

Screening Report for Appropriate Assessment of proposed district road scheme at Glenamuck, Kiltiernan, Co. Dublin

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).

The main policy instruments for conserving biodiversity in Ireland have been the Birds Directive of 1979 and the Habitats Directive of 1992. 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. A recent 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" (EC, 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 Directive is met. Article 6(3) requires that an 'appropriate assessment' (AA) be carried out for these sites where projects, plans or proposals are likely to have an effect. In some cases this is obvious from the start, for instance where a road is to pass through a designated 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 the Local Authority and this report can aid in that decision.

The Purpose of this document

This document provides for the screening of a proposed district road scheme at Glenamuck, Kiltiernan, Co. Dublin, 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 Dun Laoghaire Rathdown County Council to carry out this screening. The proposal is described thus, as per the EIAR document:

The Glenamuck District Distributor Road (GDDR) connects from the Enniskerry Road adjacent to De La Salle Palmerstown Rugby Club to a tie in at the Glenamuck Road East/Golf Lane Roundabout. The Glenamuck Link Distributor Road (GLDR) connects from the approximate midpoint of the GDDR to the Enniskerry Road south of Kiltiernan and will connect the new distributor road with the existing Glenamuck Road, Ballycorus Road and Barnaslingan Lane providing an alternative to the Enniskerry Road for north-south travel.

The Glenamuck District Distributor Road has a total length of approximately 1.5km. The road consists of approx. 660 m of two lane single carriageway from the Enniskerry Road tie in to the GDDR / GLDR junction and approx. 880 m of four lane dual carriageway from this junction to the Golf Lane Roundabout. The Glenamuck Link Distributor Road consists of approximately 1.8km of predominantly two-lane single carriageway road. Both roads have additional turning lanes as required at junctions along the route.

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 this 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 Site

This process identifies the conservation aspects of the site and determines whether negative impacts can be expected 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 or not must be measured against the conservation objectives of the SAC/SPA in question.

If this analysis shows that significant effects are likely then a full AA will be required.

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

It is proposed to construct a new road through the lands at Kiltiernan and Glenamuck which will roughly be in a T-shape. The east-west component will link the roundabout near the Park Shopping Centre (R482) and the R177 while the north-south component will extend from the centre of this road to south of the Ballycorus road. The road will include lanes for motor vehicles, cyclists and pedestrians and will be lit throughout. A number of surface water attenuation ponds will be constructed to receive rain run-off. Crossings of the Glenamuck and Shanganagh Stream will be required.

The main phases of this project include:

- Site clearance and preparation.
- A construction phase using standard building materials
- Construction will include a new surface water drainage and electricity infrastructure.
- An operation phase whereby the roads will be used by vehicular, pedestrian and cycle traffic.
- A landscaping phase along with new boundary treatments.

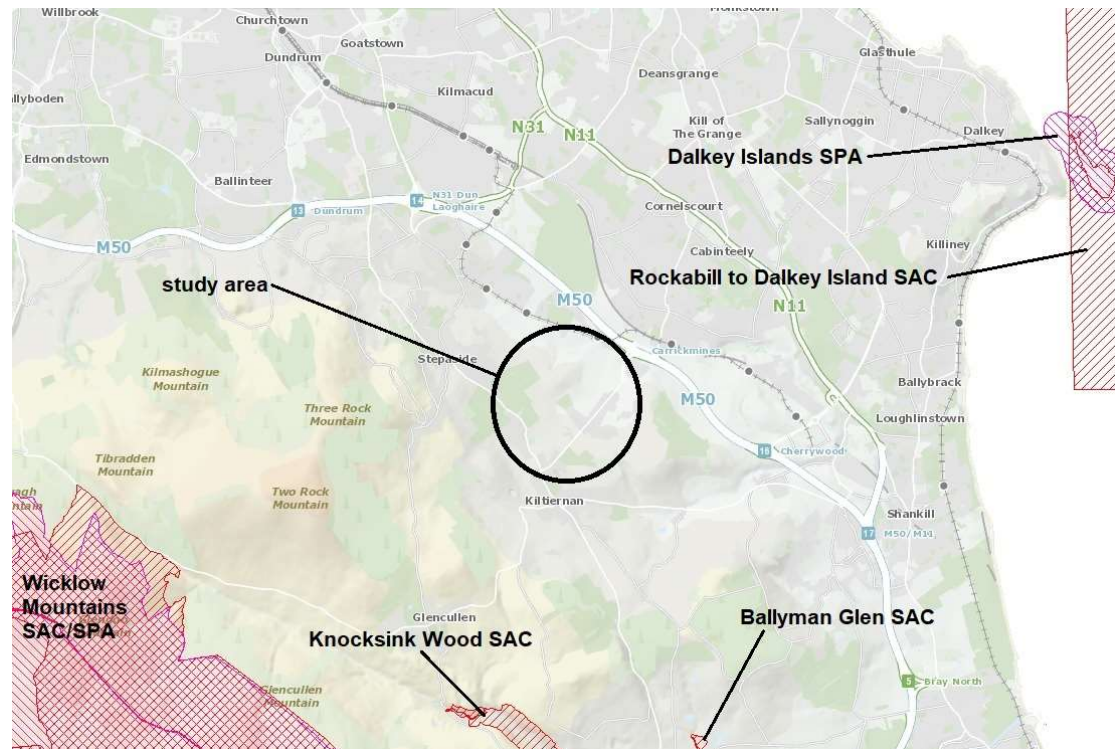


Figure 1 – Site location (black circle) (from www.npws.ie). SACs are shown in red while SPAs are shown in magenta.

The site is not located within or directly adjacent to any Natura 2000 area (SAC or SPA). This part of south Dublin is an agricultural and residential zone with significant areas of built development and areas of hard standing. It is close to the village of Kiltiernan, which is located between the M50 motorway and the lower slopes of the Dublin Mountains. Mapping from the OSI and EPA show that the Glenamuck and Shanganagh Streams run through the site. These are short water courses which rise in the Dublin Mountains to the west. Together they discharge into Killiney Bay at Loughlinstown.

A site visit was carried out on the 14th of February 2018 in fair weather. The site was surveyed in accordance with the Heritage Council's Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2010). Habitats were identified in accordance with Fossitt's Guide to Habitats in Ireland (Fossitt, 2000).

The study area can be broadly described as agricultural lands divided by traditional field boundaries. There are also areas of woodland and artificial habitats (including homes and gardens) which are all drained by a network of ditches and small streams. These are shown as a habitat map in figure 2.

Agricultural fields are a combination of **arable crops – BC1** and **improved agricultural grassland – GA2**. These are intensively managed and are of negligible biodiversity value. Where agriculture has ceased, grassland develops into **dry meadow – GS2** and this can contain some diversity of grasses and broad-leaved plants including Thistles *Cirsium sp.*, Willowherbs *Epilobium sp.*, Docks *Rumex sp.*, Clovers *Trifolium sp.* etc. Meadows are generally nutrient-rich and have low diversity when compared with low intensity, semi-natural grassland habitats, and so are of low biodiversity value. Nevertheless, they do provide some habitat for invertebrates and small mammals. Where agriculture has been abandoned for many years, young trees become established in a natural process which ultimately leads to high woodland. This intermediate stage is known as **scrub – WS1** and on the study lands is typically groves of young or sapling Willow *Salix sp.* or Alder *Alnus glutinosa*, or bands of Brambles *Rubus fruticosus agg.* or Blackthorn *Prunus spinosa* expanding out from hedgerows.

Immature woodland – WS2 is found in three small areas to the north of the study area. These are generally planted, even aged stands of Ash *Fraxinus excelsior*. One is associated with a private garden and includes non-native conifers and Birch *Betula sp.* For a small stretch along the Glenamuck Stream there is a more developed **broad-leaved woodland – WD1**. This is shown on historic OSI maps and is associated with Glenamuck House. It is therefore likely to be 200 years old or older. There are tall Birch, and Ash along with Hazel *Corylus avellana*, Holly *Ilex aquifolium* and Cherry Laurel *Prunus laurocerasus*. At ground level there is Primrose *Primula vulgaris*, Soft-shield Fern *Polystichum setiferum*, Male-fern *Dryopteris filix-mas* and Herb Robert *Geranium robertianum*. Another area of this woodland type is found in a small valley north of the Ballycorus Road. This is more developed, with a greater number of tall trees. These habitats are of high local value.

Occasional patches of **spoil and bare ground – ED3**, **buildings and artificial surfaces – BL3** – which include gardens with mostly horticultural shrubs – and **amenity grassland – GA2** are of negligible biodiversity value.

Field boundaries generally date from the mid-18th Century however those laid down as townland boundary can be much older (8th Century). Within the study area these boundaries are a combination of **hedgerow – WL1** and **treeline – WL2**, habitats which can be of similar species composition and are differentiated by the average tree height (treelines are composed of trees over 5m in height). These features are further subdivided into those of 'higher significance' or 'lower significance'. This classification is set out as a scoring system in guidelines from the Heritage Council and is based on the feature's historical significance, species diversity (trees and woody species/ground flora), structure and associated features (Foulkes et al., 2013). Within the study area, 'higher significance' field boundaries are marked on the first edition OSI maps

(and so of historical significance), are dominated by native species, and are associated with field drains or water courses. 'Lower significance' boundaries meanwhile are mostly composed of non-native species (e.g. Leyland Cypress *Cuprocyparis leylandii* or Poplar *Populus sp.*), recently planted or have very low species diversity with poor structure (e.g. dominated by Brambles and/or with large gaps).

Many fields are accompanied by **drainage ditches – FW4** and these are common features of agricultural landscapes in Ireland. They lead into one of two streams, the Glenamuck Stream, to the north, or the Shananagh Stream, to the south. They can both be described as **eroding rivers – FW1**.

A number of plant species listed as alien invasive under SI No. 477 of 2011 were recorded, namely: Japanese Knotweed *Fallopia japonica*, Giant Hogweed *Heracleum mantegazzianum*, Giant Rhubarb *Gunnera tinctorial* and Three-cornered Garlic *Allium triquetrum*. Their locations are given in figure 2.

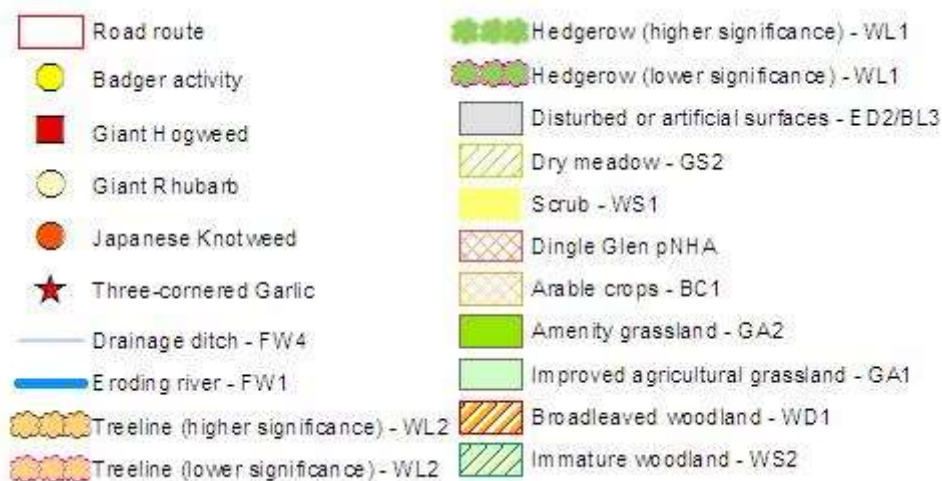


Figure 2 – Legend to accompany figure 2.

Currently, rain water enters the soil or flows into the Glenamuck or Shanganagh streams via surface or groundwater flows. In accordance with the Greater Dublin Strategic Drainage Study this project will incorporate sustainable drainage systems (SUDS) that will maintain run-off to a greenfield rate. The following text is taken from the EIAR document:

A new surface water network will be constructed to collect and convey all runoff from the proposed road to a suitable discharge point. The proposed road scheme lies entirely within the catchment of the Loughlinstown River (Also known as the Shanganagh River). There will be a number of surface water outfalls from the proposed road drainage network to the Loughlinstown River and its tributaries in the area.

Prior to each discharge point from the road drainage network a flow control (Hydrobrake or similar) will be installed to limit the discharge to the watercourse to 2l/s per hectare of contributing catchment.

Attenuation storage will be provided upstream of each hydrobrake. This will generally take the form of open ponds.



Figure 3 – Site boundary and habitats (aerial photo from www.bing.com)

In this way no negative effects are predicted to occur to the quantity or quality of surface run-off.

There are no other discharges from this operation. There is no requirement for a freshwater supply.

Some dust and noise can be expected during the construction phase, while exposed soil may result in the escape of pollutants to water courses.

During the operation phase the use of the road will result in noise and human disturbance, while artificial lighting will be a feature.



Figure 4 – Proposed layout plan

Brief description of Natura 2000 sites

In assessing the zone of influence of this project upon Natura 2000 sites the following factors must be considered:

- Potential impacts arising from the project
- The location and nature of Natura 2000 sites
- Pathways between the development and the Natura 2000 network

It has already been stated that the site is not located within or directly adjacent to any Natura 2000 area. For projects of this nature an initial 2km radius is normally examined (IEA, 1995). This is an arbitrary distance however and impacts can occur at distances greater than this. There are no Natura areas within this radius. A slightly larger radius will encompass the following areas:

Rockabill to Dalkey Island SAC (site code: 0300)

This is a recently designated off-shore (i.e. marine) SAC. It has two qualifying interests which are reefs and Harbour Porpoise *Phocoena phocoena*. Conservation objectives for this SAC have been published to maintain or restore the area of habitat and status of the population to 'favourable conservation status' (NPWS, 2013).

- Reefs can be intertidal or subtidal features and are characterised by hard or rocky substrates. The main pressures that have been identified by the NPWS are commercial fishing, aquaculture, water pollution and commercial/recreational uses of the marine environment. Nationally their status is assessed as 'bad' (NPWS, 2013).
- Harbour porpoise This is the smallest cetacean species regularly occurring in Irish waters. It is commonly found in residential pods close to the shore and it is not considered threatened in Irish waters. Its status nationally is 'good'.

Dalkey Islands SPA (site code: 4172). Consists of a cluster of low islands and their surrounding waters. They are important locations for breeding sea birds and the SPA is designated for three 'features of interest': Arctic Tern *Sterna paradisaea*, Common Tern *S. hirundo* and Roseate Tern *S. dougallii*.

Knocksink Wood SAC (site code: 0725)

This important woodland site is located near Enniskerry, Co. Wicklow and is within the valley of the Glencullen River. It has mature stands of Oak forest with two important habitats at a European level: alluvial wet woodland, and petrifying springs; both listed on Annex I of the Habitats Directive. The Wood is also of note for its bird and mammal fauna and its particularly rich community of invertebrates.

Knocksink is a National Nature Reserve and so is of significance for a range of wildlife as well as being of amenity value. It should be reiterated that the AA process strictly looks at potential effects to the SAC in light of the conservation objectives which have been set.

The reasons why this area falls under the SAC designation are set out in its qualifying interests. They are either habitat types listed in Annex I or species listed in Annex II of the Habitats Directive. This information is provided by the National Parks and Wildlife Service (NPWS) and is shown in table 1 below. The status refers to the national assessments carried out by the NPWS under Article 17 of the Habitats Directive and do not necessarily refer to the status of the SAC in question¹.

Table 1 – Qualifying interests for the Knocksink Wood SAC (from NPWS)

Code	Habitats/Species	Status
7220	Petrifying springs	Intermediate
21E0	Alluvial forests	Bad

- **Alluvial Wet Woodland (91E0 – priority habitat):** This is a native woodland type that occurs on heavy soils, periodically inundated by river water but which are otherwise well drained and aerated. The main pressures are identified as alien invasive species, undergrazing and overgrazing. Pollution from agricultural land may also be significant.
- **Petrifying Springs (7220 – priority habitat):** These are very localised habitats that arise from the precipitation of excess calcium carbonate in supersaturated running water. They are associated with characteristic bryophytes. They are vulnerable to changes in water quality, flow regime and intensification of land use practices.

Ballyman Glen SAC (site code: 0713)

This internationally important site consists of wet fen vegetation with petrifying springs. These are rare habitats in Dublin and this site is noted for its particularly rich diversity of orchids and sedges. Its qualifying interests are shown in table 2.

Table 2 – Qualifying interests for the Ballyman Glen SAC (from NPWS)

Code	Habitats/Species	Status
7220	Petrifying springs	Intermediate
7230	Alkaline fen	Bad

- **Alkaline Fens (7230):** Threats of ‘high importance’ are groundwater abstractions, land reclamation, diffuse groundwater pollution, land abandonment/under-grazing. These fen systems are often a complex mosaic of habitats, with tall sedge beds, reedbeds, wet grasslands, springs and open-water often co-occurring at a given fen site. Their integrity is reliant upon a stable, high water table; calcareous/low-nutrient water supply; and controlled mowing and/or grazing.

Wicklow Mountains SAC/SPA (site code: 2122/)

¹ NPWS (2013). *The Status of Protected EU Habitats and Species in Ireland. Overview Volume 1.* Department of Arts, Heritage and the Gaeltacht.

Wicklow Mountains is a large area and is designated as both an SAC and SPA as well as being a National Park (although the boundaries of these areas are not coincident). It is an upland area underlain with granite and is an important amenity and recreational area, as well as being of high conservation value. Its qualifying interests are shown in table 3 while its 'features of interest' (analogous to qualifying interests for SAC) are given as Merlin *Falco columbarius* (breeding) and Peregrine *Falco peregrinus* (breeding).

Table 3 – Qualifying interests for the Wicklow Mountains SAC (site code: 4040)

Code	Habitats	Status
7130	Active Blanket bog [priority habitat]	Bad
4010	Atlantic wet heath	Bad
4030	European dry heath	Poor
91A0	Old oak woodland	Bad
8220	Siliceous rocky slopes	Inadequate
8210	Calcareous rocky slopes	Inadequate
8110	Siliceous scree	Inadequate
4060	Alpine and Boreal heath	Bad
3160	Natural dystrophic lakes	Inadequate
3110	Oligotrophic lakes	Bad
6230	Species rich <i>Nardus</i> grassland [priority habitat]	Bad
1355	Otter <i>Lutra lutra</i>	Good

- **Active Blanket Bog (7130)** This is a very widespread habitat in Ireland found on uplands and lowlands along the Atlantic seaboard. Active blanket bog is peat forming, principally indicating the presence of *Sphagnum* sp. mosses but also other species. Degraded bog, where there is now forestry or bare peat, are excluded as they are not considered 'active'.
- **Atlantic wet heath (4010)** This is a heather dominant habitat that is intermediate between dry heath and blanket bog, and is frequently found in association with these two. Grazing and trampling by sheep is identified as the greatest threat to the status of the habitat but non-native invasive species such as *Rhododendron* and the moss *Campylopus introflexus* also impact negatively upon the habitat.
- **Dry heath (4030)**: This is a community of heather shrubs that occurs on well-drained, acidic, nutrient-poor mineral or peaty soils. Pressures on this habitat arise from high levels of sheep grazing, as well as afforestation, mining and quarrying. Unregulated burning is also identified as an important threat to the structure of this habitat.
- **Alpine and Boreal Heath (4060)** This habitat occurs on exposed mountain tops with acid substrate where stunted growths of heather are found. It is also found in the Burren, Co. Clare at low altitudes.
- **Species-rich *Nardus* grassland (6230 – priority habitat)**. Mat-grass *Nardus stricta* that is found on siliceous (acid) soils in areas of high rainfall. It is associated with mineral flushes in upland districts.

- **Old Oak Woodlands (91A0):** This native woodland type is typified by Sessile Oak *Quercus patrea*, Holly *Ilex aquifolium* and Hard Fern *Blechnum spicant*. Its range is much reduced from historic levels while the principle threats are alien invasive species and overgrazing by deer but also cattle, goats and sheep.
- **Siliceous Scree (8110)** This is a mountainous habitat characterised by expanses of shattered siliceous rock from small, mobile stones to stable boulders. Vegetation is sparse and frequently dominated by moss or lichen communities.
- **Calcareous or Siliceous Rocky Slopes (8210 & 8220)** These are vertical or near vertical slopes of calcareous or siliceous rock with cracks and fissures that are home to unique communities of plants. Climate change is considered to be the greatest threat where specialist arctic-alpine plants are to be found.
- **Dystrophic lakes (3160)** These are naturally low oxygen, nutrient poor, acid lakes that occur in association with peatland habitats. They have low species diversity but some of these species are uniquely associated with this habitat.
- **Upland Oligotrophic lakes (3130).** These are naturally low nutrient status lakes that in Ireland are associated with expanses of blanket bog. They are threatened by eutrophication (excessive input of nutrients) and peatland drainage.
- **Otter (1355)** This aquatic mammal lives its entire life in and close to wet places, including rivers, lakes and coastal areas. They will feed on a wide variety of prey items. Despite local threats from severe pollution incidents and illegal fishing, its population is considered stable and healthy, and so is assessed as being of 'good' status.
- **Merlin.** This tiny bird of prey is found on upland areas but is absent from some areas. The numbers and trends in Ireland are poorly known.
- **Peregrine.** Since the banning of organohalide pesticides this bird of prey has rebounded considerably and is now found throughout Ireland. It is local in its breeding habitats, utilising natural and artificial cliff faces.

Whether significant effects are likely to occur to any of these SACs or SPAs must be measured against their 'conservation objectives'. Specific conservation objectives have not been set for all of these areas. Where these are not available, generic conservation objectives have been published by the NPWS and are stated as:

To maintain or restore the favourable conservation condition of the Annexed species for which the SPA has been selected. (NPWS, 2016a & b; 2018).

In a generic sense 'favourable conservation status' of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and

- 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.

While 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, and
- 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.

At the Rockabill to Dalkey Islands SAC specific conservation objectives have been set to maintain the area, distribution and community composition of reef, and maintain access to habitat and minimal disturbance levels which may affect Harbour Porpoise (NPWS, 2016b).

Specific conservation objectives have been published for the Wicklow Mountains SAC and these include objectives for habitat extent and condition, as well as populations trends for otter (NPWS, 2017).

Data collected to carry out the assessment

Water quality in rivers is monitored on an on-going basis by the Environmental Protection Agency (EPA). They assess the pollution status of a stretch of water by analysing the invertebrates living in the substrate as different species show varying sensitivities to pollution. They arrive at a 'Q-Value' where Q1 = pristine quality and Q5 = grossly polluted (Toner et al., 2005). OSI mapping shows a number of streams in the vicinity of the lands that pass into the Loughlinstown River, ultimately draining into the Irish Sea south of Killiney, including the Glenamuck Stream and the Shanganagh Stream. There are no monitoring points upstream of the development site and the nearest downstream station is on the Carrickmines Stream where it crosses the N11 dual carriageway. At this point the river was most recently (2012) assessed as Q3-4 indicating slightly polluted status. This is unchanged since the previous samples in both 2009 and 2004. Further downstream water quality improves and is Q4 (unpolluted) in Loughlinstown. These data are taken from the ENVision mapping tool on www.epa.ie.

Site surveys have shown that the habitats in the study area are not associated with any of those which are listed as qualifying interests of nearby SACs. Nor are they associated the species listed as features of interest for SPAs. Otter may use the Glenamuck or Shanganagh Streams however these are not connected to the Wicklow Mountains SAC and are situated in a separated hydrological catchment.

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.

There are no SACs or SPAs within the hydrological catchment of the development.

There are no pathways to any SAC or SPA.

There can consequently be no negative effects to any Natura area arising from this project.

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 throughout the river basin district. 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 can be no negative impact to surface water quality leaving the site due to the attenuation measures which are planned.

In 2005 the Greater Dublin Drainage Study (GDDS) was published as a policy document designed to provide for drainage infrastructure to 2030. The implementation of this policy will see broad compliance with environmental and planning requirements in an integrated manner. This is likely to result in a long-term improvement to the quality and quantity of storm water run-off in the capital. This project is compliant with the requirements of this policy.

Development in this vicinity is provided under the Kiltiernan Local Area Plan 2013. This includes provision for the district road project as well as zoning for new residential schemes. This plan was subjected to an AA Screening by the Local Authority, and this concluded "the proposed Draft LAP will not have a significant negative impact on the Natura 2000 network".

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

The Development Applications Unit (DAU) of the Department of the Culture, Heritage, the Gaeltacht, was contacted for nature conservation observations. A response to this was received on February 12th 2018 (reference no. GPre00016/2018). It contains much generic information on the preparation of ecological reports however specifically to do with the subject development it states:

This Department notes from your letter dated 24th January that a habitat survey is currently underway. January could not be considered an adequate time to carry out a habitat survey or indeed most botanical work. A flora survey should be carried out at appropriate times in Spring and Summer to enable a complete list of flora to be compiled.

This Department also notes two streams running through the study area. Care should be taken to ensure there are no negative impacts on these streams and their flood plains to ensure no loss of biodiversity.

The impact of the proposed development on the biodiversity of the site and on the nearby Dingle Glen pNHA should also be assessed, including in combination with the proposed strategic housing development in the area (An Bord Pleanála reference TC0028).

Details were also sent to Ms Gretta Hannigan of Inland Fisheries Ireland.

Details were also sent to the Biodiversity Officer for Dun Laoghaire Rathdown County Council, Ms Anne Murray. In an email response

See the Kiltiernan/Glenamuck Local Area Plan 2013 and in particular Section 3.2. Natural Environment. There are a number of objectives there in relation to Biodiversity. Also the Landscape, geology and water elements of the same chapter would have relevance for biodiversity. For example any pathways to groundwater or surface water to protected sites including watercourses and also Dingle Glen pNHA.

I have just commissioned some bryophyte surveys for the county including Dingle Glen pNHA, I just need to finalise the draft version but here is a summary:

Dingle Glen pNHA was found to support a number of bryophyte species which are rare/ very rare in Co. Dublin (Vice-county H21). These include:

- 2 species for which this is the first recorded site in Co. Dublin;*
- 2 species for which this is the first recent (post 1950) record in Co. Dublin;*
- 6 species for which this is only the second site in Co. Dublin; and,*
- 21 species which have less than 10 records within Co. Dublin.*

[...] it would be important to check for any protected habitats and species including tufa springs

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 any SAC or SPA.

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