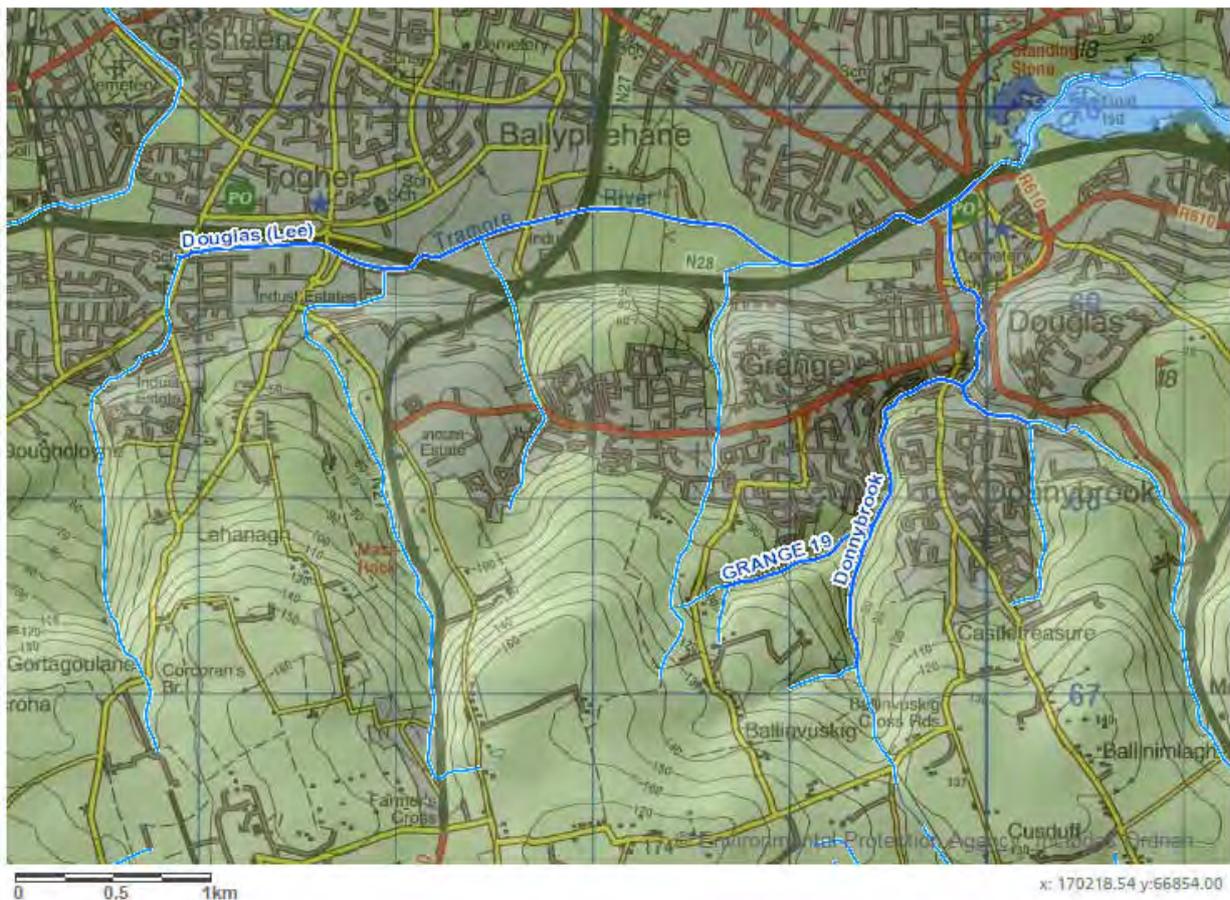
Within the study area the Grange Stream runs through a linear section of woodland situated between the Grange Road (R851) and the South Ring Road (N40). The Grange stream is a small stream which is generally less than 1m in width. The gradient is moderate. Structurally the stream consists of pools, up to 60cm deep, and riffles with turbulent water running over solid rock over a high percentage of the channel. The substrate of the stream consists primarily of gravel and rock.

<sup>3</sup> DixonBrosnan (2014) *Fish Stock survey of the Tramore River for the Douglas Flood Relief Scheme*.

Construction works along part of the channel have resulted in the loss of trees and riparian vegetation and have led to localised siltation in parts of the watercourse. No fish were noted during the site survey although suitable spawning/nursery areas were noted. The watercourse is small and therefore highly susceptible to pollution events when flows would be minimal. Any recolonization would be effectively precluded by culverts in the lower section of the watercourse.

The stream contains a large amount of man-made debris such as cans, glass and plastic bottles, tyres, food wrappers, construction material and other miscellaneous objects. Construction material has been deposited in some of the lower sections of the Grange Stream.

The water quality status of the Grange Stream has not been classified under the Water Framework Directive.



**Figure 3.3: Overview of the Tramore River catchment showing the Grange Stream.**

The Ballybrack Stream which joins the estuarine section of the Tramore River in Douglas village supports a viable population of Brown Trout and has good potential for salmonid spawning and nursery. It is also likely to support European Eel and could potentially support Brook Lamprey. The presence of migratory species is considered unlikely due to culverting within Douglas village. The remaining tributaries which flow south to the Tramore, including the Grange River are considered of insufficient size to support salmonid or brook lamprey populations. However European Eel could be present in small numbers.

Conditions are unsuitable for other freshwater Annex II species (i.e. freshwater pearl mussel or crayfish). The habitat conditions are unsuitable for the Annex 1 habitat water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation.

The Grange Stream, Tramore River and Ballybrack Stream are classified as Lowland Depositing Rivers (FW2) and are considered to be of **Local Importance (Higher Value)**.

The study area is not located in a *Margaritifera* sensitive area<sup>4</sup>.

### 3.2.2 Terrestrial Ecology

#### 3.2.2.1 Habitats

##### Mixed broadleaved woodland WD1

The predominant habitat in the study area is the mixed broadleaved woodland in the valley running alongside Grange Stream. Beech (*Fagus sylvatica*) was abundant throughout this woodland; Ash (*Fraxinus excelsior*) and Oak (*Quercus* spp) were frequent components of the canopy; and Sycamore (*Acer pseudoplatanus*), Horse Chestnut (*Aesculus hippocastanus*) and Sweet Chestnut (*Castanea sativa*) were occasional species. Alder was frequent alongside the Grange Stream and in wet depressions. The understory comprised Hazel (*Corylus avellana*) and Holly (*Ilex aquifolium*) and Bramble was frequent in the field layer. The ground flora in the woodland was generally limited due to the heavy layer of beech leaves. Species recorded included frequent Ivy (*Hedera helix*), occasional Wood Sedge (*Carex sylvatica*), Nettle (*Urtica dioica*) and Wood Avens (*Geum urbanum*); locally abundant Lesser Celandine (*Ranunculus ficaria*) and Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*). Ferns were frequent throughout the wood, with species including Soft Shield-fern (*Polystichum setiferum*), Scaly Male Fern (*Dryopteris affinis*), Broad Buckler (*Dryopteris dilatata*) and Hard Fern (*Blechnum spicant*). The invasive species Cherry Laurel was dominant to the west of the stream, and also occurred scattered throughout the eastern side of the stream.

This is not a semi-natural woodland habitat, being comprised predominantly of planted or non-native species. However the woodland is considered to be of **Local Importance (Higher Value)** due to its potential to support protected species of fauna.

##### Wet willow-alder-ash woodland WN6

A thin strip of wet woodland alongside the Tramore River to the north of the N40 comprised of Willow (*Salix* spp) and Alder (*Alnus glutinosa*). This semi-natural habitat is considered to be of **Local Importance (Higher Value)**.

##### Immature Woodland WS2

An area of recently planted Oak and Ash saplings occurs to the south of the study area. Larch (*Larix* spp) and Pine (*Pinus* spp) were also present in this area. There was also a thin strip of planted trees to the north of the N40 that corresponds to WS2. This habitat is considered to be of **Local Importance (Lower Value)**.

<sup>4</sup> <http://www.npws.ie/maps-and-data/habitat-and-species-data>

### Dry meadows and grassy verges GS2

A strip of species poor grassland and scrub is located to the south of the N40 which does not appear to be actively managed. There was an area of Bramble and Gorse (*Ulex europaeus*) scrub situated against the garden fences at Alder Grove. Species recorded in the area of grassland between Alder Grove and the N40 included Yorkshire Fog (*Holcus lanatus*), Perennial Rye-grass (*Lolium perenne*), Cock's-foot (*Dactylis glomerata*), Ribwort Plantain (*Plantago lanceolata*), Broad-leaved Dock (*Rumex obtusifolius*), Creeping Buttercup (*Ranunculus repens*), Cleavers (*Galium aparine*) and Common Sorrel (*Rumex acetosa*). The verge of the N40 also corresponds to GS2. This habitat is considered to be of **Local Importance (Lower Value)**.

The location of habitats in the study area is illustrated in **Figure 3.4**.

### Buildings and artificial surfaces BL3

The N40, the car park to the north-west of the site and the existing track to the north of the N40 all correspond to this habitat, which is of negligible ecological importance.

### 3.2.3 Invasive Species

The presence of Japanese Knotweed has the potential to lead to an offence under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). Regulation 49 of the 2011 Regulations prohibits (unless under licence) the breeding, release, or allowing or causing the dispersal from confinement of any animal listed in the Third Schedule of the Regulations; or the planting, allowing or causing dispersal, and spreading of any plant listed in the Third Schedule. Japanese Knotweed is a plant listed in the Third Schedule.

It is an offence to plant or encourage the spread of Japanese Knotweed by moving contaminated soil from one place to another, or incorrectly handling and transporting contaminated material or plant cuttings. Persons must therefore take all reasonable steps and exercise due diligence to avoid committing an offence under the 2011 Regulations.

Japanese Knotweed was observed to the north of the N40, adjacent to the Tramore River in the vicinity of the entrance to Tramore Valley Park. As mentioned previously, Cherry Laurel was dominant in the woodland to the west of Grange Stream, and also occurred scattered throughout the eastern side of the stream.



**Legend**

- Wet Willow Alder Ash Woodland (WN6)
- Buildings and Artificial Surfaces (BL3)
- Immature Woodland (WS2)
- Dry Meadows and Grassy Verges (GS2)
- Mixed Broadleaved Woodland (WD1)



**Client**  
**Cork County Council**

**Project**  
**N40 - Tramore Valley Park Pedestrian Bridge**

**Title**  
**Habitat Map of Tramore Valley Park**

**Figure 3.4**

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Scale: N.T.S.		
Date: March 2017		

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### 3.2.4 Fauna

#### Bats

All Irish bats are protected under the Wildlife Act (1976) and Wildlife Amendment Act (2000). Also, the EC Directive on The Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) seeks to protect rare species, including bats, and their habitats, and requires that appropriate monitoring of populations be undertaken. Across Europe they are further protected under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), which, in relation to bats, exists to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries. The Irish government has ratified both these conventions. All bats are listed in Annex IV of the EU Habitats Directive (92/43/EC) and the Lesser Horseshoe bat is further listed under Annex II of the same Directive.

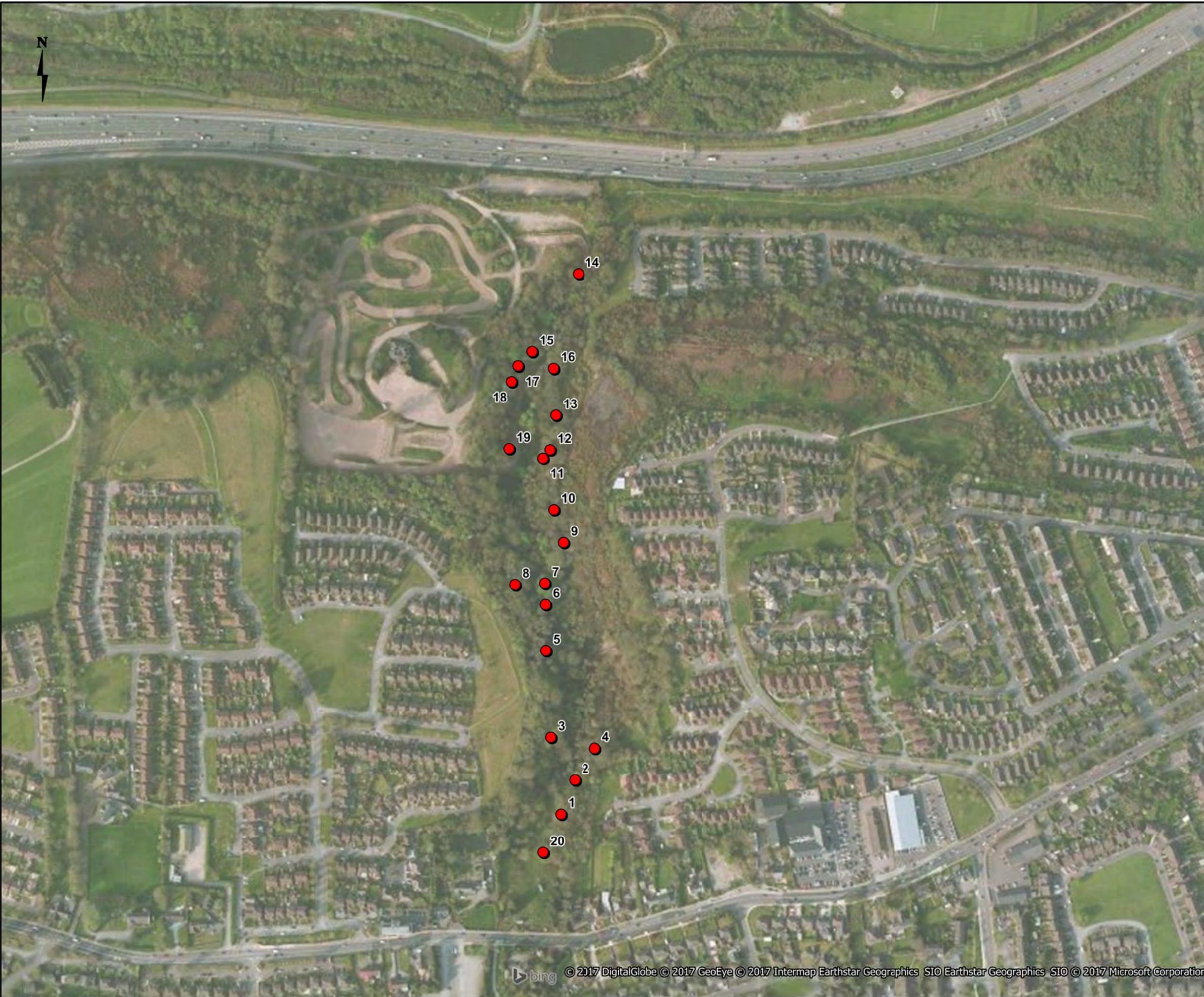
Destruction, alteration or evacuation of a known bat roost is a notifiable action under current legislation and a derogation licence has to be obtained from the National Parks and Wildlife Service (NPWS) before works can commence.

No trees within the study area were confirmed as roost sites during the potential bat roost survey undertaken on 27<sup>th</sup> February 2017. Two trees were categorised as being of high suitability for bats (as defined in *Bat Surveys for Professional Ecologists: Good Practice Guidelines*) due to the presence of large voids that have potential to support large numbers of bats. Fifteen trees or clusters of trees were categorised as being of moderate suitability for roosting bats as they contained one or more potential roost feature, but none were obviously suitable for use by larger numbers of bats on a regular basis. Three trees were of low suitability for bats but were recorded due to their size and features such as small knotholes that couldn't be examined from the ground. Examples of potential roost features (PRFs) recorded along the proposed M28 alignment are provided in **Figure 3.5**. The location of the trees with moderate suitability for roosting bats is illustrated in **Figure 3.6**.

The woodland habitat and associated watercourse provides foraging and commuting habitat for bats. The Tramore River also offers potential foraging and commuting habitat for bats. Bat species are considered to be of **National Importance**.

**Figure 3.5: Examples of PRFs Recorded in the Proposed Tramore Valley Park Study Area**

	
<p>Horse Chestnut tree with high suitability in features including butt rot, knotholes, limb damage and lifting bark (PRF 7).</p>	<p>Beech with high suitability in a large cavity formed by butt rot (PRF 10).</p>
	
<p>Ash with moderate suitability as a result of a large crack in the main stem (PRF 11).</p>	<p>Dead tree with moderate suitability in cavities and knotholes (PRF 15).</p>



**Legend**

**Potential Roost Feature**



**Client**  
**Cork County Council**



**Project**  
**N40 - Tramore Valley Park Pedestrian Bridge**

**Title**  
**Location Map of PRFs Recorded in Proposed Tramore Valley Park Study Area**

**Figure 3.6**

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Scale: N.T.S.		
Date: March 2017		

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## Otter

Otters, along with their breeding and resting places are protected under the provisions of the Wildlife Act (1976), and Wildlife Amendment Act, 2000. Otters are listed in Annex II and Annex IV of the Habitats Directive (92/43/EC), and are also listed as requiring strict protection in Appendix II of the Berne Convention on the Conservation of European Wildlife and Natural Habitats and are included in the Convention on International Trade of Endangered species (CITES).

There are existing records of Otter from the vicinity of the point of confluence of the Grange Stream with the Tramore River from 2011-2012 (NBDC) and also from Ballybrack River (Atkins, 2013). To the north, the Grange Stream is connected to the Tramore River and in turn Douglas Estuary, while to the south the Grange Stream is linked to a stream that feeds into the Donnybrook Stream. In theory this network of watercourses would provide corridors for otter to move throughout the landscape, however, as detailed in **Section 3.2.1** the watercourses in the area have been extensively culverted, which may act to limit otter movement. Grange Stream would provide limited foraging opportunities for otter, therefore it is considered that otter activity in the study area is likely to be limited to the Tramore River. Further, no evidence of Otter was observed in the study area during the ecological surveys undertaken for the proposed development in 2015, 2016 and 2017.

Otters are considered to be of **National Importance**.

## Other Species of Mammal

No signs of use of the area by badger or red squirrel were observed during the site surveys undertaken in 2015 and 2017. However, Red Squirrel have been recorded in Ballybrack Woods, Douglas, therefore it cannot be discounted that Red Squirrel use the wooded valley in the study area for foraging and shelter. Other species that may occur in the study area include Hedgehog.

These species are protected under Irish Law (Schedule 5 Wildlife Act 1976 (as amended)). Where they occur they are considered to be of **National Importance**.

## Avifauna

Bird species recorded on 27<sup>th</sup> February 2017 were the common resident species Hooded Crow (*Corvus corone*), Rook (*Corvus frugilegus*), Magpie (*Pica pica*), Coal Tit (*Parus ater*), Blue Tit (*P. caeruleus*), Great Tit (*P. major*), Blackbird (*Turdus merula*), Chaffinch (*Fringilla coelebs*), Song Thrush (*T. philomelos*), Goldfinch (*Carduelis carduelis*) and Robin (*Erithacus rubecula*).

The conservation status of bird species attributed as part of the Birds of Conservation Concern in Ireland (BoCCI) (Colhoun and Cummins, 2013) categorises Red-listed species as those of highest conservation priority, Amber listed species as those which are of moderate conservation priority and Green-listed species those of least conservation priority. Of the species recorded in the study area on 27<sup>th</sup> February 2017, no species are listed as being of High Conservation Concern. One Amber listed species considered to be of Moderate conservation concern was identified: Robin. No species included in list of Qualifying Interests/ Special Conservation Interests (SCIs) for Cork Harbour SPA were recorded during the site survey undertaken on 27<sup>th</sup> February 2017.

### 3.2.5 Key Terrestrial Ecology Constraints

The key potential terrestrial ecology constraints are as follows:

- Potential indirect impacts on designated sites, in particular Cork Harbour SPA and Douglas River Estuary pNHA which are connected to the proposed project via the Grange Stream, which confluences with the Tramore River before flowing into the aforementioned designated sites.
- Potential direct impacts on terrestrial and riparian habitats which are considered to be of local importance (higher level).
- Potential direct and indirect impacts on bats through potential loss of roosting sites in mature trees, reduction in foraging area and disruption of commuting routes through loss of woodland habitat.
- Potential direct and indirect impacts on a bird and mammal species (including red squirrel) due to loss of habitat, habitat fragmentation and increased noise disturbance.
- Potential impacts from the spread of invasive species such as Japanese Knotweed.

### 3.2.6 Potential for Significant Effects

The following section provides an overview of the potential for significant negative ecological impacts as a result of the proposed project.

#### 3.2.6.1 Designated Sites

As noted previously, the proposed project is hydrologically connected to Cork Harbour SPA, Great Island Channel SAC and Douglas Estuary pNHA. A Screening for Appropriate Assessment (AA) has been prepared separately to this report. The findings of the AA Screening are summarised in **Section 4** of this report.

#### 3.2.6.2 Habitats and Flora

No records of notable or protected flora are currently held on the NBDC database for the 2km x 2km Grid Square W66Z<sup>5</sup>, in which the study area is situated. No notable or protected flora was recorded during the site survey undertaken on 27<sup>th</sup> February 2017.

#### Depositing/ lowland rivers FW2

Removal of riparian vegetation may reduce shade levels in summer and thus impact on aquatic ecology. It may also destabilise the riverbanks thus causing increased erosion. This in turn may lead to a wider, shallower channel.

Construction of the pedestrian/ cycle link, instream works and works on the riverbank could result in silt reaching the river and if not carried out correctly could result in de-stabilisation of the riverbank. Some soils may be more likely to erode than others, especially sandy or silty soils which need to be treated with greater care.

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<sup>5</sup> maps.biodiversityireland.ie

High silt levels could settle on the river bed downstream causing damage to habitats and could potentially impact on fish health. Excessive siltation can cause eggs and fry to be smothered. Adult fish may also be affected by increased silt levels as gills may become damaged by exposure to elevated suspended solids levels.

Aquatic invertebrates may be smothered by excessive deposits of silt from suspended solids. In areas of stony substrate, silt deposits may result in a change in the macroinvertebrate species composition, favouring less diverse assemblages and impacting on sensitive species.

Aquatic plant communities may also be affected by increased siltation. Submerged plants may be stunted and photosynthesis may be reduced. Significant impacts on fish stocks could impact on otter or piscivorous birds due to a reduction in prey availability.

Spills of hydrocarbons from poorly maintained machinery can have direct toxicological impacts on habitats and fauna if of sufficient severity.

In the absence of mitigation, there is potential for significant adverse impacts on aquatic ecology, at a local level.

#### **Mixed broadleaved woodland WD1**

There is potential for direct impact to mixed broadleaved woodland of local importance to arise as a result of tree clearance for the pedestrian/ cycle link through the wooded valley. This would be a permanent, irreversible negative impact on a local level. In the absence of mitigation, there is also potential for indirect impacts to occur, such as root abrasion and limb damage.

#### **Wet willow-alder-ash woodland WN6**

The proposed ramp running from the bridge spanning the N40 ties in with the existing pathway south of the Tramore River and its associated wet woodland, therefore there will be no loss of wet woodland as a result of the proposed development.

### **3.2.6.3 Fauna**

#### **Bats**

An important element of the ecological value of areas of broadleaved woodland is their use by bats for foraging and commuting. There are also a number of mature trees within the wooded valley that offer opportunities for bats as roosting or resting places.

Twenty Potential Roost Features (PRFs) have been identified in the study area within mature trees. Therefore, in the absence of mitigation, there is potential that the proposed pedestrian/ cycle link may result in the loss of potential or actual roosting sites for bats in mature trees. From a ground level inspection of the PRFs, trees to the east of the stream within or adjacent to the footprint of proposed route were categorised as being of moderate to high suitability for bats, therefore there is potential that removal of these trees would have an indirect significant negative impact on bats at a local level. Should an active bat roost be destroyed there would be a direct significant negative impact on bats at a local level.

There is also potential for disturbance of bats due to lighting during the construction phase. When bats emerge from roosts they tend not to echolocate but rely on eyesight to fly from the roost to adjoining treelines or hedgerows. Various studies have shown that bats' eyesight works best in dim light conditions; where there is too much luminance bats' vision can be reduced resulting in disorientation. Too much luminance at bat roosts may cause bats to desert a roost. Light falling on a roost exit point can delay bats from emerging and miss peak levels of insect activity at dusk: any delays of emergence can reduce feeding periods. In the absence of mitigation, it is probable that disturbance of bats due to lighting would have an indirect, significant negative impact at the local level. The impact would be temporary, and would persist for the duration of construction.

The lighting proposed for the development will increase light levels within the proposed development area during the operational phase. Increased lighting may reduce the availability of feeding and roosting sites for bats and would be a long-term to permanent, irreversible significant negative impact to bats. This would be significant on the local, but not national level.

Based on the preliminary design and the most recent bat surveys (2017) it is considered likely that the foraging area for bats within the woodland would be reduced as a result of the proposed works.

### **Otter**

No evidence of otter was recorded during the site surveys and it is considered unlikely that they forage along Grange Stream. There are historical records of otter in the Tramore River area. However, the proposed development will not require works to the river banks of the Tramore River, therefore no direct impacts on otter are anticipated. There is a risk of indirect impact as a result of pollutants and sedimentation decreasing water quality in the watercourse crossed by the proposed pedestrian/ cycle link, and in turn Tramore River. Potential significant impacts would be limited to a reduction in prey. However, any reduction in prey would be temporary and reversible and the potential impacts on otter are anticipated to be not significant.

### **Other Species of Mammal**

No evidence of badger was observed during the site surveys. However, badgers create new setts regularly, and the site provides suitable habitat for foraging and sett excavation in areas due to be cleared for construction. Direct impacts on badger setts cannot be ruled out, and there is potential that badgers will be disturbed during the construction phase. Impacts would be significant on a local level, but not on a national level.

No evidence of hedgehog or red squirrel was observed during the site visits. However it is possible that these species use the woodland in the study area for shelter and foraging and may experience disturbance during vegetation clearance. This would have a temporary reversible negative impact on these species. The potential indirect impacts to individuals of these species would be significant on a local level, but not on a national level.

### **Avifauna**

With regards to birds, if the felling of trees is not timed appropriately, there is potential that nests containing eggs or young chicks are destroyed. This would result in a permanent, irreversible, direct negative impact. Indirect effects on BoCCI Bird Species associated with the proposed scheme may include potential disturbance during the construction works and loss of habitat through woodland removal. Disturbance of birds during the construction phase is likely to result in a temporary,

reversible, negative impact. These impacts are significant on a local level, but not at the national level.

#### **3.2.6.4 Invasive Species**

Observations of invasive species in the study area included an area of Japanese Knotweed on the southern bank of the Tramore River, adjacent to the existing bridge over the river; and Cherry Laurel, which was dominant to the west of Grange Stream, and also occurred scattered throughout the eastern side of the stream. The likelihood of this area of Japanese Knotweed being disturbed is low, but the potential for spread of this highly invasive species cannot be ruled out. Cherry Laurel is also highly invasive and there is potential for the spread of this plant as a result of the proposed project.

## 4 PROTECTIVE MEASURES

A Construction Environmental Management Plan (CEMP) (see **Appendix A** of the EIA screening report) has been prepared for the proposed works. This outlines the methodologies to be adopted for each of the work activities proposed to be carried out. The methodologies were drawn up to minimise potential for environmental impact of the works, in particular to prevent or minimise potential for silt runoff to the Grange Stream and avoid the potential to spread invasive species. The CEMP also specifies general environmental management procedures to be followed.

The proposed works will be carried out by a competent contractor experienced in this type of work at other locations. This contractor will be required to employ all construction and environmental measures outlined in the EMP.

### 4.1 DESIGNATED SITES

As noted previously, the proposed project is hydrologically connected to Cork Harbour SPA, Great Island Channel SAC and Douglas Estuary pNHA.

A Screening for Appropriate Assessment has been prepared separately to this report. The AA Screening found that, in the absence of protective measures, there is potential for the release of suspended solids into waterbodies along the proposed route. Should large quantities of suspended solids enter waterbodies in the vicinity of the proposed development it could potentially affect the riverine habitat and associated protected species. An accidental spillage and release of hydrocarbons to watercourses in the immediate surroundings could have significant adverse impacts on the Grange Stream, the Tramore River and in turn Cork Harbour SPA, Great Island Channel SAC and Douglas Estuary pNHA.

However, as outlined in the AA Screening, the proposed pedestrian/ cycle link will contain the necessary measures, (silt traps, check dams and bunds etc.) to ensure that the water quality of the underlying watercourse is protected during the proposed works. Given that these standardised best practice measures be followed during the works, it is not anticipated that the proposed works will result in any potential discharges to the Grange Stream, the Tramore River, and in turn Cork Harbour SPA and Great Island Channel SAC situated downstream of the works.

There is no evidence that the qualifying interests of the Cork Harbour SPA use the lands encompassing the study area. The majority of the study area is separated from the Cork Harbour SPA by the busy N40 road. It is proposed to construct the bridge and associated ramp across the N40 to tie in to the existing path south of the Tramore River. It is not anticipated that the proposed works would result in any significant increase in the level of background noise disturbance in the local areas. Any disturbance to bird species within nearby European Sites as a result of the proposed works is considered extremely unlikely.

The AA Screening concluded that the proposed N40 – TVP bridge and pedestrian / cycle link will not have a significant effect on European Sites and a Stage 2 Appropriate Assessment is not required.

### 4.2 MONITORING

It is essential to monitor bat boxes for their acceptance of use by bats and those boxes that remain unused two years after the date of erection should be relocated. Seasonal inspection of bat boxes should be undertaken (excluding mid-June to mid-August, the lactation period of females, where any disturbance at this time can be detrimental to survival of young) to monitor bat usage and in wintertime for general wear and tear and to remove droppings following use the previous summer. This should be undertaken by a licensed bat-handler<sup>6</sup>.

## 4.3 RECOMMENDATIONS

### 4.3.1 Ecological Assessment

- Prior to construction, it is recommended that bat activity surveys are undertaken between April and October (weather dependant) in order to obtain information on bat activity within the site and to inform the final proposals for lighting.
- It is recommended that a breeding bird survey is undertaken between April and July.
- A pre-construction survey for non-native invasive species will be necessary in order to accurately assess the cover of invasive species at that time and to inform an Invasive Species Management Plan as required.
- It is recommended that badger and red squirrel surveys are undertaken immediately prior to construction.

### 4.3.2 Opportunities for Enhancement

Cherry Laurel is a highly invasive species that forms dense thickets and outcompetes native species. There is an opportunity to manage the Cherry Laurel within the woodland and thereby improve the nature conservation value of the woodland alongside Grange Stream. Cherry Laurel management guidelines can be found in the publication: *Best Practice Management Guidelines Rhododendron ponticum and Cherry Laurel Prunus laurocerasus* (Maguire, C.M., Kelly, J. and Cosgrove, P.J., 2008).

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<sup>6</sup> National Roads Authority (2006): Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes. National Roads Authority, Dublin.

## 5 CONCLUSION

The Grange Stream which lies within the works area is not of high value from a fisheries or aquatic ecology perspective due to its limited size and existing culverting. The Tramore River into which it discharges is known to support a population of Brown Trout, Eel and Stickleback. Brook lamprey could potentially occur within suitable areas of habitat. However, the Tramore River has encountered water quality issues in the past.

In the absence of mitigation the proposed works could potentially have significant adverse impacts on aquatic ecology, at a local level, due to increased silt levels, minor spills of hydrocarbons, removal of bank vegetation or impacts on bank stability. A range of standard mitigation measures will be implemented and no particular difficulties in their implementation have been noted.

Given the distance of designated sites from the proposed works, the dilution provided in the estuarine environment and the limited scope of the works proposed, no significant effects on designated sites including European Sites are anticipated.

There will be a permanent loss of mixed broadleaved woodland as a result of clearance for the proposed pedestrian/ cycle link. However, this is not a semi-natural habitat and the significance of a reduction in this habitat is related to the fauna it supports.

There is potential for impacts on bats as a result of the loss of actual or potential bat roosts in mature trees, a reduction in foraging area and disturbance due to lighting during the construction and operational phases. Further survey work will be undertaken before construction commences to identify bat roosts and foraging areas. This survey work will in turn inform the final design of lighting along the proposed route.

With the effective implementation of the protective measures outlined in this report, no significant impacts on otter are anticipated. No evidence of badger or red squirrel was observed within the study area during the site surveys undertaken for the proposed project, however pre-construction survey will be undertaken as a precautionary measure to ensure that there will be no impacts on these species.

No tree felling will be undertaken during the bird breeding season, therefore impacts to birds will be limited to temporary disturbance.

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**APPENDIX C**  
**APPROPRIATE ASSESSMENT**



# N40 -Tramore Valley Park Pedestrian Bridge

## Appropriate Assessment Screening

### Document Control Sheet

Client:	Cork County Council
Project Title:	N40 – Tramore Valley Park Pedestrian Bridge
Document Title:	Appropriate Assessment Screening
Document No:	MCT0649Rp0001F01

Text Pages:	21	Appendices:	0
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Rev.	Status	Date	Author(s)		Reviewed By		Approved By	
F01	Final	24 <sup>th</sup> March 2017	KB	<i>Woods</i>	AF SOM	<i>David P. Kelly</i> <i>Sarah P. Kelly</i>	KR	<i>Kieran R. ...</i>

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# 1 INTRODUCTION

This report comprises information in support of screening for an Appropriate Assessment in line with the requirements of the Planning and Development Act 2010-2015 and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011) for the proposed bridge and pedestrian / cycleway from Grange Road, crossing the N40 to the Tramore Valley Park (TVP).

## 1.1 BACKGROUND

Open space in the Grange / Frankfield area is currently limited to either formal private uses, such as the former Frankfield Golf Course lands and the Motocross track at Vernon Mount grounds, or else the woodland area identified to be used in this project. However this tract of land, which runs from Grange Terrace to the N40 and then east towards before terminating at Douglas GAA grounds, does not have adequate footpaths or lighting to cater as a safe outdoor amenity suitable for all members of the surrounding population.

Grange, along with adjoining suburbs such as Donnybrook, Douglas and Frankfield are separated both visually and physically from Cork City to the north by the busy N40 Southern Ring Road and are also limited in development scope by the Metropolitan Green Belt to the south, which maintains the city's identifiable boundary.

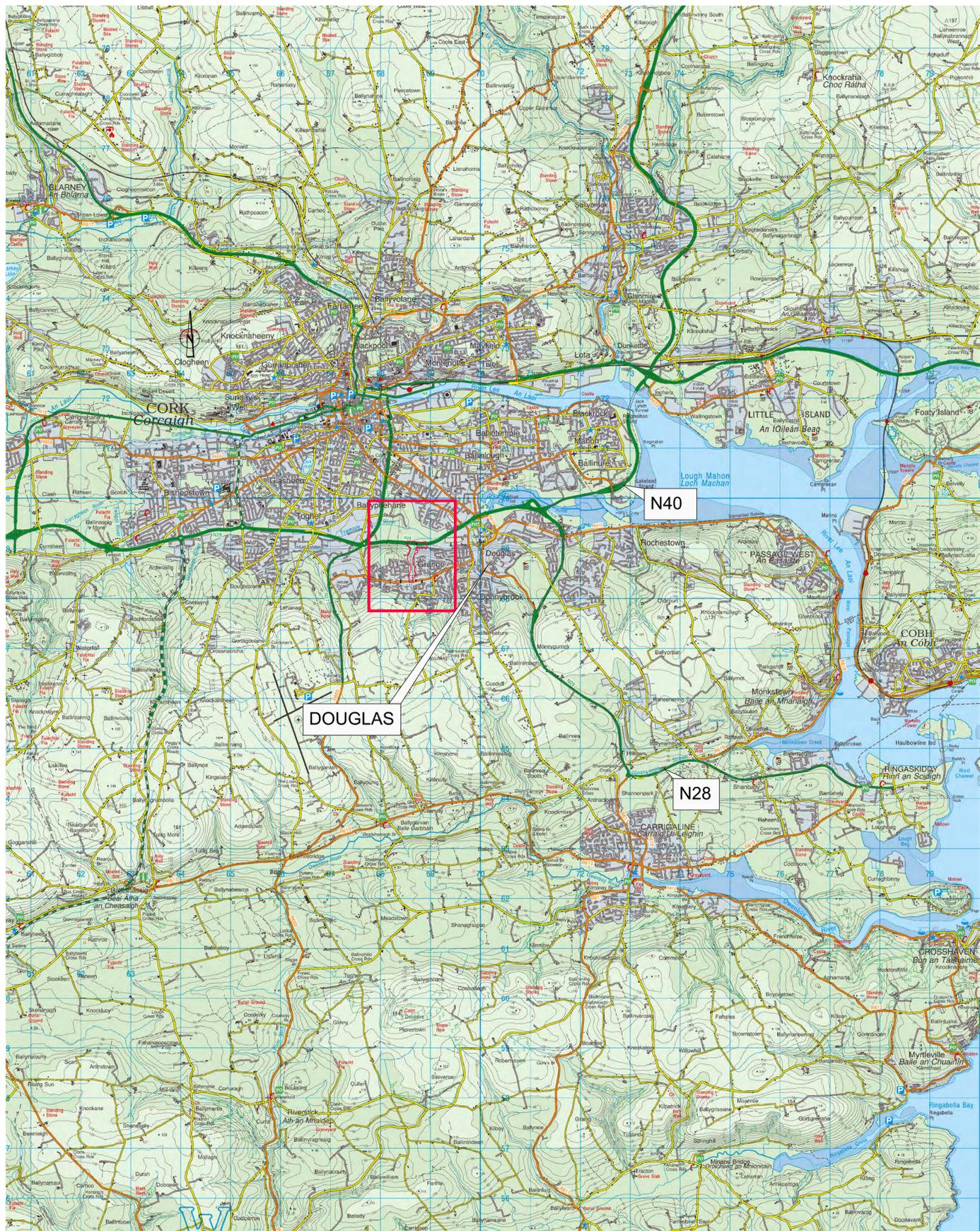
The existing woodland walkway route does not connect through to Grange Road at the southern end and it is closed off by the Ring Road at its northern end. The area is subject to anti-social behaviour and Cork County Council believes that increased use and through movement of pedestrians and cyclists would result in an amenity of greater value to the area and also a decreased risk of anti-social behaviour.

Cork City Council adopted the Tramore Valley Park Masterplan in 2013 which identified the importance of promoting and providing high quality, formal and informal open spaces in the City as well as increasing connectivity between Grange / Frankfield and the City. The Park has recently undergone remediation work to transform the space from a former landfill site to a green open space which will provide a range of activities and facilities to the public. Proposals include a children's play area, BMX trails, biodiversity areas, walking / cycling paths and a multi-use events space.

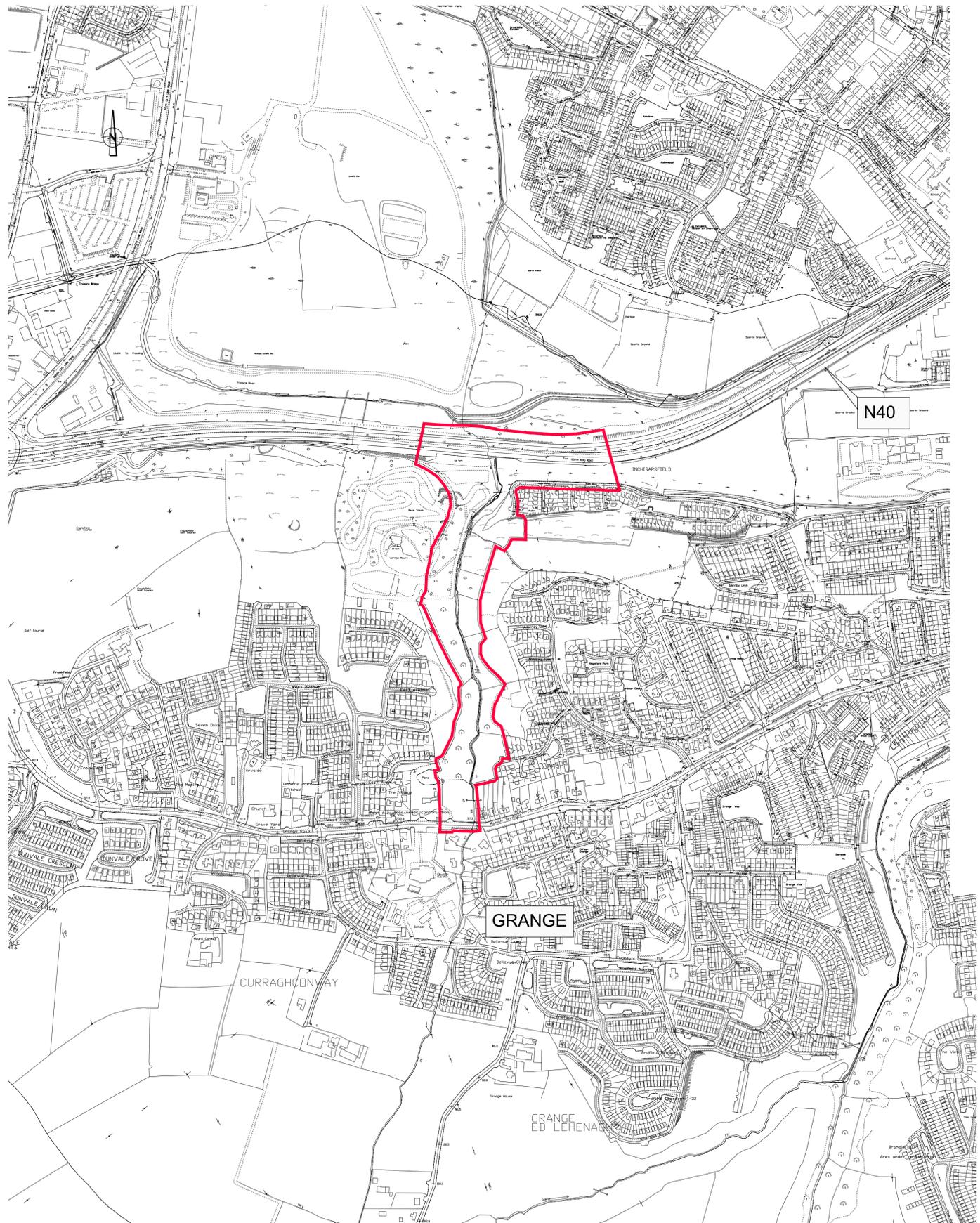
Objective 11.5 from the Cork City Development Plan 2015-2021 contains the following objective in relation to the Park:

*(It is an objective) "To pursue the delivery of the Tramore Valley Park and the proposed landbridge that will connect the areas of the park to the north and south of the N40, subject to Ecological Assessment and Appropriate Assessment Screening"*

The proposed new route, which incorporates a bridge crossing of the N40 Southern Ring Road, will physically connect Grange not only to Cork City for pedestrians and cyclists but, also to a significant amenity resource for the surrounding area. Utilising the woodland and upgrading / replacing the existing paths which run alongside the stream result in extending the overall catchment area for the park to the Grange / Frankfield area and gives the people of those suburbs an amenity on their doorsteps.



**SITE LOCATION**  
(Scale 1 : 50,000)



**SITE LOCATION**  
(Scale 1 : 5,000)

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Drawn	KT	Project <b>GRANGE ROAD TO TRAMORE VALLEY PARK PEDESTRIAN / CYCLE LINK (INC. N40 OVERBRIDGE)</b>
Checked	TW	
Approved	KR	
Date	Oct. 2016	Title SITE LOCATION MAP
Scale	Half @ A3	
As Shown	@ A1	
Job No.	MCT0649	File Ref. MCT0649DG0101.dwg
Rev	P01	Drg. No. DG102

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## 1.2 LEGISLATIVE CONTEXT

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as “The Habitats Directive”, provides legal protection for habitats and species of European importance. Articles 3 to 9 provide 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. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to have a significant effect on or to adversely affect the integrity of European Sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

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

Article 6(4) states:

*If, in spite of a negative assessment of the implications for the [European] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.*

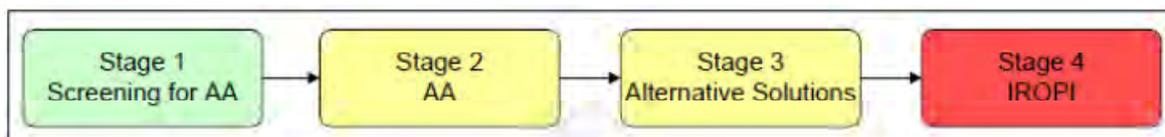
## 2 METHODOLOGY

### 2.1 STAGES OF THE APPROPRIATE ASSESSMENT

The Department of the Environment, Heritage and Local Government guidelines (DELHG, 2009, rev. 2010) outlines the European Commission’s methodological guidance (EC, 2002) promoting a four-stage process to complete the Appropriate Assessment (AA), and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages are summarised diagrammatically in **Figure 2.1**. Stages 1-2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of the Article 6(3) Assessment or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

**Figure 2-1 Four Stages of Appropriate Assessment**



Stages 1 and 2 relate to Regulation 42 of the Birds and Natural Habitats Regulations; and Stage 2 relates to Article 6(3) of the Habitats Directive; and Stages 3 and 4 to Article 6(4) of the Habitats Directive.

Stage 1 - Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

- (i) whether a plan or project ( in this instance the proposed works) is directly connected to or necessary for the management of the European Sites, and
- (ii) whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on the European Sites in view of their conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). This report fulfils the information necessary to enable the competent authority to screen the proposal for the requirement to prepare an Appropriate Assessment.

This report forms Stage 1 of the AA process and sets out the following information:

- Description of the proposed works,
- Characteristics of the proximal European Sites, and
- Assessment of Significance of the proposed works on the European Sites in question.

This report has been prepared having regard to the following;

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (DOEHLG 2009, rev 2010),
- Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC, 2000),
- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (EC, 2002),
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission; (EC, 2007),
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission 2013,
- The European Union (Environmental Impact Assessment and Habitats) Regulations 2011,
- The European Communities (Birds and Natural Habitats) Regulations 2011, and
- The Planning and Development Act 2000-2015.

## 3 SCREENING

### 3.1 EXISTING ENVIRONMENT

Ecological surveys of the study area were conducted by an RPS ecologist on 2<sup>nd</sup> November 2015 and 27<sup>th</sup> February 2017. Aquatic survey was conducted by Dixon Brosnan Environmental Consultants on the 15<sup>th</sup> July and 28<sup>th</sup> of August 2016.

The Grange Stream rises in the townland of Ballinvuskig, south of Grange and flows for approximately 2.5km before joining the Tramore River. As the stream crosses the N40 it has been extensively culverted.

Due to its urban location, water quality issues have occurred in the past in the Tramore River and are an ongoing concern. However the Tramore River does support viable fish populations. A fish stock survey conducted in 2014<sup>1</sup> recorded viable populations of brown trout, eel and stickleback. Grey mullet occur in the lower estuarine sections of the river. It is considered improbable that Salmon (*Salmo salar*), which is listed on Annex II of the EU Habitats Directive would occur in the Tramore River due to poor water quality, limited channel size, lack of holding pools, barriers to migration and lack of spawning habitat. Lamprey species are of high conservation value and all three Irish species (Sea Lamprey (*Petromyzon marinus*), River Lamprey (*Lampetra fluviatilis*) and Brook Lamprey (*Lampetra planeri*) are listed on Annex II of the EU Habitats Directive. The presence of migratory lamprey species (sea lamprey and river lamprey) is unlikely due to barriers to migration and lack of spawning habitat. Brook lamprey could potentially occur within suitable areas of habitat but was not recorded in 2014.

The Grange Stream is a small stream which is generally less than 1m in width. No fish were noted during the site survey although suitable spawning/nursery areas were recorded. Any recolonization would be effectively precluded by culverts in the lower section of the watercourse. The watercourse is small and therefore highly susceptible to pollution events when flows would be minimal.

The predominant habitat in the study area is the mixed broadleaved woodland in the valley running alongside Grange Stream. Beech (*Fagus sylvatica*) is abundant throughout this woodland; Ash (*Fraxinus excelsior*) and Oak (*Quercus* spp) are frequent components of the canopy; and Sycamore (*Acer pseudoplatanus*), Horse Chestnut (*Aesculus hippocastanus*) and Sweet Chestnut (*Castanea sativa*) are occasional species. Alder is frequent alongside Grange Stream and in wet depressions. The invasive species Cherry Laurel is dominant to the west of the stream, and also occurs scattered throughout the eastern side of the stream. A thin strip of wet woodland alongside the Tramore River to the north of the N40 is comprised of Willow (*Salix* spp) and Alder (*Alnus glutinosa*). There is also a strip of species poor grassland and scrub located to the south of the N40 that does not appear to be actively managed.

Japanese Knotweed was observed to the north of the N40, adjacent to the Tramore River in the vicinity of the entrance to Tramore Valley Park.

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<sup>1</sup> Fish Stock survey of the Tramore River for the Douglas Flood Relief Scheme, DixonBrosnan, 2014

## 3.2 DESCRIPTION OF THE PROJECT

The proposed works comprise the creation of a new walkway from Grange Road, through the existing woodland, to Tramore Valley Park, including the provision of a new pedestrian/cyclist bridge over the N40 Southern Ring Road. The proposed route will allow pedestrians and cyclists direct access to Tramore Valley Park and also easier access to Cork City than is presently provided from this area south of the N40 Southern Ring Road.

The walkway will commence at a currently vacant plot on Grange Road, west of Grange Terrace. A redesigned access and landscaped walking/cycling path will be provided on this plot, connecting down to the eastern side of the stream, where there is an existing informal walking route. Given the topography of this land, which slopes steeply from south to north, the newly created paths will likely involve cycle steps, to ensure the paths are constructed at maximum 5% gradient is acceptable to all users. It may be necessary to implement blockwork or gabion retaining walls adjacent to the path in order to provide a level area.

The walking route through the woodland will be formalised and widened to 4m in all areas and will include, where necessary, a separate cycle route constructed at maximum 5% gradient, to ensure the route is accessible and usable for all users. The footpath will be constructed of impermeable surfaces such as:

- 45/6F or 45/10F hot rolled asphalt wearing course to EN13108:4 (BS 594:1);
- 0/6 or 0/10 Dense Bitumen macadam surface wearing course to EN13108:1 BS 4987:1; and
- Close graded SMA (10mm to 6mm aggregate) to EN 13108-5.

A number of trees in the immediate vicinity of the existing walkway will need to be felled, in order to accommodate the widened walking route. There may also be a need to strengthen specific areas of the stream bank, given the steep nature of the bank adjacent to the stream in certain locations. The requirement to strengthen any area of the stream bank will be confirmed on completion of topographical surveys of the route.

The proposed route will involve 2 no. crossings of the Grange Stream; to the south of the site close to the existing informal access from Amberley Drive and further north in the area between Alden Grove and Amberley, in order to align with the southern side of the proposed bridge over the N40 Southern Ring Road. This will comprise box culverts, the size of which will be determined at the detailed design stage. For the purposes of this report, the precautionary approach has been adopted and it is assumed that instream works will be required.

The proposed bridge will likely be a single spanning structure of 40m – 50m in length and 4m in width, designed so that it can be erected in place in a single movement. This will minimise disruption to the N40 Southern Ring Road during construction. The design of the bridge will be optimised to ensure that it appears as slender as possible.

On the northern side of the N40 Southern Ring Road there will also be a ramped walkway, to accommodate access to the northern side of the bridge. This walkway will connect to an existing bridge of the Tramore River, which provides access to Tramore Valley Park.

### 3.2.1 Method Statement

An Environmental Management Plan (EMP) (see **Appendix A** of the EIA screening report) has been prepared for the proposed works. This outlines the methodologies to be adopted for each of the work activities proposed to be carried out. The methodologies were drawn up to minimise potential for environmental impact of the works, in particular to prevent or minimise potential for silt runoff to the Grange Stream and avoid the potential to spread invasive species. The CEMP also specifies general environmental management procedures to be followed.

The proposed works will be carried out by a competent contractor experienced in this type of work at other locations. This contractor will be required to employ all construction and environmental measures outlined in the EMP.

The following guidelines and documents have informed the method statement and will be consulted by the contractor during the detailed planning and implementation of the works phase:-

- Good practice guidelines on the control of water pollution from construction sites developed by the Construction Industry Research and Information Association (CIRIA) in particular;
  - C532 *Control of water pollution from construction sites: guidance for consultants and contractors* (Masters-Williams *et al.*, 2001); and
  - SP156 *Control of water pollution from construction sites – guide to good practice* (Murnane *et al.*, 2002).
- Requirements for the protection of fisheries habitat during construction and development works at river sites developed by the ERFB. <http://fishingireland.net/environment/fullconstructionanddevelopment.htm>
- NRA (2008) Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes. National Roads Authority, Dublin.
- NRA (2010) Guidelines for the Management of Noxious Weeds and Non- Native Invasive Plant Species on National Roads. National Roads Authority, Dublin.
- Murphy, D. (2004) Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites. Eastern Regional Fisheries Board, Dublin.
- DOMNR (1998). Fishery Guidelines for Local Authority works. Department of the Marine and Natural Resources, Dublin.

A mechanism for reporting of pollution incidents will be agreed in advance between the contractor(s) and the awarding authority.

#### 3.2.1.1 General Measures Included in the Method Statement

- Site managers, foremen and workforce, including all subcontractors, shall be trained in pollution risks and preventative measures
- In-stream works, bank-side clearance and earthworks in the immediate area of the Grange Stream crossings, and works at or adjacent to the stream bank have the potential to impact on the water quality of the stream whereby silt and other construction debris may enter the water column. In-stream works shall be kept to a minimum and adequate measures will be put in place to control or minimize the risk of siltation, including silt fencing, coir to stabilize exposed banks, silt traps, temporary settlement ponds etc.

- The risk of this occurring in the case of bank excavation will be reduced or eliminated by operating in dry conditions along the river bank.
- Sediment controls will be maintained and monitored throughout the works to protect aquatic ecology.
- Temporary diversions must be installed in the IFI approved operational window for in-stream works (May to September inclusive) (note that the timing of such works should always be considered on a site specific basis and in agreement with the IFI).
- If water needs to be pumped from the work zone, it should be pumped to land or otherwise settled before re-entering the river.
- The contractor will contact IFI prior to the commencement of the works.
- Machinery used will not be re-fuelled near the river and no fuels, oils etc. will be stored on-site.
- In the event that concrete is required, raw or uncured waste concrete will be disposed of by removal from the site.
- Fuels, lubricants and hydraulic fluids for equipment used on the site, as well as any solvents, oils, and paints will be carefully handled to avoid spillage, the equipment properly secured against unauthorised access or vandalism, and spill containment will be provided according to codes of practice.
- Any spillage of fuels, lubricants or hydraulic oils will be immediately contained and the contaminated soil removed from the site and properly disposed of.
- Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or re-cycling.
- Disruption of riparian vegetation will be kept to a minimum to prevent loss of habitat and destabilisation of river banks.

### 3.2.1.2 Additional Measures for Protection of Water Quality

#### Concrete

Wet concrete and cement/mortar are very alkaline and corrosive and can cause serious pollution to watercourses. Should the use of concrete be required, the following measures shall be adhered to:

- Disposal of raw or uncured waste concrete must be controlled to ensure that the watercourse will not be impacted.
- Best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering / form-work, adequate curing times must be adhered to.
- Where shuttering is used, measures must be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils.
- Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline. Lorries and mixers and all concrete delivery equipment (wheelbarrows, buckets etc.) must be washed out off site.
- Cement dust must be controlled as it is alkaline and harmful to the surrounding ecology. Activities which result in the creation of cement dust must be controlled by dampening down areas.
- The timing of the works must be specified and agreed with the IFI in relation to fish migration and spawning periods.

## Hydrocarbons

- Careful consideration will be given to the location of any fuel storage facilities. These will be designed in accordance with guidelines produced by CIRIA.
- Any diesel or fuel oils stored on site must be bunded to 110% of the capacity of the storage tank. Design and installation of fuel tanks must be in accordance with best practice guidelines BPGCS005, oil storage guidelines. Drip trays and spill kits must be kept available on site.
- All stationary plant must be placed on drip trays to prevent leaking oils reaching the river or entering groundwater.
- No washings or waste materials of any kind can be directed into the stream.
- Machinery on site must have pollution control kits on hand in the event of an emergency.

## Construction waste

- All old concrete and road surface debris must be collected and removed regularly during works and correctly disposed of, off-site. No debris shall enter the river. Works should occur during good weather with speedy removal of debris including removal of dust and fines from the road surface. Dust should be damped down if necessary to prevent it mobilising to the water surface.
- All construction related waste, e.g., plastics, cable ties, geotextile etc. must be collected and disposed of correctly offsite so that they don't enter river channels.

### 3.2.1.3 Measures to avoid the Spread of Invasive Species

The presence of invasive alien species has the potential to lead to an offence under the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). Regulation 49 of the 2011 Regulations prohibits (unless under licence) the breeding, release, or allowing or causing the dispersal from confinement of any animal listed in the Third Schedule of the Regulations; or the planting, allowing or causing dispersal, and spreading of any plant listed in the Third Schedule.

It is an offence to plant or encourage the spread of invasive alien species by moving contaminated soil from one place to another, or incorrectly handling and transporting contaminated material or plant cuttings. Persons must therefore take all reasonable steps and exercise due diligence to avoid committing an offence under the 2011 Regulations.

- Cherry Laurel and Japanese Knotweed have both been recorded in the study area. The primary method of mitigation will be avoidance of known areas of non-native invasive species.
- The Japanese Knotweed recorded during the site survey is located on the banks of the Tramore River, outside of the footprint of the proposed project. This area of Japanese Knotweed will be fenced off and signed and will not be disturbed by the proposed works (a specimen sign is presented in the Environment Agency 2013 publication – “The Knotweed Code of Practice. Managing Japanese Knotweed on Development sites V3”).
- A pre-construction invasive species survey shall be undertaken prior to the commencement of construction to establish the current status of invasive species within the study area. In the event that invasive species have spread into the works area an Invasive Species Management Plan must be prepared by the Contractor. The treatment and control of invasive alien species within the Invasive Species Management Plan will follow guidelines issued by the National Roads Authority – *The Management of Noxious Weeds and Non-native Invasive Plant Species on*

*National Roads (NRA 2010) and Best Practice Management Guidelines Rhododendron ponticum and Cherry Laurel Prunus laurocerasus (Maguire, C.M., Kelly, J. and Cosgrove, P.J., 2008).*<sup>2</sup>

- The introduction of invasive alien plant species (including Japanese Knotweed (*Fallopia japonica*)) will be avoided during the construction and operation phase of the proposed scheme by ensuring that appropriate precautionary measures are in place.
- All plant and equipment employed on the construction site (e.g. excavator, footwear, etc.) must be thoroughly cleaned down using a power washer unit prior to arrival on site to prevent the spread of invasive plant species such as Japanese knotweed, Rhododendron and Himalayan Balsam.

It is the responsibility of Cork County Council to ensure that the method statement prepared by the appointed contractor includes the above measures.

### 3.3 BRIEF DESCRIPTION OF THE EUROPEAN SITES

This section of the screening process describes the European Sites within a 15km radius of the proposed N40 – TVP bridge and pedestrian / cycleway project. A 15km buffer zone has been chosen as a precautionary measure, to ensure that all potentially affected European Sites are included in the screening process, which is in line with *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* produced by the Department of the Environment, Heritage and Local Government.

**Table 3-1** lists the SACs and **Table 3-2** lists the SPAs that are within 15km of the project area, and **Figure 3-1** shows their locations in relation to the proposed project.

The integrity of a European Site (referred to in Article 6.3 of the EU Habitats Directive) is determined based on the conservation status of the Qualifying Interests of the SAC or SPA. The Qualifying Interests for each site have been obtained through a review of the Conservation Objectives available from the National Parks and Wildlife Service (NPWS), accessed from <http://www.npws.ie/protectedsites>.

**Table 3-1 SACs within 15km of the Proposed Works**

Site Code	Site Name	Qualifying Habitats	Qualifying Species	Distance From the Proposed Works <sup>3</sup>	Connectivity
001058	Great Island Channel	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritima</i> ) (1330) Mudflats and sandflats not covered by seawater at low tide [1140]	-	7.5Km	Remote indirect connectivity via the Grange stream, which confluences with the Tramore River before flowing into Cork Harbour approximately 1.3km downstream and Great Island Channel approximately 7.2km downstream again.

<sup>2</sup> <http://invasivespeciesireland.com/wp-content/uploads/2012/01/Rhododendron-BPM.pdf>

<sup>3</sup> Measured “as the crow flies”

**Table 3-2 SPAs within 15km of the Proposed Works**

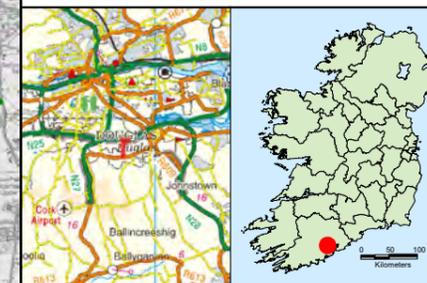
Site Code	Site Name	Qualifying Features	Distance from the Proposed Works <sup>4</sup>	Connectivity
004030	Cork Harbour SPA	A004 Little Grebe <i>Tachybaptus ruficollis</i> A005 Great Crested Grebe <i>Podiceps cristatus</i> A017 Cormorant <i>Phalacrocorax carbo</i> A028 Grey Heron <i>Ardea cinerea</i> A048 Shelduck <i>Tadorna tadorna</i> A050 Wigeon <i>Anas penelope</i> A052 Teal <i>Anas crecca</i> A054 Pintail <i>Anas acuta</i> A056 Shoveler <i>Anas clypeata</i> A069 Red-breasted Merganser <i>Mergus serrator</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A142 Lapwing <i>Vanellus vanellus</i> A149 Dunlin <i>Calidris alpina alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A160 Curlew <i>Numenius arquata</i> A162 Redshank <i>Tringa totanus</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A182 Common Gull <i>Larus canus</i> A183 Lesser Black-backed Gull <i>Larus fuscus</i> A193 Common Tern <i>Sterna hirundo</i> A999 Wetlands	1.2Km	Indirect via the Grange stream, which confluences with the Tramore River before flowing into Cork Harbour approximately 1.3km downstream.

<sup>4</sup> Measured “as the crow flies”



Legend

-  Site Extent
-  15km Buffer on Site
-  Special Area of Conservation
-  Special Protection Area



Client

**Cork County Council**



Project  
**GRANGE ROAD TO TRAMORE VALLEY PARK  
 PEDESTRIAN / CYCLE LINK (INC. N40  
 OVERBRIDGE)**

Title  
**European Sites  
 Within 15km**

Figure 3.1



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Issue Details			
Drawn by:	JPM	Project No.	MCT0649
Checked by:	S. O'M	File Ref.	MCT0649MI0001D01
Approved by:	xxxx	Drawing No.	Rev.
Scale:	xxxx @ Ax	MI0001	D01
Date:	13/10/2015		

Notes

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## 3.4 ASSESSMENT CRITERIA

### 3.4.1 Direct, Indirect or Secondary Impacts

**Table 3.1** and **Table 3.2** list the European Sites within 15km of the proposed Tramore Valley Park Pedestrian Bridge. There are two sites in all, one SAC and one SPA. The proposed works are not situated within any SACs or SPAs, therefore no direct impacts will occur through landtake or fragmentation of habitats.

The potential impacts on the integrity of European Sites as a result of the proposed works are limited to impacts primarily related to changes in water quality and noise related activity.

The development will involve the strengthening of sections of river bank along the Grange Stream and excavation of soil and subsoil during the installation / construction phase. In the absence of protective measures, there is potential for the release of suspended solids into the Grange Stream which confluences with the Tramore River immediately north of the N40. The Tramore River then flows into Cork Harbour approximately 1.3km downstream of the study area.

Potential impacts could arise due to contamination of surface water run-off due to inadequate environmental controls during construction. Theoretically, this surface water run-off could eventually discharge to the Cork Harbour SPA via the Grange Stream and Tramore River. Potential sources of contaminants include accidental spillage of hydrocarbons from plant equipment during the construction phase. Other potential sources of contamination include run-off of soil and materials used for the construction of the pedestrian/ cycle path. High levels of suspended solids could be discharged to Douglas Estuary via surface water drainage. If severe enough this could potentially impact on prey availability for birds and increased turbidity could potentially impact on the feeding behaviour of birds.

The proposed works will contain the necessary measures, as outlined in **Section 3.2.1** - Method Statement above, (silt traps, check dams and bunds etc.) to ensure that the water quality of the underlying watercourse is protected during the proposed works. Such measures to protect waterbodies will ensure that the water quality of the Grange Stream, the Tramore River and in turn the Douglas Estuary and Cork Harbour are protected from the works. Likewise, such measures will also ensure that adverse impacts to water dependent species are avoided. Should these standardised best practice measures, (as outlined in **Section 3.2.1**) be followed during the works, it is not anticipated that the proposed works will result in any potential discharges to the Grange Stream, the Tramore River, and in turn Cork Harbour SPA and Great Island Channel SAC situated downstream of the works. Further, Great Island Channel SAC is designated for coastal habitats and species associated with routine estuarine and or tidal inundations and fluctuations. To this end, habitats and species associated with this European Site are accustomed to high levels of water turbidity, fluctuations in sediment accretion, deposition and erosion. As a result these habitats are not as sensitive (when compared to freshwater / terrestrial habitats and species) to those potential impacts associated with the proposed works (in particular sporadic increases in sediment load). Therefore this site would not be significantly affected by the low level or sporadic release in sediment or particulate matter that are associated with such works. Furthermore, the potential release of other deleterious substances such as hydrocarbons, particulate matter, wet cement etc. can be readily retained to within the footprint of the proposed works area through standardised best practice measures.

There is no desk top or survey evidence that the qualifying interests of the Cork Harbour SPA use the lands encompassing the study area. The majority of the study area is separated from the Cork Harbour SPA by the busy N40 road. It is proposed to construct the bridge and associated ramp across the N40 to tie in to the existing path south of the Tramore River. It is not anticipated that the proposed works would result in any significant increase in the level of background noise disturbance in the local areas. Any disturbance to bird species within nearby European Sites as a result of the proposed works is considered extremely unlikely. Furthermore, potential disturbances will be temporary and confined to the construction phase of the development only. Therefore, it is not anticipated that the proposed works will impact on the Cork Harbour SPA with regards to noise disturbance of bird species.

Japanese Knotweed (*Fallopia japonica*) was recorded adjacent to the Tramore River during the site visit. Measures to prevent the spread and regeneration of invasive alien species are outlined in **Section 3.2.1.2**. The most effective management measure is avoidance of areas known to support invasive alien species and this will be the case where possible.

### 3.4.2 Cumulative and in Combination Impacts

It is a requirement of Appropriate Assessment that the combined effects of the proposed development together with other plans or projects be assessed. The measures incorporated into the methodology for the proposed bridge and path were developed to ensure the protection of all water bodies. It is not anticipated that the proposed works will result in any significant impacts on the SACs or SPAs within the 15km buffer zone.

**Table 3.3** lists those potential Projects or Plans which may contribute to cumulative or in-combination impacts.

**Table 3-3 List of Potential Plans and Projects which may contribute to Cumulative Effects**

Name of plan or project	Key issues directly linked to relevant European sites	Potential cumulative or in-combination impacts on relevant European Sites
Cork County Development Plan 2014-2020	<p>The policies and objectives of this plan are intended to contribute to the delivery of a number of key aims for the county as a whole. They are as follows:</p> <ul style="list-style-type: none"> <li>▪ Enhanced quality of life for all</li> <li>▪ Sustainable patterns of growth in urban and rural areas</li> <li>▪ Sustainable and balanced economic investment</li> <li>▪ An effective physical and community infrastructure</li> <li>▪ A quality built environment</li> <li>▪ A network of enhanced natural resources</li> <li>▪ Responsible guardianship of the County</li> </ul> <p><b>Objective HE2.1: Site Designated for Nature Conservation</b> <i>Provide protection to all natural heritage sites designated or proposed for designation under National and European legislation and International Agreements, and to maintain or develop linkages between these. This includes Special Areas of Conservation, Special Protection Areas, Natural Heritage Areas, Statutory Nature Reserves, Refuges for Fauna and Ramsar Sites.</i></p>	Positive Impacts
South- Western River Basin District Management Plan 2009-2015	<p>The plan establishes four core environmental objectives to be achieved generally by 2015:</p> <ul style="list-style-type: none"> <li>▪ prevent deterioration;</li> <li>▪ restore good status;</li> <li>▪ reduce chemical pollution; and</li> <li>▪ achieve water related protected areas objectives.</li> </ul>	Positive Impacts
<p>Inland Fisheries Ireland Corporate Plan 2011 - 2015</p> <p>The Inland Fisheries Act 2010.</p>	<ul style="list-style-type: none"> <li>▪ To improve the protection and conservation of the resource.</li> <li>▪ To develop and improve wild fish populations.</li> <li>▪ To increase the number of anglers.</li> </ul> <p>To generate a better return for Ireland from the resource</p> <p>EU (Quality of Salmonid Waters) Regulations 1988. All works during development and operation of the project must aim to conserve fish and other species of fauna and flora habitat; biodiversity of inland fisheries and ecosystems and protect spawning salmon and trout.</p>	Positive Impacts

Name of plan or project	Key issues directly linked to relevant European sites	Potential cumulative or in-combination impacts on relevant European Sites
Dunkettle Interchange Improvement Motorway Scheme 2012 - CPO / EIS	<p>Improvement Motorway Scheme to include 43 major structures of various forms comprising:</p> <p>1 overbridge, 7 underbridges, 2 railway bridges, 1 footbridge, 7 retaining walls, several culverts and 24 gantries;</p> <p>Modification of the northern approach structure to the Jack Lynch Tunnel;</p> <p>Pedestrian and cyclist facilities, together with ancillary and consequential works.</p>	This development is unlikely to contribute to cumulative or in-combination effects European Sites as best practice and mitigation measures will be implemented for both scheme during the construction and operation phases, as outlined in the NIS prepared for the scheme.
Local Planning Applications  ( <a href="http://maps.corkcoco.ie">http://maps.corkcoco.ie</a> )	None of relevance found	n/a
Tramore Valley Masterplan 2013	The Tramore Valley Masterplan sets out a plan for the remediated landfill site in order to provide a public park with various multi-functional zones and linkages to adjacent areas.	Neutral/ positive Impact

**Table 3-4** identifies the potential direct, indirect and secondary impacts of the proposed works on European Sites within a 15 km radius.

**Table 3-4 Potential Significant Effects on European Sites from the Proposed Works**

Site Name	Great Island Channel SAC	Cork Harbour SPA
Direct Impacts	No impact on qualifying interest	No impact on qualifying interest
Indirect/ Secondary	No impact on qualifying interest	No impact on qualifying interest
Resource Requirements (Drinking Water Abstraction Etc.)	No impact on qualifying interest	No impact on qualifying interest
Emissions (Disposal to Land, Water or Air)	No impact on qualifying interest	No impact on qualifying interest
Excavation Requirements	No impact on qualifying interest	No impact on qualifying interest
Transportation Requirements	No impact on qualifying interest	No impact on qualifying interest
Duration of Construction, Operation, Decommissioning	No impact on qualifying interest	No impact on qualifying interest

### 3.4.3 Likely Changes to the European Site(s)

The likely changes that will arise from the proposed N40 – TVP bridge and pedestrian / cycleway project have been examined in the context of a number of factors that could potentially have a significant effect on the identified European Sites, in view of their conservation objectives (**Table 3.5**).

**Table 3-5 Likely Effect on European Sites**

Site Name	Reduction of Habitat Area	Disturbance to Key Species	Habitat or Species Fragmentation	Reduction in Species Density	Changes in Key Indicators of Conservation Value (Water Quality Etc.)	Climate Change
Great Island Channel SAC	None	None	None	None	None	None
Cork Harbour SPA	None	None	None	None	None	None

### 3.4.4 Elements of the Project where the Impacts are Likely to be Significant

No elements of the proposed N40 – TVP bridge and pedestrian / cycleway project are likely to cause significant effects on European Sites.

## 4 SCREENING CONCLUSIONS

The likely impacts that will arise from the proposed N40 – TVP bridge and pedestrian / cycleway have been examined in the context of a number of factors that could potentially have a significant effect on European Sites and the Natura 2000 network. None of the sites within 15km of the proposed works area will be adversely affected. A Finding of No Significant Effects Matrix has been completed and is presented in **Section 5** below of this Screening Statement.

On the basis of the findings of this Screening for Appropriate Assessment of European Sites, it is concluded that the proposed N40 – TVP bridge and pedestrian / cycleway will not have a significant effect on European Sites and a Stage 2 Appropriate Assessment is not required.

## 5 FINDING OF NO SIGNIFICANT EFFECTS REPORT MATRIX

Name of project or plan	N40 – TVP Pedestrian Bridge
Name and location of European Site	Great Island Channel SAC; Cork Harbour SPA.
Description of the project or plan	Provision of a pedestrian and cyclepath connecting Grange Road to the Tramore Valley Park, including 2 no. stream crossings and a bridge over the N40. The majority of the path will follow the line of one currently at the same site, however widening and straightening will occur. There may be a requirement for strengthening works such as retaining walls however this will be confirmed following specialist surveys at detailed design stage.
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
<b>The Assessment of Significance of Effects</b>	
Describe how the project or plan (alone or in combination) is likely to affect the European Site.	The proposed Tramore Valley Park Pedestrian Bridge is not likely to affect any site that makes up the Natura 2000 network
Explain why these effects are not considered significant.	<p>There are two sites in all, one SAC and one SPA. The proposed works are not situated within any SACs or SPAs, therefore no direct impacts will occur through landtake or fragmentation of habitats.</p> <p>The potential impacts on the integrity of European Sites as a result of the proposed works are limited to impacts primarily related to changes in water quality and noise related activity.</p> <p>In the absence of protective measures, there is potential for the release of suspended solids into the Grange Stream. The Grange Stream confluences with the Tramore River north of the N40. The Tramore River then flows into Cork Harbour approximately 1.3km downstream of the study area.</p> <p>The proposed works will contain the necessary measures, as outlined in <b>Section 3.2.1</b> - Method Statement to ensure that the water quality of the underlying watercourse is protected during the proposed works. Such measures to protect waterbodies will ensure that the water quality of the Grange Stream, the Tramore River and in turn the Douglas Estuary and Cork Harbour SPA are protected from the works. Likewise, such measures will also ensure that adverse impacts to water dependent species are avoided. Should these standardised best practice measures (as outlined in <b>Section 3.2.1</b>) be followed during the works, it is not anticipated that the proposed works will result in any potential discharges to the Grange Stream, the Tramore River,</p>

Name of project or plan	N40 – TVP Pedestrian Bridge
	<p>and in turn Cork Harbour SPA and Great Island Channel SAC situated downstream of the works.</p> <p>There is no evidence that the qualifying interests of the Cork Harbour SPA use the lands encompassing the study area. It is not anticipated that the proposed works would result in any significant increase in the level of background noise disturbance in the local areas. Any disturbance to bird species within nearby European Sites as a result of the proposed works is considered extremely unlikely. Furthermore, potential disturbances will be temporary and confined to the construction phase of the development only. Therefore, it is not anticipated that the proposed works will impact on the Cork Harbour SPA with regards to noise disturbance of bird species.</p> <p>Japanese Knotweed (<i>Fallopia japonica</i>) was recorded adjacent to the Tramore River during the site visit. Measures to prevent the spread and regeneration of invasive alien species are outlined in <b>Section 3.2.1.2</b>. The most effective management measure is avoidance of areas known to support invasive alien species and this will be the case where possible.</p>
List of agencies consulted: provide contact name and telephone or e-mail address.	None
Response to consultation.	-
<b>Data Collected to Carry Out the Assessment</b>	
Who carried out the assessment?	RPS
Sources of data	NPWS RPS Engineering Department
Level of assessment completed	Desktop and site visit
Where can the full results of the assessment be accessed and viewed?	Cork County Council Planning office.
Overall Conclusion	The proposed Tramore Valley Park Pedestrian Bridge is not likely to affect any site that makes up the Natura 2000 network.

