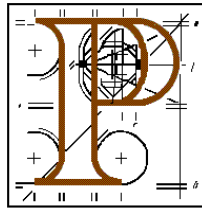


An Bord Pleanála Ref.: SU19.SU0102
An Bord Pleanála



Inspector's Report

Application under Section 177E
pursuant to notice under Section 261A(3)(a) of
the Planning and Development Act

DESCRIPTION : Quarry

SITE ADDRESS : Derryvilla, Portarlinton, Co. Offaly

DIRECTION UNDER S.261A

Planning Authority : Offaly County Council

Planning Authority Reg. Ref.: EUQY084

Owner : John Brennan

Operator / occupier / applicant: John Brennan

Direction: date of order 17/08/12.

Review: The Board CONFIRMED the determination under 2(a)(i) and CONFIRMED the decision under 3(a) (date of order 06/08/12).

APPLICATION:

Made by : John Brennan

Type of application : Application for substitute consent under Section 177E accompanied by a remedial environmental impact statement.

INSPECTOR : John Desmond

Date of inspection: 26/01/15

PART A

1.0 SITE DESCRIPTION

- 1.1 The site is situated southern County Offaly about 1.5km north of the historic core of Portarlinton, Co.Laois. The land in this area is flat, with formerly widespread bogland drained and reclaimed for forestry plantation, agriculture and commercial and smaller scale turf cutting.
- 1.2 The substitute consent site relates to a sandpit quarry and it has a stated area of 4.1ha. The site forms part of a larger holding estimated to be c.18.4h in area. The site has access onto the R419 (Rathangan Road) to the east, which is assigned an 80kph speed limit.
- 1.3 According to the quarry survey maps submitted by the applicant, the base of the quarry has a lowest depth of 65.5m at the southernmost lagoon, but is generally 68m (OD Malin Head). The ground level of the immediately surrounding lands is generally in the region of 69-71m OD, excepting the land adjacent to the mid-east which is an isolated elevated area reaching just over 86m. The said elevated area slopes steeply downwards to the east, away from the pit, is mostly under mature broadleaf woodland and measures approximately 0.175ha in total. It is all that remains of the original isolated hill which appears to have had an area of c.3ha.
- 1.4 There was no machinery or evidence of on-going activity on site on the day of inspection. There was a single shipping container situated within the northern section of the site which is evidently used for storage of fuels and such, but is now derelict and left open to the elements. There is a well-worn internal tarmacadam access road into the eastern site of the pit from the public road.
- 1.5 The pit drains from the northwest corner via a shallow V-profile ditch that connects to a larger ditch which extends north to connect to the bog drainage ditch network to the north. This drainage feature is not evident on the OSI orthophotography for the site for 2004.
- 1.6 The lands adjacent the northern, southern and east of the pit are agricultural grazing lands. The land to the west is reclaimed, harvested bogland that has been colonised, to the southwest in particular, by scrub vegetation over a significant area. The nearest residential dwellings area located to the east, fronting onto the R419, at a distance of c.120m from the substitute consent site boundary.

2.0 SUBSTITUTE CONSENT APPLICATION DOCUMENTATION received 16/06/14:

- 2.1 **Cover letter**: Mark Brindley of The Planning Partnership.

2.2 **Remedial Environmental Impact Statement:**

No significant impacts stated.

2.2 **Drawings:**

Received

Site location map	1:10,560	no.141_076_100
Site location map (rural place map)	1:2,500	no.141_076_100
Site location map (rural place map)	1:2,500	
Proposed Site Layout Plan	1:1000	no.141_076_201
Proposed Site Layout Plan	1:500	no.141_076_200
Site sections (1-4)	1:200	no.141_076_202 – 141_076-205

2.3 **Further information:**

09/07/14 – Letter from John Brennan, applicant, indicating that archaeological excavation and report to be completed by August.

23/10/14 – ‘*Preliminary Report on the Archaeological Excavation at the Site of a Burial Ground at Derryvilla, Co.Offaly*’, prepared by Byrne Mullins & Associates Archaeological and Historical Heritage Consultants (September 2014) on behalf of John Brennan.

06/11/14 – CD containing pdf version of documents and drawings from ORS on behalf of John Brennan.

2.4 **Public notices:**

Newspaper notice (12/06/14)

Site notice date (in place at time of inspection 26/01/15)

3.0 **RELEVANT PLANNING HISTORY**

No planning application decisions pertaining to this site are recorded.

3.1 **Enforcement**

UD/05/49: Enforcement file opened in 2002 in respect of subject quarry for which no planning permission was recorded. No warning notice or enforcement notice issued.

3.2 **QUARRY REGISTRATION**

QY84: The Planning Authority decided (19/10/06) to attach 14no. conditions on the quarry (of 5.507ha registered area) under section 261(6)(a).

3.3 SECTION 261A PROCESS

QV0184/ EUQY084: On 06/08/13 the Board CONFIRMED the Planning Authority's determination under section 261A(2)(a)(i) and CONFIRMED the Planning Authority's decision under section 261A(3)(a).

4.0 REPORTS / SUBMISSIONS

4.1 An Taisce (02/07/14)

The main points of the submission can be summarised as follows:

- ECJ judgement Case 215-06 provides that development coming under EIA should only be permitted and subject to retrospective EIA in 'exceptional circumstances. The legislation concerned does not define the circumstances where exceptional circumstances should be deemed to apply.
- Issue of legal basis for quarries still unresolved.
- No consideration should be given to a remedial EIA for a quarry which exceeds EIS thresholds and that does not have a valid planning basis covering the entire quarry, the section 261 registration process being irrelevant.

4.2 GSI (31/07/14)

No comment on remedial NIS [sic].

4.3 HSE / EHO (28/07/14)

The main points of the submission can be summarised as follows:

- The quarry is not operational and no crushing or washing is carried out.
- No complaints have been received by Offaly County Council or the HSE in relation to any negative impacts.
- There is a burial ground of archaeological interest on site.
- The quarry is not having an adverse risk on groundwater quality status; there is no reference to a chemical store or refuelling of vehicles that would pose such a risk. Appropriate measures would be required to prevent contamination of groundwater by fuel if refuelling is to take place on site in future.
- Relevant mitigation measure in relation to dust suppression should be included as per EPA guidelines in respect of water spraying of vehicles leaving the site, roads, stockpiles, etc.
- Further noise monitoring will be required in the event of receipt of

complaints in respect of same.

- Suitable toilet facilities should be provided for workers when the site is operational.

4.4 NRA (17/07/14)

The main points of the submission can be summarised as follows:

- Notes that the site accesses onto the regional road network before traffic accesses onto the national network.
- The traffic analysis is satisfactory in scope.
- No objection.
- Any recommendations arising from the traffic analysis in the rEIS should be implemented if substitute consent is granted.

Note, the NRA indicated (04/11/14) that it had no further observations subsequent to receipt of further information.

4.5 DAU DoAH&G (NPWS section) (31/07/14)

The main points of the Council's report can be summarised as follows:

- The walkover survey of 07/05/14 found protected species of smooth newt and sand martins on site.
- The proposed mitigation measure is to agree a management plan for both species prior to any further quarrying. Such management plans should have formed part of the rEIS.
- The Board should consult *Circular Letter PD 2/07* and *NPWS 1/07 Compliance Conditions in respect of Developments requiring (1) Environmental Impact Assessment (EIA); or (2) having potential impacts on Natura 2000 sites.*
- The walkover survey, carried out on one day in May, is inadequate to provide a full species list. In any future management of the site it may be beneficial to carry out a more detailed flora survey at regular intervals.
- The site is within the catchment of the River Barrow, which forms part of the River Barrow and River Nore cSAC, designated under the EC Habitats Directive (92/43/EEC) and it is important, therefore that quarrying does not impact on groundwater supply.
- While there are ponds on site it would appear that quarrying has not progressed below the water table and, should quarrying progress below the water table further assessment of impacts would be required.

4.6 Offaly County Council Section 177I Report (signed 27/08/14, received 28/08/14)

The main points of the Council's report can be summarised as follows:

General -

- No planning application ever received for development on this site.
- No record of enforcement action taken in relation to this site.

Policy framework

- Section 14.7 Archaeological Conservation (14.7.1 Archaeology, 14.7.2 Sites and Monuments Record, 14.7.5 Development Assessment Criteria)
- Section 14.10 Policy – Archaeological Heritage: P14-03, P14-05, P14-06, P14-07, P14-08, P14-09.
- Section 14.11 Objectives: O14-01, O14-04, O14-05, O14-06, O14-07.
- Section 10.10 Sand and Gravel Extraction: P10-12

Assessment –

Section 177I(2)(d)(i) – known significant effects on environment or European site

- There are no known record of environmental related complaints or associated enforcement.
- Appropriate assessment screening carried out as part of the determination under section 261A(2)(a) deemed the site did not required AA.
- There is no evidence to suggest that the site is giving rise of a significant effect on the environment or to adverse effects on the integrity of a European site.
- The site has an established status as a quarry by reason of its historic usage.

Section 177I(2)(d)(ii) – remedial measures

- Archaeological impacts that may have occurred are rated as profound, irreversible and not open to mitigation.
- Mitigation measures proposed in relation to future quarrying are considered suitable and appropriate.

Section 177I(2)(e)(i) – Manager's opinion (recommendation)

- The rEIS should be requested to address the likelihood for archaeological impacts on site.

- Following a satisfactory reply substitute consent should be granted for reasons related to the history of quarrying of the site, the provisions of the Development Plan, the lack of evidence of any significant effects on the environment and the lack of significant impacts on European Sites, the limited visual impact, location adjacent to a regional road and the proposed mitigation measures.

Section 177I(2)(e)(iii) – suggested conditions

1. Standard no.1
2. Restoration to be submitted for agreement
3. 150m Sightlines to be provided at entrance
4. Contribution €62,566.00
5. Annual special development contribution in respect of remedial road works to R419 to be agreed based on HGV usage
6. Bond for completion of site restoration
7. Preservation, recording and protection of archaeological material/features
8. Operating hours restrictions
9. Noise emission limits
10. Dust deposition limits
11. Installation and maintenance of WWTP
12. Petrol interceptor
13. Bunding for chemical / fuel storage
14. No working below water table
15. Management of wastes
16. Storage of wastes

Local Authority Internal Reports:

Road Design (22/08/14) – No objection subject to two conditions which are included in the conditions nos.3 and 5 suggested by the planning authority.

Environment and Water Services (25/08/14) – No objection subject to the following conditions:

- One condition regarding treatment of foul water, included as suggested condition no.11.
- Eight conditions relating to ground and surface water, of which four were included, with modification including amalgamation, as suggested conditions nos.12, 13 and 14. The conditions omitted or significantly

modified related to prohibition of operation of screening or crushing units on the quarry floor; the progressive restoration of the quarry carried out without delay; a minimum of 1m overburden maintained over local water table; and requirement to implement monitoring programme within vicinity of the site, the details to be agreed.

- Three conditions regarding noise and dust, two of which were attached as conditions nos. The third related to the implementation of the mitigation measures for noise outlined in the rEIS.
- Two conditions regarding waste, included as conditions nos.15 and 16 suggested by the planning authority.

5.0 RESPONSES

5.1 Applicant c/o Mark Brindley, The Planning Partnership (17/09/14):

The response addresses two areas of concern, the likelihood of archaeological impacts and the acceptability or otherwise of conditions. The main points of the response may be summarised as follows:

Likelihood of archaeological impacts – In response to the stated Manager’s Opinion that ‘*the remedial Environmental Impact Statement should be requested to address the likelihood for archaeological impacts upon the site*’, it is submitted that:

- The archaeological section of the rEIS, in particular section 6.3, considered the likely impact of quarrying activities.
- Section 3.1 noted that impacts on archaeological heritage and the finding of buried human remains triggered the need for an EIS and that, in all other aspects the quarry would be normally deemed subthreshold and not requiring an EIS.
- Respectively request that the report for the National Monuments Service, by Clare Mullins, archaeologist, who prepared the relevant section of the rEIS, be considered as part of the assessment.
- Adequate information has been supplied to the Board to satisfy them that the archaeological impacts of the quarrying operations have been adequately addressed as part of the Substitute Consent process and in terms of on-going works through ‘on site’ archaeological monitoring and excavation work directly under the guidance of the National Monuments Service.

Conditions –

- No.3 (provision of sightlines): The required sightlines are excessive with regard to the regional status of the road and the low volume and frequency of extraction.

The land is within the control of the applicant but the visual impact would be detrimental on the rural character.

DMRB TD41-42 suggests a 2.4m to 3.0m X-distance setback for lightly trafficked simple stop controlled junctions.

A maintenance condition requiring trimming of hedgerows either side of the entrance to 1.2m to ensure visibility.

Respectfully requests condition no.3 be amended accordingly.

- No.4 (development contribution): The application of development contribution condition is discretionary.

The need for substitute consent only arises in this instance from the particular archaeological conditions of the site, of which is less than 5ha, is a pre-64 operation and of which only 2.67ha was carried out post transposition of the EIA Directive in 1990.

The financial viability of the required monitoring and restoration works will be prejudiced by the limited resources available.

Respectfully requests condition no.4 be removed.

- No.5 (special development contribution): The application of development contribution condition is discretionary.

Limited impact on the road infrastructure arose due to the restricted scale and nature of volumes of extraction involved and consequential limited frequency of HGV traffic at operational peak. Therefore the development added no undue specific or exceptional costs to justify the imposition of a special development contribution.

Respectfully requests condition no.5 be removed.

- No.11 (WWTP):

There is no toilet or washing facilities on the site and there is no need for a WWTP.

The scale and nature of the development does not warrant provision of sanitary services and the site operated at peak without same.

Respectfully requests condition no.11 be removed.

- No.12 (oil / petrol interceptor): No paved surfaces are provided and none are envisaged and therefore an interceptor would be impractical and unnecessary.

Note, the applicant, c/o The Planning Partnership, indicated (11/11/14) that he had no further observations subsequent to the receipt of further information.

5.2 Offaly County Council (10/10/14):

The main points of the response may be summarised as follows:

Likelihood of archaeological impact – concern that the rEIS assessment was primarily retrospective. Notes that report for the National Monuments Service to be considered as part of the overall site assessment.

Conditions –

- Condition no.3 (sightlines) – 150m X 4.0m is the standards sight distance required by Offaly County Council where large vehicles join the public road, which is considered suitable based on past experience.

The AADT on this road is 3492, of which 10.6% comprises HGV.

The condition should be adhered to in the interest of road safety.

- Condition no.4 (development contributions) – The contributions have been applied in accordance with the Development Contribution Scheme 2014-2020 commenced 01/03/14.
- Condition no.5 (special development contribution) – The R419 is in poor condition, is built upon a peat foundation and requires regular maintenance and upgrading.

It is feasible to levy a proportion of the cost of maintenance and upgrading of the R419 based on the damaging effect relation to the percentage of HGV usage.

The condition is equitable as it relates directly to usage, and if HGV traffic is low the level of contribution will reflect this.

No figure is stated as future HGV traffic movements to/from the site are unknown. The requirement that the developer submit, on an annual basis, the actual HGV traffic volumes using the site is not unreasonable.

- Condition no.11 (WWTP) – Suggests the following rewording:

'In the event of the scale and nature of the activities at the site require staff welfare facilities, the applicant shall install and maintain an effluent treatment system in accordance with 2009 EPA Code of Practice 'Wastewater Treatment and Disposal System Serving Single House (P.E. <10). The applicant is advised to contact Environment & Water Services Section of Offaly County Council regarding the site suitability assessment.'

- Condition no.12 (oil / petrol interceptor) – In the interest of maintaining the quality of local water bodies, the locally important aquifer and the lagoons in the active extraction areas, the installation of Class 1 oil/petrol interceptor to treat such overspill in considered necessary.

Note, the planning authority indicated (06/11/14 and 28/11/14) that it had no further observations subsequent to receipt of further information.

5.3 DAU DoAH&G (NPWS section) (13/11/14)

No new comments.

5.4 DAU DoAH&G (Architectural Heritage Advisory Unit section) (13/11/14)

The main points of the response may be summarised as follows:

- Human remains first discovered on site in 1970 by HMI.
- Several different protective measures were applied over decades to prevent damage to archaeological material identified within the confines of the extraction area.
- Part of site registered as Historic Monument in 1997.
- A much more extensive area was included in the area of a Preservation Order under Section 8 of the 1930 National Monuments Act in 2000 and this the archaeological remains at this site, cemetery (OF034-009001) and enclosure (OF034-008002) are considered to be of national importance and can be termed a National Monument and it is also associated with a monument (OF034-001), a togher to the southeast. Associations between ecclesiastical monuments of importance has been attested at other locations.
- Several episodes of archaeological investigation, including the excavation of 120 individuals, have taken place under Ministerial Consent C492, but no final excavation reports synthesising the analysis of results have been concluded.
- No objection in principle to the granting of substitute consent subject to the attaching of a condition requiring the developer to commission a final detailed archaeological report compiling the results of all previous investigations, in addition to the three standard reports relating to supervision of all ground disturbance by a suitably qualified archaeologist, entailing monitoring, the direction of any necessary mitigation action by the DoAH&G and the furnishing of the Department with a report describing the results of the monitoring.

6.0 POLICY DOCUMENTS

6.1 OFFALY COUNTY DEVELOPMENT PLAN 2014-2020—

Chapter 2 Economic and Enterprise Strategy

Section 2.8 Rural Strategy

Section 2.8.6 Sand and Gravel Extraction

Policy RDP-14

Chapter 4 Infrastructure and Environmental Strategy

Section 4.19.2 Water and Soils (Protection of Groundwater and Aquifers)

Chapter 7 Heritage and Landscape

Section 7.2.3 Areas of Geological Interest

Section 7.2.15 Eskers

Section 7.18 Built Heritage: Archaeology 7.18.6-17.18.8 - policies AAHP-17 and AAHP-18; policies AAHO-04 and AAHO-05

Table 7.11.4 Summary of Landscape Characteristics and Sensitivities as applicable to High Sensitivity Areas - (H) Archaeological and Historical Landscapes

Chapter 8 Development Management Standards

Section 8.13 Extractive Industries

6.2 Development Contribution Scheme 2014-2020 (operative 1st March 2014)

Table 2 – Levels of Contributions – Other Categories of Development

D - Land use for: (a) the winning and working of minerals (b) deposit of refuse or waste (c) land filling (inert material): €1,526 per 0.1 hectare of site area subject to a minimum charge of €10,000

6.3 REFERENCE DOCUMENTS

'Section 261A of the Planning and Development Act, 2000 and related provisions, Guidelines for Planning Authorities' (DoEC&LG, January 2012)

'Section 261A of the Planning and Development Act, 2000 and related provisions, Supplementary Guidelines for Planning Authorities' (DoEC&LG, July 2012)

'Environmental Impact Assessment (EIA) Guidance for Consent Authorities regarding Sub-threshold Development' (DoEH&LG, August 2003).

'Advice Notes On Current Practice (in the preparation of Environmental Impact Statements)' (EPA, September 2003).

'Guidelines on the information to be contained in Environmental Impact Statements', (EPA, March 2002).

'Quarries and Ancillary Development, Guidelines for Planning Authorities' (DoEH&LG, 2004).

'Environmental Management Guidelines: Environmental Management in the Extractive Industry (Non-Scheduled Minerals)' (EPA, 2006)

'Guidelines for Inspectors: Quarrying and the Water Environment', unpublished
(February 2013)

PART B

ASSESSMENT:

- 1.0 Introduction
- 2.0 Nature and extent of development concerned
- 3.0 Planning policy
- 4.0 Environmental Impact Assessment - rEIS
- 5.0 Overall conclusion

1.0 Introduction

- 1.1 This is an application for substitute consent under Part XA, Section 177E of the Planning and Development Act 2000, as amended. On 06/08/13 the Board confirmed the planning authority's determination under Section 261A(2)(a)(i) and confirmed the planning authority's decision under Section 261A(3)(a) to direct the owner / occupier to submit an application for substitute consent accompanied by a remedial Environmental Impact Statement.
- 1.2 I have inspected the substitute consent site and have reviewed all details and submissions on file, including the remedial EIS, and the quarry registration and quarry review files pertaining to the quarry.

2.0 Nature and extent of development concerned:

- 2.1 This substitute consent application is for '*quarry*' pertaining to a site of 4.1ha stated area. This area does not appear to fully accord with the extent of the extraction area on the ground. In particular it excludes an area of 0.2ha at the mid-east section where there is a steep cliff-face between the base of the pit and the remaining section of the original hill (carried out post OSI orthophotography 2005). It also excludes strips of extraction areas around the western and southern perimeter, amounting possibly to c.0.3ha, and areas where spoil is stored in the form of formal berms or otherwise, possibly amounting to another c.0.2ha. The details of the northern section of the pit and the immediately adjacent areas surround the pit, in terms of contours and/or spot levels are insufficient to enable a clear understanding of the works that have taken place (extraction and/or deposition) and the true extent of same. It was apparent from the site inspection that the said section includes areas of extraction and of deposition activities. The total area concerned would therefore appear to measures closer to c.5ha.

3.0 Planning policy:

- 3.1 A new policy context exists subsequent to receipt on 28/08/14 of the Local Authority's Section 177I report, with the Offaly County Development Plan 2014-2020 adopted on 15/09/14. The Council recognises the importance of quarrying to the rural economy (sections 2.8), subject to the protection of visual amenity of high amenity areas, against damage to designated sites, habitat types or species (policy RDP-14) and against contamination of groundwater (section 4.19.2 Water and Soils).
- 3.2 It is Council policy to protect archaeological monuments and their settings (AAHP-04), to ensure that development in the immediate vicinity of a recorded monument is sensitively sited so as not to significantly detract from the monument (AAHP-08), to protect archaeological sites listed in the RMP and to seek their preservation in situ (or at minimum through record) (AAHP-17). It is the objective of the Council to secure the protection (preservation in situ or at minimum protection by record) of RMP sites protect and preserve archaeological sites and their settings, and to protect and preserve archaeological sites and their settings discovered since the publication of the RMP. The site is not included as an 'archaeological landscape' (which area of high sensitivity) under the Development Plan.
- 3.3 The objectives and policies contained in the County Development Plan in respect of archaeological material and sites would suggest a preference to preservation in situ, but does not rule out the preservation of that material by record. Having regard to the location of the quarry on an archaeological site designated a National Monument, the development may generally be considered to conflict with to the provisions of the Development Plan regarding the protection of archaeological heritage.

4.0 Environmental Impact Assessment – remedial Environmental Impact Statement

- 4.0.1 The applicant submitted a remedial Environmental Impact Statement with the application. Part XA, section 177F of the Act of 2000, as amended states that a remedial environmental impact statement shall contain:

'(a) a statement of the significant effects, if any, on the environment, which have occurred or which are occurring or which can reasonably be expected to occur because the development the subject of the application for substitute consent was carried out

(b) details of—(i) any appropriate remedial measures undertaken or proposed to be undertaken by the applicant for substitute consent to remedy any significant adverse effects on the environment; (ii) the period of time within which any proposed

remedial measures shall be carried out by or on behalf of the applicant;

(c) such information as may be prescribed under section 177N.

4.0.2 This differs from, and is less prescriptive than the information required to be contained in an EIS as specified under article 94 and schedule 6 of the Regulations 2001, as amended. There is no indication under Part XA that the information contained in a remedial EIS shall also follow the requirements of the said Regulations and I note that the department's '*Guidelines for Planning Authorities and An Bord Pleanála on carrying out EIA*' makes no reference to rEIS. I have not been able to locate any regulations made by the Minister prescribing additional information requirements under section 177N.

4.0.3 General comment –The rEIS does not identify any impacts that have occurred, that may be occurring or that may occur resulting from that development carried out as significant effects. Given the nature of some of the impacts, including the impact that has already occurred on archaeological heritage (a National Monument), I do not consider this to be a realistic conclusion at this stage of my assessment and the rEIS may therefore not be compliant with the requirements of the legislation.

4.1.0 Human beings –

4.1.1 According to EPA Advice Notes (2003) the environmental impacts of concern from quarry development concerning on human beings include health and safety and amenity. There is some potential for the development to have and to be having adverse impacts on human beings due to the scale and nature of this sand quarry and the proximity of the site to residential properties in the vicinity (there nearest being 120m to the southeast). The main adverse impacts of concern are noise, dust and vibration from operations including mechanical extraction and access traffic, including having regard to cumulative impacts. Indirect impacts include potential for contamination of groundwater used for potable domestic supply.

4.1.2 It is not stated who carried out the assessment of impacts on human beings. The rEIS focuses on socio-economic impacts and impacts in terms of quality of life including population and profile trends, economic activity and employment and community aspects which are not of particular concern in a development of this nature and scale. Impact relating to noise and dust emissions are dealt with under chapters 9 and 10 of the rEIS.

4.1.3 The rEIS notes that operations that have been carried out have had a minor positive socio-economic impacts locally through the generation of a small level of employment, has had a minor adverse impact on agriculture through the

removal of lands from agricultural use and had no significant impact on tourism as the site is not proximate to any tourist attractions. In general I would accept this conclusion as reasonable, although the development has certainly removed any tourism potential the site may have had in terms of its archaeological heritage and associated historical and cultural heritage.

- 4.1.4 It is submitted that the development has not had any major negative impact on residential amenities in terms of noise pollution, including from traffic, due to the very limited number of dwellings in the surrounding area and the very low volume of loads transported from the quarry per week. Although this section of the rEIS refers to potential for quarry development to result in impacts from dust and to measures that may mitigate against same, it makes no statement about whether or not adverse impacts on humans from same have occurred. The issue of groundwater pollution is addressed under the hydrology chapter and submits that no impacts have occurred.
- 4.1.5 The Council's report under Section 177I (signed 27/08/14 and received 28/08/14) states that there is no record of enforcement action taken in relation to any development on this site. The documents provided by the planning authority show that an enforcement file was opened in respect of the extraction of sand and gravel on this site, that unauthorised development investigations were carried out by the Council (in 2002-2005) although no warning letter issued. The HSE/EHO has indicated that no complaints have been received in respect of the development carried out. No objections or submissions have been received from local residents in respect of the application. It can reasonably be concluded that the development carried out has not therefore had any significant impact on human beings in terms of residential amenities.
- 4.1.6 The rEIS does not directly address the issue of potential for adverse impacts on human beings from road traffic generated by the development, it merely indicates that a low level of traffic has been generated. There have been 5 minor collisions on (or at junctions to) the R419 between Portarlinton and Rathangan within the last 5 years¹, however only two of these involved Goods Vehicles. No serious collisions are recorded on the said section of the R419. There is nothing to suggest that the minor collisions recorded had anything to do with the subject quarry. The planning authority has raised concerns over sightlines at the site entrance, however no collisions are recorded within the vicinity of the site entrance since 2005. There is no evidence that the quarry has had a significant adverse impact on human beings in terms of road safety.
- 4.1.7 The rEIS does not assess the potential risks to human safety. Although there will be safety concerns in respect of any quarry where unauthorised site access can be easily achieved, the subject quarry would appear to pose fewer

¹ <http://www.rsa.ie/en/RSA/Road-Safety/Our-Research/Ireland-Road-Collisions/>

risks given that it is a sand quarry of relatively shallow depth, with relatively low cliff faces presenting incorporating sloping rather than vertical faces. There is nothing to suggest that any accidents have occurred on site and there are few residential dwellings in the vicinity. I expect that any future safety concerns can be easily addressed through the implementation of a site restoration plan that provides for the appropriate grading of site levels, the removal of any machinery, equipment, structures, chemicals and fuels and all hazards, and the securing of the settlement ponds (and removal or appropriate redesign of same on decommissioning). The site restoration plan appended to the rEIS is wholly inadequate in this regard and generally. Should the Board decide to grant substitute consent, a site restoration plan addressing safety concerns may be agreed with the planning authority by condition, having regard to the EPA's environmental management guidelines 2006.

4.1.8 Given the scale and location of the quarry development carried out, the low density of dwellings within the vicinity (the nearest dwelling is located c.120m to the south of the pit, with another two beyond) it is reasonable to conclude that the significant adverse impacts on human beings have not occurred, are not occurring and are not likely to occur from the development carried out in terms of impacts on residential amenities. Should the Board decide grant substitute consent a condition should be attached requiring the submission of a detailed site restoration plan addressing safety concerns, including a reasonable timeframe for implementation of same, for the written agreement of the planning authority.

4.2.0 Archaeology & Cultural heritage (Material Assets)–

4.2.1 Introduction - The EPA advice notes indicate that the main impact on cultural assets, including archaeological heritage include loss of sites by surface workings or structures, damage to old structures by vibration from blasting or transportation, and the effect on the preservation of buried organic remains due to changes in water table.

4.2.2 The rEIS assessment was prepared by Claire Mullins MA, PhD, Dip. EIA Management, MIAI of Byrne Mullins and Associates, Consulting Archaeologists. The archaeological and architectural studies involved a documentary/cartographic search and field inspection of the area, including the immediate environs and archaeological investigations, while the historical study involved a documentary search. The analysis of impacts is based on NRA EIS Guidelines 2003 which categorize severity of direct and indirect impacts.

4.2.3 The rEIS provides a detailed overview of the archaeological history pertaining to the quarry site. It indicates that the site is of highly significant archaeological importance as an early cemetery site, together with other

possible features associated with its use as a cemetery, in particular the location of the togher, but also its location of a find of a mid-1600s hoard of gold coins. The rEIS does not describe clearly how much of the combined related archaeological sites have already been lost the period concerned (i.e post 1 February 1990) relative to the dates on which the site was afforded protections relating to its archaeological heritage. The rEIS does not state the significance of the impacts that have occurred, are occurring or are likely to occur regarding archaeology and the rEIS may not therefore comply with the requirements of Part XA, section 177F(a) of the Act. The rEIS submits that there is no significant impact on local history as there are no significant local historical events associated with the site.

- 4.2.4 The applicant submitted a detailed report entitled '*Preliminary Report on the Archaeological Excavation at the Site of a Burial Ground at Derryvilla, Co.Offaly*' (Mullins, 2014) received to file in October 2014. The report includes much of the same detail provided in the rEIS in addition to preliminary results of the most recent archaeological excavation of part of the site. Subsequently, the DAU submitted a detailed submission to the application indicating it has no objection in principle to the granting of substitute consent subject to the attaching of a condition requiring the developer to commission a final detailed archaeological report compiling the results of all previous investigations, in addition to the three standard conditions relating to supervision of all ground disturbance by a suitably qualified archaeologist, entailing monitoring, the direction of any necessary mitigation action by the DoAH&G and the furnishing of the Department with a report describing the results of the monitoring.
- 4.2.5 I consider three questions to arise in terms of assessing the significance of impact, if any on archaeological and cultural heritage. Of what significance were the archaeological remains? To what extent, if any, was archaeological heritage removed or destroyed post 1 February 1990 and to what extent did this compromise the cultural and heritage of the site? Were significant adverse impacts mitigated to an acceptable degree or are such impacts, if any, proposed to be remediated through appropriate and acceptable measures? For clarity I have appended to my report an overview of the chronology of the development, the disturbance of archaeological remains and the archaeological investigations carried out.
- 4.2.6 Significance - There are three related previously identified sites / monuments of archaeological interest within or adjacent the substitute consent application – the Friar's Togher / road unclassified (OF034-001), burial ground (OF034-008001), enclosure (OF034-008002) - all contained within the SMR archive of the ASI. According to the submission of the Architectural Heritage Advisory Unit (13/11/14) the cemetery and enclosure are considered to be of national importance and can be termed a National Monument (Register Order 1997).

The AHAU indicates that associations between toghers and ecclesiastical monuments of importance has been attested at other locations in County Offaly, which may be taken as a possible indication of the site's ecclesiastical importance. The National Monuments Service's record for OF034-008001 refers to '*a strong local tradition of monastic settlement on the hilltop*'. Archaeological investigations suggests an early medieval or even conversion period² origin for the burial site. The DAU also confirm that a hoard of mid-1600s gold coins (including rare 'pistoles' struck in Dublin by the Duke of Ormonde as emergency war-money) was found at the site. The rEIS recognises that site as of highly significant archaeological importance.

- 4.2.7 Extent of damage – The original extent of the three archaeological elements, including the area of devoted to burials, the location and extent of the enclosure and the togher relative to the quarry development are not stated. Even the actual original extent of the hill itself is not clear, but based on the historical 25" map (including the gravel pit evident to the south in c.1910 and the field boundaries and vegetation) and the aerial photographs I estimate the hill to have been probably between 2.5-3ha in extent, but the plateau would have been much smaller. A topographical survey in 1997 indicates the hill at c.15m in height.
- 4.2.8 Human remains were discovered on site in 1970. The NMS records indicate that the site was bulldozed in 1970 resulted in about half of the hill being stripped to a depth of 1m, based on the report by Dr Rafferty. No copy of that Dr Rafferty's report are provided in the rEIS or elsewhere on file. The human remains appear to have been concentrated on the upper southern slopes of the hill. There is no information of the actual size of excavated area, the extent of the hill or its formation in terms of plateau and slopes, the extent and actual location of the quarrying extraction pit at that date, or the extent of burial ground. The togher (which extended 250m to the southeast) was evident at the southeast slope of the hill. The site was not subject of archaeological excavations and the remains were not retrieved. On revisiting the site in 1981, the togher had been removed from the site. These works were undertaken prior to the transposition of the EIA Directive on 1 February 1990. No aerial photography for the site is included on file or on the quarry review file, although OSI aerial photographs is available for this site for 15/06/73, which might provide a better indication of the extent of quarry activity and damage of archaeological remains during that period. No information is provided regarding the original extent or area of the cemetery and associated enclosure, however it would appear that the southern half of the cemetery and any associated archaeological features had been destroyed between 1970 and 1981.

² The archaeological survey of 2012 carbon dated some remains to between AD1322-1435 and AD988-1154, but the location and prominent landscape setting suggests an earlier origin (p.7, Mullins, 2014).

- 4.2.9 The first detailed survey of the site appears to be the topographical survey of 1997³ after exposed human remains were reported by members of the public in that year and was followed by a detailed programme of archaeological testing in 1998 (archaeological license no.98E0315)(Mullins, 2014). It is reported that the quarry had expanded in a west and north direction from the extent evident in 1970. The topographical survey (Fig.6.1 rEIS) shows an extraction pit of a c.1.14ha located almost centrally within the current pit (i.e. that evident in January 2015). A comparison with the OSI aerial photographs for 1995 and 2000 show that topographical survey is incorrectly overlaid on and at a larger scale than the historic 25" basemap. I estimate that the actual quarry pit was c.0.6ha and located further to the southeast.
- 4.2.10 A comparison of the OSI aerial photographs for 1995 and 2000 show that whilst the quarry expanded mainly in a west and southern direction over this period, it actually also extended northwards into the plateau, probably by between 10-15m. That there was some incursion northwards into the remaining plateau over this period would explain the exposing of human remains in 1997. The archaeological testing carried out in 1998e (22no. test trenches under license) suggested that the remaining burial ground was confined to a relatively level plateau on the summit of the remaining hill (to the north of the then extraction pit), with a western limit delineated by a NE/SW ditch contemporaneous with the burial site (Mullins, 2014). A dashed structure indicative of an uncertain ditch boundary is shown on the historic 25" map of 1910. It is not clear that this is the ditch structure referred to in the investigations and I would be inclined to believe that they are not the same structure⁴.
- 4.2.11 Following a visit to the site by Con Manning of the National Monuments Service, a Registration Order was placed on the site in 1997 as a National Monument. A wider area was subject of a preservation order was imposed in 2000 (see pp.6-16 and 6.-17). A 'Condition Survey' carried out in 2000 at the request of the National Monuments Service, reported that the quarry had extended northwest but had not met the western side of the burial area. According to Mullins (2014) monitoring of topsoil took place in 2002 in advance of further extension into the northwest of the hill - the National Monuments Service agreed to permit further quarrying within a limited defined area subject to, inter alia the archaeological monitoring of all topsoil stripping under license. The report does not define the area concerned, but the Mullins refers to the area being heavily wooding in the 1910 OS map which would suggest that the area concerned was at the far northwest of the site. No

³ See Ministerial Consent No.C492. p.5 attaching to registration file QV0184. Also Figure 6.1 of rEIS to Substitute Consent application. Note, for consistency I shall refer to the topographical survey as taking place in 1997 (as referred to by Mullins, 2014) although it is referred to as occurring in 1998 elsewhere.

⁴ The earlier historic 6" map shows a semi-circular ditch a little further to the east and extending further south which I suggest may have been the remnants of the original enclosure to the burial ground.

positive results were returned from archaeological monitoring in 2002. A comparison of the OSI photographs for 2000 and 2004 show that the quarry extraction pit expanded to the northwest, increasing in size by about half. Over this period the pit expanded c.50m beyond the ditch structure shown in the 1910 Historic 25" map but, as noted above, the ditch structure does not appear to be the enclosure and it is not apparent that actual damage to the National Monument occurred at this time.

4.2.12 Between 2004 and the present date the quarry continued to expand eastwards into the hill, such that there is only c.0.15ha of the hill remaining at the northeast corner. In 2010 the NMS requested further archaeological investigation of the site to determine whether any of the burial site and its enclosing element remained. The survey by Clare Mullins in 2012 found that overburden deposited on the burial site contained significant quantities of disturbed human bone. Additional investigation took place in 2013 and in 2014 more comprehensive archaeological testing and excavation took place, the purpose of the excavations being to remove, as far as possible, all remaining archaeology at the top the hill. Again, testing found '*frequent inclusions of human bone*' in the overburden deposited on top of the remaining plateau (p.15 Mullins 2014), which would indicate that the quarrying activity of recent years has resulted in the destruction of archaeological heritage. Burials along the southern and western extent were truncated, presumably by the quarrying works. The deposition of overburden on the eastern area prevented archaeological testing. Within the remaining burial area (an area measuring only 10m X 7m), between 110-120 burials were found, although the exact number could not be determined at the time of writing the report. Many of these burials would appear to have comprise displaced burials deposited within the overburden removed from the quarry extraction area elsewhere on site. The western and southern boundaries to the burial area could not be determined having been removed through earlier quarrying activity.

4.2.13 It would appear that the vast majority of this archaeology site has been destroyed through the quarrying activity carried out on this site, about half of which occurred post 1 February 1990, and the majority of that after 2004. Only a fraction of the original burial site has been excavated (10m X 7m) with archaeological remains removed from the site in 2012. The loss of the archaeology from the site since 1 February 1990 is permanent and significantly adverse.

4.2.14 The rEIS fails to make any determination on the significance of the impacts that have already occurred or to properly inform the Board as to how much of the combined related archaeological sites have already been lost and a clear timeline over which these features were lost, with particular reference to the date of transposition of the EIA Direct on 1 February 1990 and to the dates on

which the site was afforded protections relating to its archaeological heritage. The rEIS therefore does not comply with the requirements of Part XA, section 177F(a) of the Act and the Board may regard the rEIS as seriously deficient and unacceptable for the purposes of the substitute consent process.

4.2.15 The rEIS does not consider there to be any significant impact on local history as there are no significant local historical events associated with the site. I find this somewhat difficult to reconcile with the evidence presented in the report. As noted above, the NMS record for OF034-008001 refers to '*a strong local tradition of monastic settlement on the hilltop*'. Even excepting the medieval (and possible conversion period) archaeology, that the site was the location of a find (in the 1940's) of significant gold hoard dating from Ireland's turbulent mid-17th Century (now housed in the National Museum of Ireland) is clear evidence that the site is of historical significance. The development carried out has removed the possibility that the full historical context of the combined site could be fully understood through a comprehensive site investigation.

4.2.16 Mitigation – In terms of mitigation, the impact has been mitigated to a degree through the archaeological survey carried out in 1998 and the archaeological investigations and removal of remains in 2012 on an area of 70-sq.m. I do not consider the adverse impacts post 1 February 1990 to have been mitigated to any reasonable degree given the scale and significance of the National Monument. The latest investigation entailed the excavation and removal of 110-120 bodies from the remaining area of only 10m X 7m of the site (the presence of deep overburden on the site prevented full investigation and excavation at the eastern side of the site). The significant effect cannot be remediated. I would highlight to the Board that the DAU Architectural Heritage Advisory Unit has no objection to the granting of substitute consent.

4.2.17 Conclusion – The site is of at least national importance in terms of archaeological heritage. The subject development entailed almost the complete destruction of half the burial ground (a RMP OF034-008001) and its associated enclosure (OF034-008002) post 1 February 1990. The impact of the quarry on archaeology and cultural heritage, as material assets, is adverse and significant (profound) and permanent that has not been adequately mitigated and which cannot be remediated.

4.3.0 Flora and fauna –

4.3.1 According to EPA Advice Notes (2003) the environmental impacts of concern from quarry development concerning on fauna and flora include loss of habitat, aquatic habitat alteration by changes in water quality and/or volume, effects of dust or vibration on agricultural stock, creation of new habitats, changes in quality and volume of surface and ground waters, dust blow to lands adjacent to site and transport routes, and new habitats created,

especially after decommissioning. Another issue of concern is the presence and / distribution of invasive species.

- 4.3.2 The survey and assessment was carried out by BSG Ecology. The assessment included a desk study and a site visit conducted by Elaine Dromey MCIEEM (Principal Ecologist with BSG Ecology) on 7 May 2014. The site area is stated as 3.6ha, which is incorrect. The assessment refers to the location of the site shown in figure 7.1, however no such drawing is included in the chapter of the rEIS and it may be assumed that the applicant is referring to the habitat map contained in appendix 7.1 to the rEIS. The report from the NPWS considered the site survey to be inadequate.
- 4.3.3 The site is not located within any Natura 2000 site, but the rEIS notes the proximity of same within 10km of the site in table 7.2 – the River Barrow and River Suir SAC (002162) is within 1.2km to the south. Three pNHAs, Emo Court (000416), the Grand Canal (002104) and Derries Wood (000865) are also noted. The NPWS directs the Board to *Circular Letter PD 2/07* and *NPWS 1/07 Compliance Conditions in respect of Developments ... (2) having potential impacts on Natura 2000 sites*. The need for Appropriate Assessment and the submission of an rNIS was screened out by the planning authority at quarry review stage and it would therefore be inappropriate to revisit the issue at this point in the substitute consent process.
- 4.3.4 The rEIS does not provide a description of the habitats that are thought likely or are known to have existed on this site on 1 February 1990, rather the assessment focuses only on the existing ecology and habitat within the site boundary. Section 7.2.5 indicates that the habitats within the application land ownership boundary were determined (note map appended 7.1) however neither the body of the rEIS nor the said habitat map refers to the remnant broadleaf woodland remaining on the surviving section of the original glacial hill adjacent the northeast corner of the extraction pit and the significance, if any, and former extent of the said woodland is not alluded to. I therefore consider the rEIS to be seriously deficient in its description of the habitats on site at the commencement of the period concerned and at the present date. The significance of the impacts on habitat (flora) cannot be properly determined from the information provided by the applicant. Similarly, the description of fauna based on the current character of the site (a developed quarry) and is insufficient in the context of substitute consent as opposed to an application for permission as the significance of the impact on fauna, if any, cannot be determined from the information provided in the rEIS. The Board may therefore consider it appropriate to seek further information in this regard.
- 4.3.5 Section 7.3 indicates that before the expansion of quarrying operations in 1990, the existing environment is likely to have consisted of semi-improved agricultural grassland, with some transition woodland scrub along the edge of the cutaway bog located along the application site boundary to the north and

west. No evidence of support for the nature and extent of the said habitats is provided in the form of historic maps and aerial photographs, or indeed through comparison with a survey of the remaining broadleaf woodland. The remnant broadleaf woodland is not referred to under section 7.3.4 Habitats. This has implications for other aspects of the assessment, for example the rEIS states '*there is no woodland with the application site which would provide suitable habitat for red squirrel*' (*Sciurus vulgaris*, Protected Species: Wildlife Acts) which was last recorded in this 1km Grid square N5414, but the habitat existing on 1 February may have been suitable. Overall, the habitats were categorised as of local importance, being widespread and common. Two species of conservation concern were noted on site by the rEIS - Sand Martin and Smooth Newt. The potential adverse impact on those species is rated minor negative at a local level. The actual impact that has occurred on those species would appear to be moderately positive at a local level as neither of the species could have existed on the site prior to the development that has taken place. The restoration of the site may have implications for these two species, however the details of the plan are inadequate. I would agree with the NPWS that the applicant should have provided a management plan for both species as part of the rEIS.

- 4.3.6 The rEIS predicts that the impacts that are likely to have occurred to include loss of habitat, disturbance / displacement of avian species and mammals due to noise and human presence and localised pollution events from hydrocarbon leaks from machinery. I would accept that the impact of the development is likely to have been, at most, only locally significant in terms of habitat loss.
- 4.3.7 The rEIS states that negative impacts are highly unlikely on the pNHAs of Emo Court, Grand Canal and Derries would due to the lack of hydrological connectivity and the distance from the application site. I consider this reasonable. Regarding the River Barrow and River Nore SAC, the rEIS submits that there are no hydrological links between the site and the River Barrow and River Nore SAC, that there are no sanitary facilities on site, no refuelling of machinery / vehicles takes place on site, washing, rinsing and screening machinery is not located on site and surface water percolates to ground. However, I found that the site drains via a channel extending to the northwest of the site towards and possibly into the neighbouring boglands. Hydrological links to the River Barrow are therefore likely to exist. Given the distance to the Barrow and the small slow moving nature of the drainage channel, contamination of the River Barrow by silts generated on the site will not have been significant. The rEIS states that vehicles and machinery were not refuelled on site, however this would appear to be contradicted by the presence of a fuel tank within a shipping container on site. Risk to the Natura 2000 site from hydrocarbon spillages cannot be ruled out. The rEIS provides no information on the apparent breaching of the water table on site through quarrying. The rEIS notes that the River Barrow at Portarlinton is rated of

Poor Status under the WFD assessments (15/05/14 www.wfdireland.ie) and it is possible that the subject quarry contributed to this status. As noted above, under the quarry review process it was determined that no rNIS was required to be submitted with the application for substitute consent. The assessment assumes that the activity has not breached the water table, but an examination of the aerial photographs for the site would suggest that the water table may have been exposed for a period at the northwest corner of the site. The NPWS indicates that further assessment of impacts would be warranted where the water table is breached.

- 4.3.8 Mitigation – The mitigation measures do not include essential remedial measures such as site restoration or rehabilitation of any description, which I consider a significant omission. The mitigation measures proposed (including those for mammals and general mitigations) assume the carrying out of activities associated with quarrying, which cannot be authorised under the substitute consent process. In effect there is no mitigation proposed regarding sand martins present on site as the intention to agree a management plan for that species with the NPWS prior to recommencement of quarrying would bring that agreement into a separate future planning process effectively outside the remit of consideration under the substitute consent process. A similar situation pertains to the management of the smooth newt.
- 4.3.9 Conclusion – Based on the information available to me, notwithstanding the shortcomings regarding information of the habitats existing on 1 February 1990 and the failure of the applicant to acknowledge the broadleaf woodland remaining adjacent the northeast corner of the quarry pit, I would accept that the impacts that have occurred on flora and fauna is likely to have been of local significance only and, based on the presence of the Sand Martin and Smooth Newt on site, some moderate positive local impacts have also occurred. The details of the proposed site rehabilitation plan are inadequate.
- 4.3.10 The rEIS assessment is based on the assumption that the site is not hydrologically connected to the Natura 2000 site River Barrow and River Nore SAC, when the site drains into the adjoining bog drainage system via a ditch constructed to the northwest. Impacts from hydrocarbon contaminants on the surface water habitats and species cannot be ruled out based on the information provided within the flora and fauna section of the rEIS. The assessment also assumes that the activity has not breached the water table, but an examination of the aerial photographs for the site would suggest that the water table may have been exposed for a period at the northwest corner of the site and the assessment of impacts may not therefore be accurate.

4.4.0 Soils, geology and hydrogeology –

- 4.4.1 The EPA Advice Notes (2003) indicate that the principle impacts of concern relating to hydrogeology include: – *changes in character and volume of water discharges, contamination from accidental spills, impacts of extraction on the hydrogeological (groundwater) regime, depletion of resources, lowering of water table, effects on yield of local wells, contamination from surface during working and after closure, increased vulnerability to contamination from after-use of surface workings*. The Institute of Geologists of Ireland publication ‘Geology in Environmental Impact Statements, a Guide’ (2002) sets out a comprehensive range of impacts for consideration regarding geology and hydrogeology
- 4.4.2 The assessment of impacts on soils and geology was carried out by ORS Consulting Engineers. The name and qualifications of the person carrying out the assessment is not provided. The Irish Geological Institute ‘*Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements*’ highly recommends that the assessment be carried out by a competent person⁵. A geophysical survey for resource estimation carried out by BMA Goeservices in January 2004 is referred to.
- 4.4.3 The quarry consists predominantly of shallow soils (BminSRPT) classified as derived from calcareous rock or gravels, while all around the quarry comprises cutaway peat material. The subsoil is of limestone sands and gravels. The bedrock is Visean agrillaceous and cherty limestone, a moderately strong rock with widely spaced tight discontinuities. The nearest fault is 780m to the northwest with a northeast-southwest trend.
- 4.4.4 Hydrology and hydrogeology – The site is located within the River Barrow catchment, the River Barrow flows c.2km to the south. The site is located in an area designated as a locally important aquifer (bedrock only) moderately productive only in local zones (classification LI). According to GSI the quarry has a vulnerability rating of ‘high’. Given that the site has been excavated to a depth, with no soils above the exposed sand and gravel material, the ‘high’ rating would seem inappropriate. Based on my experience of ratings for other such quarries, I would expect a rating of ‘*extreme*’ to apply as all the topsoil has been removed, the sand and gravel resource exposed with almost no natural means of preventing contamination of groundwater.
- 4.4.5 The rEIS refers to the EPA’s ‘*Guidance on Groundwater Vulnerability Assessment of Land*’ and concludes that the activity would not have had any detrimental impact on the underlying aquifer. The said EPA document relates

⁵ (p.5) A Competent Person in the area of soils, geology and hydrogeology should be a professional member of the Institute of Geologists of Ireland, i.e. PGeo (Ireland), or an equivalent professional organisation e.g. EurGeol (Europe), CGeol (UK), CPG (USA), PGeo (Canada), etc. This will ensure that the work is carried out by a Competent Person with a minimum of five years experience relevant to the issues which are being reported.

primarily to land spreading and the applicant does not explain how the document can be considered relevant to the case at hand. The rEIS (table 8.7) indicates that the groundwater protection response 'R1' is applicable which states '*acceptable subject to maximum organic nitrogen load (including that deposited by grazing animals) not exceeding 170kg/hectare/yr*', but the applicant does not explain how this should be considered relevant to the quarry activity.

- 4.4.6 The main threats to groundwater will be from hydrocarbons and/or chemical spills / discharges that seep to groundwater. All soil and overburden has been removed and much of the sand and gravel resource extracted effectively leaving no protection for groundwater. The EHO/HSE indicates that the quarry is not having adverse risk to groundwater and notes that there is no reference to chemical storage or the refueling on site. However on inspecting the site I noted an oil tank is present on site within a shipping container which suggests that refueling may have been in practice. It is not possible to determine whether appropriate precautionary measures were taken in refueling vehicles / machinery on site during the period concerned. The development will therefore have presented a risk to groundwater. It is not stated whether the water table has been breached and the level of the water table has not been determined. There are areas of large ponding on site and the surrounding lands are predominantly drained peat lands, which suggests a high water table. In addition, the aerial photographs from 2004 (OSI) show a large pond at the northwest corner of the site which may have been the exposed water table. This area has since been filled in and a drainage ditch constructed at the northwest corner. Information on the water table is essential baseline data for consideration of hydrogeology.
- 4.4.7 In terms of hydrology, the rEIS provides a general description of the surface water system is included in section 8.3.2.4 but does not describe whether or how surface water from the site connects into the system. The site can reasonably be assumed to drain to the wider surface water system and ultimately to the River Barrow to the south via that drainage ditch at the northwest corner of the pit. This section of the rEIS does not contain any assessment of the potential for significant impacts to have occurred, to be occurring or to be likely to occur, if any, on hydrology (the surface water system) from the development carried out. Based on the information provided in the rEIS, it is not possible to determine whether significant impacts have occurred, are occurring or are likely to occur on hydrogeology and hydrology from the development carried out.
- 4.4.8 Soils, geology & hydrogeology –. The EPA's advice notes indicate that the main impacts from quarrying on soils and geology are stability, loss of topsoil, loss / creation of geologically important sites, dust deposition, erosion and / or

subsidence of workings, impacts of dewatering on the structure of surface deposits and soil.

- 4.4.9 The rEIS concludes that the operational impacts are not considered relevant in the context of geological bedrock or topography due to the nature and scale of the area of substitute consent and that the impacts are considered negligible as the drift geology in the locality is of low sensitivity.
- 4.4.10 The significance, if any, of the soils that have been removed are not referred to (note the details of archaeological excavations at the site provide details that may inform a description of the original soils and geology at the site). The scale and contextual significance (in geological terms) of the geological landform feature that has been removed is not addressed. The rEIS provides a description of the current topography only and not the landform topography that existed 1 February 1990. The rEIS does not address the issue of whether the original isolated hill of sand and gravel within a wide expanse of bogland was of any significance in geological terms. Based on the information and assessment included in the rEIS, it is not possible for to determine whether significant impacts have occurred, are occurring or are likely to occur on soils and geology.
- 4.4.11 Remedial / mitigation measures - The rEIS states the '*mitigation measures proposed relate primarily to the preservation of the existing subterranean drainage regime, the protection of groundwater and the re-use of excavated material*'. Remedial, rather than mitigation measures are of concern to the current process. The measures include the replacement and restoration of the site to reduce vulnerability of groundwater, with all bare / disturbed surfaces reinstated and soil mounds re-vegetated as rapidly as possible in order to reduce erosion and restrict silt generation in water. Site rehabilitation / restoration can be regarded as a remedial measure. The text details and rehabilitation / restoration drawings contained in rEIS are vague and inadequate. I have some concern as to how the site rehabilitation works tie in with the elevated area to the northeast which comprises the remnants of the former landform. The other measures proposed, such as the minimizing of sand and gravel slopes and the storage of hydrocarbons and chemicals are mitigation measures relevant to future quarry activity which cannot be authorized under the process concerned, except possibly where they relate to the carrying out of site rehabilitation works.
- 4.4.12 Conclusion – The baseline information and the impact assessment of soils, geology, hydrogeology and hydrology is insufficient to enable a determination to be made as to whether significant impacts have occurred, are occurring or are likely to occur from the development that has been carried out. I therefore consider the rEIS to be deficient.

4.5.0 Air & climate:

4.5.1 I would accept the rEIS conclusion that the development, given its nature, is not of sufficient scale to have any significant impact on air and climate.

4.6.0 Noise:

4.6.1 The rEIS noise assessment comprised a baseline noise survey. There was no assessment of the likely noise levels generated on site over the period concerned and the potential impact on noise sensitive receptors (residential dwellings) in the vicinity. Notwithstanding the absence of any actual objective assessment of the carrying out of the development over the period concerned, I am satisfied that the development is unlikely to have had a significant impact in terms of noise. This is supported by the submission of the HSE/EHO that there is no record of or complaints in respect of the operations already carried out. The noise impact arising can be considered effectively complete and remedial measures are not required. During the course of site rehabilitation works there may be potential for significant noise impacts, however it would be possible to mitigate these effects by setting maximum noise limits relative to the location of the nearest noise sensitive receptor, using best practice techniques in undertaking rehabilitation works and limiting the hours of operation of such works to daytime hours and the duration of the rehabilitation works to a defined period of months. This could be reasonably be addressed by conditions should the Board decide to grant substitute consent.

4.7.0 Traffic (material assets):

4.7.1 I note the details of the traffic assessment. A traffic model was derived from production information provided by the developer (80,000 tonnes p.a. peak) as no actual traffic figures or quarry production figures were available for the site over the period 1997-2007, and manual traffic counts carried out on Tuesday 18th February 2014. It is submitted that access had adequate capacity at peak and that the development had negligible impact on the existing road network for all scenarios. There is no objection from the Council's Roads Section⁶ and no record of enforcement action taken in respect of the site. The NRA raised no objection and had no issue with the traffic assessment. The public road in the vicinity shows no particular signs of deterioration that might be attributed to the quarry access, although it is evident that the road surface south of the site entrance has been resurfaced recently. No significant adverse impacts are apparent and no remedial measures are proposed. Given that the development may be considered

⁶ The Council's Roads Department recommended that a special development contribution be attached requiring the payment of an unspecified sum on an annual basis (proposed as condition no.5 by the planning authority) for future quarrying activity which is not relevant to the substitute consent process.

completed for the purposes of substitute consent, excepting necessary site rehabilitation works, I do not consider any remedial measures to be necessary.

4.8.0 Material assets (in general):

4.8.1 This section addresses material assets as they related to buildings, settlements and electricity supply, the impact on the road network and on cultural assets having been addressed separately. No impacts were identified or remedial measures proposed. This is generally acceptable.

4.9.0 Landscape and Landscape and visual:

4.9.1 The EPA Advice Notes (2003) indicate that the principle impacts of concern relating to landscape include: – *visibility of surface workings, visibility of surface plant, visibility of dust adjacent to site and transport roads, visibility of character due to the intensity and nature of development.*

4.9.2 The rEIS submits that there were moderate negative impacts associated with the development. It notes that the site location is classified as of low sensitivity under the CDP 2009, with to tree protection orders and no relevant listed views or designated scenic routes from which the site might be perceptible. The zone of visual impact is submitted to be very limited due to the flat terrain, existing woodland and hedgerows. The landscape changed from a small historical site pit of c.0.5ha, surrounded by tree groups and woodlands into a larger sandpit of c.4.1h. The hill was significantly changed in size and shape and the existing pasture partly negatively affected. It lists these as short-term impacts, however the loss of the hill feature is permanent and irreversible. It submits that in the medium term the visual impact is predicted to lessen to no impact as the site is recolonized by pioneer plants. The impact on residential dwelling are estimated as slight negative and the visual impact on the wider landscape can be assumed to be 'none' as the rEIS indicates that it is not visible.

4.9.3 Remedial measures comprise a site specific landscape design including tree and shrub planting and the removal of berms and piles surrounding the pit as set out in drawing no.1619_PL_P_03 in appendix 13.1 of the rEIS. I consider the site restoration / rehabilitation plan to be grossly inadequate in detail.

4.9.4 In general I consider the landscape and visual assessment to be acceptable and reasonable. The loss of the original hill and hilltop vegetation may be considered far more significant in view of its historical and cultural significance which were determined by the original nature of landform itself as an isolated hill within a large expanse of bogland, but this issue would be more appropriately addressed under cultural heritage as a material asset.

4.9.5 The loss is permanent and almost wholly complete, excepting the hill remnant at the northeast corner of the quarry site. The landscape impact is permanent and significant. It is difficult to determine the original extent and form of the glacial hill feature from the information on the rEIS. Fig.6.1, which is a representation of a topographical survey of the site undertaken in 1997 (Valerie Keeley) is the most detailed survey available of the hill, but it is incorrectly overlaid on and at a larger scale than the basemap. It indicates that the hill was only c.15m above the surrounding lands (reaching 61m compared to c.46m). It is probable that the hill only constituted a subtle landscape feature in modern times, its historic visual significance lessened as the surrounding bogland was reclaimed to accommodate agricultural fields with perimeter hedgerows and trees and forestry plantation, such that it may not have been of great visual significance on 1 February 1990.

4.10.0 Inter-relationship of factors:

4.10.1 This section adds no additional information about the impacts that have occurred.

4.11.0 Other issues:

4.11.1 The redline boundary of the substitute consent application site does not encompass the full extent of the contiguous extraction activity carried out at this quarry site. In particular it omits c.0.45ha extracted area at the northeast corner of the site and a strip of extracted area along the southwest perimeter. The rEIS (p.A-3) indicates that the boundary relates to the extent of quarry activities extraction area in 2011, however the Google Earth image for 9th May 2009 indicates that the extraction activity at the northeast corner of the site had already taken place.

5.0 Conditions

5.1 Condition no.3 - The applicant submits the sightlines required under proposed condition no.3 at 150m sightlines from 4.8m set back are excessive and that the setback should be 2.4m to 3.0m as applies to lightly trafficked simple stop controlled junctions. In its response the planning authority indicated that a 4.0m setback is standard. As the substitute consent application relates only the development already carried out and not future extraction activity, I consider the condition to be unnecessary.

5.2 Condition no.4 – The planning authority recommended the attaching of a development contribution condition to the sum of €62,566. According to section 177K(3)(c) of the Act the Board may attach ‘a condition or conditions requiring financial contribution in accordance with section 48’. The sum recommended by the planning authority is based on a rate of €1,526 per 0.1ha of the site as provided for under the Offaly County Development Contribution Scheme. Given that the site area concerned would appear to be closer to 5ha, I consider the sum to be reasonable.

- 5.3 Condition no.5 – The planning authority recommended the attaching of an annual special development contribution in respect of remedial works to R419 to be agreed based on HGV usage. No actual sum is proposed. This condition does not comply with the requirements of section 48(2)(c) in that neither the sum nor the costs incurred by the authority in respect of the provision of specific infrastructure benefiting the development are stated. In addition, the granting of substitute consent does not authorize future quarry activity. This condition should be omitted.
- 5.4 Condition no.11 – The planning authority requires the provision of an onsite WWTP (for P.E.<10). In response to the first party submission the planning authority reworded the proposed condition such as to make it vague and ineffective. As a grant of substitute consent does not authorize future quarry activity (other than site remediation works as part of a restoration and landscaping plan) there can be no justification for a WWTP. In addition, no site suitability assessment has been carried out to determine whether the site is suitable to accommodate a WWTP. Portable toilet facilities provided by an appropriately licensed operator should be appropriate during limited period of carrying out of site restoration works.
- 5.5 Condition no.12 – The planning authority requires the provision of a petrol interceptor for all run-off from roads and paved areas. The applicant submits that there are no paved areas on site and that the provision of an interceptor would be impractical and unnecessary. If there are no paved areas on the site then there is no conflict with the condition.

6.0 Conclusion and recommendations:

- 6.1 Based on the information available to me, notwithstanding that there is no objection from the DAU Architectural Heritage Advisory Unit, I conclude that the development that has been carried out since 1 February 1990 has resulted in a significant adverse impact on archaeological and cultural heritage. The significant impacts were not adequately mitigated over the course of the development and cannot be remediated through the implemented of retrospective measures.
- 6.2 The rEIS does not comply with the requirements of the legislation (section 177F) as it does not include ‘*a statement of the significant effects*’ that have occurred (on archaeological heritage of national importance). In addition, the rEIS is inadequate in terms of the assessment of impacts on hydrology, hydrogeology, soils and geology. The assessment conducted regarding impacts on flora and fauna appears inadequate, is incorrect regarding the connection of the site to the wider surface water system (and, one can reasonably assume, to the River Barrow), failed to refer to existing broadleaf habitat remaining on the extant portion of the original hill and to acknowledge the broadleaf woodland that existed on the site on 1 February 1990.
- 6.3 The application site boundary also excludes part of the extraction area that was carried out during the period concerned.
- 6.4 Having regard to the foregoing, I am satisfied that the development concerned has had a permanent significant adverse effect on the environment comprising archaeological and cultural heritage of national importance (as

material assets) that has not been appropriately or adequately mitigated and which cannot be suitably remediated. Permission should therefore be refused.

Recommendation:

I recommend that the Board **REFUSE** substitute consent for the quarry development undertaken within substitute consent boundary.

Reasons

- 1 The development that has been carried out post 1 February 1990 has resulted in significant effects on archaeological heritage and cultural heritage through the removal and destruction of substantial archaeological remains (ASI / RMP reference numbers OF034-008001 burial ground, OF0034-8002 enclosure) that may be termed a National Monument. The significant effects were not adequately mitigated over the course of the development and cannot be remediated through the implemented of remedial measures.
- 2 The rEIS does not comply with the requirements of Section 177F of the Planning and Development 2000, as amended in that it does not include 'a *statement of the significant effects*' that have occurred on archaeological and cultural heritage of national importance. In addition, the rEIS is inadequate in terms of the assessment of the impacts on hydrology, hydrogeology, soils and geology and flora and fauna that have occurred, are occurring or that may occur resulting from that development carried out post 1 February 1990 and the application site boundary does not encompass the full extent of extraction activity that has occurred over the period concerned.

John Desmond,
Planning Inspector
06/05/15