



## Ecological Impact Assessment and Appropriate Assessment Screening Report

Hermitage Golf Club

---

**By:** Dr David McCormick, Flynn Furney Environmental Consultants

**For:** JE Keating and Associates Ltd

**Date of Issue:** 30<sup>th</sup> June 2022

---

---

1. Introduction	2
2. Background to Screening for Appropriate Assessment	3
2.1. European Designated Sites	3
2.2. Legislative Context	4
3. Methodology	6
3.1. Desk Study	6
3.2. Data Used To Carry Out The Assessment	6
3.3. SPR Model	6
3.4. Field Survey	6
4. Ecological Assessment Works	7
4.1. Site Location	7
4.2. Receiving Environment	8
4.2.1. Surface water	10
4.2.2. Groundwater	11
4.2.3. Breeding Birds	12
4.2.4. Amphibians	12
4.2.5. Mammals	12
4.2.6. Invasive Species	12
4.3. Proposed Works	14
4.5. Nearby Designated Sites	15
5. ECOLOGICAL IMPACT ASSESSMENT	18
5.1 Predicted Impacts and Significance	18
3.2 Evaluation of Significance of Impacts	21
6. ASSESSMENT CRITERIA	24
6.1. Relation To Management Of Nearby Designated Site(s)	24
6.2. Direct Or Indirect Impacts	24
6.2.1. Surface and groundwater pollution	24
6.2.3. Construction/installation of infrastructure and potential QI habitat loss	24
6.2.4. Invasive Species	24
6.3. Cumulative And In-combination Impacts	24

---

---

6.4. Likely Changes to The Designated Site(s)	24
7. Screening Conclusions	25
References	27

## 1. Introduction

This report comprises information regarding the ecological status of the proposed site of works, including a general assessment of the potential impacts of the proposed works and the ecology of the surrounding area. Additionally, the report provides information in support of screening for Appropriate Assessment (AA) in line with the requirements of Article 6[3] of the EU Habitats Directive (EC 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora; the Planning and Development (Amendment) Act 2010; and the European Union (Birds and Natural Habitats) Regulations 2011 as amended, for the erection of a temporary golf gym pavilion and all associated site works at the Hermitage Golf Club, Lucan, Co. Dublin.

This screening exercise aims to determine whether the proposed works have the potential to significantly impact upon the conservation objectives and overall integrity of any Natura 2000 sites. This assessment is based upon a desk study and field work carried out by suitably qualified ecologists. Also included is a general assessment of the ecological status of the site and the potential impacts of the proposed works on the ecology of the surrounding area, including Designated Sites.

The following definitions are used for the terms "impact" and "effect":

**Impact** – Actions resulting in changes to an ecological feature, e.g. the construction activities of a development removing a hedgerow.

**Effect** – Outcome to an ecological feature from an impact, e.g. the effects on an animal population from loss of a hedgerow.

The Competent Authority is obliged to examine the likely significant effects individually or in combination, of the proposed development on European Designated Sites in light of their specific Qualifying Interests (QIs) and Conservation Objectives (COs). If AA screening determines that there is likely to be significant effects on one or more of these sites, or the impacts are uncertain, then full AA must be carried out for the proposed development, including the compilation of a Natura Impact Statement to inform the decision making.

For the purposes of this assessment, a "significant effect" is:

“...an effect that either supports or undermines biodiversity conservation objectives for ‘important ecological features’ ... or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity).

Effects can be considered significant at a wide range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project.

In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).”

- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)

Section 6 of the report comprises the AA Screening that specifically focuses on the potential for impacts on Natura 2000 sites deemed to be at risk from the proposed development.

## 2. Background to Screening for Appropriate Assessment

### 2.1. European Designated Sites

Sites designated for the conservation of nature in Ireland include:

- Special Areas of Conservation (SACs);
- Special Protection Areas (SPAs), and;
- Natural Heritage Areas (NHAs)

SPAs and SACs form the Natura 2000 network of sites. It is these sites that are of relevance to the screening process for this Appropriate Assessment Screening.

SPAs and SACs are prime wildlife conservation areas in the country, considered to be important on a European as well as Irish level. SPAs and SACs are designated under EU Habitats Directive, transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

Natural Heritage Area (NHA) is the basic designation for wildlife in Ireland. These are areas considered important for their habitats or species of plants and animals whose habitat requires protection and are protected by the Wildlife (Amendment) Act of 2000.

All European Designated Sites (henceforth simply referred to as “Designated Sites”) that are connected to the proposed development were considered during the desktop study in order to assess the potential for significant effects upon their QIs and COs. This stage of the process is used to determine whether any of the Designated Sites can be regarded as not being relevant to the process of Appropriate Assessment of the project, having no potential to be significantly affected.

## 2.2. Legislative Context

The methodology for this screening statement is clearly set out in a document prepared for the Environment DG of the European Commission entitled ‘Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6 paragraphs 3 and 4 of the Habitats Directive 92/43/EEC’ (Oxford Brookes University, 2001). This report and contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government (2009, amended February 2010).

The assessment process is given in Articles 6[3] and 6[4] of the Habitats Directive and is commonly referred to as “Appropriate Assessment” or AA.

Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Article 6[3] and 6[4] of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6[3] establishes the requirement for Appropriate Assessment:

“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6[4] continues:

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

Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

It is the responsibility of the proponent of the plan or project to provide the relevant information (ecological surveys, research, analysis etc.) for submission to the 'competent national authority'. If satisfied that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned."

The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

1. Screening to determine if an appropriate assessment is required;
2. Appropriate assessment;
3. Consideration of alternative solutions, and;
4. Imperative reasons of overriding public interest/derogation.

#### **Stage 1: Screening for AA**

This report provides a stage one Screening for Appropriate Assessment. It aims to establish whether the plan or project is directly connected with or necessary to the management of Designated Sites; or in view of best scientific knowledge, if the plan or project, individually or in combination with other plans or projects, is likely to have a significant effect on a Designated Site. This is done by examining the proposed plan or project and the COs of any Designated Sites that might potentially be affected.

The study is based on a preliminary impact assessment using both publicly available data and data collected during site surveys. This is followed by a determination of whether there is a risk that the effects identified could significantly impact any Natura 2000 sites, and if so an Appropriate Assessment (AA) is required. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by European Court of Justice case law. Therefore, where significant effects are likely, possible or uncertain at screening stage, a stage two AA will be required.

### 3. Methodology

#### 3.1. Desk Study

A desktop study was carried out as part of this screening process to gain an understanding of the surrounding human and natural environments. This included a review of available data from a range of sources on the site and its immediate environs.

#### 3.2. Data Used To Carry Out The Assessment

The following sources of data were employed:

- Environmental Protection Agency (EPA) Appropriate Assessment Tool;
- EPA Maps (to identify watercourses, hydrology and Natura 2000 site boundaries);
- NPWS protected species database and online mapping;
- The Geological Survey of Ireland hydrological and lidar data and map viewer;
- The National Biodiversity Data Centre archives;
- Inland Fisheries Ireland, and;
- An Bord Pleanála's online database

#### 3.3. SPR Model

This assessment was carried out using the source-pathway-receptor (SPR) approach, a standard tool in environmental assessment. The SPR concept in ecological impact assessment relates to the idea that for the risk of an impact to occur, a source is needed (e.g. a development site); an environmental receptor is present (a lake); and finally there must a pathway between the source and the receptor (a watercourse linking the development site to the lake). Even though there might be a risk of an impact occurring, it does not necessarily mean that it will occur, and in the event that it does occur, it may not have significant effects on the receiving environment. Identification of a risk means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

In this instance, the most relevant receptors are any relevant Natura 2000 sites with connectivity of the proposed works. These were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their QIs and COs.

#### 3.4. Field Survey

The field survey was carried out on 23<sup>rd</sup> June 2022. Baseline ecological conditions were assessed. Habitats were classified according to A Guide to Habitats in Ireland (Fossitt, 2000). Where applicable, the habitat types and species usage were recorded (Smith et al. 2011; Scannell and Synnott, 1987; Wyse Jackson et al. 2016). Habitats were classified and dominant plant species noted according to the guidelines given by

the JNCC (2010) with reference to best practice guidance for habitat survey and mapping (Smith et al., 2011) and Census Catalogue of the Flora of Ireland (Scannell & Synnott, 1987).

## 4. Ecological Assessment Works

### 4.1. Site Location

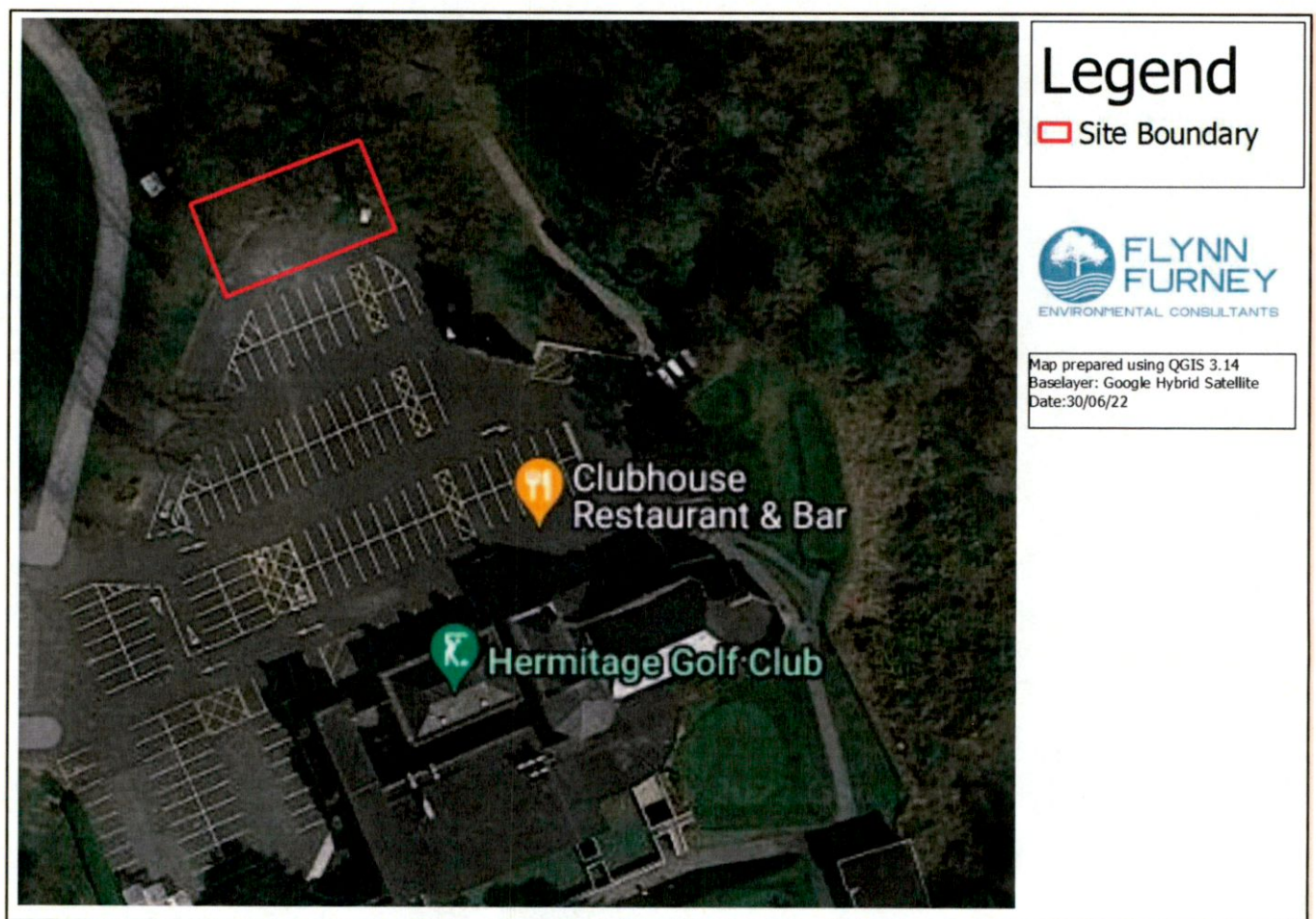


Figure 1 Overview of the general works area



## 4.2. Receiving Environment

A description of the habitats of significant ecological value that were observed within the immediate surroundings of the works area are listed below, with descriptions adapted from "A Guide to Habitats in Ireland" by Julie A. Fossitt, 2000.

A description of the habitats of significant ecological value that were observed within the immediate surroundings of the works area are listed below.

### **BL3 – Built Areas**

The most extensive area of this is the car park. There are also some adjacent footpaths, a network of which allows access to the car park, the buildings and the golf course. These are all well-maintained and there is therefore little flora in this area.

### **WL2 Treelines**

There are a number of mature treelines within the wider area of the golf course and grounds. The nearest of these is a line of mature Large-leaved Lime (*Tilia platyphyllos*) which extends toward the proposed site of work along the western boundary of the car parking area. There are five of these trees, all are mature and of around 18m in height and with a crown spread of up to 12m. These shall not be affected by the proposed works.

### **WL1 Hedgerows**

A number of hedgerows of woody plants exist within the area surveyed. However, the proportion of non-native shrub species in these was very high in almost such areas surveyed. Cherry Laurel (*Prunus laurocerasus*) and Box (*Buxus* sp.) were frequently the only species within these species-poor habitats. These would, however offer some nesting habitat and other cover for native birds. This habitat type shall not be affected by the proposed works.

### **WD1 Mixed Broadleaved Woodland**

Several areas within the potential zone of influence of the proposed site of works would conform to this habitat type. The trees in this area are predominantly non-native and this woodland type would not be classed as semi-natural. The nearest such area to the proposed works is immediately to the north of the existing car park. Lime and Sycamore (*Acer pseudoplatanus*) are the dominant canopy species here. The understorey is a mixture of young and semi-mature Elder (*Sambucus nigra*) and young Sycamore. There are a number of Sycamore seedlings here. Snowberry (*Symphoricarpos albus*) also occurs here and is likely expanding within the area. There are a small number of young Ash (*Fraxinus excelsior*) and several Ash

seedlings. Bramble (*Rubus fruticosus*) is occasional, especially toward the edge of the site. Some non-native Box (*Buxus* sp) is found to the east of the area. Ground flora here is somewhat mixed and suggest that it may have been disturbed in recent times. A small proportion of this habitat type shall be affected by the works with the loss of some mature trees (Lime and Sycamore) likely.

The ground falls away sharply to the north toward a footpath but is under the canopy of some of the above (dominant) trees, mostly Sycamore and Ash. Some horticultural waste was noted here. Two species of ferns typical of woodland – Harts-tongue Fern (*Asplenium scolopendrium*) and Soft-shield fern (*Polystichum setiferum*) were found on the slope here.

At the base of the slope there is the intersection of a number of footpaths. Here, the canopy would also conform to mixed broadleaved woodland. Sycamore is dominant but there is also some Ash, Elder, occasional Beech (*Fagus sylvatica*) and Yew (*Taxus baccata*). Two of the Yew are large and mature. On the woodland edge there is Hogweed (*Heracleum sphondylium*), Garlic Mustard (*Alliaria petiolata*) and a small amount of Winter Heliotrope (*Petasites fragrans*). The ground flora of the area comprises Cleavers (*Galium aparine*), Wild Garlic (*Alium ursinum*), Creeping Buttercup (*Ranunculus repens*), Cow Parsley (*Anthriscus sylvestris*) and Nettle (*Urtica dioica*).

#### **WD5 Scattered Trees and Parkland**

Almost all of the Golf Course area would conform to this habitat type. The proportion of non-native trees is high with species such as Lime, Plane (*Platanus* sp.) and Cherry (*Prunus* spp.) being frequent. The grassland areas are very well maintained and as such are species-poor.

#### **GA2 Amenity Grassland**

Some areas of amenity grassland are maintained outside the Golf Course area. These would be verges adjoining paths and buildings etc. These are also species-poor habitat types with one or two grass species (e.g. Fescues- *Festuca* spp). In these areas, Daisy (*Bellis perennis*), Creeping Buttercup and White Clover (*Trifolium repens*) were occasional to frequent.

#### **Invasive Species**

[Legislation bit]

Ireland is a signatory of a number of international treaties and conventions, including the **Convention on Biological Diversity**. Such treaties and conventions require the Irish Government to address issues of invasive alien species. This has been implemented through national legislation via **the Wildlife Acts 1976 and 2000** (as amended) and further regulated through **the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477)**.

---

Articles 49 and 50 of these latter regulations set out the legal implications associated with alien invasive plant species and Schedule 3 of the regulations lists plant species subject to the restrictions of articles 49 and 50.

Under Article 49 and 50 of these Regulations it is an offence to:

- Plant, disperse, allow dispersal or cause the spread of plants listed on the third schedule.
- Keep the plant in possession for the purpose of sale, breeding, reproduction, propagation, distribution, introduction or release.
- Keep anything from which the plant can be reproduced or propagated from without a granted licence.
- Keep any vector material - including infested soil, seeds or plant fragments from a contaminated site contaminated site, for the purposes of breeding, distribution, introduction or release.

It is important to note that if an invasive species listed on the schedules of the 2011 Regulations has been positively identified on a works site it is not an option to do nothing. This means that action of some form must be taken to address the invasive species in order to comply with environmental legislation (the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477)).

One species of invasive plant was found that is listed on Schedule 3 of the above regulations was found. This is Himalayan Balsam (*Impatiens glandulifera*). This was found in a large stand adjacent a footpath to the north of the area proposed for works. It should be noted that this stand is outside the area proposed for works and as such, will not affect works. However, the landowner is advised that action to prevent the spread of this plant and indeed to remove this from the grounds must be taken.

Another invasive species – Winter Heliotrope – also occurs in this area. This is not listed on the above schedule. This is adjacent the woodland area adjoining the area proposed for works. Again, this plant will not affect the works. It is recommended however, that this plant be removed to prevent further spread within this area.

Another invasive species – Snowberry – also occurs in this area. This is not listed on the above schedule. This is within the mixed woodland area proposed for works. Again, this plant will not affect the works. It is recommended however, that this plant be removed to prevent further spread within this area.

#### 4.2.1. Surface water

The only watercourse of note in the vicinity of the proposed works area is the River Liffey, ca160m directly to the east. The works area is not directly hydrologically connected to it in any way, however, and an area of mixed woodland, a golf fairway and a riparian treeline lie between it and the river; the risk of surface water from the works area reaching the river is considered to be negligible.

#### 4.2.2. Groundwater

Groundwater vulnerability is a term used to represent the natural ground characteristics that determine the ease with which infiltrating water and potential contaminants may reach groundwater in a vertical or sub-vertical direction. Subsoil permeability indicates how readily water from the surface can permeate through to the groundwater below.



Figure 2 Groundwater vulnerability of the receiving environment. Source: GSI mapviewer

The works environment is within groundwater vulnerability category E (Extreme) due to a soil depth of less than 3m, with bedrock very close to the surface (Fig. 2). A project of this nature without significant groundwork poses little risk to the receiving environment in this regard; changes to local runoff patterns from the roof of the new building or tree root disturbance should be approached with care, however.

#### 4.2.3. Breeding Birds

All species of wild bird that occur naturally in Ireland are fully protected at all times by the Wildlife Act and relevant amending legislation. Similarly, all birds naturally occurring in the wild state are afforded a measure of protection by the EU Birds Directive but derogations may reduce protection for specific reasons. As such, any vegetation clearance must be carried out outside of the bird nesting season (March 1st - August 31st).

A bird survey was not carried out as part of these investigations; the nature and scale of the project in an already modified area and the timescale of projected works are considered to be of low risk to bird species.

#### 4.2.4. Amphibians

No habitat suitable for amphibians exists within the immediate zone of influence of the proposed works.

#### 4.2.5. Mammals

Mammal surveys were not carried out as part of these investigations. The trees in the immediate vicinity of the proposed works (lime/sycamore) are not suitable for bat roosting. While the wider wooded area may support bat species, the project nature and scale pose little risk of disturbance. A further point to note is that the works area is brightly lit at night from existing sources associated with the golf club and therefore are not particularly suited for bat foraging in any case.

#### 4.2.6. Invasive Species

The Wildlife Acts, 1976 and 2000, contain a number of provisions relating to invasive non-native species (INNS), covering several sections and subsections of the Acts. It is prohibited, without licence, to plant or otherwise cause to grow in a wild state, in any place in the State, any species of flora, or the flowers, roots, seeds or spores of invasive flora listed on the Third Schedule. Articles 49 and 50 of the aforementioned Acts set out the legal implications associated with alien invasive species and Schedule 3 (the Third Schedule) of the regulations lists non-native species subject to the restrictions of Articles 49 and 50, which make it an offence to plant, disperse, allow dispersal or cause the spread of invasive species.

It is important to note that if an invasive species listed on the schedules of the 2011 Regulations has been positively identified on a works site it is not an option to do nothing. This means that action of some form must be taken to address the invasive species in order to comply with environmental legislation (the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477)).

One species of invasive plant was found that is listed on Schedule 3 of the above regulations was found. This is Himalayan Balsam (*Impatiens glandulifera*). This was found in a large stand adjacent a footpath to


the north of the area proposed for works. It should be noted that this stand is outside the area proposed for works and as such, will not affect works. However, the landowner is advised that action to prevent the spread of this plant and indeed to remove this from the grounds must be taken.

Another invasive species – Winter Heliotrope – also occurs in this area. This is not listed on the above schedule. This is adjacent the woodland area adjoining the area proposed for works. Again, this plant will not affect the works. It is recommended however, that this plant be removed to prevent further spread within this area.

Another invasive species – Snowberry – also occurs in this area. This is not listed on the above schedule. This is within the mixed woodland area proposed for works. Again, this plant will not affect the works. It is recommended however, that this plant be removed to prevent further spread within this area.

### 4.3. Proposed Works

It is proposed to erect a temporary golf gym pavilion at the north edge of an existing parking area at the Hermitage Golf Club, Lucan, Co Dublin. The structure will be a single-story building with no excavation or significant ground work required.



# JEK

**KEATING ARCHITECTS**  
□□□□□□□□□□

J.e. keating +  
associates  
architects

+ Foster House, 84th Douglas Road,  
Douglas, Cork  
Telephone: 021-4512280  
Fax: 021-4512282  
Email: je@jekeatingarchitects.ie

---

Drawing Status: Planning

Do not scale. Use figures/dimensions only.

This drawing is to be read in conjunction with all relevant specifications and drawings.

Contractor to ensure that works are designed and constructed in compliance with all requirements of the Building Regulations 1997 and its amendments 2002.

All dimensions to be checked on site.

In the event of any discrepancies between drawings, the contractor is to refer to the Architect immediately.

A	REV	DATE	BY	CHKD	DESC

PLOT DATE: 15/12/2021 10:22:12 PM  
PLOT FILE: Y:\85000\85000\151221\GOLF DTM.dwg (Jed.Burke)\GOLF DTM.dwg  
Drawing(s) Planning Stage Drawing(s) JEK Drawing(s) GOLF P18\JED\_151221.dwg (Jed.Burke)

Project: GYM PAVILION

Title: PHOTOMONTAGE OF FRONT ELEVATION

Engineer: ---

Q.S.: ---

Rev	Date	By	Appr	Drawn
N/S	15/12/2021	JED	21004	P.18
Rev	PLANNING STAGE			

PHOTOMONTAGE OF FRONT ELEVATION

Figure 3 Photomontage of the front elevation of the proposed structure

## 4.5. Nearby Designated Sites

No designated sites are found in the immediate vicinity of the proposed works. Three European sites lie within the wider receiving environment and are considered below in Table 1.

Table 1 Designated sites in the vicinity of the proposed works

Site Name and Code	Qualifying Interests (* denotes a priority habitat)	Distance (km)	Connectivity to Project
Rye Water Valley/Carton SAC 001398	1014 Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> 1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i> 7220 Petrifying springs with tufa formation ( <i>Cratoneurion</i> )*	7.5	None. Site is located over 7km upstream of the closest point (160m) on the River Liffey. No pathway for impact exists
South Dublin Bay SAC 000210	1140 Mudflats and sandflats not covered by seawater at low tide	17	The European site is over 17km away from the proposed works and is designated for estuarine features. The works area is not hydrologically connected to the closest aquatic receptor. No pathway for impact exists
North Dublin Bay SAC 000206	1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 1330 Atlantic salt meadows ( <i>Glaucopuccinellietalia maritima</i> ) 1395 Petalwort <i>Petalophyllum ralfsii</i> 1410 Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) 2190 Humid dune slacks	17	The European site is over 17km away from the proposed works and is designated for estuarine and coastal features. The works area is not hydrologically connected to the closest aquatic receptor. No pathway for impact exists



<p>South Dublin Bay and River Tolka Estuary SPA 004024</p>	<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Grey Plover (<i>Pluvialis squatarola</i>) [A141] Knot (<i>Calidris canutus</i>) [A143] Sanderling (<i>Calidris alba</i>) [A144] Dunlin (<i>Calidris alpina</i>) [A149] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] Redshank (<i>Tringa totanus</i>) [A162] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] Roseate Tern (<i>Sterna dougallii</i>) [A192] Common Tern (<i>Sterna hirundo</i>) [A193] Arctic Tern (<i>Sterna paradisaea</i>) [A194] Wetland and Waterbirds [A999]</p>	<p>17</p>	<p>The European site is over 17km away from the proposed works and is designated for estuarine species. No suitable habitat for any designated SCI species exists in the proposed works area. The works area is not hydrologically connected to the closest aquatic receptor. No pathway for impact exists</p>
--	---	-----------	--

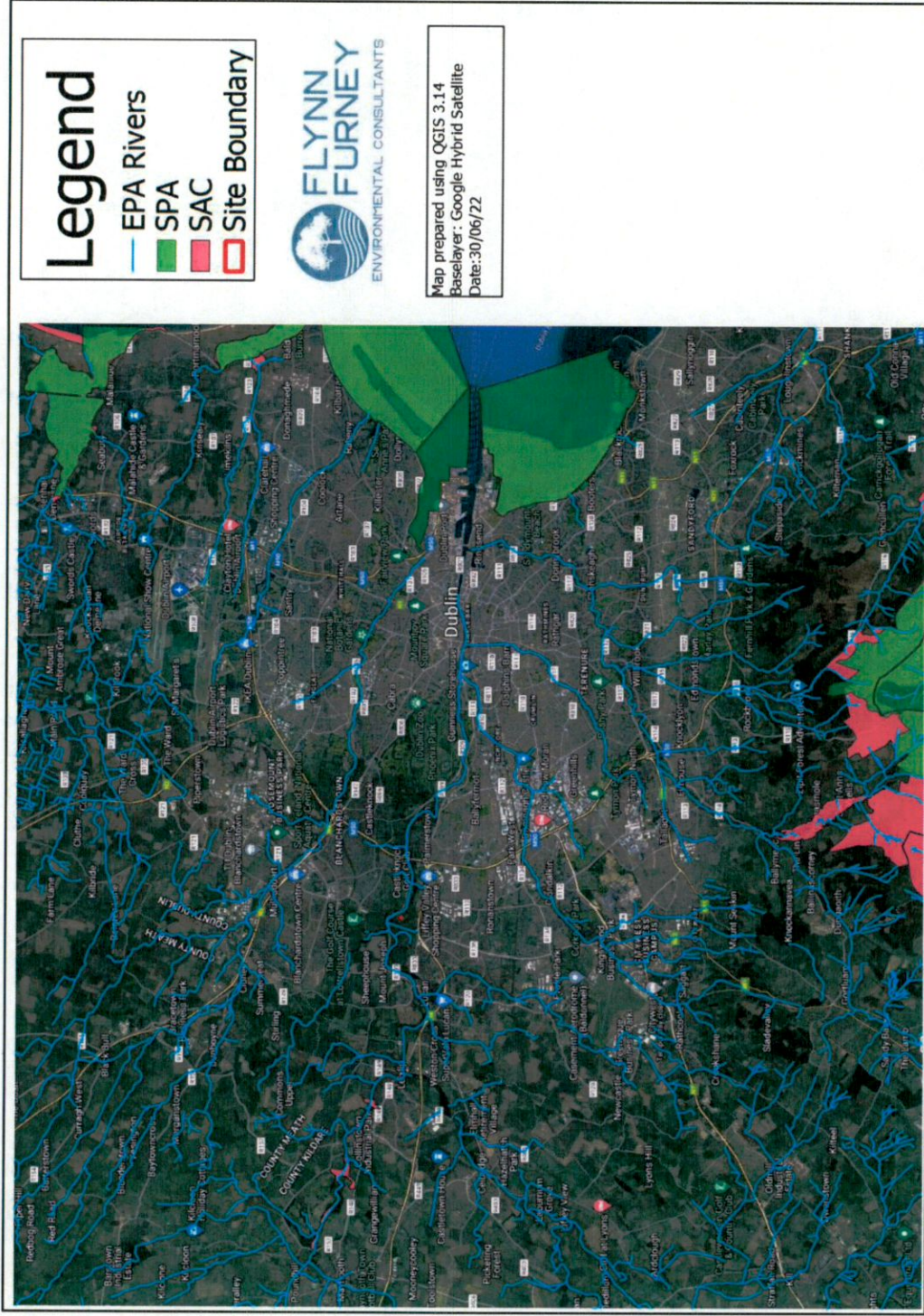


Figure 4 Designated sites in the vicinity of the proposed works.

## 5. ECOLOGICAL IMPACT ASSESSMENT

### 5.1 Predicted Impacts and Significance

The impacts which may be expected from the proposed works at Hermitage Golf Club, Lucan, Co Dublin are assessed below. These possible impacts have been assessed under the CIEEM (2018) and the National Roads Authority guidelines (NRA, 2009). Criteria for assessment of duration of impacts used according to EPA guidelines (EPA, 2002). These provide guidance on assessing impact significance upon features of sites proposed for works. Impact significance must be given in context of the ecological value of the site and features under study.

The 'ecological value' of an area or feature thereof is defined with reference to geographical context. That is, whether it is of value locally, regionally, nationally or internationally. This is assessed by ecologists on reviewing survey outcomes. Key criteria are the presence of designated sites, the site or feature containing protected species or areas of high biodiversity. The criteria for ecological value are given in Table 4 below.

Table 2 Ecological Value Criteria

Ecological Value	Criteria
International	<ul style="list-style-type: none"> <li>▪ 'European Sites' including Special Areas of Conservation (SAC) &amp; Special Protection Areas (SPA).</li> <li>▪ Sites that satisfy the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).</li> <li>▪ Features essential to maintaining the coherence of the Natura 2000 Network.</li> <li>▪ Sites containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.</li> <li>▪ Resident or regularly occurring populations (assessed to be important at the national level) of the following: <ul style="list-style-type: none"> <li>▪ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or</li> <li>▪ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.</li> </ul> </li> <li>▪ Ramsar Sites</li> <li>▪ World Heritage Sites (Convention for the Protection of World Cultural &amp; Natural Heritage, 1972).</li> <li>▪ Sites hosting significant species populations under the Bonn Convention</li> <li>▪ Sites hosting significant populations under the Berne Convention</li> </ul>
National	<ul style="list-style-type: none"> <li>▪ Areas of Special Scientific Interest (ASSI) or Natural Heritage Area (NHA).</li> <li>▪ National Nature Reserves (NNR).</li> <li>▪ Marine Nature Reserves (MNR).</li> <li>▪ Area of Outstanding Natural Beauty (AONB).</li> <li>▪ Refuge for species protected under the Wildlife (Northern Ireland) Order 1985 (as amended).</li> <li>▪ Undesignated sites fulfilling the criteria for designation as an ASSI; NNR; MNR; and/or refuge for species protected under the Wildlife (Northern Ireland) Order 1985 (as amended).</li> <li>▪ Resident or regularly occurring populations (important at the national level) of the following: <ul style="list-style-type: none"> <li>▪ Species protected under Wildlife (Northern Ireland) Order 1985 or Wildlife Act 1976, as amended); and/or</li> <li>▪ Species listed on the relevant Red Data list.</li> </ul> </li> <li>▪ Sites containing 'viable areas' of the habitat types listed in Annex I of the Habitats Directive.</li> </ul>
Regional	

Ecological Value	Criteria
	<ul style="list-style-type: none"> <li>▪ Sites of Local Nature Conservation Importance (SLNCI).</li> <li>▪ Areas subject to a Tree Preservation Order.</li> <li>▪ Resident or regularly occurring populations (assessed to be important at the Regional level) of the following:               <ul style="list-style-type: none"> <li>▪ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;</li> <li>▪ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;</li> <li>▪ Species protected under the Wildlife (Northern Ireland) Order 1985 (as amended); and/or</li> <li>▪ Species listed on the relevant Red Data list.</li> </ul> </li> <li>▪ Sites containing areas of the habitat types listed in Annex I of the Habitats Directive that do not satisfy the criteria for valuation as of International or National importance.</li> <li>▪ Regionally important populations of species or viable areas of semi-natural habitats or natural heritage features identified in the National or Local Biodiversity Action Plan (BAP), if this have been prepared.</li> <li>▪ Sites containing semi-natural habitat types with high biodiversity in a regional context and a high degree of naturalness, or populations of species that are uncommon within the region.</li> <li>▪ Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.</li> </ul>
Local	<ul style="list-style-type: none"> <li>▪ Locally important populations of priority species or habitats or features of natural heritage importance identified in the Local BAP, if this has been prepared;</li> <li>▪ Resident or regularly occurring populations (assessed to be important at the Local level) of the following:               <ul style="list-style-type: none"> <li>▪ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;</li> <li>▪ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;</li> <li>▪ Species protected under the Wildlife (Northern Ireland) Order 1985 (as amended); and/or</li> <li>▪ Species listed on the relevant Red Data list.</li> </ul> </li> <li>▪ Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality;</li> <li>▪ Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value</li> <li>▪ Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;</li> <li>▪ Sites or features containing non-native species that are of some importance in maintaining habitat links.</li> </ul>

Ecological Impact Assessment must also consider the significance of effects that may be expected arising from a proposed development. CIEEM guidelines (2018) define a significant effect as:

*“an effect that either supports or undermines biodiversity conservation objectives for ‘important ecological features’...or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.*

It also states that:

*“an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting a project. A significant effect is a*

*positive or negative ecological effect that should be given weight in judging whether to authorise a project: it can influence whether permission is given or refused and, if given, whether the effect is important enough to warrant conditions, restrictions or further requirements such as monitoring.”*

The criteria for assessment of significance of effects is given in the following table (Table 5). It should be noted that significant effects may also include beneficial effects.

Table 3 Criteria for assessing significance of effects

Impact Significance		Criteria
Significant Negative Effect	Major Adverse	<ul style="list-style-type: none"> <li>▪ Loss of, permanent damage to or adverse impact on any part of a site of international or national importance;</li> <li>▪ Loss of a substantial part or key feature of a site of regional importance;</li> <li>▪ Loss of favourable conservation status (FCS) of a legally protected species;</li> <li>▪ Loss of or moderate damage to a population of nationally rare or scarce species.</li> </ul>
	Moderate Adverse	<ul style="list-style-type: none"> <li>▪ Temporary disturbance to a site of international or national importance, but no permanent damage;</li> <li>▪ Loss of or permanent damage to any part of a site of regional importance;</li> <li>▪ Loss of a key feature of local importance;</li> <li>▪ A substantial reduction in the numbers of legally protected species such that there is no loss of FCS but the population is significantly more vulnerable;</li> <li>▪ Reduction in the amount of habitat available for a nationally rare or scarce species, or species that are notable at a regional or county level.</li> </ul>
No Significant Effect	Minor Adverse	<ul style="list-style-type: none"> <li>▪ Temporary disturbance to a site of regional value, but no permanent damage;</li> <li>▪ Loss of, or permanent damage to, a feature with some ecological value in a local context but that has no nature conservation designation;</li> <li>▪ A minor impact on legally protected species but no significant habitat loss or reduction in FCS;</li> <li>▪ A minor impact on populations of nationally rare or scarce species or species that are notable at a regional or county level.</li> </ul>
	Negligible	<ul style="list-style-type: none"> <li>▪ No impacts on sites of international, national or county importance;</li> <li>▪ Temporary disturbance or damage to a small part of a feature of local importance;</li> <li>▪ Loss of or damage to land of negligible nature conservation value;</li> <li>▪ No reduction in the population of legally protected, nationally rare, nationally scarce or notable (regional level) species on the site or its immediate vicinity.</li> <li>▪ Beneficial and adverse impacts balance such that resulting impact has no overall affect upon feature.</li> </ul>

Impact Significance		Criteria
	Minor Beneficial	<ul style="list-style-type: none"> <li>▪ A small but clear and measurable gain in general wildlife interest, e.g. small-scale new habitats of wildlife value created where none existed before or where the new habitats exceeds in area that habitats lost.</li> </ul>
Significant Positive Effect	Moderate Beneficial	<ul style="list-style-type: none"> <li>▪ Larger new scale habitats (e.g. net gains over 1 ha in area) created leading to significant measurable gains in relation to the objectives of biodiversity action plans.</li> </ul>
	Major Beneficial	<ul style="list-style-type: none"> <li>▪ Major gains in new habitats (net gains of at least 10 ha) of high significance for biodiversity being those habitats, or habitats supporting viable species populations, of national or international importance cited in Annexes I and II of the habitats Directive or Annex I of the Birds Directive.</li> </ul>

The duration of impact must also be considered when assessing overall ecological impacts. The EPA have set out criteria for assessment of duration of impacts, with the following terms defined when quantifying duration (EPA, 2002).

- Temporary – up to 1 year
- Short-term – from 1-7 years
- Medium-term – 7-15 years
- Long-term – 15-60 years
- Permanent – over 60 years

Finally, the likelihood of impacts should also be defined. Assessment of likely impact followed CIEEM guidelines. These assess likelihood as follows:

- Almost Certain – probability estimated at greater than 95%
- Probably or Likely – probability estimated at between 50% and 95%
- Unlikely – probability estimated at between 5% and 50%

Extremely Unlikely – probability estimated at less than 5%

### 3.2 Evaluation of Significance of Impacts

The site evaluation scheme of these guidelines would characterise the area within the immediate zone of influence of the propose works as being of *Local Importance*, given the disturbed and highly modified nature of the surrounding environment and the lack of priority species or habitats. There is a mosaic of habitats that are of importance to wildlife in the vicinity however, and the semi-natural landscape is important in the context of the wider urban landscape.

Table 4 Predicted significance of impacts

Feature	Nature of Impact	Predicted Impact Significance	Rationale
<b>Depositing Lowland Rivers (FW2) – River Liffey</b>	Suspended solids/mobilised nutrients from contaminated surface water runoff or impacted groundwater entering the river channel from the proposed works area	Negligible, short-term impact is extremely unlikely	Project is small in scale, requires no significant groundwork, and is located ca160m from the aquatic receptor. The intervening landscape provides significant buffering capacity in terms of intervening drainage and vegetation.
<b>Bats</b>	Potential of noise disturbance to roosting bats from the construction and operation phase of the project. Potential light disturbance during the operational phase	Negligible, short-term impact from noise is unlikely.  Negligible, long-term impact from light disturbance is extremely unlikely	Project is small in scale, lies within an area that is already disturbed and no roosting habitat for bats was observed in the immediate vicinity of the works area. The project will not be operating during the hours of darkness, and furthermore significant night-time light pollution already exists in the vicinity from existing sources
<b>Birds</b>	Potential of noise disturbance to nesting birds from the proposed works. Potential of nest disturbance from vegetation removal.	Negligible, short-term impact is probable	While there is no direct impact on bird species from the work, were any trees to be physically disturbed to facilitate works, then a nesting bird survey may be required
<b>Large mature trees immediately in the vicinity of the proposed building footprint</b>	Compaction of soil/damage to tree roots from siting of structure underneath tree canopy. Changes to surface water infiltration due to land-take. Potential removal of individual trees to accommodate building footprint	A minor adverse effect is probable.	With the planned construction underneath the tree canopy, negative impact on the trees is very likely. However, both tree species in the relevant treeline are non-native, and have no significant conservation value. This must be

			taken in the context of the zoning of the area as important for natural character
--	--	--	---

No significant negative impacts are predicted. The only negative impacts predicted are negligible and short-term or temporary and could be even further minimised with some straightforward mitigation measures.

### 3.3 Cumulative Effects

There are no other plans or projects known to the author at the time of writing other than the existing planning application at Hermitage Golf Club that would, in combination with the above predicted impacts give rise to significant *cumulative* effects on the receiving environment.

### 3.4 Impact Mitigation

Several measures are proposed to mitigate against any potential impacts described in the above section. These are detailed below (Table 5).

Table 5 Recommended mitigation measures

Feature	Mitigation Measure (s)
<b>Depositing Lowland Rivers (FW2) – River Liffey</b>	The risk to the feature is considered to be extremely low; however this could be further managed by putting measures in place to intercept and contain surface water runoff during the construction phase of the project (sediment traps/silt fencing), and to design features into the building that would intercept runoff from the roof of the new building and either redirect it into existing drainage systems or store it for other use (grey water capture)
<b>Trees</b>	Adverse impact to the immediate treeline is probable with the existing plan, and while the trees themselves have no significant conservation value, this must be taken in the context of the zoning of the area as HA-LV; therefore, it is recommended the building footprint should be moved a few metres from its existing location onto the existing hardstand of the carpark. This would mitigate all impact on the root systems of the trees, as well as reducing the risk of changing the surface water flows and alterations to surface water infiltration.



## 6. ASSESSMENT CRITERIA

### 6.1. Relation To Management Of Nearby Designated Site(s)

The proposed project is not necessary to or connected with the management of any designated site.

### 6.2. Direct Or Indirect Impacts

No direct or indirect impacts from the proposed works on any designated site are considered likely, due to the nature of and scale of the works and the location of and distance to any designated sites.

#### 6.2.1. Surface and groundwater pollution

The works area is not hydrologically connected to any aquatic receptor. The River Liffey is ca160m away with the intervening landscape providing significant buffering capacity. As noted in Table 1, the closest European sites are either several kilometres upstream from the closest point on the river, or are over 17km away in Dublin Bay and are designated for primarily estuarine qualifying interests. Given the nature and scale of the work, no impact on any of these features is possible.

#### 6.2.3. Construction/installation of infrastructure and potential QI habitat loss

No impact is predicted due to the nature of, scale, and distance from the proposed works to any European site.

#### 6.2.4. Invasive Species

No invasive species are present within the proposed works footprint, or are likely to be disturbed by the works, nor is the spread of any INNS to any European site possible from the works location.

### 6.3. Cumulative And In-combination Impacts

There are no other plans or projects known to the author at the time of writing other than the existing planning application at Hermitage Golf Club that would, in combination with the above predicted impacts give rise to significant *cumulative* effects on the receiving environment.

### 6.4. Likely Changes to The Designated Site(s)

No designated sites are likely to be changed in any way, either positively or negatively.

## 7. Screening Conclusions

This report presents the information for the relevant authority, South Dublin County Council, to carry out a screening for AA. A recommendation that a stage II is/is not required is made below, based on the findings of this assessment, which are summarised in Table 4. It is for the relevant authority to reach one of the following conclusions:

- (i) A stage II AA 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 not have a significant effect on any European Designated Sites.
- (ii) A stage II AA of the proposed development is not required if it *can* be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.

*Table 4: Assessment of likely effects on any Designated Sites*

<b>Assessment of Likely Effects</b>	
<b>Size and scale</b>	The proposed works area is extremely small.
<b>Land-take</b>	No land will be taken from any European site.
<b>Distance from the Natura 2000 site or key features of the site;</b>	The closest Natura 2000 site is 7km upstream of the proposed works, with no hydrological connectivity.
<b>Resource requirements (water abstraction etc.);</b>	No resources are required to be abstracted from any European site.
<b>Emissions (disposal to land, water or air);</b>	No emissions to land, water or air will impact any European site.
<b>Excavation requirements;</b>	There are no excavation requirements for the proposed works
<b>Transportation requirements;</b>	No material is required to be transported through any European site.
<b>Duration of construction, operation, etc.;</b>	As yet unknown, but due to the nature of and scale of the works, will most likely be several months.
<b>Timing of works</b>	As yet unknown; the timing of the works will not impact negatively on any European site, however.

<b>Cumulative or In-combination Impacts with other Projects and Plans</b>	No other plans or projects are known which will impact on any European site cumulatively with the current proposal.
---	---

Based on the available information gathered during field and desk surveys, it is the professional opinion of the author that the likelihood of significant impacts arising from the proposed development on any European site can be ruled out on the basis of the following:

- Nature and scale of the proposed works
- The location of the proposed works within a modified landscape and relative to any designated site.
- The lack of any hydrological connectivity to any aquatic receptors that link to any European site.
- The nature of the qualifying interests of the designated sites.

## References

Bruce-White, C., & Shardlow, M., 2011. Impact of Artificial Light on Invertebrates. Buglife – The Invertebrate Conservation Trust. March 2011. ISBN 978-1-904878-99-5:  
[https://cdn.buglife.org.uk/2019/08/A-Review-of-the-Impact-of-Artificial-Light-on-Invertebrates-docx\\_0.pdf](https://cdn.buglife.org.uk/2019/08/A-Review-of-the-Impact-of-Artificial-Light-on-Invertebrates-docx_0.pdf)

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester. <https://cieem.net/wp-content/uploads/2019/02/Combined-EclA-guidelines-2018-compressed.pdf>

EPA (2002) Guidelines on the information to be contained in Environmental Impact Statements. CAAS Environmental Services, Ltd, Dublin.

European Commission DE (2021). Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC.

Environmental Protection Agency, Appropriate Assessment Tool:  
<https://gis.epa.ie/EPAMaps/AAGeoTool>

Fossitt, J.A. (2000) A Guide to Habitats in Ireland. The Heritage Council, Kilkenny.

Geological Survey of Ireland (accessed 2022) Maps and Data: <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>

JNCC (2010) Handbook for Phase 1 Habitat Survey. Joint Nature Conservation Committee, Peterborough, UK.

National Biodiversity Data Centre (accessed 2022) Biodiversity Maps:  
<https://maps.biodiversityireland.ie/>

National Planning Application Map Viewer: <https://myplan.ie/national-planning-application-map-viewer/>

National Roads Authority (2009) Ecological Surveying Techniques for Protected flora and fauna during the Planning of National Road Schemes. NRA (now Transport Infrastructure Ireland), Dublin.

NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2021) Conservation Objectives: Rye Water Valley/Carton SAC 001398. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

NRA (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes. National Roads Authority, Dublin

Scannell, M J P and Synott, D M, 1987, Census Catalogue of the Flora of Ireland. Stationary Office, Dublin.

Smith, G.F., O'Donoghue, P., O'Hora, K. and Delaney, E., 2011. Best practice guidance for habitat survey and mapping. The Heritage Council: Ireland.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.