

NATURA IMPACT STATEMENT OF BELLEWSTOWN QUARRY, CO. MEATH



In support of the Appropriate Assessment Process

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Executive Summary

This report presents the results of a Natura Impact Statement (NIS), which is part of the appropriate assessment process to identify whether significant impacts on a Natura 2000 site are likely to arise from the proposed continuation and extension to the existing quarry at Bellewstown, Co. Meath.

It is objectively concluded that with the application of mitigation measures no significant adverse impacts arising from the proposed development, in combination with other developments, will occur in relation to the Natura 2000 site; River Nanny Estuary & Shore SPA.

Meath County Council - Viewing Purposes Only!

1 Introduction

Ecology Ireland Ltd. were commissioned by Tom Phillips & Associates to undertake a Natura Impact Statement (NIS) in support of the Appropriate Assessment process in relation to the proposed continuation and extension to an existing quarry at Bellewstown, Co. Meath.

The subject site is Bellewstown Quarry and proximate agricultural land in Co. Meath located in the townlands of Bellewstown, Hilltown Little, Gafney Little and Hilltown Great. The site comprises the existing rock quarry and a portion of land extending to the northeast on which it is proposed to deliver a new dedicated quarry access road. The quarry area extends to approximately c. 39.4 hectares. The overall site size (development boundary) is 47.3 hectares, which includes an area of 7.9 hectares to accommodate the new access road to serve the quarry.

Quarrying commenced at the site prior to October 1964 (shows up on Ordnance Survey Maps from over 100 years ago) and the site was first registered under the s.261 process in August 2004. Kilsaran Concrete acquired the site in 2006 and received substitute consent for the ongoing quarrying activities (under s.177E of the *Planning and Development Acts, 2000* (as amended)) in October 2018. The continued extraction at the quarry and its expansion to the north and west of the existing void area was also permitted by An Bord Pleanála under Ref. No. PL17.QD0013 (in accordance with section 37L of the *Planning and Development Acts, 2000* (as amended)) in October 2018. This grant of planning limited the number of truck movements to a maximum of 32 loads per day. The s.37L application was accompanied by an Environmental Impact Statement and Natura Impact Statement. A suite of field surveys were completed as part of that application (2010-2015) and these data were reviewed as part of the desktop review of ecological information relevant to the development site.

The current development proposal consists of the continued extraction of the quarry within the area previously permitted by An Bord Pleanála (under Ref. No. PL17.QD0013). A new access road of c. 1.7km in length is proposed which will along with the proposed traffic management changes move traffic away from the local concentration of residential premises. This new road will reduce the impacts on the local community by redirecting the HGVs away from Bellewstown Village. The new road will cross the Mullagh Road and fields in a northeast direction away from the quarry. The road has a minimum width of c. 6m increasing to up to 9.25m wide on some internal bends. The new link road will also be used by the farmer whose lands it crosses, to provide internal access to their farm for agricultural purposes. This road will allow an average number of 81 No. daily loads from the quarry to facilitate an extraction level of approximately 450,000 tonnes per annum. The total extraction period proposed is 25 years, with an additional year required to facilitate restoration works.

1.1 Statement of Competence

This report has been prepared by Dr. Gavin Fennessy with input from a team of specialist ecologists including Dr. John Conaghan, Tom O'Donnell, Éinne Ó'Cathasaigh and Athena Michaelides. Field surveys and *Post hoc* analysis were carried out by Dr. Gavin Fennessy (B.Sc. PhD MCIEEM), Dr. John Conaghan (BSc PhD MCIEEM) and Tom O'Donnell (B.Sc. M.Sc. CEnv MCIEEM) with the assistance of Éinne Ó'Cathasaigh (B.Sc. M.Sc.).

Dr. Fennessy is a highly experienced ecologist with over 20 years of experience in consultancy. He is Principal Ecologist and Managing Director of Ecology Ireland Wildlife Consultants Ltd. He is a member of the Irish Policy Group of the CIEEM and is a guest lecturer at University College Cork. He and his team have prepared numerous ecological impact assessments, for all types of projects and plans throughout Ireland. Dr. John Conaghan is one of Ireland's most experienced botanists and was responsible for the habitat and botanical assessments at the site. Tom O'Donnell is an experienced field ecologist and carried out a range of ecological studies at the site, including mammal and bird surveys, assisted by his associate Éinne Ó'Cathasaigh. Athena Michaelides (BSc) is an ecologist with almost 5 years post-graduate experience, and she assisted in the preparation of this report.

1.2 Background: Appropriate Assessment

A screening assessment is part of an appropriate assessment process that consists of up to four stages, where each stage follows on from the preceding one. In Stage 1, a screening process is undertaken to identify whether significant impacts on a Natura 2000 site are likely to arise from the project or plan in question. If significant impacts are likely to occur, then the process moves on to Stage 2 where an appropriate assessment (AA) considers potential mitigation measures for adverse impacts. If it is considered that mitigation measures will not be able to adequately minimise potential adverse impact on a Natura 2000 site, then an assessment of alternative solutions is considered in Stage 3. This may then be followed by Stage 4 of the process in the event that adverse impacts remain, and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered. The outcome of a Stage 2 and higher assessment is presented in a report known as a Natura Impact Statement (NIS).

The first part of the assessment is a screening process to identify whether significant¹ effects on a Natura 2000 site are likely to arise from the project or plan in question, in view of best scientific knowledge and in light of the conservation objectives of any relevant European sites, when considered as an individual project or in combination with other plans and projects. If significant effects are likely to occur or if it is unclear whether significant effects are likely to occur, then the process moves onto the next phase where the project is subject to an appropriate assessment (AA) to determine whether the plan or project would directly affect the integrity of a European site. At this stage, potential mitigation measures for adverse impacts identified in Screening are considered. Typically, a Natura Impact Statement (NIS) is prepared by consultants on behalf of the promoter/developer of a plan or project and this is part of the information used by the competent authority in carrying out an Appropriate Assessment of the proposed plan or project. If the competent authority is satisfied that the plan or project will not adversely affect the integrity of the site concerned, it may approve the project. If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in third phase of the assessment process. If adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of

¹ A European Court of Justice ruling in 2013 (Case C-258/11) has stated the following regarding significant effect: "Where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site."

Overriding Public Interest (IROPI), the final assessment step permits consideration of permission for development with consideration of compensatory measures.

While a screening assessment appraisal or NIS may be provided by the advocate of the plan or project in question, the AA itself is undertaken by the competent authority (e.g. the planning authority and An Bord Pleanála). So, in this case, the Appropriate Assessment for the project, described herein, is undertaken by Meath County Council; informed by this NIS and any other relevant information provided to the statutory body.

1.3 Methodology

This report presents in brief the outcome of a Screening for Appropriate Assessment. The subsequent Natura Impact Statement (NIS) is prepared to identify whether the proposed development, in view of best scientific knowledge and in light of the conservation objectives of any relevant European sites, when considered as an individual project or in combination with other plans and projects, will have an adverse effect on the integrity of any European Site. It is important to emphasise that a screening assessment does not have to ascertain the existence of a significant effect or impact on a Natura 2000 site as such; it only has to establish whether a significant effect or impact is possible or may occur (as per judgement by Ms. Justice Finlay Geoghegan; see guidelines below). At the NIS stage, all mitigation measures necessary to avoid, reduce or offset negative effects are considered.

The conservation objectives of Natura 2000 sites have been compiled by the National Parks & Wildlife Service (NPWS) in relation to the habitats and species (*i.e.* qualifying interests) for which the sites are selected. These conservation objectives are referred to when carrying out appropriate assessments for plans and projects that might impact on these sites.

Documents associated with the development and relevant ecology databases were consulted as part of this assessment (as referenced in this report). Field assessments were also undertaken throughout 2020. The following guidelines were used in the completion of this assessment;

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – European Commission Methodical Guidance on the provisions of Article 6(3) and 6(4) of the ‘Habitats’ Directive 92/43/EEC (European Commission 2001)
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG 2009)
- Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual (EPA 2013)
- European Court of Justice Ruling 11th April 2013 Case C-258/11 Peter Sweetman and Others v An Bord Pleanála - Criteria to be applied when assessing the likelihood that N6 Galway City Outer Bypass road scheme will adversely affect the integrity of Lough Corrib SAC
- High Court Ruling 25th July 2014 by Ms. Justice Finlay Geoghegan; Neutral Citation [2014] IEHC 400; High Court Record No. 2013 802 JR; Kelly -v- An Bord Pleanála – Judicial review of grant of planning by An Bord Pleanála for two wind farm phases in County Roscommon

- High Court Ruling 24th November 2014 by Mr. Justice Hedigan; Neutral Citation [2014] IEHC 557; High Court Record No. 2014 320 JR; Rossmore Properties Limited & Anor -v- An Bord Pleanála
- High Court Ruling 25th February 2016 by Mr. Justice Barton. Neutral Citation [2016] IEHC 134; High Court Record No. 2013 450 JR; Balz & Anor -v- An Bord Pleanála.
- European Court of Justice ruling 12th April 2018 in respect of Case C-323/17 (People Over Wind & Sweetman) - it is not appropriate for the purposes of Appropriate Assessment (AA), at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of a plan or project.
- European Court of Justice ruling 19th April 2018 in respect of Case C-164/17, Compensation vs Mitigation, Grace & Sweetman Vs ABP.
- European Court of Justice 7th November 2018; Case C 461/17; Holohan & Others v. An Bord Pleanála - an Appropriate Assessment must identify and examine the implications of the proposed project for species present on the Natura 2000 site, including species for which the site has been listed and those for which it has not, provided those implications are liable to affect the conservation objectives of the site; an Appropriate Assessment must identify and examine the implications of the proposed project for species and habitats outside the boundaries of the Natura 2000 site, provided those implications are liable to affect the conservation objectives of the site.
- High Court Ruling 2nd February 2019 by Mr. Justice Barniville; Neutral Citation [2019] IEHC 84; High Court Record No. 2017 883 JR; Kelly -v- An Bord Pleanála & Anor- SUDS are not mitigation measures which a competent authority is precluded from considering at the stage 1 screening stage.
- Heather Hill Management Company CLG v An Bord Pleanála (Burkeway Homes Limited as Notice Party) [2019] IEHC 450. Mr. Justice Garrett Simons granted an order of certiorari setting aside the decision of the Board to grant permission for a residential development of 197 units at Bearna Co. Galway, on the basis that it was a material contravention of the Galway County Development Plan (the CDP), it failed to carry out a 'justification test' as required and failed to carry out proper Appropriate Assessment screening.
- High Court Ruling 31st January 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 39; High Court Record No. 2019 33 JR; Peter Sweetman -v- An Bord Pleanála , Ireland and The Attorney General – the competent authority was not entitled to take the measures described in the CEMP into account in carrying out the screening exercise for appropriate assessment in this development case, where the CEMP referenced protection of the River Nanny that also overlapped with the SAC here.

2 Brief Description of the Site & Project

2.1 Study Site: Location

The existing quarry site for which further development is being sought is located approximately 1.2km to the west of Bellewstown, Co. Meath in the townland of Bellewstown, Hilltown Little and Hilltown Great. The application site is 47.3 hectares in area. The quarry area extends to approximately c. 39.4 hectares with an additional area of 7.9 hectares to accommodate the new access road to serve the quarry. The existing quarry site is bordered by agricultural land along its northern and western boundaries while a local public road defines its eastern boundary and a local public road along with a number of private dwelling sites define its southern boundary. The site is situated on an elevated hilltop (pre-existing quarry development elevation from 130 – 160mOD) overlooking the surrounding lower-lying landscape. The adjacent land slopes away from the site along all boundaries of the quarry with the slope being steepest on its northern and southern boundaries.

The main habitats at the site are agricultural grassland, dry meadows and grassy verges, recolonising bare ground, scrub and broadleaved woodland. The closest designated site; the River Nanny Estuary & Shore SPA is located c.6.2km overland from the proposed development site (see Figure 2.1).

The application site lies within the Nanny-SC-010 sub-catchment in the Nanny/Delvin Catchment in Hydrometric Area 08. There are no rivers, streams or lakes within the boundary of the application site. Surface water within the site is captured at the quarry sump. Water is pumped intermittently from the sump (manually controlled) through a discharge water treatment facility to a specific discharge point. The discharged water flows via a culvert under the Carnes Road into a land drain that in turn flows into Lunderstown Stream, which in turn flows into the Nanny River. The discharge is strictly controlled, and regular monitoring of water quality is undertaken according to the discharge license from Meath County Council.

2.2 Study Site: Walkover

The field assessments were undertaken throughout August, September and October of 2021. An objective of the field assessments was to gain an overview of the development site, as well as to note ecological points of interest such as the presence of invasive plant species and species that are protected or are part of the qualifying interests of the Natura 2000 sites relevant here.

No botanical species protected under the Flora (Protection) Order (1999; and as amended 2015), listed in Annex II or IV of the EU Habitats Directive (92/43/EEC), or listed in the Irish Red Data Books were recorded. The habitats which occur would not be considered to provide likely habitat for any rare plant species (Curtis and McGough, 1988). In many areas of Ireland quarry areas are known to support areas of the priority Annex I grassland habitat type [6210] Orchid-rich calcareous grassland, however the geology of the quarry area at Bellewstown is not sufficiently calcareous to support a species-rich, calcareous grassland flora. All flora and fauna species recorded during the walkover were considered common and widespread throughout Ireland (Fossitt 2000). No qualifying species of any Natura 2000 sites within 15km of the proposed development were recorded during the site visits.

No invasive species listed on Invasive Species Ireland's 'most-unwanted list' were found within the study area. No species listed on the Third Schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations (*i.e.* species of which it is an offense to disperse, spread or otherwise cause to grow in any place) were found within the study area.

Other than frequent observations and signs (droppings and burrows) of Rabbits, *Oryctolagus cuniculus*, there was no direct sightings made of any mammal species during the mammal walkover in 2020. Rabbits are ubiquitous at the site with sightings, tracks and droppings found at the active quarry and in the proposed extension area. Burrows are also present in both the existing and proposed extension areas. Given the abundance of Rabbits at the site there were frequent signs of Fox, *Vulpes vulpes* (scat) recorded on each of the site walkovers. However, there was no den located anywhere within the application area. Fallow Deer, *Dama dama* were recorded during the camera survey. Badger, *Meles meles* was detected during walkover survey by the presence of a 'latrine' along the fenceline immediately east of the old quarry, but no setts were found to be present within the study area. No Badgers were recorded on the camera traps deployed at the site. The application site is generally unsuitable for Otter, *Lutra lutra*. There is no significant watercourse within or closely adjacent to the proposed development site and the habitats present at the development site and adjoining lands are unattractive for this species.

Previous field surveys at Bellewstown Quarry recorded evidence of Brown Rat, *Rattus norvegicus*, Fox, Grey Squirrel, *Sciurus carolinensis*, Irish Hare, *Lepus timidus hibernicus* and Rabbit.

2.3 Project Details

2.3.1 Proposed Development

The proposed development seeks to extend the life of the current permitted quarry from 10 years to 25 years (as originally proposed 37L development) and proposes to develop a new dedicated quarry access road to facilitate an increase in the permitted number of HGV loads to and from the quarry from a maximum of 32 No. per day to an average of 81 No. per day (with +/-15% fluctuations in the number of loads to and from the quarry proposed to address certain demands on the quarry as and when required, equating to a maximum of 93 No. loads per day).

Access to the quarry is currently provided from the local road (Mullagh Road) that runs in a north-south direction and bounds the eastern portion of the quarry site. In order to overcome the Board's concerns regarding impacts on the local community, the subject development proposes the provision of a new private road, as well as new entry / exit points onto this new road, to serve the quarry. The existing quarry access / exit point will be relocated southwards.

The development will consist of the continued provision of the office, workshop, shed and car park area. In addition, to facilitate the development, it is proposed to provide two new weighbridges aligned to the new entrance to the quarry, as well as providing a new shipping office (21 sq m). A new wheelwash to be constructed closer to the new site entrance. It is proposed to remove the existing weighbridge, demolish the existing weighbridge office (c. 29 sq m) and workshop (c. 123 sq m). A new powerhouse (46 sq m) is proposed to facilitate a mains electricity supply for use by pumps, plant and machinery in the future. The bunded and covered fuel tanks, septic tank and percolation area permitted under the 37L development

have not yet been implemented. The septic tank will be installed and commissioned to treat the wastewater from the toilet contained on the proposed new shipping office.

This new road will reduce the impacts on the local community by redirecting the HGVs away from Bellewstown Village. The new road will cross the Mullagh Road and fields in a northeast direction away from the quarry. The road is approximately 1.7km long starting at the Mullagh Road and has a minimum width of c. 6m increasing to up to 9.25m wide on some internal bends. The new link road will also be used by the farmer whose lands it crosses to provide internal access to their farm for agricultural purposes. This road will allow an average number of 81 No. daily loads from the quarry to facilitate an extraction level of approximately 450,000 tonnes per annum. The total extraction period proposed is 25 years, with an additional year required to facilitate restoration works.

Following construction of the new access track, trucks exiting the quarry site, rather than travelling south down the Mullagh Road onto the local road in the south (referred to as Bellewstown Road), which links with the R152 in the west and the R132 in the east, will travel along a new proposed private road, the entrance to which will be on the east side of the Mullagh Road traversing existing agricultural land for c. 1.7km northeast away from the quarry, and exiting on the west side of the L1615 north of existing farm buildings. The L1615 then meets the R150 in the north.

The existing quarry access / egress point will be moved southwards and new access / egress points will be created into the agricultural fields, one at each end of the new road. Security gates and lifting barriers will be provided at each of these access / egress points ensuring that the road cannot be accessed by members of the public. Boundary fencing will also be provided at these points and either side of the road for its entire length across the agricultural land. In addition, an existing stone wall to the south of the east access / exit point at farm buildings will be extended to meet the new entrance / exit point.

The imposition of Condition No. 3 of the Board's Order in relation to the 37L development came as a result of the recommendations made in the Quarries and Ancillary Activities Guidelines for Planning Authorities, April 2004 prepared by the Department of the Environmental, Heritage and Local Government regarding the lifespan of planning permissions. Specifically, Section 4.9 of the Guidelines states that:

"Where the expected life of the proposed quarry exceeds 5 years it will normally be appropriate to grant permission for a longer period (such as 10 - 20 years), particularly where major capital investment is required at the outset. In deciding the length of the planning permission, planning authorities should have regard to the expected life of the reserves within the site. The purpose of setting a finite period is not to anticipate that extraction should not continue after the expiry of that period, but rather to enable the planning authority, in conjunction with the developer and environmental authorities, to review changes in environmental standards and technology over a decade or more since the original permission was granted."

To address any concerns regarding the environmental impacts arising from the quarry, this NIS provides updated Mitigation and Monitoring measures. It is proposed, in the event of a grant of permission for the development proposed, that Kilsaran will develop and implement an Operational Mitigation Management

Plan, reviewing this every 5 years up to the end of the quarry's 25 year life and submitting same with the Local Authority for agreement on a 5-yearly basis.

Quarry Operations

It is proposed that the proposed extension area will be operated in a similar fashion as the existing permitted quarry operation. Rock breaking is currently not permitted prior to 08:00, in this regard, extraction and processing of rock at the quarry will take place between 08:00 and 18:00 hours on Monday to Friday and between 08:00 and 14:00 hours on Saturdays. The 07:00 hrs start each working day facilitates the loading and haulage operation. The 07:00 start also spreads the haulage operation over the day and enables the early supply of materials to the construction industry, in line with industry demands.

No operation will take place on Sundays or Bank Holidays other than pumping, which will take place intermittently, and with some occasional maintenance works.

Quarry Restoration

Filling and Progressive Restoration

Restoration Works

The cessation of commercial rock extraction at year 25 provides an opportunity to create new habitat and contribute to the promotion of biodiversity.

The restoration plan for the quarry area was permitted under the 37L development. This has been prepared by Macroworks on behalf of the applicant and is contained within Chapter 11 of this EIAR. This mirrors the restoration plan as permitted as part of the 37L development. Further progressive restoration is proposed in the form of a pathway around the quarry which will be used for geological interest. Notice boards will be erected describing the features present on site.

The landscaping plan which has been prepared for this project is enclosed and accompanies this planning application. This will include the construction of a hedgerow on one side of the new access road with trees planted at intervals on the adjacent side along the access track. The access track will run c. 1.7kms to the existing quarry. Gaps will be left along the access track for the farmer, whose land the works cross, to provide internal access to the farm for agricultural purposes. These landscaping proposals provide for the natural regeneration of vegetation in certain areas. This planting will augment existing well-established planting located on existing perimeter screening mounds to the south and east.

Hedgerow planting shall consist of a mixture of native hedgerow species that are prevalent in the immediate area. Planting to consist of feathered whips (of various sizes) and advanced nursery stock (where necessary) in staggered rows at a spacing of 600mm. New sections of hedgerow will be planted with a triple staggered row of whips and advanced nursery stock at 600mm spacing. All native species will be planted as whips, with the primary and secondary structure species to be of a minimum height of 80-100cm and the other shrub species to be of a minimum height of 40-60cm. Hedgerows will be maintained at a height of 3-4m unless otherwise specified.

There will be a substantial amount of low canopy dominant woodland planting as part of the landscaping plan. The woodland planting mix to comprise of High Canopy Dominants (<20%), Low-canopy: Sub-dominants (20-25%), Understorey and Fringe: High-Shrubs (20-40%) and Understorey and Edge: Lower-

Shrubs (15-25%). Planting to be allowed to grow to reach maturity. Trees to be planted at varying distances from 1.5m x 1.5m to 3.0m x 3.0m. Smaller shrubs to be planted at spacing between 900mm and 1500mm centres depending on species. Species mix to be finalised in conjunction with the project ecologist. All species to be from certified native stock and preferably from an approved supplier of the Green, Low-Carbon, Agri Environment Scheme (GLAS).

On cessation of the quarry at year 25, new proposed mounds will be constructed along the extended southern, western and northern limits of excavation and will be planted in accordance with the Landscaping Plan enclosed with this planning application. All hard standing areas and plant, will be removed at the end of the quarrying activities. The area of land accommodating the proposed road and entrances will remain to serve the agricultural land. As detailed in Chapter 11, the majority of the internal worked quarry faces will not be visible from outside views. It is anticipated that the basin of the quarry will hold water and become an attractive habitat for birds. Many such flooded former quarry sites are of biodiversity interest, and it would be expected that the site will be an area of some importance for waterbirds in the post-closure period.

Figure 2-1: Study Site Location & Natura 2000 Sites in the 15km hinterland

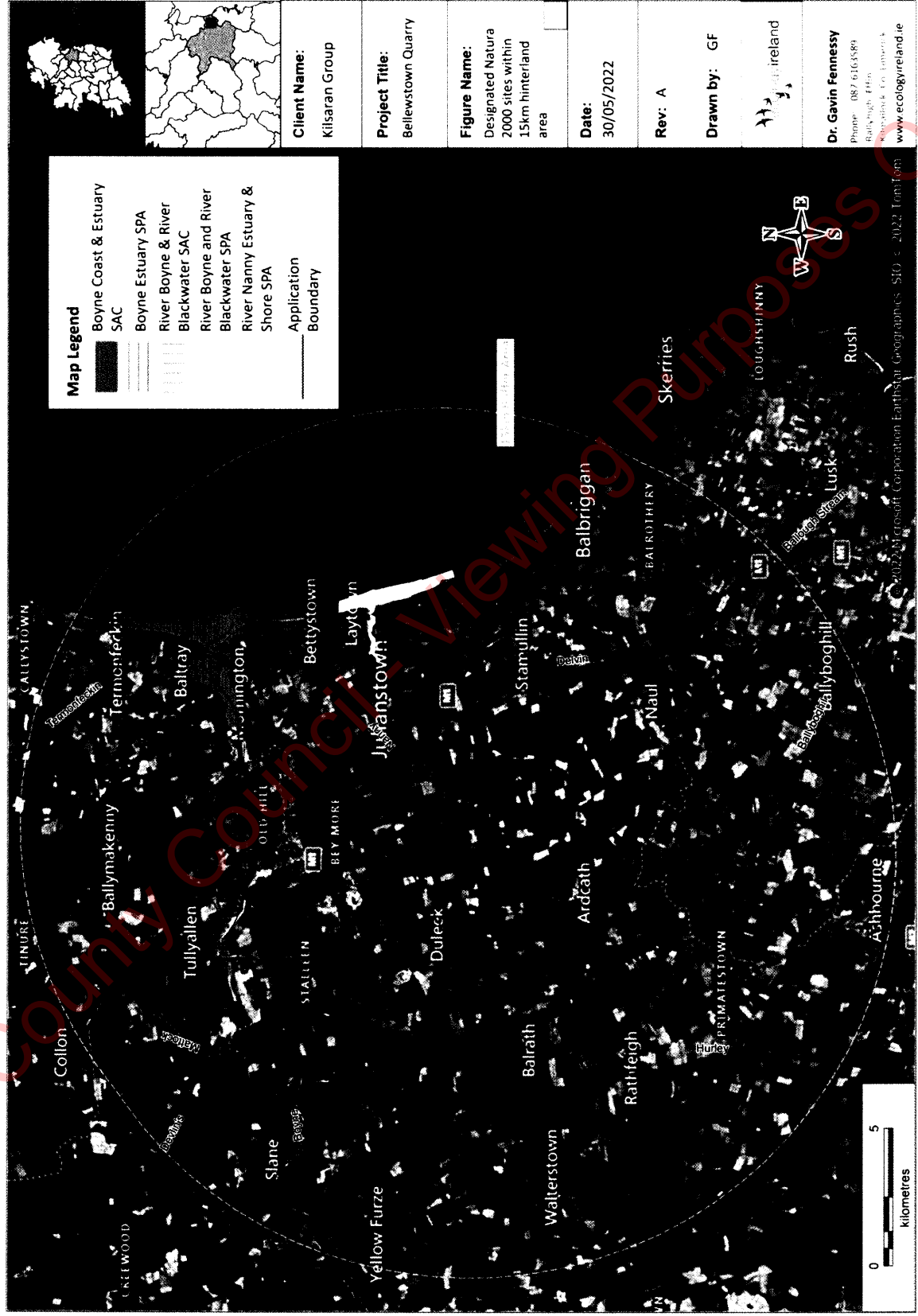
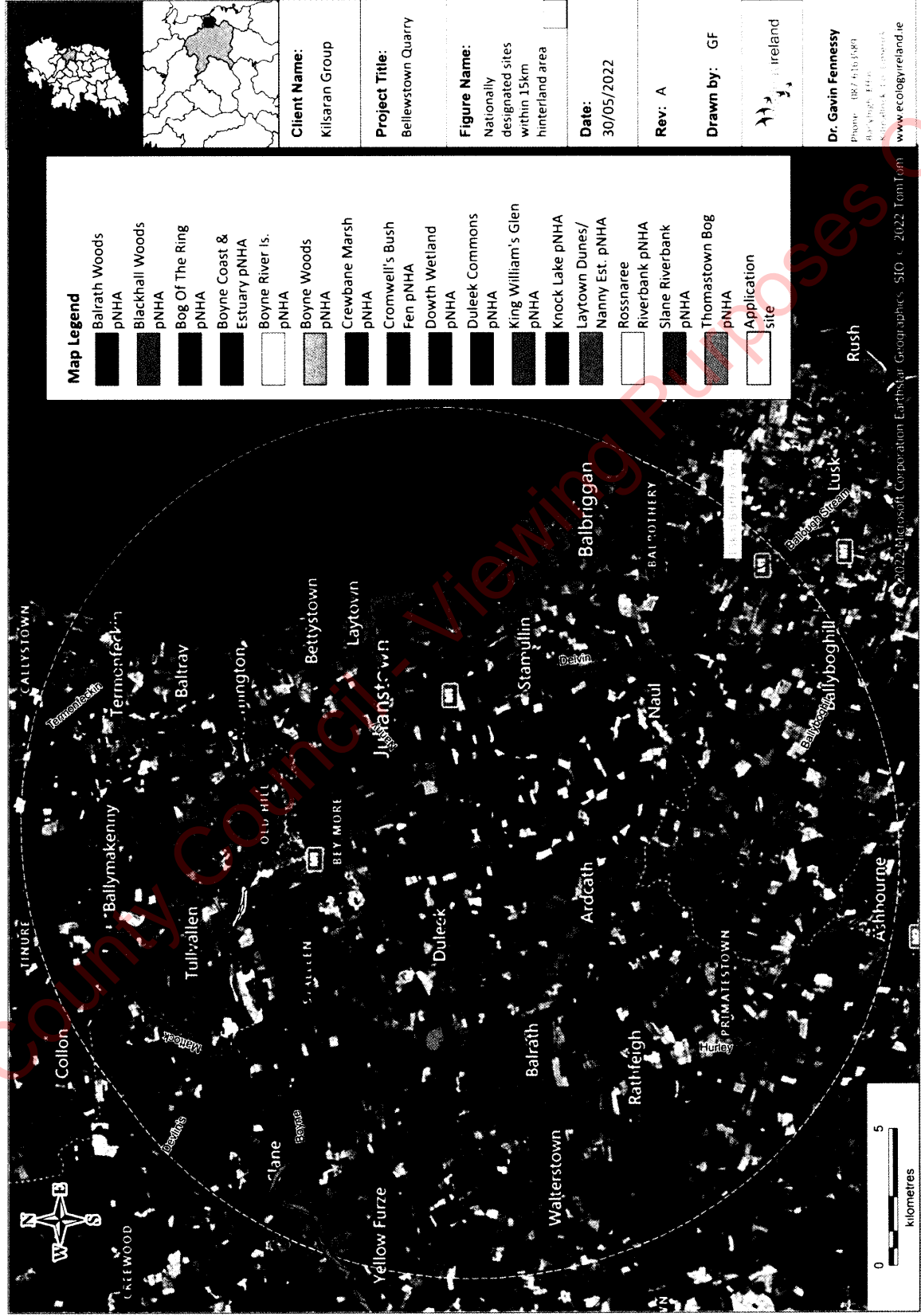


Figure 2-2 Study Site Location & Nationally Designated Sites in the 15km hinterland



3 Brief Description of the Natura 2000 Sites

The proposed development site is not located within or close to any designated Natura 2000 site or nationally designated conservation site. The most proximate Natura 2000 sites are situated over 6km away from the quarry: River Nanny Estuary & Shore SPA (004158; 6.2km) (See Figure 2-1 above).

There are a total of five Natura 2000 sites located within 15km of the applications boundary. There are 16 pNHA sites and no NHA sites located within 15km of the application site (See Figure 2-2 above). The qualifying interests, conservation objectives and distances of the Natura 2000 site under consideration are summarised in Table 3.1 below.

3.1 Potential Impact-receptor Pathways: Overview

3.1.1 Surface-Water Run-Off

There is a potential impact-receptor pathway via hydrological links between the development site and one designated site, the River Nanny Estuary & Shore SPA. As mentioned previously in Section 2.1, the quarry surface water discharge point is located within a tributary of the River Nanny; Lunderstown Stream via a drainage ditch. The Lunderstown Stream is located c.1km south of the quarry site merging into the River Nanny approx. 3.4km southwest. Another minor tributary of the River Nanny, the Gafney Stream runs northwards close to the proposed new site entrance.

The discharged water from the water treatment wetland flows via a culvert under the Carnes Road into a land drain that in turn flows into Lunderstown Stream, which in turn flows into the Nanny River southeast of Duleek (Meath County Council Reg. Ref. No. 10/02). The River Nanny flows onwards to the River Nanny Estuary & Shore SPA. Overland the distance from the application site is 6.2km from this SPA. There is a remote hydrological link following the route from the discharge into the Lunderstown Stream. The River Nanny Estuary & Shore SPA site is located c. 20km downstream of the quarry through watercourse connectivity.

3.1.2 Waste-Water/Foul Effluent

Construction stage waste-water/foul effluent will be managed and controlled at the site through a proposed upgraded on-site wastewater treatment system and percolation unit. In this instance, no hydrological link via effluent will be relevant to any of the Natura 2000 sites under consideration here.

There will be no waste-water discharge associated with the operational stage of the proposed development.

No impacts relating to waste-water discharge are therefore considered relevant to designated sites as a result of the proposed development.

3.1.3 Disturbance/Displacement

The River Nanny Estuary & Shore SPA is designated for the protection of bird species. The loss of some open field and vegetated areas within the application site associated with the quarry extension

and new access track may result in localised medium-term disturbance effects on the bird community present, primarily through reduced feeding opportunities. However, the vegetated areas in question are of moderate to low value for birds overall and similar habitats are widely represented in the surrounding area so that affected birds can alternatively use the wider area.

Birds associated with aquatic habitats in the wider area could be negatively affected by a proposed development through hydrological or water quality impacts such as increased siltation, nutrient release, contaminated run-off and/or wind-blown sand arising from the development works. This requires connectivity between the works area and the surrounding aquatic habitats.

Ongoing works at the quarry have the potential to cause disturbance to the bird community through displacement especially during clearance activities, blasting and other construction activities, with associated increased human presence and noise. Studies on bird displacement due to disturbance have yielded somewhat inconsistent and inconclusive results (Percival 2003, Langston & Pullan 2003 & 2004, Kingsley & Whittam 2005, Drewitt & Langston 2006). These studies have indicated that the scale of disturbance varies greatly between and within species (Percival 2003, Langston & Pullan 2003 & 2004, Kingsley & Whittam 2005, Drewitt & Langston 2006). Disturbance effects can result in reduced numbers of birds within a particular distance from a source of disturbance.

Due to the generally low value of the application area for birds in general, potential impacts on birds arising from operations associated with the proposed development are considered as slight to imperceptible neutral. In the long-term the quarry restoration process will result in areas of landscaping surrounding a quarry lake. This quarry lake has in-time the potential to be attractive to waterbirds that do not currently occur at the site. Other similar quarry lakes have become important areas for biodiversity (e.g. Odonata).

Taking the above into consideration, no significant ex-situ disturbance/displacement effects on the River Nanny Estuary & Shore SPA are expected as a result of the construction or operation of the proposed quarry works.

3.2 Potential Impact-Receptor Pathways: Summary

The proposed quarry development site has potential hydrological connectivity with the Natura 2000 site; the River Nanny Estuary & Shore SPA via the remote hydrological link of the Lunderstown Stream. There are no watercourses within the boundary of the application site. However, surface water from within the site is captured at the quarry sump. All surface water within the quarrying area flows towards the sump and is pumped onwards from there to a settlement pond, hydrocarbon interceptor and reedbed prior to discharge. The discharged water then flows via a culvert under the Carnes Road into a land drain that in turn flows into Lunderstown Stream, which in flows into the Nanny River. The discharge is strictly controlled, and regular monitoring of water quality is undertaken according to the discharge license from Meath County Council.

As outlined in Chapter 8 of the EIAR that accompanies the planning application, a minor watercourse, the Gafney Steam (a tributary of the River Nanny) flows northwards close to the proposed new L1615 road entrance. This provides a secondary route for runoff to reach the River Nanny and onwards to the River Nanny Estuary & Shore SPA.

Significant earthworks will be required in the form of road construction activities (including cutting and filling and removal of vegetation and excavation of soil and mineral subsoil) which can result in the release of suspended solids to surface watercourses. This could result in an increase of the suspended sediment load, resulting in increased turbidity which could affect the water quality and fish stocks of downstream water bodies.

Significant effects during the project construction phase cannot be discounted without the implementation of best practice construction design measures and mitigation.

Therefore, it cannot be concluded, that the proposed project, will not have a significant effect on Natura 2000 sites, without the consideration and analysis of further information. Therefore Stage 2 NIS (AA) is required.

A Natura Impact Statement (NIS) is presented in Section 4, to provide scientific examination of the project to enable the competent authority to undertake an AA. The NIS will examine potential effects to Natura 2000 sites screened in as part of this Screening for Appropriate Assessment; i.e. River Nanny Estuary & Shore SPA.

In summary, Section 4.1 of this NIS further considers; (i) potential construction phase surface-water run-off impacts in relation to River Nanny Estuary & Shore SPA as a result of the proposed amendments in combination with the proposed works.

Table 3.1 Natura 2000 Site Summary

Natura 2000 Site & Code	Conservation Objectives	Minimum Distances
River Nanny Estuary & Shore SPA 004158	<p>The River Nanny Estuary & Shore SPA is an important site for wintering waders and is of ornithological importance as it supports five species of wintering waterbirds and one gull species in numbers of national importance. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive. The site provides both feeding and roosting sites for the various bird species that use it. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interest species (after NPWS 2012);</p> <ul style="list-style-type: none"> - Oystercatcher (<i>Haematopus ostralegus</i>) [A130], - Ringed Plover (<i>Charadrius hiaticula</i>) [A137], - Golden Plover (<i>Pluvialis apricaria</i>) [A140], - Knot (<i>Calidris canutus</i>) [A143], - Sanderling (<i>Calidris alba</i>) [A144], - Herring Gull (<i>Larus argentatus</i>) [A184] and - Wetland and Waterbirds [A999] 	6.2km over land c. 20km via watercourses
River Boyne and River Blackwater SAC 002299	<p>This site comprises the freshwater element of the River Boyne as far as the Boyne Aqueduct, the Blackwater as far as Lough Ramor and the Boyne tributaries including the Deel, Stoneyford and Tremblestown Rivers. These riverine stretches drain a considerable area of Meath and Westmeath, and smaller areas of Cavan and Louth. Its conservation objectives relate to maintaining or restoring the favourable conservation status of habitats and species of community interest of the following qualifying interest species (after NPWS 2021);</p> <ul style="list-style-type: none"> - Alkaline fens [7230] - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0] - <i>Lampetra fluviatilis</i> (River Lamprey) [1099] - <i>Salmo salar</i> (Salmon) [1106] - <i>Lutra lutra</i> (Otter) [1355] 	6.2km over land
River Boyne & River Blackwater SPA 004232	<p>The site is a Special Protection Area (SPA) under the E.U. Birds Directive of special conservation interest for the following species (after NPWS 2010);</p> <ul style="list-style-type: none"> - Kingfisher (<i>Alcedo atthis</i>) [A229] 	6.8km over land
Boyne Estuary SPA 004080	<p>The Boyne Estuary is the second most important estuary for wintering birds on the Louth-Meath coastline. It holds numbers of Black-tailed Godwit in internationally important numbers and nine further species in nationally important numbers. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interest species (after NPWS 2013);</p> <ul style="list-style-type: none"> - Shelduck (<i>Tadorna tadorna</i>) [A048] - Oystercatcher (<i>Haematopus ostralegus</i>) [A130] 	7.0km over land

Natura 2000 Site & Code	Conservation Objectives	Minimum Distances
	<ul style="list-style-type: none"> - Golden Plover (<i>Pluvialis apricaria</i>) [A140] - Grey Plover (<i>Pluvialis squatarola</i>) [A141] - Lapwing (<i>Vanellus vanellus</i>) [A142] - Knot (<i>Calidris canutus</i>) [A143] - Sanderling (<i>Calidris alba</i>) [A144] - Black-tailed Godwit (<i>Limosa limosa</i>) [A156] - Redshank (<i>Tringa totanus</i>) [A162] - Turnstone (<i>Arenaria interpres</i>) [A169] - Little Tern (<i>Sterna albifrons</i>) [A195] and - Wetland and Waterbirds [A999] 	
Boyne Coast & Estuary SAC 001957	<p>Boyne Coast and Estuary SAC is a coastal site which includes most of the tidal sections of the River Boyne, intertidal sand- and mudflats, saltmarshes, marginal grassland, and the stretch of coast from Bettystown to Termonfeckin that includes the Mornington and Baltray sand dune systems. Its conservation objectives relate to maintaining the favourable conservation status of habitats and species of community interest of the following qualifying interest species (after NPWS 2012);</p> <ul style="list-style-type: none"> - Estuaries [1130] - Mudflats and sandflats not covered by seawater at low tide [1140] - Annual vegetation of drift lines [1210] - Salicornia and other annuals colonising mud and sand [1310] - Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] - Embryonic shifting dunes [2110] - Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] 	7.7km over land

4 Assessment: Natura Impact Statement

As described in Section 3.2, significant effects during the project construction phase cannot be discounted without the implementation of best practice construction design measures.

The elements of the proposed project that may potentially impact on the qualifying interests of the conservation objectives of River Nanny Estuary & Shore SPA are further considered in Section 4.1 below. Table 4.1 summarises the conservation objectives of the special conservation interests (SCIs) of the River Nanny Estuary & Shore SPA. The six avian species are included as conservation interests for their wintering populations that occur at this coastal Natura 2000 site.

Table 4.1 Conservation objectives summary for the special conservation interests of the River Nanny Estuary & Shore SPA.

Special Conservation Interest	Attribute	Measure	Target
Oystercatcher (<i>Haematopus ostralegus</i>) [A130] Ringed Plover (<i>Charadrius hiaticula</i>) [A137] Golden Plover (<i>Pluvialis apricaria</i>) [A140] Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Herring Gull (<i>Larus argentatus</i>) [A184]	Population Trend	% Change	Long-term population trend stable or increasing
	Distribution	Range, timing and intensity of use of areas	There should be no significant decrease in the range, timing or intensity of use of areas by this species other than that occurring from natural patterns of variation.
Wetland [A999]	Wetland habitat	Area (ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 230ha, other than that occurring from natural patterns of variation.

4.1 Elements of the Project that may Potentially Impact on Qualifying Interests of the Natura 2000 Site

4.1.1 Indirect Habitat Loss or Deterioration

Indirect habitat loss or deterioration of designated sites within the surrounding area can occur from the effects of run-off or discharge into the aquatic environment through impacts such as increased siltation, nutrient release and/or contamination. This requires connectivity between the site and the designated site in question through watercourses and/or drainage ditches. In this case, there are potential hydrological links between the proposed development site and an overlapping designated site; River Nanny Estuary & Shore SPA and an impact-receptor pathway therefore exists between this designated site and the proposed development site. It should be noted that the relevant designated site is located (c. 20km) downstream from the proposed development site and is therefore unlikely to be affected by the proposed construction works due to the nature of the proposed works and the relatively large distances involved.

4.1.1.1 Surface-Water Run-Off: Construction Phase

A remote hydrological link between the Lunderstown Stream and the River Nanny Estuary & Shore SPA exists via a drainage ditch. The licensed quarry surface water discharge point is located in the Lunderstown Stream (approx. 1km south of Bellewstown Quarry) which is a tributary of the River Nanny. As described in Section 3.2 there is a second potential hydrological link to the SPA via the Gafney Stream, a minor tributary of the River Nanny that flows northwards close to the new proposed site entrance on the L1615.

The proposed continuation of the quarrying activity will see the increase in the extraction footprint. This will require removal of topsoil and overburden at the proposed extension area thereby increasing the vulnerability of the bedrock aquifer below to contaminants. Road construction activities will include cutting and filling which will require earthworks resulting in removal of vegetation cover and excavation of soil and mineral subsoil.

These activities can result in negative impacts through increased siltation, contaminated run-off or fuel spills on the surrounding environment and species. Potential effects are significant if not mitigated against. In the absence of environmental controls, run-off and siltation to watercourses could potentially lead to adverse impacts upon such aquatic species. The implementation of the site restoration plan associated with the development will, in the long-term, create new habitats for other taxa to use and take refuge in as the vegetation matures.

The potential for siltation/contamination of watercourses as a result of the proposed construction work is considered low, particularly given the large distance between the works area and the designated sites (approx. 20km downstream when measured along the watercourses). However, potential effects on the River Nanny Estuary & Shore SPA cannot be ruled out in the absence of mitigation measures due to the remote hydrological link in the form of the Lunderstown Stream and Gafney Stream.

4.1.1.2 Surface-Water Run-Off: Operational Phase

There are no rivers, streams or lakes within the boundary of the application site. However, as mentioned above the Lunderstown Stream is connected to the River Nanny which in turn flows into the River Nanny Estuary & Shore SPA. The surface water within the site is captured at the quarry sump. Water is pumped intermittently from the sump (manually controlled) through a discharge water treatment facility to a specific discharge point. The discharged water flows via a culvert under the Carnes Road into a land drain that in turn flows into Lunderstown Stream, which in turn flows into the Nanny River. The discharge is strictly controlled, and regular monitoring of water quality is undertaken according to the discharge license from Meath County Council.

A second potential pathway for run-off to sensitive sites downstream is the Gafney Stream, a minor tributary of the River Nanny that flows northwards close to the new proposed site entrance on the L1615.

Any projects with deep excavation, settlement ponds and a sump have some limited potential to entrap and drown terrestrial mammals. There is no evidence from the operational quarry that any such issues have arisen. Water collected in the sump is pumped for on-site treatment. Local mammals quickly habituate to the presence of standing water which may in fact provide foraging and drinking opportunities to certain species.

Taking the above into consideration, potential effects on the designated sites arising from the operation of the proposed quarry works without mitigation measures cannot be ruled out.

4.1.1.3 Disturbance / Displacement of Fauna

The proposed development site is not located within the boundaries of any Natura 2000 site. The River Nanny Estuary & Shore SPA is located 6.2km overland from Bellewstown Quarry.

In terms of disturbance impacts, the rate of extraction proposed for the extended quarry approximates to the current level and therefore it is not expected that the amount of activity associated quarrying will be significantly different from that experienced at present. During soil stripping and restoration works the level of activity will be somewhat higher and the potential for displacement and disturbance of mammals is somewhat greater than at other times.

The trees and hedgerows adjoining the proposed site are likely used by commuting and foraging bats and disturbance to these features has the potential to reduce landscape connectivity. Disturbance to these features could arise directly (through removal), or indirectly (through light or noise impacts etc.). However, no roosting features were identified in trees or hedgerows during the site visits which could be directly affected by the proposed development.

Works at the quarry also have the potential to cause disturbance to the bird community through displacement. Due to the generally low value of the application area for birds in general, potential impacts on birds arising from operations associated with the proposed development are considered as slight to imperceptible neutral. However, the potential for significant impacts on the relevant qualifying features of the River Nanny Estuary & Shore SPA cannot be ruled out in the absence of mitigation measures.

4.1.2 Cumulative or In-combination Effects

As described in the EIAR it is envisaged that there will be improvements necessary to the local road infrastructure arising from a successful grant of planning permission for the proposed development. The nature of these works and the design and management of any associated environmental controls will be agreed with the local authority. MCC will ensure that all due consideration is given to the receiving environment. The public roadworks envisaged are relatively small in scale and will be carried out by Kilsaran under licence from Meath County Council's and on the Local Authority's behalf in accordance with the *Roads Act, 1993* (as amended) in the event of a grant of permission for the proposed development.

There are no other known permitted or proposed developments in the local area that are likely to act in combination with the proposed development works at Bellewstown Quarry.

4.2 Mitigation Measures Relevant to the Protection of the Natura 2000 Site

The standard environmental control measures outlined below will be implemented during the construction phase to ensure that any impacts on the receiving environment will be avoided. This section should be read in conjunction with the mitigation commitments presented in the accompanying EIAR for the proposed development. The site environmental management system provides information on the proposed construction methodology and collates all proposed mitigation measures for the construction phase. All mitigation committed to as part of the EIAR will be fully implemented. Specific measures related to the maintenance of surface water quality are outlined below.

4.2.1 Surface-Water Run-Off: Construction Phase

The following construction related run-off controls are proposed as part of the proposed works at Bellewstown;

Earthworks (Cut and fill and Stock Piling) Resulting in Suspended Solids Entrainment in Surface Waters During the New Access Road Construction;

Road construction activities will include cutting and filling which will require earthworks resulting in removal of vegetation cover and excavation of soil and mineral subsoil. These activities can result in the release of suspended solids to surface watercourses and could result in an increase in the suspended sediment load, resulting in increased turbidity which in turn could affect the water quality and fish stocks of downstream water bodies. Potential effects are significant if not mitigated against. Mitigation measures include;

- The total discharge from the quarry site and proposed continuation area will be maintained below the existing discharge limit of 462m³/day.
- Discharge from the quarry will continue to be passed through an adequately sized settlement pond, reed bed filter and hydrocarbon interceptor. The reed bed filter is relatively new and therefore has not reached its treatment capacity in terms of nutrient removal. Increased nutrient reduction is expected to occur as the reed beds develop.

- The discharge quality is monitored on a quarterly basis, and this is to continue at the quarry. Discharge volumes will be continuously monitored at the discharge point location.
- A silt fence will be installed between the placed overburden material and the drainage ditch at the northern boundary of the proposed development site during the emplacement of the storage area and while vegetation is establishing on the placed overburden material to prevent erosion. The silt fence will prevent any suspended solids entering the drainage ditch and potentially reaching the River Nanny.
- With regard the proposed access road and site entrance, there will be a requirement for quarry traffic to use a wheel wash prior to exiting the site via the proposed new road and site entrance. This will prevent sediment build-up on the road surface. The road will also be swept on a daily basis to maintain a clean surface.
- Construction of the proposed access road will only be done over a dry period to avoid water logged soils, heavy rainfall and runoff;
- The route corridor area will be clearly marked out with fencing or flagging tape to avoid unnecessary disturbance of vegetation;
- Double silt fencing will be placed down-gradient of the route corridor prior to excavation / filling work commencing. Silt fences are effective at removing larger particle sized solids. This will act to prevent entry to water courses of sand and gravel sized sediment released from excavation;
- Silt fencing will be embedded into the local soils to ensure all site water is captured and filtered;
- Additional silt fencing, sandbag or straw bales (pinned down firmly with stakes) will be placed across any natural surface depressions / channels that slope towards a local watercourse;
- As the excavation / infilling work progresses, an up-gradient interceptor drain (clean runoff) and down-gradient collector drain (works area runoff with possible entrained sediment) will be placed along the route corridor in advance of the excavation works area;
- Check dams / silts traps will be placed every 20 – 30m in the down-gradient collector drain to slow down runoff and remove any suspended sediments;
- Temporary check dams / silt fencing arrangements will also be placed in any natural drainage features intercepted by the route that do not have flowing water (i.e. dry gullies and other preferential flowpaths);
- If high levels of silt or other contaminants are noted in any local watercourse, all construction works will be stopped. No works will recommence until the issue is resolved and the cause of the elevated source is remedied;
- Excavation work will not be undertaken during periods of high rainfall. This will minimise the risk of entrainment of suspended sediment in surface water runoff and transport via this pathway to surface watercourses;
- All disturbed ground will be re-seeded at the soonest, practicable opportunity to prevent erosion; and,

- All temporary surface water control / protection measures such as silt fencing will be kept in place until disturbed ground has vegetated and stabilised. Regular daily checks will be undertaken.

Potential run-off to the Gafney Stream from site traffic using the new access track

- Runoff from the proposed access road surface will be primarily disposed off via a system of localised French drains located adjacent to the carriageway. Surface water runoff onto the public road will be prevented by the installation of inceptor gullies at the entrance of the access road and the L1615 which will divert water to a suitable designed soakaway (in accordance with BER 365). Surface run off will pass through a hydrocarbon inceptor before discharge to soakaway. An existing culvert is to be extended to allow the Gafney Stream to pass under the new site entrance at the access road/L1625 junction. These measures will effectively mitigate any potential of damaging run-off to the Gafney Stream as a result of leaks or spillages from traffic using the new access road.

Downstream Surface Water Quality Effects in the Lunderstown Stream and River Nanny from Suspended Sediments during Overburden Stripping /Removal

- All surface water arising during the soil stripping works in the continuation area will be captured and directed to the quarry sump for treatment;
- Prior to the commencement of overburden stripping works silt fencing will be placed down-slope of the excavation area; These will be embedded into the local soils to ensure all site water is captured and filtered;
- Surface water will be collected at low points across the soil stripping works area;
- Discharge into the existing quarry sump will occur following settlement treatment in local temporary settlement ponds if required, and any water discharge from these ponds to the quarry floor will be routed through silt bags which will filter any remaining sediment from the pumped water. The entire soil stripping and landscaping works area will be enclosed by a perimeter of double silt fencing;
- Daily monitoring of the overburden stripping/landscaping earthworks will be completed by a suitably qualified person. All necessary preventative measures will be implemented to ensure no entrained sediment, or deleterious matter will enter the downstream receiving waters;
- Overburden stripping and landscaping works will be scheduled for periods of low rainfall (summer months) to reduce run-off and potential siltation;
- Landscaped areas and perimeter berming will be planted with trees and grasses as soon as possible after formation to reduce the potential of surface water erosion; and,
- Good construction practices such wheel washers and dust suppression on site roads, and regular plant maintenance will ensure minimal risk. The Construction Industry Research and Information Association (CIRIA) provide guidance on the control and management of water pollution from construction sites ('Control of Water Pollution from Construction Sites, guidance for consultants and contractors', CIRIA, 2001), which provides information on these issues. This

will ensure that surface water arising during the course of overburden stripping and landscaping activities will contain minimum sediment.

Leakages and Spillages from Oil & Chemical Storage Areas

Oil and chemical storage tanks that are not within bunded areas create the potential for spillages or leaks to migrate down into soil or groundwater beneath the site or be released into the receiving surface water with the quarry discharge.

- Sources of hydrocarbons (such as oil-based substances or other hazardous chemicals) have and will be located within safely bunded areas that safely contain all spillages and prevent the migration of contaminants into the underlying bedrock aquifer. Refuelling of the quarry plant has and will only take place in designated bunded refuelling areas or by mobile bowser with availability of suitable spill kits.
- All discharge (surface water and groundwater) from the quarry extraction area will be passed through a hydrocarbon interceptor prior to being released into the receiving water. Runoff from the areas of the site sloping away from the extraction footprint (i.e. overburden storage area to north of the site) will not have much machinery traffic once the overburden is emplaced and therefore oil/chemical leaks and spillages is not expected to be an issue. The proposed access road will be inspected and swept clean on a daily basis which will remove sediment and residues from the road surface.
- It is proposed that wastewater from the site will be discharged through a proposed upgraded on-site wastewater treatment system and percolation unit.

4.3 Likely Success of the Mitigation Measures

The mitigation measures have been developed in accordance with current policy, regulations and best practice guidelines. These measures are detailed and comprehensive and will be effective in addressing the identified risks of run-off to watercourses. The planning application also presents a site restoration plan with elements of the landscaping being carried out early in the development of the extended quarry area. The landscaping and biodiversity enhancement measures described in the accompanying EIAR will in time result in a site with considerable local biodiversity value. The lake that will remain in the quarry basin will provide some attractive habitat for wintering waterbirds, including in particular species that are not as restricted to coastal habitats. It is to be anticipated from similar sites elsewhere in Ireland, that the quarry lake will be used by a variety of waterbird species including ducks and gulls. The presence of such species may also provide a resource for predators such as Peregrine Falcon.

4.4 Timescale for the Implementation of Mitigation Measures

The site-specific environmental management plan will be updated and appropriately amended prior to the commencement of construction/enabling works. Demolition and Construction related mitigation measures will be implemented prior to and/or in-tandem with the relevant works being carried out. All environmental controls and mitigation measures detailed herein will be fully implemented as described.

4.5 Appropriate Assessment Report

Assessment of the Effects of the Project or Plan on the Integrity of the Natura 2000 Site	
Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment)	<p>The proposed development site has potential remote hydrological connectivity with the River Nanny Estuary & Shore SPA. Therefore, significant effects during the project construction phase cannot be discounted without the implementation of best practice construction design measures.</p> <p>Elements of the proposed works that may result in potential impacts on River Nanny Estuary & Shore SPA in the absence of potentially relevant environmental protection measures include (i) potential construction phase surface-water run-off impacts in relation to River Nanny Estuary & Shore SPA as a result of the proposed amendments in combination with the proposed works. (ii) potential run-off impacts during construction and operation of the new access track, to the Gafney Stream, a tributary of the River Nanny.</p>
Set out the Conservation objectives of the site	The conservation objectives and qualifying interests of the relevant Natura 2000 sites are outlined in Table 3.1 and Table 4.1 above.
Describe how the project or plan will affect key species and key habitats. Acknowledge uncertainties and any gaps in information.	<p>Significant effects cannot be discounted without the implementation of best practice design measures, particularly in relation to the control of run-off of pollutants to watercourses hydrologically connected to the River Nanny Estuary & Shore SPA.</p> <p>With the implementation of the mitigation measures specified in Section 4.2, no indirect habitat loss or deterioration of the Natura 2000 sites in relation to silt-laden or contaminated surface-water run-off arising from the application are deemed likely in this case.</p>
Describe how the integrity of the site (determined by structure and function and conservation objectives) are likely to be affected by the project and plan (e.g. loss of habitat, disturbance, disruption, chemical changes, hydrological changes and geological changes etc.). Acknowledge uncertainties and any gaps in information.	As above.
Describe what mitigation measures are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.	Mitigation measures will be integrated as part of the proposed development regarding environmental protection of the watercourses hydrologically connected to the SPA. In acknowledgement of the downstream locations of the River Nanny Estuary & Shore SPA, a precautionary approach is considered appropriate here regarding the potential relevance of site run-off to the Natura 2000 sites. Construction phase and operational phase surface-water management and mitigation are described in Section 4.2 above.

Results of Consultation	
Name of agency or body consulted	Summary of response
N/A	N/A

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**APPENDIX A:
Landscape Plan**

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