

Screening Report for Appropriate Assessment of a proposed development at The Hive, Carrick-on- Shannon, Co. Leitrim

Compiled by OPENFIELD Ecological Services

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Introduction

Biodiversity is a contraction of the words 'biological diversity' and describes the enormous variability in species, habitats and genes that exist on Earth. It provides food, building materials, fuel and clothing while maintaining clean air, water, soil fertility and the pollination of crops. A study by the Department of Environment, Heritage and Local Government placed the economic value of biodiversity to Ireland at €2.6 billion annually (Bullock et al., 2008) for these 'ecosystem services'.

All life depends on biodiversity and its current global decline is a major challenge facing humanity. In 1992, at the Rio Earth Summit, this challenge was recognised by the United Nations through the Convention on Biological Diversity which has since been ratified by 193 countries, including Ireland. Its goal to significantly slow down the rate of biodiversity loss on Earth has been echoed by the European Union, which set a target date of 2010 for *halting* the decline. This target was not met but in 2010 in Nagoya, Japan, governments from around the world set about redoubling their efforts and issued a strategy for 2020 called 'Living in Harmony with Nature'. In 2011 the Irish Government incorporated the goals set out in this strategy, along with its commitments to the conservation of biodiversity under national and EU law, in the second national biodiversity action plan (Dept. of Arts, Heritage and the Gaeltacht, 2011). A third plan was published in 2017.

The main legislation for conserving biodiversity in Ireland have been the Directive 2009/147//EC of the European Parliament and of the Council of November 2009 on the conservation of wild birds (Birds Directive) and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive). Among other things, these require member states to designate areas of their territory that contain important bird populations in the case of the former; or a representative sample of important or endangered habitats and species in the case of the latter. These areas are known as Special Protection Areas (SPA) and Special Areas of Conservation (SAC) respectively. Collectively they form a network of sites across the European Union known as Natura 2000. The Birds and Habitats Directives have been transposed into Irish legislation by the European Communities (Birds and Natural Habitats) Regulations 2011-2015. A report into the economic benefits of the Natura 2000 network concluded that "there is a new evidence base that conserving and investing in our biodiversity makes sense for climate challenges, for saving money, for jobs, for food, water and physical security, for cultural identity, health, science and learning, and of course for biodiversity itself" (EU, 2013).

Unlike traditional nature reserves or national parks, Natura 2000 sites are not 'fenced-off' from human activity and are frequently in private ownership. It is the responsibility of the competent national authority to ensure that 'good conservation status' exists for their SPAs and SACs and specifically that Article 6(3) of the Habitats Directive is met. Article 6(3) states:

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

Sections 177U and 177V of the Planning and Development Act 2000 sets out the purpose of AA Screening is as follows:

A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

The test at stage 1 AA Screening is that:

The competent authority shall determine that an appropriate assessment of a proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

The test at stage 2 (Appropriate Assessment) is:

Whether or not the proposed development, individually or in-combination with other plans or projects would adversely affect the integrity of a European site.

However, where this is not the case, a preliminary screening must first be carried out to determine whether or not a full AA is required. This screening is carried out by Leitrim County Council.

The Purpose of this document

This document provides for the screening of a proposed extension to The Hive, Carrick-on-Shannon, and its potential effects in relation to Natura 2000 sites (SACs and SPAs). Under the Planning and Development Acts, the Local Authority cannot grant planning permission where significant effects may arise to a Natura 2000 area. In order to make that decision the development must be screened for AA. This report provides the necessary information to allow Leitrim County Council to carry out this screening.

Methodology

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(3) and (4) of the Habitats Directive 92/43/EEC' (Oxford Brookes University, 2001). Chapter 3, part 1, of the aforementioned document deals specifically with screening while Annex 2 provides the template for the screening/finding of no significant effects report matrices to be used.

In accordance with this guidance, the following methodology has been used to produce this screening statement:

Step 1: Management of the Natura 2000 site

This determines whether the project is necessary for the conservation management of the site in question.

Step 2: Description of the Project

This step describes the aspects of the project that may have an impact on the Natura 2000 site.

Step 3: Characteristics of the Natura Site

This process identifies the conservation objectives of the site and determines whether significance effects to Natura 2000 sites will arise as a result of the plan. This is done through a literature survey and consultation with relevant stakeholders – particularly the National Parks and Wildlife Service (NPWS). All potential effects are identified including those that may act alone or in combination with other projects or plans.

Using the precautionary principle, and through consultation and a review of published data, it is normally possible to conclude at this point whether potential impacts are likely. Deficiencies in available data are also highlighted at this stage.

Step 4: Assessment of Significance

Assessing whether an effect is significant must be made in light of the conservation objectives for that SAC or SPA.

A full AA of a proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

The steps are compiled into a screening matrix, a template of which is provided in Appendix II of the EU methodology.

Reference is also made to guidelines for Local Authorities from the Department of the Environment, Heritage and Local Government (DoEHLG, 2009).

A full list of literature sources that have been consulted for this study is given in the References section to this report while individual references are cited within the text where relevant.

Screening Template as per Annex 2 of EU methodology:

This plan is not necessary for the management of the site and so Step 1 as outlined above is not relevant.

Brief description of the project

The project is described here as per the planning application:

The development will consist of the provision of a new two storey extension to the front of the existing The Hive Building incorporating; alterations to existing reception and stairs, additional work spaces, circulation and new stairs together, alterations to existing elevation, canopy roof over new access, alterations to existing car park, including additional car park spaces, additional cycling spaces and new future overflow car park, alterations to boundary treatment and connections to surface water and systems with all associated site development works.

The site location is shown in figures 1 and 2 while the proposed layout is given in figure 3.

The main phases of this project include:

- Site clearance and preparation including alternations to existing buildings.
- A construction phase using standard building materials.
- Construction will include a new surface water drainage infrastructure and connection to electricity and wastewater networks.
- An operation phase whereby the extended building will be occupied.

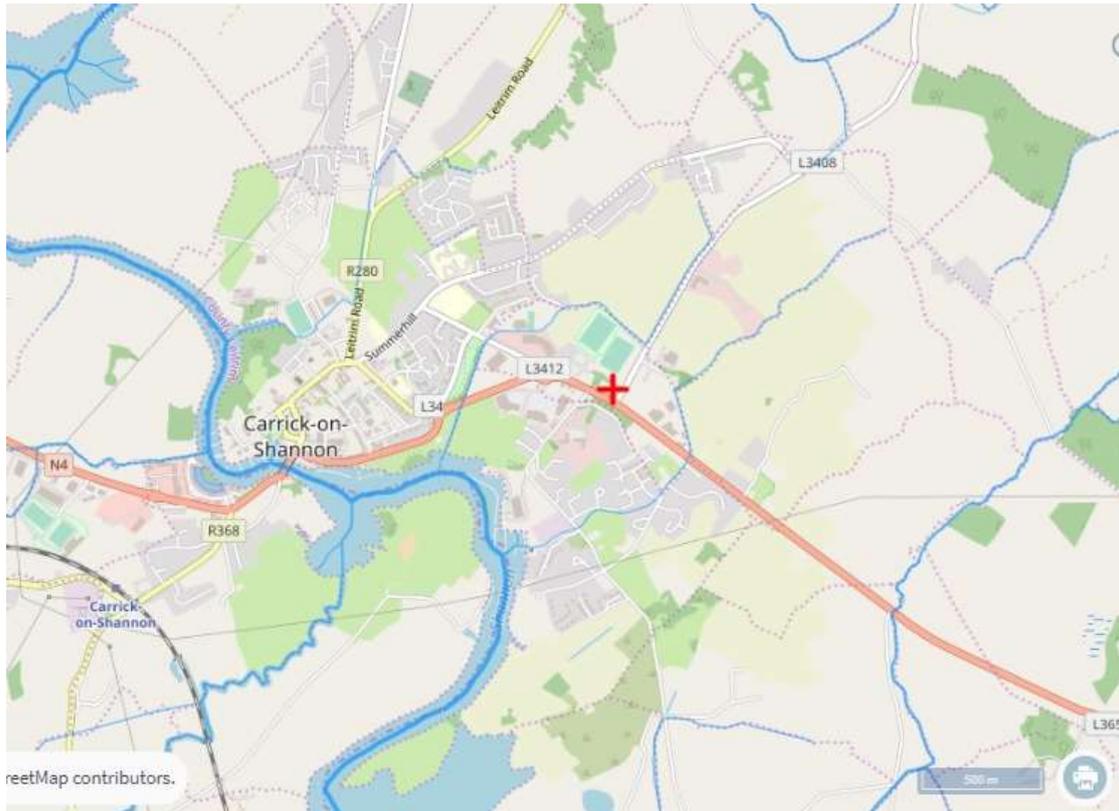


Figure 1 – Site location (red cross) (from www.epa.ie). There are no Natura 2000 sites in this view.

The site is not located within or directly adjacent to any Natura 2000 site (SAC or SPA). This part of Carrick-on-Shannon is a built-up area and is predominantly composed of artificial surfaces. Mapping from the Environmental Protection Agency (EPA) shows that the lands are within the catchment of the River Shannon. No water courses are shown in the immediate vicinity of the development site.

The site was visited on September 26th 2019. This is within the optimal season for general habitat survey and habitats are described here as per standard classifications (Fossitt, 2000). Much of the site is composed of **buildings and artificial surfaces – BL3** including a car park and this includes some marginal areas of amenity grassland. The western half of the site is different in character and is predominantly composed of semi-natural vegetation, although there is a dwelling house adjacent to the public road and a yard to the rear. This area is a combination of **scrub – WS1** and **immature woodland – WS2** although some of it has grassland characteristics. There are abundant Brambles *Rubus fruticosus agg.* along with stands of Hogweed *Heracleum sphondylium* and Nettle *Urtica dioica*. Woodland trees include Aspen *Populus tremula*, Sycamore *Acer pseudoplatanus* and Crab Apple *Malus sylvestris*. The ground here is wet and is crossed by **drainage ditches – FW4**. There are typical wet-adapted plants such as Meadowsweet *Filipendula ulmaria* and Angelica *Angelica sylvestris*. There is also the non-native Himalayan Honeysuckle *Leycesteria formosa*.

Boundaries to the north and west are composed of **treelines – WL2** with Aspen, Ash *Fraxinus excelsior*, Horse Chestnut *Aesculus hippocastanum*, Beech *Fagus sylvatica* and Sycamore. Cumulatively, these habitats are of high local value but are not associated with any habitats or species for which Natura 2000 sites are typically designated.

The eastern boundary is composed of a non-native, horticultural **hedgerow – WL1**. In this area there are a number of stands of Japanese Knotweed *Fallopia japonica*. This is an alien invasive species as listed under Schedule 3 of SI No. 477 of 2011. There is also a short stretch of hedgerow running north-west of the house.

Any inert construction and demolition waste will be removed by a licenced contractor and disposed of in accordance with the Waste Management Act.

Currently there is no attenuation of rain run-off and this enters the nearby stream. As part of the development the surface water run-off shall discharge to a local ditch while a soakaway will reduce the volumes leaving the site.



Figure 2 – Site boundary and habitat map (aerial photo from www.bing.com)

Foul effluent from the proposed development will be sent to the wastewater treatment plant for Carrick-on-Shannon. Emissions from the plant are currently fully in compliance with the Urban Wastewater Treatment Directive. This plant is licenced by the EPA (licence no.: D0154-01) to discharge treated effluent to the River Shannon. It has a capacity of 11,500 population equivalent (P.E.) and in 2017 received a P.E. of 7,279 with a spare capacity of 4,221. According to the Annual Environmental Report (AER) for 2017 the plant is not expected to

exceed capacity in the next three years. Ambient monitoring of points along the River Shannon upstream and downstream of the discharge indicates that “the discharge from the WWTP has no observable negative impact on the Water Framework Directive status”, according to the AER (pg8).

There are no point air emissions from the site while some dust and noise can be expected during the construction phase. It is proposed to clear trees and culvert the drainage ditch as part of the car park extension to the west.



Figure 3 – Proposed layout plan

Brief description of Natura 2000 sites

There is no prescribed radius to determine which Natura 2000 sites should be studied and this depends upon the zone of influence of the project. It has already been stated that the site is not located within or directly adjacent to any Natura 2000 site. There are no Natura 2000 sites within the zone of influence of this project. Although there are Natura 2000 sites along the Shannon downstream of this point, since the wastewater treatment plant at Carrick-on-Shannon is not resulting in observable pollution, there can be no effect to water quality – and so Natura 2000 sites – downstream of this point.

Data collected to carry out the assessment

Habitats on the site are not associated with either intertidal habitats listed in table 2 or species listed in table 1.

The EU's Water Framework Directive (WFD) stipulates that all water bodies were to have attained 'good ecological status' by 2015. In 2009 a management plan was published to address pollution issues and includes a 'programme of measures' which must be completed. This plan was approved in 2010 (ERBD, 2010). The River Shannon has been assessed by the Environmental Protection Agency (EPA) as 'poor' in terms of its status under the Water Framework Directive for the 2013-18 reporting period. This classification indicates that water quality in the river is of an insufficient standard to meet the requirements of the WFD. Measures must therefore be taken in the coming years to address existing problems and any new developments within the catchment must not contribute to the pollution loading.

In 2018 a second River Basin Management Plan was published which identifies 190 'priority areas for action'. The Lillukan/Shannon sub-catchment, in which Carrick-on-Shannon is located, is among these areas. According to the www.catchments.ie website, currently seven out of 13 water bodies in this sub-catchment are achieving 'good status'. According to the sub-catchment assessment "Septic tanks and agriculture (i.e. farmyards) are significant pressures identified within Killukin_010. Diffuse agriculture, septic tanks and urban waste water treatment were also identified as significant pressures within Shannon (Upper)_060".

The Assessment of Significance of Effects

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

In order for an effect to occur there must be a pathway between the source (the development site) and the receptor (the SAC or SPA). Where a pathway does not exist, an impact cannot occur.

The proposed development is not located within, or adjacent to, any SAC or SPA.

Habitat loss

No habitat loss can occur within any Natura 2000 site arising from this development.

Habitat disturbance/Ex-situ impacts

No habitat disturbance can occur within any Natura 2000 site arising from this development.

Hydrological pathways

There is a pathway from the site via surface (or groundwater) and wastewater water flows to the River Shannon. However, the wastewater treatment plant is currently operating to a high standard, with ample capacity to accept the additional wastewater loading from this project and is not resulting in any observable pollution. Therefore it is not possible for this development to have any effect on Natura 2000 sites which may be located downstream. The nearest such area is the Lough Forbes Complex SAC and Ballykenny-Fisherstown Bog SPA which are located 22km to the south-east as the crow flies. No effects can occur to these areas.

Pollution - wastewater

No effects to Natura 2000 sites can occur from wastewater from this project.

Pollution – surface water

Any changes to the pattern of surface water run-off cannot affect Natura 2000 sites.

Pollution during construction

During the site clearance and construction phases some sediment may become entrained in rain run-off. However this site is not located near any river which may transport sediment to the River Shannon. In the unlikely event that the local drainage ditches could carry sediment to the River Shannon, there is no Natura 2000 site in this zone of influence and so no effects to SACs and SPAs can occur.

Dust and noise

During the construction phase, it can be expected that some dust emission will occur. It is difficult to quantify this but is likely to be localised and temporary in

nature. Dust deposition can impact upon ecosystems through blocking the stomata of leaves, thus retarding plant growth. Research has found however that this impact is localised in nature and typically occurs where there are significant dust emissions (Bell & Treeshow, 2002). Given the distance to Natura 2000 sites this is not considered significant.

Japanese Knotweed

The stands of Japanese Knotweed have been assessed by Flynn Furney Environmental Consultants and will be treated in accordance with a best practice management plan. However, there is no pathway for this plant to reach any Natura 2000 site and so effects from this source cannot occur.

Are there other projects or plans that together with the project or plan being assessed could affect the site?

Implementation of the WFD will result in continued improvements to water quality along the River Shannon. Environmental water quality can be impacted by the effects of surface water run-off from areas of hard standing. These impacts are particularly pronounced in urban areas and can include pollution from particulate matter and hydrocarbon residues, and downstream erosion from accelerated flows during flood events.

There are no projects which can act in combination with this development which can give rise to significant effect to Natura areas within the zone of influence.

List of agencies consulted

Due to the relatively low ecological sensitivity of the subject site, no third party observations were sought.

Conclusion and Finding of No Significant Effects

This project has been screened for AA under the appropriate methodology. It has found that significant effects are not likely to arise, either alone or in combination with other plans or projects to the Natura 2000 network. No mitigation measures are relied upon to make this assessment.

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