

**Habitats Directive Appropriate Assessment
Screening Determination - Carrigwohill URDF Initiative
Development of Northern, Western and Eastern Services Corridor Link Roads
& Upgrades/Realignment of Existing Wisers Road, Station Road, Leamlara
Road & Ballyadam Road**



Cork County Council
Comhairle Contae Chorcaí

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This document contains the Habitats Directive screening determination of Cork County Council in respect of the Carrigtwohill URDF Initiative. The determination is based on the information provided in the AA Screening Report and Ecological Impact Assessment Reports and associated drawings prepared by Atkins prepared in respect of the proposed scheme which will be placed on display with the Part 8 documentation. This screening determination should be read in conjunction with those reports and drawings.

In accordance with Regulation 250 of the Planning and Development Regulations, Local Authorities are required to carry out screening for appropriate assessment of proposed development to assess, in view of best scientific knowledge, if the proposed development, individually or in combination with another plan or project is likely to have a significant effect on one or more European¹ sites. The Local Authority is required to determine that appropriate assessment of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on one or more European sites.

These requirements derive from Article 6(3) of the Habitats Directive which states that

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

EU and National Guidance sets out two main stages to the assessment process which are as follows:

Stage One: Screening

The process which identifies what might be likely impacts arising from a plan or project on a European site, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant. No further assessment is required where the risk of significant impacts on European sites can be objectively ruled out during the screening stage.

Stage Two: Appropriate Assessment

Where the possibility of significant impacts has not been discounted by the screening process, a more detailed assessment is required. This is called an Appropriate Assessment and requires the compilation of a **Natura Impact Statement** by the project proponent, which is a report of scientific evidence and data relating to European sites for which significant negative impacts have not been previously screened out. This is used to identify and classify any implications of the plan or project for these sites in view of their Conservation Objectives. The Appropriate Assessment must include a determination as to whether or not the project would adversely affect the integrity of any European site or sites. The plan or project may only be consented if adverse effects on the integrity of European sites can be objectively ruled out during the Appropriate Assessment process. The plan or project may not be consented on foot of an Appropriate Assessment, if it is found that it will give rise to adverse impacts on one or more

¹"European Site" means— (a) a candidate site of Community importance; (b) a site of Community importance; (c) a candidate special area of conservation; (d) a special area of conservation; (e) a candidate special protection area, or (f) a special protection area.

European sites, or if uncertainty remains in relation to potential impacts on one or more European sites.

Name of the project

Carrigtwohill URDF Initiative involving the development of the Northern, Western and Eastern Services Corridor Link Roads and Upgrades/Realignment of Existing Wisés Road, Station Road, Leamlara Road & Ballyadam Road

Description of the project

This project involves the development of new roads and to upgrade existing roads to facilitate the development of the Carrigtwohill Urban Expansion Area including the following:

- A. Development of the Western (A1) and Eastern (A2) Services Corridor Link Roads connecting Wisés Road (L3616-0) on the western side of the UEA with Carrigane Road (L3617-25) on the eastern side of the UEA. The roads will also provide connectivity to Station Road (L3603-0), Leamlara Road (L3607-37) and the Ballyadam Road (L7640-0) and includes the realignment of the Carrigane Road near Ballyadam Bridge.
- B. Development of the Northern Services Corridor Link Road connecting the Western Services Corridor Link Road with the new Northern Schools Link Road via an existing vehicular underpass below the Cork to Midleton railway line.
- C. Upgrading and re-alignment of Wisés Road (C1) from north of its crossing of the Cork to Midleton Railway Line to the L3615-0 to the north of the UEA. The upgrade will also include a pedestrian/ cycle bridge (C2) across the railway line providing connectivity to Wisés Road south of the railway.
- D. Upgrading and re-alignment of Station Road (D1) from south of its crossing of the Cork to Midleton Railway Line to the L3615-0 to the north of the UEA. The upgrade will also include a pedestrian/ cycle bridge (D2) across the railway line providing connectivity to Station Road south of the railway line.
- E. Upgrading and re-alignment of Leamlara Road from its junction with Station Road to its new western junction with the Eastern Services Corridor Link Road and from north of the UEA to its new eastern junction with the Eastern Services Corridor Link Road.
- F. Upgrading and re-alignment of Ballyadam Road from its new junction with the Eastern Services Corridor Link Road to the L7639-0 north of the UEA including the permanent closure of the existing Ballyadam Road between the Eastern Services Corridor Link Road and Carrigane Road to vehicular traffic including the junction of the existing Ballyadam Road and Carrigane Road.

(see Figure 1 over for areas referred to above).

The infrastructure will also include shared cycling/pedestrian paths connecting the new road network with the planned Carrigtwohill to Midleton Inter-urban Cycle Route, areas of green open space, underground services including surface water drainage networks including detention ponds and attenuation, foul water networks, electrical and fibre-optic/telecoms ducting and water and gas supply. Services will be connected to existing services/infrastructure in Carrigtwohill as required.

High level details of the scheme including details relating to surface water drainage arrangements, lighting and landscaping are set out in the Planning Report, EclA Report and AA Screening Report.

Existing drains are to be culverted under new roads where necessary and the development will require the bridging of the Woodstock Stream near Station Road Carrigtwohill.

Surface water run-off from the new /upgraded roads is to be diverted to ground or to a series of detention ponds which are part of the scheme, prior to discharge to streams or drains within the works area. The drainage system has been designed to control surface water run off to drains and streams at Greenfield rates.

The realignment and widening of existing roads will require the removal of existing roadside boundaries including almost 2km of hedgerow, earthen banks and treelines. To mitigate the removal of trees and hedgerows, all trees and hedgerows required to be removed are to be replaced with new planting of native species, with new hedgerow and/or treelines of length at least equivalent to the length of hedgerow / treeline to be removed - (details to be provided at detailed design stage). Other open space areas and SUDS features are to be managed to enhance their biodiversity value.

All works are to be undertaken in accordance with a Construction and Environmental Management Plan which will incorporate standard procedures to prevent water pollution and other environmental impacts. The project methodology provides for the construction of interceptor drains to intercept contaminated water from works areas and prevent its discharge to open drains or watercourses.

Site Context

The proposed development is to be undertaken within the townlands of Anngrove, Terry's Land and Carrigtohill to the north of the town of Carrigtwohill within the metropolitan area of Co. Cork east of Cork City. The area lies within the Lee, Cork Harbour and Youghal Bay Catchment [WFD Code 19] and in the Tibbotstown Sub-catchment [WFD Code SC_10].

The site comprises primarily improved agricultural grassland, arable land, wet grassland and built land with some areas of scrub and is zoned for development. The general works area is bounded by Wisers Road (L7635) to the west and the Carrigane Road (L77640) to the east. Most of the works will be implemented to the north of the Midleton – City railway line, however one new roadway will be developed to link the east western corridor road into Carrigtwohill and two number cycleway/pedestrian linkages into Carrigtwohill are also proposed.

Agricultural fields and existing roads within the site are bounded by treelines and hedgerows of varying quality. Per the project description, approximately 2km of hedgerow/treeline is required to be removed to provide for the development. This is primarily along roads which are to be realigned or widened and where field boundaries need to be crossed to provide for the new roads and paths.

A number of streams run through or close to the site including the Tibbotstown Stream, Anngrove Stream, Woodstock Stream and Poulanska Stream, with which are associated some areas of flood risk. The Anngrove Stream discharges to the Slatty Waters within the north channel of Cork Harbour. This area forms part of the Great Island Channel Special Area of Conservation, Site Code [1058] and part of the Cork Harbour Special Protection Area, Site Code [4030]. This portion of Cork Harbour is also proposed to be designated as a Natural Heritage Area (Great Island Channel pNHA). There are no sites which are designated or proposed to be designated for nature conservation within the footprint of the proposed development.

- The Tibbotstown Stream lies approximately 300m to the west of Wisers Road. The stream runs in a southerly direction through Tullagreen and under the N25. It discharges to the north channel of Cork Harbour at Slatty Waters. The closest proposed works to this stream involves a proposed rail crossing approximately 250m from the stream.

- There are two unnamed watercourses which originate to the south of the railway in Terry's Land. These are short watercourses which discharge to ground. It is proposed to construct a foul sewer proximal to the western most stream as part of this project. It is proposed to construct the surface water drainage pipes proximal to the eastern most stream. The proposed new Northern Services link road will be constructed within approximately 50m of this stream. There is no over ground surface water linkage between these streams and Cork Harbour, however, there may be underground connectivity to the harbour and EU sites. The streams are approximately 1.8km and 2.4km upstream of the Slatty Waters respectively.
- The Woodstock Stream runs in a southerly direction along the eastern side of the Leamlara Road through the townlands of Gortnamucky and Carrigtohill. It crosses the railway at Terry's Land and is culverted under Station Road. The Woodstock Stream meets the Anngrove Stream and discharges to the Slatty Waters in the townland of Carrigtohill. It is proposed to realign and widen the Leamlara Road as part of this project. The realignment and widening is to be undertaken on the western side of the road. No works are proposed on the eastern side of the road adjacent to the stream. The project provides for a bridging structure over the Woodstock Stream. The proposed works area at the Woodstock Stream is located approximately 2km from the Slatty Waters which form part of the Great Island Channel SAC and part of the Cork Harbour SPA.
- In the eastern portion of the works area (Poulanska and Ballyadam) there is a network of small streams / watercourses which meet to the north of the railway in the townland of Carrigtohill and flow south under the railway. These appear to go to ground in the townland of Terry's Land close to the line of the new road. It appears that these streams will be directed to two new detention ponds to be constructed in this area. There is no direct surface water linkage between this works area and the harbour. The streams are located over 3km from the north channel of Cork Harbour.

Ecological surveys within the proposed works area identified significant numbers of Curlew, which is a qualifying interest species for which the Cork Harbour SPA is designated, feeding in improved agricultural fields to the north of the railway line in the townlands of Gortnamucky and Carrigtohill between Station Road and the Leamlara Road and to the east of the Leamlara Road on one occasion during the 2022/2023 winter season.



Figure 1: Site Context - Overall Layout taken from AA Screening Report



Figure 2: Site Context – Location Showing Flooding and Drainage



Figure 3: Site Context – Location Relative to Great Island Channel SAC (Red Hatching) and Cork Harbour SPA (Pink Hatching).

Name and location of EU sites subject to screening

The submitted AA Screening report identifies two EU designated site within the potential zone of influence of the proposed works area. These are the Great Island Channel Special Area of Conservation and the Cork Harbour Special Protection Area. Both of these sites have hydrological linkages to the works area via the above referenced streams and associated drains and via groundwater linkages.

At the closest point, the proposed works are located approximately one km from the SAC and the SPA. Hydrological distances between open streams at proposed works areas and these sites are provided above. All proposed works to be undertaken proximal to streams with hydrological linkages to the Great Island Channel SAC and to the Cork Harbour SPA are located between 1.8km-3km upstream of the EU sites.

Curlew, a qualifying interest species for which the Cork Harbour SPA is designated, has been recorded feeding within fields proximal to proposed works areas.

Other EU sites within 15km of the proposed works area were reviewed and considered, however, no hydrological or other linkages were identified connecting the works area to any such site.

Is the project directly connected with or necessary to the management of the sites listed above?

No.

Describe how the project (alone or in combination) is likely to affect the Natura 2000 Site

The Great Island Channel Special Area of Conservation is a large Special Area of Conservation which extends through the North Channel of Cork Harbour, including intertidal and other estuarine habitats from Glounthane in the west, to Midleton and Ballynacorra in the east. It includes the estuaries of the Owenacurra and Dungourney Rivers. The site is designated for the occurrence of two habitats which are listed on Annex I of the Habitats Directive:

- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

The Conservation Objectives for this site were published by the National Parks and Wildlife Service in (NPWS 2014a). The objectives are set out below as are a summary of the attributes and targets which are required to be met to achieve the objectives.

Conservation Objectives for the Great Island Channel SAC

Qualifying Interest	Conservation Objective
Mudflats and sandflats not covered by seawater at low tide [1140]	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide.
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]	To restore the favourable conservation condition of Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>).

NPWS Great Island Channel Conservation Objectives Version 1, June 2014

Activities which could result in

- direct removal of or damage to these habitats;
- interfere with natural hydrological processes within the estuary; and/or which could
- result in the introduction of nutrients or other pollutants to the estuary causing or contributing to a decline in water quality in the estuary,

could have the potential to interfere with the achievement of the conservation objectives established for this SAC and could have the potential to have significant negative effects on these habitats.

Cork Harbour SPA Site Details

The **Cork Harbour SPA** is an estuarine complex which is primarily comprised of intertidal habitats, mainly mudflats as well as some other coastal and marine habitats. These habitats support very high numbers of wintering waterfowl. The harbour regularly supports in excess of 20,000 wintering birds,

making it an internationally important site and the fifth most important wintering waterfowl site in the country. The qualifying interests for this SPA are set out below, as are the Conservation Objectives which apply to the site.

Conservation Objectives for the Cork Harbour SPA

Qualifying Interest	Conservation Objective
Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck Wigeon, Teal, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Black-headed Gull, Common Gull and Lesser Black-backed Gull	To maintain the favourable conservation condition of these species in Cork Harbour SPA.
Common Tern	To maintain the favourable conservation condition of Common Tern in Cork Harbour SPA.
Wetlands	To maintain the favourable conservation condition of wetland habitats in Cork Harbour SPA, as a resource for the regularly – occurring migratory waterbirds that utilise it.

NPWS (2014b) Conservation Objectives for Cork Harbour SPA {4030}. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs

Activities resulting in

- the loss of the availability or decline in quality of feeding, roosting habitat or reduction in food availability for qualifying interest wetland bird species;
- the loss of availability or decline in quality of breeding, feeding and roosting sites or a reduction in food availability for Common Tern; and/or
- significant disturbance related impacts to qualifying interest bird species

could interfere with the achievement of the Conservation Objectives which have been set for established for this SPA.

Screening Assessment

No works are proposed within the SAC or within the SPA. There will be no direct loss of or damage to qualifying interest habitats within the SAC or to wetland habitats within the SPA which are a feeding resource for wetland bird species.

The primary issues to be considered are associated with the hydrological linkages between the works area and the Great Island Channel SAC and the Cork Harbour SPA, and the use of areas proximal to

proposed works by Curlew, which is a qualifying interest species for which the Cork Harbour SPA is designated. These have been addressed in the submitted AA Screening Report as follows:

Potential Impacts on Great Island Channel SAC and the Cork Harbour SPA associated with hydrological linkages between the works area and the harbour.

Consideration is given in the submitted AA Screening Report to possible risks of impact of the proposed works to the Great Island Channel SAC and to the Cork Harbour SPA having regard to the hydrological connectivity between the works area and these sites. Potential impacts associated with both the construction and operational stages of development are considered.

The conclusion of the screening assessment is that the construction phase of the proposed project will not give rise to significant negative effects associated with the hydrological connections, on these sites, for the following reason:

Given the works sequence and methodology, the probability of any significant pollution event occurring is minimal and the magnitude of any negative water quality impacts, were they to occur, would be low and their duration brief or temporary. Given the low probability and significance of any water quality impacts within the construction site, any impacts on the SAC or the SPA would be imperceptible. As such, the possibility of significant effects on their qualifying interests from construction phase water quality impacts can be excluded.

It is concluded that the operational phase of the proposed project will not give rise to significant negative effects which could be associated with the hydrological connections, on these sites for the following reasons:

Based on the design of the proposed drainage systems, there will be no negative impact on surface waters due to the quantity or quality of run-off from the new roads, footpaths or cycleways. With regard to existing roads and other artificial surfaces to be upgraded as part of the proposed development, the design of the proposed drainage systems will result in an improvement in the quantity and quality of run-off from these areas, as there is currently no attenuation or treatment of same. While a foul sewer network forms part of the design, no wastewater flows will be generated from the proposed development itself. Therefore, there will be no impact from wastewater. Thus, given the proposed design, the possibility of any negative effects on these sites from the operation of the proposed development can be excluded at this stage.

The report also considers the indirect linkages between the works area and the Cork Harbour via groundwater and the potential for such linkages to give rise to impacts on water quality associated with the construction and the post construction stages. No such risk of impact is identified for the following reasons:

There are no karst features reported within the immediate vicinity of the proposed development (GSI, 2023). The closest karst feature is a cave ca.60m north of Main Street. Site excavation is anticipated to be no more than 4m in depth. Any localised / temporary alteration of ground water levels on-site is therefore expected to be minor and will not have a significant impact on the Slattery Water or more widely Cork Harbour. In landscaped areas of the site surface water will naturally infiltrate to soils and ultimately groundwater; all other waters will be intercepted by the surface water management system as discussed above.

It is therefore considered that the proposed development will not negatively impact on water quality within Great Island Channel SAC or the Cork Harbour SPA; nor will it impact, directly

or indirectly, any of the habitats or species listed as features of interest these sites. However, as is good practice, a series of environmental protection measures are proposed during both construction and operation, which are detailed in full design of the drainage network (see Section 3.3.5) as well as in the accompanying oCEMP.

Potential Impacts on the Cork Harbour SPA – disturbance to qualifying interest species, loss of availability of feeding/roosting habitat.

Consideration is given in the submitted AA Screening Report to possible disturbance risks to birds which are qualifying interest species for which the Cork Harbour SPA is designated and to potential ex situ impacts to Curlew which were identified to be feeding in fields close to the Woodstock Stream adjoining the Leamlara Road and proximal to proposed works areas.

The conclusion of the submitted report is that the proposed project does not pose any risk of causing disturbance related impacts to birds within the SPA itself for the following reason:

The site is screened by existing residential development, landscaping the N25 road corridor etc. from the estuary. There will be no direct impact to wetland habitats (Wetland and Waterbirds [A999]) for which the SPA has been designated.

Winter bird surveys were carried out within and around the proposed works areas from November 2022-Feb 2023. Curlew, a field feeding bird species which is also a qualifying species for which the Cork Harbour SPA is designated was recorded feeding in fields close to the Woodstock Stream adjoining the Leamlara Road in November and December of 2022. The highest number of Curlew recorded at this location was 86 representing 7.45%-13.2% of the population of Cork Harbour), in mid-December. Curlew was not recorded in counts carried out in January or February of 2023 and percentage of the Cork Harbour population of Curlew recorded at the site was <5% for all other counts. No significant numbers of any other qualifying interest waterbird species was recorded within the project development site during the winter bird surveys. Survey was completed by Dr. T Gittings who is the IWeBS co-ordinator for Cork Harbour and who has personally been counting birds and monitoring patterns of bird movements in Cork Harbour since the mid 1990's. He noted that the pattern of activity observed was probably quite typical for Curlew and considered it likely that the birds were exploiting a concentration of food resources in one area and abandoned the area when the resources had been depleted. The nearest nocturnal roost site to the study area is at Brown Island and it is stated in the report that counts at this location are variable and it is considered possible that field feeding Curlew may move between roosts depending on the locations of the fields that they are exploiting including at Little Island and near Belvelly.

Consideration was given in the submitted AA Screening Report to the significance of the occurrence of Curlew at this site and the potential for the project to impact on this species and other species. Displacement of birds feeding in this area is predicted to be likely to occur during the construction phase and possibly also in the post construction phase. In time, the opening up of lands through construction of the link roads will result in development of these areas which will also likely result in full displacement of field feeding birds from the area.

The assessment concluded that the proposed development of this area would not impact negatively on this species for the following reason:

While the fields within the Carrigtwohill lands can on occasion support notable numbers of Curlew, most counts did not support significant numbers or recorded no observations of Curlew. The pattern of field usage is variable and likely to vary significantly from year to year

depending on conditions in the estuary and management practises within given fields in any one year, as well as weather conditions. Given this variability and the availability of alternative fields for use by Curlew in the immediate environs of the Brown Island and other roost sites, it was considered that the proposed project will not give rise to significant negative effects on Curlew. It is also speculated that the noted long-term reduction in Curlew populations in Cork Harbour, may mean that the importance of field-feeding for the Curlew population may be decreasing.

Are there other projects or plans that together with the project being assessed that could affect these sites (provide details)?

An extensive listing of other plans, projects and licensed activities is included in the submitted AA Screening Report to which regard is had as to the likelihood of this project giving rise to significant effects on the Great Island Channel SAC or to the Cork Harbour SPA when considered in combination with this project. The conclusion of the assessment was that the proposed project is not likely to result in significant effects on these sites given the environmental controls and restrictions which are in place in relation to those projects and having regard to the conclusion that the project the subject of this assessment will not give rise to significant negative effects on the above two referenced sites.

Cork County Council evaluation and overall conclusion that there are no significant effects on European Sites foreseen as a result of the proposal.

On the basis of the information contained in the AA Screening Report and other project documents which is considered adequate to undertake a screening assessment and to make a screening determination Cork County Council is satisfied that the proposed project does not pose a likelihood of causing significant effects on any EU site for the following reasons:

1. No direct interventions are proposed within the SAC or SPA – therefore no associated risk of direct damage to qualifying interest habitats or other habitats within either EU site.
2. it is considered that the works do not pose a risk of causing pollution of water in either the Cork Harbour SPA or the Great Island Channel SAC for the following reasons:
 - a new surface water drainage system is to be constructed as part of the project. This will incorporate pollution controls and a surface water drainage system which provides for discharge to watercourses at Greenfield rates via detention ponds;
 - physical works proximal to streams with a direct surface water linkage to the estuary are limited to those proposed near the Leamlara Road approx. 2km upstream of the SAC and SPA. While such works could cause a localised release of sediment, it is predicted that that any such release will settle out quickly and will not reach the Slattery Water area;
 - site excavations are anticipated to be no more than 4m in depth. Any localised / temporary alteration of ground water levels on-site are expected to be minor and are not predicted to have significant impact on the Slattery Water or more widely Cork Harbour.
3. There is no risk that activities will cause disturbance impacts to birds as
 - the project site is sufficient distant from the SPA so as not to pose any risk of causing noise related or visual disturbances to birds using the SPA;

4. Notwithstanding the noted occurrence of Curlew proximal to proposed works areas during winter bird surveys, it is considered that the use of individual fields by this and other species is variable from month to month and year to year and is dependent on a number of conditions in the estuary and in the fields themselves. It is also considered that there are sufficient alternative field feeding sites available at locations close to known nocturnal roosts sites around the harbour, to be satisfied that these fields are not a critical resource upon which any qualifying interest species are dependent, whose loss of availability would result in a significant effect.

5. The proposed project does not pose a risk of causing the spread of invasive alien species to either the Cork Harbour SPA or the Great Island Channel SAC, which species could negatively impact qualifying interest habitats or species of either of these two sites.