SCREENING STATEMENT

IN SUPPORT OF THE

APPROPRIATE ASSESSMENT

FOR THE

PROPOSED STREETSCAPE IMPROVEMENT WORKS IN RATHANGAN MARKET SQUARE, KILDARE

for: **Kildare County Council**
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Section 1 Introduction

1.1 Background

This Screening Statement has been prepared in support of the Appropriate Assessment (AA) of the Propose streetscape improvement works ("the proposed project") in Rathangan market square in accordance with the requirements of Article 6(3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the "Habitats Directive").

This report is part of the ongoing AA process that is being undertaken alongside the preparation of the proposed project. It will be considered, alongside other documentation prepared as part of this process, when Kildare County Council finalises the AA at adoption of the proposed project.

1.2 Legislative Context

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the "favourable conservation status" of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Council Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable of them. These two designations are collectively known as European sites and Natura 2000.

AA is required by the Habitats Directive, as transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act (as amended). AA is an assessment of the potential for adverse or negative effects of a plan or project, in combination with other plans or projects, on the conservation objectives of a European site. These sites consist of SACs and SPAs and provide for the protection and long-term survival of Europe's most valuable and threatened species and habitats.

1.3 Approach

The AA is based on best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted. This included a detailed review of the National Parks and Wildlife (NPWS) website including mapping and available reports for relevant sites and in particular sensitive qualifying interests/special conservation interests described and their conservation objectives.

The ecological desktop study completed for the AA of the proposed project comprised the following elements:

- Identification of European sites within 15km of the proposed project boundary with identification of potential pathways links for specific sites (if relevant) greater than 15km from the proposed project boundary;
- Review of the NPWS site synopsis and conservation objectives for European sites with identification of potential pathways from the proposed project area; and
- Examination of available information on protected species.

There are four main stages in the AA process as follow:

Stage One: Screening
The process which identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment
The consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate

mitigation is proposed to ensure no significant adverse impacts on European sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions
The process which examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain
An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. This approach aims to avoid any impacts on European sites by identifying possible impacts early in the plan-making process and avoiding such impacts. Second, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential impacts on European sites remain, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the plan/project is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effect(s).

The assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model, where, in order for an effect to be established all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g. pollutant run-off from proposed works;
- Pathway(s) – e.g. groundwater connecting to nearby qualifying wetland habitats and
- Receptor(s) – qualifying aquatic habitats and species of European sites.

In the interest of this report, receptors are the ecological features which are known to be utilised by the qualifying interests or special conservation interests of a European site. A source is any identifiable element of the proposed project provision which is known to have interactions with ecological processes. The pathways are any connections or links between the source and the receptor. This report provides information on whether direct, indirect and cumulative adverse effects could arise from the proposed project.

The AA Screening exercise has been prepared taking into account legislation including the aforementioned legislation and guidance including the following:

- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009;
- "Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC", European Commission 2018;
- "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", European Commission Environment DG, 2002; and
- "Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC", European Commission, 2000.

Section 2 Description of the Proposed Project

2.1 Receiving Environment

Rathangan is located on the Grand Canal/Slate River, 56km from Dublin and 8km from Kildare town. The town lies 10km north of the M7 and 30km south of the M4. The R401 from Kildare to Edenderry and the R414 from Monastervin to Allenwood are the major regional routes passing through the town. Rathangan is primarily a service centre for north-west Kildare and east Offaly. The services provided include convenience shops, pubs, pharmacies, takeaways, hairdressers, churches and education facilities.

Amenity access to the Slate river is currently facilitated along the north west bank and the southern bank to the west of the bridge. The slate river has a south westerly flow, and is a tributary of the Barrow approximately 10km downstream of the town.

Figure 2.1 Habitat present within the redline boundary

2.2 Rathangan Proposed Streetscape Improvement Works

Landscaping and streetscaping works in Rathangan town to activate connections between the canal and the town centre; works include:

- Enhance the setting of protected buildings and structures;
- Enhance environmental quality of town centre;
- Encourage business growth and development;
- Address traffic speeds through town centre;
- Provide space to facilitate community activities; and
- Minimise clutter, including the undergrounding of overhead cables.

Section 3 Screening for Appropriate Assessment

3.1 Introduction to Screening

This stage of the process identifies any potential significant affects to European sites from a project or plan, either alone or in combination with other projects or plans.

An important element of the AA process is the identification of the "'conservation objectives", "Qualifying Interests" (QIs) and/ or "Special Conservation Interests" (SCIs) of European sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each European site has been designated and afforded protection. SCIs are wetland habitats and bird species listed within Annexes I and II of the Birds Directive. It is also vital that the threats to the ecological / environmental conditions that are required to support QIs and SCIs are considered as part of the assessment.

The following NPWS Generic Conservation Objectives have been considered in the screening:

- For SACs, to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected; and
- For SPAs, to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

Where available, Site-Specific Conservation Objectives (SSCOs) designed to define favourable conservation status for a particular habitat[1] or species[2] at that site have been considered.

3.2 Identification of Relevant European sites

The Department of the Environment (2009) Guidance on AA recommends a 15 km buffer zone to be considered. A review of all sites within this zone has allowed a determination to be made that in the absence of significant hydrological links the characteristics of the proposed project will not impose effects beyond the 15 km buffer. All European sites within a 15km radius of the proposed project area were examined to assess potential connectivity corridors on a landscape scale and assess potential interactions between the proposed project and the conservation objectives of each of the sites.

The only European sites identified to be hydrologically connected to the proposed site were the River Barrow and River Nore SAC and those in Dublin Bay. The grand canal connects the site to Dublin bay, however given the significant distances observed between the site's areas, and the nature, scale and temporary nature of the proposed works it was determined that there are no likely significant effects to sites in Dublin Bay. The river Slate is hydrologically connected to the river Barrow approximately 10km downstream of the proposed project.

Details of European sites that occur within 15 km of the proposed project is listed in Table 3.1. Information on QIs, SCIs and site-specific vulnerabilities and sensitivities (see Appendix I) and background information (such as that within Ireland's Article 17 Report to the European Commission, site synopses and Natura 2000 standard data forms) has been considered in this AA screening assessment. Conservation objectives that have been considered by the assessment are included in the following NPWS/ Department of Culture, Heritage and the Gaeltacht documents:

> NPWS (2018) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.

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

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

NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.NPWS (2018) Conservation objectives for The Long Derries, Edenderry SAC [000925]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
NPWS (2015) Conservation Objectives: Mouds Bog SAC 002331. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
NPWS (2015) Conservation Objectives: Ballynafagh Bog SAC 000391. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

The assessment considers available conservation objectives. Since conservation objectives focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the screening process concentrated on assessing the potential effects of the Plan against the QIs/SCIs of each site. The conservation objectives for each site were consulted throughout the assessment process.

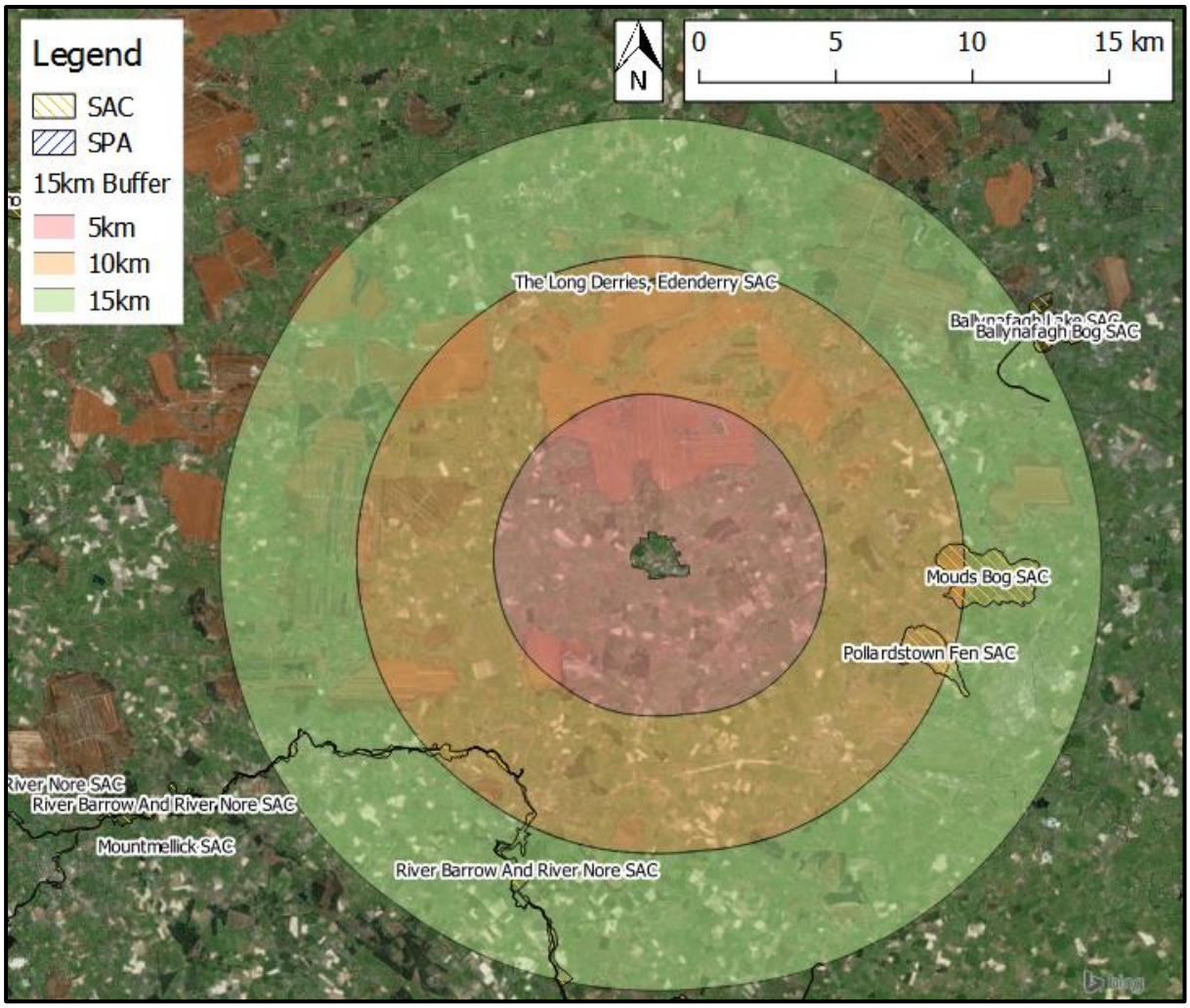

Figure 3.1 European sites within 15km of the proposed project boundary[3]

[3] Source: NPWS (datasets downloaded June 2019 and updated October 2020)

3.3 Assessment Criteria and Screening

3.3.1 Is the proposed project Necessary to the Management of European sites?

The overarching objective of the proposed project is not the nature conservation management of the sites, but to develop and improve the community space in the Rathangan Village. Therefore, the proposed project is not considered to be directly connected with or necessary to the management of European sites.

3.3.2 Elements of the proposed project with Potential to Give Rise to Effects

The operational phase elements of the proposed project will be consistent with the existing land use and therefore there are no sources for effects identified.

There are potential effects associated with the construction phase elements of the proposed project. The proposed project will have a temporary construction phase of 3-6 months and the overall project extent is small in scale. There are no in stream works detailed in the project description however, the site is directly adjacent to the river Slate and the Grand Canal. Potential effects include:

- Noise disturbance;
- Dust; and
- Surface water run-off.

3.3.3 Screening of Sites

Table 3.1 examines whether there is potential for effects on European sites considering information provided above, including Appendix I. Sites are screened out based on one or a combination of the following criteria:

- Where it can be shown that there are significant pathways such as hydrological links proposed project proposals and the site to be screened;
- Where the site is located at such a distance from that area to which the proposed project relates that effects are not foreseen; and
- Where it is that known threats or vulnerabilities at a site cannot be linked to potential impacts that may arise from the proposed project.

3.3.4 Characterising Potential Significant Effects

The following parameters are described when characterising impacts[4]:

Direct and Indirect Impacts - An impact can be caused either as a direct or as an indirect consequence of a Plan/Project.

Magnitude - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.

Extent - The area over which the impact occurs – this should be predicted in a quantified manner.

Duration - The time for which the effect is expected to last prior to recovery or replacement of the resource or feature.

- Temporary: Up to 1 Year;
- Short Term: The effects would take 1-7 years to be mitigated;
- Medium Term: The effects would take 7-15 years to be mitigated;
- Long Term: The effects would take 15-60 years to be mitigated; and
- Permanent: The effects would take 60+ years to be mitigated.

Likelihood – The probability of the effect occurring taking into account all available information.

- Certain/Near Certain: >95% chance of occurring as predicted;
- Probable: 50-95% chance as occurring as predicted;
- Unlikely: 5-50% chance as occurring as predicted; and
- Extremely Unlikely: <5% chance as occurring as predicted.

Ecologically Significant Impact - An impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area.

Integrity of a Site - The coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

[4] These descriptions are informed by publications including: Chartered Institute of Ecology and Environmental Management (2016) "Guidelines for ecological impact assessment"; Environmental Protection Agency (2002) "Guidelines on the Information to be contained in Environmental Impact Statements"; and National Roads Authority (2009) "Guidelines for Assessment of Ecological Impacts of National Roads Schemes".

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site.

SSCOs have been prepared for a number of European sites. These detailed SSCOs aim to define favourable conservation condition for the qualifying habitats and species at that site by setting targets for appropriate attributes which define the character habitat. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

> ***Favourable conservation status*** *of a* ***species*** *can be described as being achieved when: 'population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or likely to be reduced for the foreseeable future, and there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.'*
>
> ***Favourable conservation status*** *of a* ***habitat*** *can be described as being achieved when: 'its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and the conservation status of its typical species is favourable'.*

Generic Conservation Objective for cSACs:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

One generic Conservation Objective for SPAs:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

3.3.5 Types of Potential Effects

Assessment of potential impacts on European sites is conducted utilising a standard source-pathway model (see approach referred to under Sections 1.3 and 3).

The 2001 European Commission AA guidance outlines the following potential changes that may occur at a designated site, which may result in effects on the integrity and function of that site:

- Loss/reduction of habitat area;
- Habitat or species fragmentation;
- Disturbance to key species;
- Reduction in species density;
- Changes in key indicators of conservation value (water quality etc.); and
- Climate change.

3.3.5.1 Loss/Reduction of Habitat Area

There are no European sites present within the redline boundary and the closest European site is 8.18km away. Similarly, there were no Annex I habitats or supporting habitat for Annex II species identified on site during the field work. Therefore, there will be no effects posed to European sites in this respect.

3.3.5.2 Habitat or species Fragmentation

A landscape scale assessment of habitats showed that there are no ecological corridors connecting any of the European sites identified above. Similarly, there were no Annex I habitats or supporting habitat for Annex II species identified on site during the field work. Therefore, there will be no effects posed to European sites in this respect.

3.3.5.3 Disturbance to Key Species

None of the species and/or habitats identified in Table 3.1 were recorded on site. The nearest European site is 8.18 km away from the proposed site and therefore disturbance effects due to noise or lighting etc. are not present.

3.3.5.4 Reduction in species density

There are no ecological corridors between the site and any European site. Similarly, there are no habitats identified on site of any ecological significance. As there is no supporting habitat and/or

connectivity between the propose project and any European site, there will be no reduction in species density of any of the QI or SCI species.

3.3.5.5 Changes of Indicators of Conservation Value

The only European sites identified to be hydrologically connected to the proposed site were the River Barrow and River Nore SAC and those in Dublin Bay. The grand canal connects the site to Dublin bay, however given the significant distances observed between the site's areas, and the nature, scale and temporary nature of the proposed works it was determined that there are no likely significant effects to sites in Dublin Bay. The river Slate is hydrologically connected to the river Barrow approximately 10km downstream of the proposed project. The sources for effects to ecological processes from the proposed works were identified to be noise, dust and surface run off during the construction phase. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified. There are no pathways for effects to European sites identified due to the nature of the proposed works, the hydrological connectivity of the site and the dilution effects of the Slate and the distance between sites. Therefore, there will be no changes to the indicators of conservation value at any European site.

3.3.5.6 Climate change

The proposed works will not result in any greenhouse gas emissions to air during the operational phase. The construction phase works will have increased temporary emissions which will be localised however, given the distance to the nearest European site these are determined to be negligible. Such effects upon greenhouse gas emissions will not affect changes projected to arise from climate change to the degree that it would affect the QIs or SCIs of the European sites considered.

Table 3.1 Screening of European sites within 15km of the proposed project boundary

Site Code	Site Name	Distance (Km)	Qualifying Features (Qualifying Interests & Special Conservation Interests)	Potential effects (refer also to Sections 3.3.2 and 3.3.3 above)	Pathway for Significant Effects	Potential for In-Combination Effects
000396	Polardstown Fen SAC	8.18	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] Vertigo geyeri (Geyer's Whorl Snail) [1013] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	The SAC is sensitive to groundwater interactions and direct land use management activities. There are no sources for effect to ground water or land use management of the SAC or the surrounding area. There are no hydrological pathways between the proposed project and the SAC. Given the distance between the proposed project and the SAC, the small-scale temporary nature of the project and the absence of direct pathways there are no effects identified to the ecological integrity of the SAC.	No	No
002162	River Barrow and Nore SAC	8.67	Estuaries [1130]	The known threats/pressures for this SAC are intensive cattle grazing, fishing, removal of hedges and copses or scrub, intensive fish farming, invasive species, dredging, agricultural intensification and port areas. The site is hydrologically connected to the SAC; therefore, the conservation objectives were carefully considered for each of the QIs. The SSCOs for the QI seek to maintain habitat area, and community composition through the maintenance of sediment condition. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.	No	No
			Mudflats and sandflats not covered by seawater at low tide [1140]	The SSCOs for the QI seek to maintain habitat area, and community composition through the maintenance of sediment condition. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Salicornia and other annuals colonising mud and sand [1310]	The SSCOs for the QI seek to maintain distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	The SSCOs for the QI seek to maintain distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Mediterranean salt meadows (Juncetalia maritimi) [1410]	The SSCOs for the QI seek to maintain distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. There are no sources for effects to directly affect the habitat		

				structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]	The SSCOs for the QI seek to maintain the groundwater characteristics and habitat distribution/area. The floodplain connectivity with sediment and nutrient interactions with surface water are important features. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			European dry heaths [4030]	The SSCOs for the QI seek to maintain distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. As well as focusing on on-site management actions. There no pathways for effects to this habitat.		
			Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	The SSCOs for the QI seek to maintain distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Petrifying springs with tufa formation (Cratoneurion) [7220]	The SSCOs for the QI seek to maintain hydrological regime and ground water processes. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	The SSCOs for the QI seek to restore the distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. There are no pathways for effects to this habitat.		
			Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	The SSCOs for the QI seek to restore the distribution and area of habitat with a focus on the composition, structure and function of the community dynamics. As well as the restoration of natural flood regimes. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	The SSCOs for the QI seek to maintain population size and density, habitat quality, distribution and soil moisture composition. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	SSCOs are pending however this species is sensitive to hydrological interactions. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions.		

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			Austropotamobius pallipes (White-clawed Crayfish) [1092]	The SSCOs for the QI seek to maintain a Q ranking of 3-4, control disease risk in the population, maintain population structure and distribution. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Petromyzon marinus (Sea Lamprey) [1095]	The SSCOs for the QI seek to restore the extent and distribution of habitats for spawning, juveniles and adult populations. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Lampetra planeri (Brook Lamprey) [1096]	The SSCOs for the QI seek to restore range. Population structure, available habitat for spawning and juveniles to increase species density. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Lampetra fluviatilis (River Lamprey) [1099]	The SSCOs for the QI seek to restore range. Population structure, available habitat for spawning and juveniles to increase species density. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Alosa fallax fallax (Twaite Shad) [1103]	The SSCOs for the QI seek to restore population structure distribution and algal community composition at spawning habitat. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Salmo salar (Salmon) [1106]	The SSCOs for the QI seek to restore adult spawning numbers, fry and smolt abundance and maintain the Q ranking as Q4. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Lutra lutra (Otter) [1355]	The SSCOs for the QI seek to restore prey availability, number of holts and extent/range of species. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary		

				and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Trichomanes speciosum (Killarney Fern) [1421]	The SSCOs for the QI seek to maintain hydrological condition, light penetration, control invasive spread as well as maintain population size and distribution. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
			Margaritifera durrovensis (Nore Pearl Mussel) [1990]	The SSCOs for the QI seek to restore population structure, adult population number and restore available habitat. This relies on hydrological characteristics as well as host dynamics. There are no sources for effects to directly affect the habitat structure or the community composition of the SAC. The sources identified are small scale construction phase impacts that may arise due to dust or surface water interactions. The flow rate and volume of the Slate river introduces substantial dilution effects to any potential contaminants or interactions. The proposed works are small and temporary in nature with no in stream works. Therefore, the sources of effects are deemed to be low risk. The site is 10km upstream from the SAC boundary and therefore hydrological interaction from the temporary construction phase will be diluted to undetectable levels and therefore there are no significant effects identified.		
	The Long Derries, Edenderry SAC	9.09	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	The SAC is sensitive to direct land use management activities. There are no sources for effect to land use management of the SAC or the surrounding area. There are no hydrological pathways between the proposed project and the SAC. Given the distance between the proposed project and the SAC, the small-scale temporary nature of the project and the absence of direct pathways there are no effects identified to the ecological integrity of the SAC.	No	No
002331	Mouds Bog SAC	9.33	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	The SAC is sensitive to hydrological interactions, groundwater interactions and direct land use management activities. There are no sources for effect to ground water or land use management of the SAC or the surrounding area. There are no hydrological pathways between the proposed project and the SAC. Given the distance between the proposed project and the SAC, the small-scale temporary nature of the project and the absence of direct pathways there are no effects identified to the ecological integrity of the SAC.	No	No
000391	Ballynafagh Bog SAC	13.17	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	The SAC is sensitive to groundwater interactions and direct land use management activities. There are no sources for effect to ground water or land use management of the SAC or the surrounding area. There are no hydrological pathways between the proposed project and the SAC. Given the distance between the proposed project and the SAC, the small-scale temporary nature of the project and the absence of direct pathways there are no effects identified to the ecological integrity of the SAC.	No	No

3.4 Other Plans and Programmes

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or programmes that might, in combination with the plan or project, have the potential to adversely impact upon European sites. The characteristics of the Project are foreseen to have very low effects to any European Sites. Therefore, the in-combination effects do not need to be considered, as per the CIEEM 2016 guidelines. However, following a precautionary approach relevant plans and projects have been assessed. Appendix II outlines a selection of plans or projects that may interact with the proposed project to cause in-combination effects to European sites such as nearby residential developments. These projects were considered throughout the assessment.

Section 4 AA Screening Conclusion

This stage 1 screening for AA of the Proposed Streetscape Improvement Works at Rathangan Co. Kildare shows that implementation of the project is not foreseen to have any likely significant effects on any European site.

The proposed project is located 8.18km from the closets European site. The AA screening process has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the project. Through an assessment of the pathways for effects and an evaluation of the project characteristics, taking account of the processes involved and the distance of separation from European sites, it has been evaluated that there are no likely significant adverse effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site.

Given the site context in relation to other projects identified as well as the nature of the development, it's scale, connectivity pathways, dilution effects and the temporary nature of the construction effects identified as potential sources the proposed development will not lead to significant in-combination effect with any other plans or projects.

This evaluation is made in view of the conservation objectives of the habitats or species for which these sites have been designated. It is concluded that the proposed project will not give rise to any significant adverse effects on any designated European sites, alone or in combination with other plans or projects[5]. Consequently, a Stage Two – NIS is not required for the project.

[5] Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:
a) no alternative solution available,
b) imperative reasons of overriding public interest for the plan to proceed; and
c) Adequate compensatory measures in place.

Appendix I Background information on European sites

List of European sites within 15 km of the proposed project boundary; including the Qualifying features (Qualifying Interests or Special Conservation Interests) and Site Vulnerability/Sensitivity

Site Code	Site Name	Distance (Km)	Qualifying Features (Qualifying Interests & Special Conservation Interests)	Site Specific Threats or Vulnerability
000396[6]	Polardstown Fen SAC	8.18	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210] Petrifying springs with tufa formation (Cratoneurion) [7220] Alkaline fens [7230] Vertigo geyeri (Geyer's Whorl Snail) [1013] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	Pollardstown Fen is situated on the northern margin of the Curragh of Kildare, approximately 3 km north-west of Newbridge. It lies in a shallow depression, running in a north-west/south-east direction. About 40 springs provide a continuous supply of water to the fen. These rise chiefly at its margins, along distinct seepage areas of mineral ground above the fen level. The standard data list for the site lists a number of potential threats to the site including fishing, grazing, silviculture, electricity and phone lines and hunting. All of these threats have been identified within the boundary. The NPWS have identified threats beyond the boundary including urbanisation, grazing and sand and gravel extraction.
002162[7]	River Barrow and Nore SAC	8.67	Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Petrifying springs with tufa formation (Cratoneurion) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Austropotamobius pallipes (White-clawed Crayfish) [1092] Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Lampetra fluviatilis (River Lamprey) [1099] Alosa fallax fallax (Twaite Shad) [1103] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355] Trichomanes speciosum (Killarney Fern) [1421] Margaritifera durrovensis (Nore Pearl Mussel) [1990]	This site consists of most of the freshwater stretches of the Barrow/Nore River catchments. The Barrow is tidal as far upriver as Graiguenamanagh while the Nore is tidal as far upriver as Inishtioge. The site also includes the extreme lower reaches of the River Suir and all of the estuarine component of Waterford Harbour extending to Creadan Head. The larger of the many tributaries include the Lerr, Fushoge, Mountain, Aughavaud, Owenass, Boherbaun and Stradbally Rivers of the Barrow and the Delour, Dinin, Erkina, Owveg, Munster, Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains. They traverse limestone bedrock for a good proportion of their routes, though the middle reaches of the Barrow and many of the eastern tributaries run through Leinster Granite. A wide range of habitats associated with the rivers are included within the site, including substantial areas of woodland (deciduous, mixed), dry heath, wet grassland, swamp and marsh vegetation, salt marshes, a small dune system, biogenic reefs and intertidal sand and mud flats. Areas of improved grassland, arable land and coniferous plantations are included in the site for water quality reasons. The standard data form for the site lists a number of potential impacts including intensive cattle grazing, fishing, removal of hedges and copses or scrub, intensive fish farming, invasive species, dredging, agricultural intensification and port areas. All of these pressures have been identified inside and beyond the boundary. No other site-specific threats have been identified by the NPWS.
000925[8]	The Long Derries, Edenderry SAC	9.09	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	The Long Derries is located approximately 5 km south-east of Edenderry in Co. Offaly and is part of a low esker ridge running from Edenderry to Rathdangan. It consists primarily of glacial gravels interspersed with loam and peat soil. At the western section of this site activities connected with the harvesting of peat occur. The eastern section of the site is grazed by cattle and horses. Grazing is essential for the preservation of the rare orchid, but over-grazing needs to be avoided. Shooting and motorbike scrambling are other activities occurring. Although gravel extraction has helped create habitats for some plant species, this could result in excessive damage if uncontrolled. Dumping of rubbish and old railway tracks is undesirable, as is interference with Badger setts. No other site-specific threats have been identified by the NPWS.

[6] NPWS (2018) Conservation objectives for Pollardstown Fen SAC [000396]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.
[7] NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[8] NPWS (2018) Conservation objectives for The Long Derries, Edenderry SAC [000925]. Generic Version 6.0. Department of Culture, Heritage and the Gaeltacht.

002331[9]	Mouds Bog SAC	9.33	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	Mouds Bog is located about 3 km north-west of Newbridge in Co. Kildare, close to the Hill of Allen, and includes amongst others, the townlands of Grangehiggin, Barretstown and Hawkfield. The site comprises a raised bog that includes both areas of high bog and cutover bog. Much of the margins of the site are bounded by trackway. Current land use on the site consists of peat-cutting, with extensive active industrial peat moss production in the western section of the remaining high bog. Burning has taken place in the recent past, and there is extensive damage in the west of the site due to industrial peat production. These are all activities that have resulted in loss of habitat and damage to the hydrological status of the site, and pose a continuing threat to its viability. No other site-specific threats have been identified by the NPWS.
000391[10]	Ballynafagh Bog SAC	13.17	Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150]	This site is a raised bog situated about 1 km west of Prosperous in Co. Kildare. The area is directly underlain by muddy, fossiliferous limestones, interbedded with calcareous shales. The subsoils are predominantly clay-rich tills. All are of low permeability. The bog has been damaged by afforestation, mechanised peat-cutting and drainage. These three activities pose the main threats to the survival of raised bogs. In addition, a significant proportion of the bog surface was badly damaged by fire in the mid1990s. The standard data list for the site lists a number of potential threats including urbanisation, peat extraction, human disturbances and forest planting on open ground. All of these threats have been identified within and beyond the site boundary. No other site-specific threats have been identified by the NPWS.

List of all Qualifying Interests of SACs that have undergone Assessment including Summaries of Current Threats and Sensitivity to Effects

Qualifying Interests	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Austropotamobius pallipes (White-clawed Crayfish) [1092]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent Highly sensitive to hydrological change
Active raised bogs [7110]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Alosa fallax fallax (Twaite Shad) [1103]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent Highly sensitive to hydrological change
Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	Overgrazing; erosion; invasive species, particularly common cordgrass (*Spartina anglica*); infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion
Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	Overgrazing; extractive industries; recreational activities and improved access	Erosion, overgrazing and recreation.
Degraded raised bogs still capable of natural regeneration [7120]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Depressions on peat substrates of the Rhynchosporion [7150]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Estuaries [1130]	Pollution, fishing /aquaculture and habitat quality.	Inappropriate development, changes in turbidity and
European dry heaths [4030]	Afforestation, overburning, over-grazing, under-grazing and bracken invasion.	Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	Overgrazing; extractive industries; recreational activities and improved access	Erosion, overgrazing and recreation.
Lampetra fluviatilis (River Lamprey) [1099]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent Highly sensitive to hydrological change
Lampetra planeri (Brook Lamprey) [1096]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent Highly sensitive to hydrological change
Lutra lutra (Otter) [1355]	Decrease in water quality: Use of pesticides; fertilization; vegetation removal; professional fishing (including lobster pots and fyke nets); hunting; poisoning; sand and gravel extraction; mechanical removal of peat; urbanised areas; human habitation; continuous urbanization; drainage; management of aquatic and bank vegetation for drainage purposes; and canalization or modifying structures of inland water course.	Surface and marine water dependent. Moderately sensitive to hydrological change. Sensitivity to pollution
Margaritifera margaritifera (Freshwater Pearl Mussel) [1029]	Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution
Margaritifera durrovensis (Nore Pearl Mussel) [1990]	Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution

[9] NPWS (2015) Conservation Objectives: Mouds Bog SAC 002331. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[10] NPWS (2015) Conservation Objectives: Ballynafagh Bog SAC 000391. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Qualifying Interests	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Mediterranean salt meadows (Juncetalia maritimi) [1410]	Over-grazing by cattle or sheep; infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
Mudflats and sandflats not covered by seawater at low tide [1140]	Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cordgrass; hard coastal defence structures; sea-level rise.	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development
Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to oak woodlands; and the construction of communication networks through the woodland.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Petrifying springs with tufa formation *(Cratoneurion)* [7220]	Ground water interactions and drainage activities	Trampling and alterations in hydrological characteristics/conditions.
Petromyzon marinus (Sea Lamprey) [1095]	Barriers to upstream migration (e.g. weirs), which limit access to spawning beds and juvenile habitat are main threats to this species.	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity.
Phocoena phocoena (Harbour Porpoise) [1351]	The main threats to this species include; by-catch in fishing gear, pollution of the marine environment and habitat degradation.	Falling prey densities is a threat to this species.
Salicornia and other annuals colonising mud and sand [1310]	Invasive Species; erosion and accretion	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species
Salmo salar (Salmon) [1106]	Marine survival rates are of concern for the populations.	Disease, parasites and barriers to movement.
Transition mires and quaking bogs [7140]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management
Trichomanes speciosum (Killarney Fern) [1421]	Threatened by habitat loss, deliberate collection, encroachment of invasive or vigorous species, or indirectly by water pollution, removal of woodland or alteration of watercourses.	Land use management and direct impacts
Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Groundwater dependent. Highly sensitive to hydrological changes
Vertigo geyeri (Geyer's Whorl Snail) [1013]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Groundwater dependent. Highly sensitive to hydrological changes
Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Groundwater dependent. Highly sensitive to hydrological changes
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210]	Overgrazing; extractive industries; recreational activities and improved access	Erosion, overgrazing and recreation.

List of all Special Conservation Interest of SPAs that have undergone Assessment including Summaries of Current Threats and Sensitivity to Effects

Special Conservation Interests	Vulnerabilities of Special Conservation Interests
None	• Bird species are particularly vulnerable to direct disturbance due to noise and/or vibration. These effects are localised, and disturbance effects are foreseen to be low at distances beyond 2km. • Direct habitat loss is a serious concern for bird species, as well as the reduction in habitat quality. Habitat degradation could occur through effects such as local enrichment due to agricultural practices or damage to habitat through activities such as trampling. • Prey species diversity and availability is a key element of species conservation. Community dynamics and ecosystem functionality are complex concepts and require site specific information. The site synopsis and conservation objectives for the SPAs identified within the ZOI were used to identify any specific prey sensitivities. • Availability of nesting/roosting habitat. Particularly for the Hen Harrier. • Vegetation composition, structure and functionality.
Wetland and Waterbirds [A999] (no SPA was identified with this SCI within 15km of the proposed project)	Direct land take is a common vulnerability to all sites; as well as significant water quality effects. The conservation objective of all SPAs designated for Wetland and Waterbirds is to maintain the favourable conservation condition of the wetland habitat as a resource for the regularly occurring migratory waterbirds using it.

Appendix II Relationship Other Projects

Other Projects	Status	Summary of high-level aim/ purpose/ objective	Relevance to the Plan
20488	Granted (08/07/2020)	Change of use to existing disused public house and private residence.	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
18562	Granted (16/10/2018)	Change of use of existing vacant betting office to coffee shop and retention permission for existing single storey extension to side of proposed coffees shop.	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
18517	Granted (17/12/2018)	Residential development of 42 houses.	This residential development is small-moderate in scale and is directly adjacent to the Liffey river. An assessment of the likely pathways for effects identified hydrological connectivity is present between the site and European sites. This project could introduce low levels sources for effects to the river liver waterway during construction phase. The operational phase elements of this development will be consistent with the existing land use and no long-term effects are identified. The proposed project at Rathangan has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
16117	Granted (01/04/2016)	Extension of duration of planning ref. no 101689	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
16955	Granted (06/04/2017)	110 two story dwelling units consisting of 60 3 bed semi-detached units.	This residential development is small-moderate in scale and is directly adjacent to the Liffey river. An assessment of the likely pathways for effects identified hydrological connectivity is present between the site and European sites. This project could introduce low levels sources for effects to the river liver waterway during construction phase. The operational phase elements of this development will be consistent with the existing land use and no long-term effects are identified. The proposed project at Rathangan has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
16709	Granted (31/08/2016)	Garden Shed and fuel store	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
161012	Refuse (17/11/2016)	Single story dwelling, upgrading of existing entrance,	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
18402	Granted (02/08/2018)	Erection of a single-story house. Upgrading of existing entrance	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
16943	Granted (7/12/2016)	Replacement of existing 3 classroom single story temporary accommodation.	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.
16263	Granted (27/06/2017)	Replacement dwelling on the foot print of an existing fire damaged two a story house.	This project is a small-scale temporary development and the operational phase elements of the development is consistent with existing land use. There are no sources identified that would have significant effects on ecological processes of the receiving environment. Similarly, the proposed project has small scale temporary effects identified associated with construction phase and operational phase effects are negligible. Given the distances between these sites and the limited scope of effects identified combined with the pathways identified to the nearest European site, which is over 7 km away, there are no likely significant in combination effects identified.