
An Bord Pleanála



Inspector's Report

Ref.: PL08.247410

Development: (1) The expansion of the quarry over 26.32 Ha of agricultural land located to the north of the L-10477-0 local road to allow for the extraction of material (limestone and overburden) to a finished floor level of -11.5mOD over an area of 15.6Ha; (2) as previously approved, the deepening of two parts of the existing southern quarry – Area A (6.61 Ha) to -50mOD; and Area B (2.16 Ha) to -30mOD; thereby extending the life of the quarry for 25 years; (3) modifications of conditions attached to existing planning permissions (Kerry County Council Reg. Ref. 00/3519 & An Bord Pleanala Reference PL08.124451, and Kerry County Council Register Reference 15/245) to allow for changes to the operational conditions on the site including the continuance of use of all ancillary development (including plant, site infrastructure and all manufacturing operations) on the site beyond February, 2017, in-line with the prolonged life of the quarry; (4) upgrade of the previously approved septic tank with the provision of a Wastewater Treatment Plant; (5) works to a local road – the L-10477-0 and to an existing access road, to facilitate the proposed development; (6) demolition of a habitable house; and (7) ancillary site development works associated with landscaping and the implementation of a restoration plan for the site.

The proposed extension will give rise to some 15.86 million tonnes of limestone, and 954,000 tonnes of overburden, which will be extracted over a period of 25 years. This application is accompanied by an Environmental Impact Assessment. A separate application for a review of the Water Discharge Licence for the site has been submitted to Kerry County Council.

The site of the existing limestone quarry in the townland of Sackville, Ardfert, Co. Kerry and in the adjoining townlands of Ballyrobert, Ardahan and Creegoane.

PLANNING APPLICATION

Planning Authority: Kerry County Council

Planning Authority Ref.: 15/1063

Applicant: Ardfert Quarry Products

Type of Application: Permission

Planning Authority Decision: Grant subject to conditions

APPEAL

Type of Appeal: Third Party v. Decision

Appellant(s): John Kearney
James Kennedy & Others
Tracey & John Kearney
Frances Carmody

Observers: An Taisce

INSPECTOR: Robert Speer

Date of Site Inspection: 22nd February, 2017

1.0 SITE LOCATION AND DESCRIPTION

1.1 The proposed development site is located in the rural townlands of Sackville Ballyrobert, Ardrahan and Creegooane, Co. Kerry, approximately 2.0km northeast of the village of Ardfert and c. 4.6km west-southwest of Abbeydorney, in an area which is generally characterised by an undulating rural countryside dominated by agricultural grassland with a notable prevalence of one-off housing along those roadways in the surrounding area, particularly to the west of the existing excavation. The site itself has a stated site area of 58.65 hectares, is irregularly shaped, and is bisected along an east-west axis by Local Road No. L-10477-0 which serves to separate the existing active limestone quarry to the south of said roadway from the predominantly agricultural lands which comprise the northernmost extent of the wider site area.

1.2 At present, the existing quarrying operation extends northwards from a local road which defines the southernmost site boundary with the limit of the excavations falling short of Local Road No. L-10477-0. Notably, the existing extraction operations have involved the excavation of a series of benches (which have necessitated dewatering and the pumping of waste water off site) which are primarily restricted to within the northern extent of the quarry complex whilst the associated processing plant, including crushing and screening machinery etc., in addition to other ancillary operations such as the production of lime, readymix and the manufacture of concrete blocks, is generally conducted from within the more southerly portion of the site area.

1.3 To the north of Local Road No. L-10477-0, the remainder of the site area primarily comprises a series of open agricultural fields, although there are 3 No. existing dwelling houses with associated outbuildings located within the confines of same and it is proposed to demolish one group of these structures as part of the overall development (*N.B.* The property proposed for demolition consists of a traditional detached two-storey farmhouse, which has seemingly been vacant for a number of years and is in need of some repair, in addition to a number of dog runs / kennels adjacent to same).

1.4 The wider site area adjoins open agricultural fields to the north, east and west with the southernmost site boundary defined by a minor local road. It is also notable that the River Tyshe flows from the south and has been piped beneath the southern part of the existing quarrying operation (to run below the block manufacturing area) before continuing westwards where it flows to the north of Ardfert Cathedral.

2.0 DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 The proposed development, as initially submitted to the Planning Authority, consists of the following:

- The expansion of the existing quarry over 26.32 hectares of agricultural land located to the north of Local Road No. L-10477-0 to allow for the extraction of material (limestone and overburden) to a finished floor level of -11.5mOD over an area of 15.6 hectares. Extraction will take place on 2 No. 18m benches which will allow for the excavation of 477,000m³ / 954,000 No. tonnes of soil / overburden and 5,440,565m³ / 12.24 million tonnes of limestone.
- The deepening of 2 No. parts of the existing quarry – Area ‘A’ (6.61 hectares) to -50mOD; and Area ‘B’ (2.16 hectares) to -30mOD – which will provide for the extraction of 1,323,700m³ / 2.98 million tonnes and 284,139m³ / 0.64 million tonnes of overburden and limestone respectively.
- The modification of conditions attached to the grants of permission issued under PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451 & PA Ref. No. 15/245 to allow for changes to the operational conditions on site, including the continuance of use of all ancillary development (including plant, site infrastructure and all manufacturing operations) on site beyond February, 2017, in-line with the prolonged life of the quarry:

- Condition No. 3 of PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451:

‘This permission shall cease to have effect fifteen years from date of this order. Full restoration of the site as outlined in Figure 9.2 of the Environmental Impact Statement shall be carried out before that date. Final details of the restoration works shall be agreed in writing with the planning authority within one year from the date of this order and shall include proposals for the reinstatement of the river Tyshe through the site. For the avoidance of doubt this permission does not include the ‘light industrial area’ indicated in Figure 9.2 of the Environmental Impact Statement.

Reason: In the interest of residential and visual amenity and to ensure appropriate restoration of the site’.

The additional quarrying activities proposed as part of the subject proposal will be facilitated by existing infrastructure and services on site and thus the continued use of these facilities will require amendment of the aforementioned condition so as to allow their use beyond 27th February, 2017.

- Condition No. 13 of PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451:

'Operating hours for the development shall be between the hours of 0730 and 1930 Monday to Saturday inclusive. The facilities shall not operate on Sundays or Bank Holidays.

Reason: In the interest of protecting local amenities'.

It is proposed to operate the quarry within the hours of 07:00 to 19:00 Monday to Saturday inclusive whilst permission is also sought to carry out lime-crushing operations on an occasional basis during night-time hours.

- Condition No. 14 of PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451:

(1) *'The equivalent continuous sound level (Leq) attributable to on-site operations (other than blasting) associated with the proposed development shall, when measured outside any dwellinghouse that is located in the vicinity of the site and is not owned by the developer, not exceed 50 dB(A) over any continuous 15 minute period between 0800 hours to 1800 hours on Mondays to Fridays, inclusive, or over the period of 0800 to 1600 hours on Saturdays. At other times it shall not exceed 45 dB(a) over any continuous 15 minute period.*

(2) *There shall be no clearly audible tonal component or impulsive component in the noise emission from the activity at any noise sensitive location.*

Reason: In the interest of amenity'.

It is proposed to modify this condition to reflect current practice i.e. limits of 55dB for daytime hours and 45dB for night-time hours.

- Condition No. 2 of PA Ref. No. 15/245:

'The operation of the quarry shall comply with all environmental and operational conditions of the existing permission on site under An Bord Pleanála Ref. PL.08.124451 which governs the quarrying of the overall site.'

The subject proposal has sought permission to extend the operational life of the various elements permitted under the aforementioned applications for an additional 25-year period.

- The provision of a new wastewater treatment plant to work in parallel with existing foul water services on site to accommodate the expanded operations on site.
- The provision of an underpass beneath Local Road No. L-10477-0 which will necessitate the development of a new bridge along a 37.5m stretch of the roadway and the provision of a temporary 325m long roadway to facilitate re-routed traffic during construction works.
- The provision of a re-routed (private) access road through the application site to accommodate continued access to an existing dwelling house to the east of the site.
- The demolition of an existing habitable house (floor area: 100.6m²); and
- Ancillary site development works including the provision of a temporary settlement pond on the floor of the existing southern quarry and works associated with landscaping and the implementation of a restoration plan for the site.

2.2 The proposed development will give rise to some 15.86 million tonnes of limestone and 954,000 No. tonnes of overburden which will be extracted over a period of 25 years.

2.3 In response to a request for further information issued by the Planning Authority, an amended phasing plan and a revised Water Management Plan have been submitted in order to address the potential impact of the discharge of pumped waters from the proposed quarrying operation to the River Tyshe.

3.0 ENVIRONMENTAL IMPACT STATEMENT

3.1 Paragraph 19 of Part 1 of Schedule 5 of the Planning and Development Regulations, 2001, as amended, specifies the following class of development as necessitating an Environmental Impact Statement:

‘Quarries and open-cast mining where the surface of the site exceeds 25 hectares’.

3.2 In addition, Paragraph 2(b) of Part 2 of Schedule 5 of the Regulations specifies that the *‘Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares’* will also necessitate the preparation of an Environmental Impact Statement.

3.3 The proposed development provides for the expansion of an existing quarry (measuring 32.11 hectares in area) over 26.32 hectares of agricultural land (15.6 hectares of which is proposed for extraction) in addition to the deepening of two parts of the existing quarry (Area ‘A’: 6.61 hectares and Area ‘B’: 2.16 hectares) and, therefore, the proposal is a prescribed form of development which requires the mandatory preparation of an EIS.

3.4 The Environmental Impact Statement which has accompanied the subject application includes a description of the receiving environment, the proposed development, its impacts and proposed mitigation measures. It has been accompanied by a non-technical summary and generally includes the information required by Schedule 6 of the Planning and Development Regulations, 2001, as amended, and complies with Section 172 of the Planning and Development Act, 2000, as amended, and Article 94 of the Regulations.

4.0 RELEVANT PLANNING HISTORY

4.1 On Site:

PA Ref. No. 76/1097. Granted permission for extraction, a processing plant, office, weighbridge and septic tank.

PA Ref. No. 79/38. Was granted on 21st March, 1979 permitting the erection of a workshop within the existing quarry.

PA Ref. No. 91/311. Was granted on 25th March, 1991 permitting William Nolan outline permission for a dwelling house.

PA Ref. No. 95/6. Was granted on 15th January, 1996 permitting Kerry Algae Ltd. permission to retain an existing seaweed processing plant.

PA Ref. No. 95/1127. Was granted on 9th October, 1995 permitting Michael Nolan permission for extension to dwelling house for the provision of living accommodation and a garage.

PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451. Was granted on appeal on 27th February, 2002 permitting Ardfert Quarry Products permission for a development comprising the retention of quarrying works on 5.18 hectares and extension to quarry area of 11.69 hectares; permission for the extraction, crushing and screening of limestone rock, the manufacturing of readymix concrete and concrete blocks, bituminous products and other associated products; the retention of the following buildings associated with the quarry; office building, garage and yard, storage/workshop area, limestone and all equipment associated with processing operations. Other works include improvements to existing quarry entrance; the demolition of two habitable dwellings on lands within the proposed quarry extension area.

PA Ref. No. 03/3182. Was granted on 27th January, 2004 permitting John and Brendan Nolan permission to (1) demolish existing two-storey dwelling (2) construct a single-storey dwelling house, together with ancillary site works including detached garage and wastewater treatment system comprised of septic tank and percolation area.

PA Ref. No. 07/1828. Was granted on 30th August, 2007 permitting Dan Nolan permission to demolish existing sheds and construct a new fodder storage shed.

PA Ref. No. 07/3765. Was granted on 29th July, 2008 permitting Aileen O'Carroll permission to construct a dwelling house septic tank and percolation area.

PA Ref. No. EX376. Was determined on 15th January, 2015 wherein it was held that works concerning the replacement of the concrete batching plant on site constituted exempted development.

PA Ref. No. 15/245. Was granted on 25th June, 2015 permitting Ardfert Quarry Products permission to (1) retain the existing storage building (measuring 2,300m²) located at the eastern site boundary used for general storage of materials and plant, (2) retain the existing agricultural lime storage shed

(measuring 340m²) at the western site boundary used for storage of agricultural limestone, (3) retain the existing crush and screening plant with associated material stockpiles at its current location, (4) retain the existing extended stone extraction areas measuring 0.95 hectares west of the permitted extraction areas, (5) retain the existing extended stone extraction area measuring 0.28 hectares within the 9m buffer zone along the eastern site boundary, (6) retain the existing modified and realigned site entrance and front boundary wall, (7) permission to change the use of the existing storage building (measuring 2,300m²) located at the eastern site boundary to light industrial building to include for manufacturing of concrete construction products and use for general storage of materials and plant, (8) permission for provision of cladding to the existing crushing and screening plant, (9) permission for minor ancillary works to be undertaken in respect of the existing screening berm located along the northern boundary to improve berm stability and site screening.

5.0 PLANNING AUTHORITY CONSIDERATIONS AND DECISION

5.1 Decision:

Following the receipt of a response to a request for further information, on 28th September, 2016 the Planning Authority issued a notification of a decision to grant permission for the proposed development subject to 42 No. conditions. A significant proportion of these conditions are of a standardised format and relate to issues including development contributions, monitoring and environmental controls, however, the following conditions are of particular note:

- Condition No. 2 – States that the grant of permission shall cease to have effect 25 No. years from the date of the order.
- Condition No. 4 – Refers to the payment of a special development contribution in the amount of €10,000 towards road signage and markings.
- Condition No. 8 – Requires additional borehole testing in order to verify the potential presence of fault zones, enhanced fracturing and karst conduits which could preferentially transmit groundwater and thus influence the additional quantities of water that may result from the quarry expansion to the north. In the event that the borehole assessment identifies or otherwise confirms fault zones and the potential inflow of water in excess of the assumed figure of 5,000m³/d from the expansion area, a complete review of the water management assessment shall be undertaken, to include a

revised Water Management Plan and an Intelligent Data Management System, and submitted for the approval of the Planning Authority. No expansion of the quarry shall take place until such time as any WMP and IDMS have been approved in writing by the Planning Authority.

- Condition No. 9 – Refers to the installation, monitoring and maintenance of ‘divers’ (transducers / data loggers) to monitor groundwater levels in the Ardfert Public Supply wells.
- Condition No. 10 – Requires the carrying out of additional assessments to define the extent of the sand and gravel aquifer in the direction of the quarry in order to address any uncertainty about the extent of the aquifer which is described in the Ardfert Source Protection Zone report.
- Condition No. 11 – Refers to the design, installation, operation and maintenance of the proposed Intelligent Data Management System as part of the defined Water Management Plan.
- Condition No. 12 – Refers to the independent auditing of the proposed Intelligent Data Management System.
- Condition No. 13 – Allows the Planning Authority to engage a third party to independently review and audit the design, commissioning, implementation and management of the proposed Intelligent Data Management System.
- Condition No. 15 – Refers to the preparation and submission of a back-up plan to the Planning Authority for the proposed IDMS.
- Condition No. 16 – Refers to the approval by the Planning Authority of a design for a discharge structure that will break the energy of the discharge water from the quarry thereby reducing the potential impact on sediment disturbance and transport in the Tyshe River that may result from the increased quarry discharges.
- Condition No. 17 – Requires the applicant and any subsequent quarry owner to defray the cost incurred by the Planning Authority in the monitoring and assessment of quarry-related activities, including the operation of the water management system and the IDMS.
- Condition No. 18 – Prohibits the maximum rate of discharge from the quarry to the Tyshe River from exceeding 40,000m³/d unless otherwise agreed in writing with the Planning Authority.
- Condition No. 19 – Requires the design and continuing operation of the IDMS to ensure that quarry discharges do not cause or contribute to

flooding along the Lower Tyshe, including the floodplain near the Banna housing development.

Condition No. 41 – Refers to the engagement of an Ecological Clerk of Works and the implementation of mitigation measures pertaining to bats, badgers and the translocation of hedgerows.

5.2 Objections / Observations:

A total of 15 No. submissions were received from interested parties and the principle grounds of objection contained therein can be summarised as follows:

- Detrimental impact on the amenity of the wider area.
- Damage to property as a result of blasting activities.
- Detrimental impact on residential amenity by reason of noise, dust, vibration / blasting, nuisance, disturbance, inconvenience and traffic.
- Devaluation of property
- Public health concerns (including dust emissions & blasting).
- Inadequacy of the Environmental Impact Statement and accompanying drawings etc.
- Traffic disruption during construction of the proposed bridge.
- Visual impact
- Concerns with regard to the completion and adequacy of the proposed bridge, underpass and road diversion.
- Loss of agricultural land
- The exacerbation of the flooding of downstream lands.
- Previous instances of non-compliance / unauthorised development on site.
- Interference with / compromise of an existing right of way to adjacent lands / property.
- Detrimental impact on the viability of adjacent agricultural lands.
- The proposal involves the development of a new standalone quarry as opposed to the extension of the existing operation.
- Lack of public consultation.
- Impact on the surrounding road network.
- Detrimental impact on wildlife considerations i.e. bats & badgers etc.
- Concerns with regard to any future development / deepening of the expanded quarrying operations.
- Potential impact on groundwater resources by way of dewatering, pollution etc.
- Need for suitable mitigation of impacts and independent monitoring.
- The inadequacy of the existing and proposed berm construction and the screening & landscaping proposals.

-
- Detrimental impact on tourism in the area, with particular reference to Ardfert village.
 - The inadequacy of the public notices.
 - Concerns regarding the structural stability / safety of the proposed bridge and the potential impact of blasting activities on same.

5.3 Internal Reports:

County Archaeologist: States that there are no recorded monuments in the immediate area of the proposed development and notes that the pre-development testing report which accompanied the planning application did not record any archaeological features or strata in the 29 No. trenches opened across the site, although it is acknowledged that a copper alloy awl (possibly dating from the Bronze Age) was recovered at the base of the topsoil in one area. Accordingly, on the basis of the pre-development testing, and in light of the overall scale of the development, it is recommended that a condition be attached to any grant of planning permission requiring all ground works and soil stripping associated with the proposed development to be archaeologically monitored with a report on the completion of same to be submitted to the Planning Authority.

Executive Planner (Conservation): No objection, although it is recommended that an annotated photographic survey of the dwelling house proposed for demolition be submitted as a condition of any grant of planning permission.

Tralee Municipal District Office (Operations Dept.): An initial report recommended that full details of the proposed bridge, the construction of the temporary roadway, and a Traffic Management Plan to be implemented during the road diversion works, should be submitted for consideration by the Local Authority.

Following the receipt of a response to a request for further information, a further report was prepared which recommended a series of conditions to be included in the event of a grant of planning permission.

Environmental Services: States that a submission received from Inland Fisheries Ireland in relation to an application for a Water Pollution Licence at the proposed development site is also of relevance to the assessment of the subject application. The contents of that submission can be summarised as follows:

- Discharge from the proposed quarry will be to the Tyshe River which is a relatively small watercourse with a low dry weather flow. Water quality in this river is compromised and its fishery status is poor with only eel and

stickleback present throughout and flounder noted in the lower reaches. The existing quarry operation results in a peak discharge of quarry water (ground and surface) to the Tyshe River and it is projected that the further development of the quarry will increase this peak discharge from 33,456m³/day to 41,045m³/day (0.48m³/s).

- The pumping of water from the quarry can result in a significant increase in flow in the Tyshe River to the extent that a flush event can occur in receiving waters immediately downstream. If such flush events are frequent they may impact on the ecology of the river and contribute to a reduced fishery status. The application has not determined if such flush events constitute a threat to the ecology of the river.
- It is unclear if it is intended to discharge the volumes of water required to decant the quarry over 24-hours or whether a continuous regulated discharge is proposed. Without information on potential impacts on the biota of the Tyshe River, a continuous 24-hour discharge is more acceptable than a significant flush flow over a reduced time period.
- The depth of the quarry excavation extends below that of surrounding surface waters in addition to the ground water level. If there is a hydraulic connection between the watercourses, the bedrock aquifer and the quarry, this may cause an effect on surrounding surface water flow. Any such impact needs to be assessed and addressed.
- The concentration of solids in any discharge from the quarry should not give rise to a visible colour in the Tyshe River below the point of mixing in the receiving watercourse.

Executive Planner (Flooding): States that the Tyshe River has been modelled as part of the Catchment Flood Risk Assessment and Management Study and asserts that the estimated peak discharge from the quarry at 41,045.4m³/d (i.e. 0.48m³/s) would result in an unacceptable 58% increase in the flow rate of the river. It is further stated that the CFRAM study has calculated the Q in a 1 in 10-year event (10% AEP) at 2.64m³/s and thus the submitted proposal will increase the flow rate during a 10% AEP flood to 3.12m³/s which would be in excess of the anticipated flow rate for a 1 in 200-year flood event (0.5% AEP) and only marginally below that of a 1 in 1,000-year flood event (0.1% AEP). In addition, it is noted that as it is standard practice in the aggregate industry to limit pumping to night-time in order to avail of reduced energy costs, the proposed discharge rates may be significantly higher over a shorter timeframe which would not be acceptable. Furthermore, it is stated that although the EIS has indicated that the maximum discharge from the quarry will be 41,045.7m³/d, it appears that Phases 3-5 of the development will discharge ground and surface waters from the quarry

alone and that at this stage the existing quarry and Phases 1-2 will not contribute to the discharge rate. Accordingly, it is considered that the achievement of the foregoing rates is questionable given that it will not be feasible to restore the existing quarry and Phases 1-2 of the proposed works to ground level and as groundwater will flow into the aforementioned areas from a significant height above the existing quarry flow and sump. It is further stated that the total maximum discharge for the existing quarry and the proposed development as set out in the EIS is 58,734m³/d (which would equate to 0.82m³/s) and that this rate of discharge would not be acceptable in that it would result in downstream flooding irrespective of the calculated Q_{med} in the Tyshe River. In addition, the proposal to refrain from pumping thereby flooding the quarry floor during periods of high rainfall is considered to be unworkable within an operational quarry. Therefore, it is recommended that the applicant should be requested to:

- Recalculate the Q_{med} in the Tyshe River using the CFRAM data and estimate the peak flow rates at the proposed discharge point and downstream in those areas identified in the CFRAM study to be at risk of flooding.
- Recalculate the maximum discharge from the site, including the existing quarry and the entire proposed development, for ground water, surface water runoff and precipitation.
- Following the aforementioned calculations, to design the above ground storage to collect pumped water and to discharge same to the River Tyshe via a hydrobrake at a steady rate to be agreed with the Local Authority. This discharge rate must not increase the flow downstream in areas at risk of flooding whilst increased discharges at any time of the day or night will not be acceptable. Furthermore, direct pumping from the quarry to the river will not be acceptable.
- Ensure that sediment, hydrocarbons and other contaminants are removed prior to discharge.

Following the receipt of a response to a request for further information, a report was compiled by specialist consultants engaged by Kerry County Council which assessed the hydrological and hydrogeological implications of the proposed development. This report recommends the inclusion of a series of conditions pertaining to flood control and water management in the event of a grant of permission.

Environment: An initial report recommended that further information be sought in respect of a number of issues including flood risk assessment, monitoring, the

discharge of waters to the River Tyshe, noise levels, waste management, and the wastewater treatment proposals.

Following the receipt of a response to a request for further information, a further report was prepared which states that Kerry County Council had engaged the services of specialist consultants to assess the hydrological and / or hydrogeological implications of the proposed development and that this assessment had not raised any particular objection to a grant of permission, subject to conditions. The report has also indicated that the consultants liaised with regard to flood control issues and proposed a number of conditions to address the management of water discharge from the proposed development, however, it is stated that the Environment Section is not presently responsible for issues pertaining to flood assessment etc. and that it does not have the capacity or expertise to oversee the implementation of those conditions proposed with regard to same. The report concludes by referencing a series of conditions pertaining to noise and dust control etc. which should be included in any decision to grant permission.

Biodiversity Officer: An initial report expressed concerns as to how the proposed discharge rate of c. 40,000m³ / day would impact on the ecology of the River Tyshe before proceeding to state that it was unclear how the discharge would be undertaken, managed and monitored. Accordingly, in addition to suggesting a series of conditions that should be attached to any grant of permission, it was recommended that further information should be sought with regard to the impact of the proposed discharge rates on the ecology of the River Tyshe, the existence of any hydraulic connection between the watercourse, bedrock aquifer and the quarry which may impact on surrounding surface water flow to the Tyshe River, and the potential for any impact on the 'Humid Dune Stack' within the Akeragh, Banna and Barrow cSAC which is a groundwater dependent habitat. In addition, it was submitted that in order to complete a screening of the proposed development for the purposes of 'Appropriate Assessment' it would be necessary to submit further information as regards the potential for any impact on the groundwater-dependent 'Humid Dune Stack' within the Akeragh, Banna and Barrow cSAC.

Following the receipt of a response to a request for further information, a further report was compiled which stated that the applicant had satisfactorily addressed the issues raised and that no significant effects on Natura 2000 sites were considered likely as a result of the proposed development. This report

subsequently concluded by recommending a series of conditions to be attached to any grant of permission.

5.4 Prescribed Bodies / Other Consultees:

Dept. of Agriculture, Food and the Marine: States that the area to which the subject application relates would not appear to encroach on the State foreshore, however, if it transpires that the works do in fact encroach on the foreshore, no works should be undertaken until the appropriate foreshore consent has been obtained.

Health Service Executive / Environmental Health Officer: An initial submission indicated that there was no objection to the proposed development provided it was carried out according to best practice standards and strictly adhered to the mitigation measures outlined in the EIS. It was further noted that complaints were received in the past in relation to the levels of dust deposition emanating from the existing quarry and thus it was considered to be imperative to ensure that all mitigation measures associated with dust minimisation would be fully implemented with any complaints received as regards dust to be dealt with promptly and satisfactorily by the applicant.

Following the receipt of a response to a request for further information, a final submission was received which indicated that the Health Service Executive / Environmental Health Officer had no further comments on the application.

Dept. of Arts, Heritage and the Gaeltacht: Notes that evidence of a 19th Century field system comprising subsurface linear ditches was recorded during the course of pre-development testing and that whilst the retrieval of a copper-alloy awl of possible Bronze Age date could be considered to comprise a 'stray' find', it may also indicate the presence of subsurface archaeological remains (possibly dating to the Bronze Age) in those areas not yet subjected to test excavation. Accordingly, it is recommended that archaeological monitoring of all groundworks / excavation be undertaken as a condition of any grant of permission.

An Taisce: States that the proposed development has implications for increased traffic and noise in the area whilst the proposal to amend the hours of operation may be of concern to local residents. It is further noted that water from the existing quarry is presently discharged to the Tyshe River, which flows towards 2 No. Natura 2000 sites and, therefore, it is queried if this discharge is checked regularly and if the water quality downstream of the quarry will deteriorate further as a result of water being pumped at the same time from both the existing and

proposed quarry areas. It is further suggested that it would be desirable to have a good idea of all sources of pollution to the river in order to ensure that this does not result in damage further downstream at the Natura 2000 sites. Reference is also made to local concerns with regard to changes observed in the flow rates and the levels of sedimentation in the river downstream of the quarry and the need to investigate the reasons for same. Additional concerns are raised in relation to the potential for further rock fractures to be encountered in the new quarry excavations which would allow for an increase in the escape of groundwater and the likely effects of same.

6.0 GROUNDS OF APPEAL

The grounds of appeal are summarised as follows:

6.1 Mr. John Kearney:

- There have been changes to the original proposals as regards the completion of landscaping and the construction of berms around the perimeter of the application site and, in particular, within that area closest to the appellant's property, however, no provision has been made in the grant of permission in relation to said landscaping, berm construction etc. and thus it seems that the Planning Authority has simply accepted the applicant's proposals in this regard.

On the basis that it will take a considerable amount of time for any planting to mature, it is submitted that the landscaping proposals and the construction of the berms in order to decrease noise levels and to protect the rural character of the area should not be compromised to any degree. In this regard it is submitted that the Planning Authority has erred in not including any specific conditions in the grant of permission to ensure that the amenity value of local dwelling houses is preserved.

- The Planning Authority has failed local residents by not insisting on the provision of adequate berm construction and landscaping in addition to not ensuring that any excavation or side slopes will be kept at an acceptable distance from nearby housing.
- All monitoring of the proposed development should be undertaken by an independent third party with the results of same to be provided to the Local Authority at regular intervals for review in order to ensure that there is an adequate and suitable means of controlling all aspects of the project.

-
- Not all of the domestic wells in the area were tested and the locations of several wells have not been referenced in the consultant's reports.
 - There are serious concerns that the proposed development may result in the drawdown of water from nearby private wells.
 - Inadequate information has been provided as regards the impact of the proposed development on flow rates and water quality within the River Tyshe.
 - There are wider concerns as regards the potential impact of the proposed development on stormwater runoff, groundwater, and private water supplies.
 - Due to the increased depth and extent of the proposed excavations there will be a need to protect the residential amenity of nearby dwelling houses and to avoid any potential devaluation of property. Accordingly, adequate provision should be made for suitable landscaping of the site in addition to the control of noise levels etc.
 - It is questionable whether or not the subject proposal involves the extension of an existing quarry given that it includes for the development of physically separate lands. In this respect it is submitted that the development of the northern site should have been dealt with as a separate planning application.

6.2 Mr. James Kennedy & Others:

- The existing quarry was not registered pursuant to Section 261 of the Planning and Development Act, 2000, as amended, on the basis that it was granted permission on 27th February, 2002 under PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451 i.e. within the 5 years prior to 28th April, 2004. In this respect it is submitted that unregistered quarries must have the benefit of planning permission and must also operate within authorised boundaries and adhere to the conditions attached to the grant of permission, however, Kerry County Council issued a Warning Letter in September, 2014 which identified a number of issues at variance with PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451 and, therefore, the applicant has breached the aforementioned requirements / conditions.
- The subject proposal does not comprise the extension of the existing quarry and instead involves the development of a new quarry on lands which are physically separated from the existing operation by Local Road No. L10477-0. Accordingly, it is considered that the Planning Authority has erred in its assessment of the subject proposal on the basis that the submitted proposal amounts to the development of a new quarry which should be registered pursuant to the provisions of Section 261 of the Act.

-
- Inadequate details have been provided of the proposed bridge and underpass construction and the Local Authority has failed to address these issues to the satisfaction of local residents.
 - The proposed bridge will have a substantial visual impact on the surrounding area / locality.
 - The existing quarry has previously contributed to localised flooding and difficulties with groundwater. In this respect the Board is advised that a few years ago blasting activities on site fractured the water table which subsequently necessitated the pumping of groundwater from the quarry floor into the River Tyshe thereby resulting in flooding of the local area.
 - All monitoring of the proposed development should be undertaken by an independent third party in order to ensure that there is no breach of regulations.
 - A local resident retains a right of way across the proposed quarry lands, however, it would appear that his objection was given very little consideration by the Planning Authority.

6.3 Tracey & John Kearney:

- The proposed development fails considerably short of the requirements / recommendations of the *'Draft Revised Guidelines on the Information to be contained in Environmental Impact Statements'* and the *'Draft Advice Notes for Preparing Environmental Impact Statements'* (as published by the Environmental Protection Agency in September, 2015), in addition to the provisions of EIA Directive 2014/52/EU, with respect to public health.
- There has been no identification of those sensitive neighbouring occupied premises likely to be directly affected, with particular reference to the appellant's family home which depends on the quality of the surrounding environment for the health and well-being of its occupants. Similarly, there has been no consideration given to the sensitivity of the surrounding population to the health effects of the proposed development.
- No provision has been made for the avoidance of sensitive communities nor have any measures been proposed to reduce, minimise or remedy any impacts consequent on the proposed development which may affect the aforementioned parties.
- The assertion in the EIS that *'no significant impacts on population and human health are likely to result from the proposed development'* and thus *'no mitigation measures are required under this topic'* has not been supported by any examination of the issues, with particular reference to the identification of the extent and the level of sensitivity that may be affected by the proposed development.

-
- The EIS does not include a Health Impact Assessment.
 - If the population and human health implications of the proposed development had been properly assessed, the likelihood is that the scale of the subject proposal would have been considerably reduced with more onerous mitigation measures imposed in order to manage any impacts on the health of the appellant's family.
 - The level of dust deposition experienced within the appellant's property as a result of the existing quarrying operation is already problematic and gives rise to health concerns. Furthermore, there has been an inadequate assessment of the potential dust emissions likely to be associated with the proposed development.
 - A limitation should be placed on the proposed quarrying operations whilst noise levels should also be restricted to below current guideline requirements (during both day-time and night-time hours).
 - The failure of the EIS to adequately assess the implications for the human health of the appellant's family means that it is impossible to ascertain the effects of the proposed development on the population and human health of the area.
 - It is a requirement of the EIA Directive that the rationale for undertaking a development which could potentially give rise to an adverse impact on the environment should be justified and that alternatives be given due consideration. In respect of the extractive industry, this requirement does not simply refer to an assessment of the alternatives available to a particular operator, but instead requires consideration to be given to the provision and availability of quarried products in the wider Kerry area in addition to the case for additional capacity. The applicant has presented no serious assessment of alternatives in Section 3.2 of the EIS, with particular reference to the proposed northwards expansion. Accordingly, it is submitted that the EIS fails to provide for an adequate consideration of alternatives.
 - The proposed development is not supported by the provisions of the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities, 2004'*, the *'Environmental Management Guidelines, Environmental Management in the Extractive Industry – Non-Scheduled Minerals'* (as published by the EPA in 2006), or the Kerry County Development Plan, 2015-2021.
 - Contrary to the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities, 2004'*, it is considered that the Planning Authority has not carried out an adequate assessment of the proposed development which has been suitably tailored to take account of the appellants' concerns.

-
- Having regard to the proximity of the proposed development site, it is considered that the subject proposal would have a detrimental impact on the residential amenity of the appellant's property by reason of noise, dust, vibration and blasting activities etc. which would be further compounded by the proposed extension of the quarry's working hours.
 - On the basis of the available information, it cannot be concluded that the proposed development would not have a significant negative impact on the amenity, health and well-being of the appellant's family.
 - Having regard to the provisions of the *'Development Management, Guidelines for Planning Authorities, 2007'* and previous instances of non-compliance, it is considered that the propriety of Condition Nos. 8, 9, 10, 11, 12 & 28 of the notification of the decision to grant permission, which are intended to protect flooding, groundwater, the public water supply, public health and residential amenity, is questionable. The issues raised in these conditions are fundamental to the nature and extent of the proposed development and should be resolved prior to any grant of permission.
 - Given the history of the operation of the site, it is considered that the monitoring programme required by Condition No. 28 should have been requested and assessed by the Planning Authority, in addition to being made available for public comment, prior to any decision being made to grant permission.
 - In light of previous instances of non-compliance, there are concerns with regard to the decision of the Planning Authority to approve a relaxation in the permissible noise levels emanating from the site and the amendment of the hours of operation. These changes have been permitted without a full assessment of the implications of same on the amenities of the appellant's family.
 - The limitations on noise levels and the hours of operation previously imposed by the Board in respect of ABP Ref. No. PL08.124451 should be reinforced due to the proposed expansion / intensification of the quarrying operations.
 - The proposed development should be refused permission having regard to the applicant's past failures to comply and in this regard the Board is referred to the full extent of Warning Letters / Enforcement Notices issued to the applicant in addition to the repeated breaches of the terms and conditions of the grant of permission issued under ABP Ref. No. PL08.124451 with respect to issues including noise, vibration, blasting protocol, air over-pressure, dust and air quality.
 - Noise emanating from the water pump enclosure is of significant concern and it is noted that despite a recommendation by the Environmental

Officer that this enclosure should be kept closed in accordance with best practice in order to reduce (as far as practicable) noise levels associated with the operation of the facility during night-time hours, this provision was not included in the notification of the decision to grant permission as issued by the Planning Authority.

- There are concerns that the applicant will not abide by the requirements of Condition Nos. 18 & 19 which limit the maximum discharge rate to the Tyshe River to 40,000m³/day and also set the water level at node 04TYA00190 at 1.77mAOD. This is of particular concern given that downstream lands have been identified as being at risk of flooding in 1 in 10 (10% AEP), 1 in 100 (1% AEP), and 1 in 1,000 (0.1%) year events.
- Contrary to the claims set out in response to the request for further information as issued by the Planning Authority, the applicant did not consult with the appellant's family with regard to the monitoring of groundwater levels in the vicinity of the proposed development. Therefore, it is considered that there has been an incomplete assessment of the extent of any potential impact on private wells in the locality and thus the adequacy of the proposed mitigation measures is also questionable.
- There is no reference in the decision to grant permission to the proposal to crush lime during the night-time on an occasional basis and the appellants are opposed to any such further intrusion on their amenity.
- Having regard to the applicant's past failures to comply, the proposed development should be refused permission pursuant to the provisions of Section 35 of the Planning and Development Act, 2000, as amended.
- In the absence of a full and proper assessment of the proposal in accordance with the requirements of EU Directive 2014/52/EU, it cannot be concluded that the proposed development would not have a negative impact on the amenity, health and well-being of the appellant's family.
- The proposed development will result in the devaluation of the appellant's property given its proximity to same and the associated noise and dust emissions.

6.4 Frances Carmody:

- The Planning Authority has not taken adequate cognisance of the predominant use of those lands both adjoining the quarry and alongside the River Tyshe downstream of the application site for agricultural purposes.
- There are serious concerns in relation to the increased volume of water which is proposed to be pumped into the River Tyshe. In this regard it is submitted that the appellant already encounters difficulties in accessing

their land given that the River Tyshe is presently grossly beyond capacity due to the pumping of between 10,500m³ and 25,000m³ of water per day from the existing quarrying operation into the river (as has been set out in the submitted EIS).

- Severe river erosion has already occurred as a result of less than 25,000m³ of water being pumped daily into a stream which would have historically dried up completely in the summer months.
- The Ardfert sewage treatment plant is located on the appellant's lands and discharges to the River Tyshe along with surface water from the village. In this respect it should be noted that the River Tyshe is tidal which results in flooding of the appellant's lands during high tides and periods of heavy rainfall and thus there are concerns that during flood events untreated effluent from the sewage treatment plant will back up and enter the appellant's lands thereby resulting in the contamination of same and the potential infection of livestock through the consumption of polluted waters.
- Due to the discharge of pumped waters from the existing quarrying operation, the River Tyshe is now a formidable and fast-flowing watercourse which has become increasingly dangerous to manoeuvre across with the result that farming of the appellant's lands has been turned into a particularly hazardous activity due to the risks of personal injury, damage to machinery, injury to livestock, and the contamination of animals destined for the human food chain.
- Notwithstanding the imposition of a condition whereby the maximum rate of discharge from the quarry to the River Tyshe is not to exceed 40,000m³/d, it is considered that the decision of the Planning Authority to grant permission for the subject proposal appears to be entirely ignorant of the existing issues as regards flooding, river bank erosion, and the contamination of livestock destined for human consumption. The aforementioned restriction does nothing to prevent flooding and only serves to ensure that the ongoing problems pertaining to human health and safety etc. will be exacerbated.
- There has been a loss of farmland attributable to significant erosion caused by the River Tyshe (which would be exacerbated by the proposed development) and it is unacceptable for the quarrying operation to give rise to any such loss without providing the affected landowners with suitable compensation.

7.0 RESPONSE TO GROUNDS OF APPEAL

7.1 Response of the Planning Authority:

None.

7.2 Response of the Applicant to the Third Party Appeals of Mr. John Kearney and Mr. James Kennedy & Others:

7.2.1 Response to Third Party Appeal of Mr. John Kearney:

- The subject application has been accompanied by a detailed landscaping plan and supporting drawings which include significant details in relation to the phasing and specification of boundary treatments (i.e. landscaped berms). These features are key elements of the landscape mitigation strategy which is intended to ensure that the residential and other amenities of the area are protected and that the boundaries of the site are secure.
- The Environmental Impact Statement includes for a full assessment of the visual and landscape impacts consequent on the proposed development which concluded that with the implementation of the mitigation strategy (i.e. the provision of landscaped berms of a specified size and scale), the relevant impacts on landscape and visual amenity could be summarised as follows:
 - The entrance area would continue to have the established appearance of a working quarry.
 - The new earthworks and perimeter planting will alter the appearance – but not the character of the adjoining lands and roads; and that – within one growing season - these areas will have an appearance that is consistent with the surrounding landscape.
 - Following the establishment of the perimeter screening there will be no effective visibility of the quarry areas or quarry operations – other than those that currently existing at the quarry entrance.
 - Residual landscape and visual impacts will be limited to localised changes in appearance that will be consistent with the established character of the area. There will be no residual or long-term adverse effects on visual amenity for dwellings or the landscape and cultural heritage of the area.
- In relation to compliance with the various provisions set out in the application documentation, the Board is advised that the applicant will be bound to comply with the requirements of Condition No. 1 of the grant of

-
- permission which states that the development is required to be carried out in accordance with the submitted plans and particulars.
- The planning application documentation, in addition to the Water Discharge Licence issued for the site, impose a significant range of monitoring and reporting conditions on the applicant. Indeed, the imposition of these conditions was invited by the applicant which outlined in significant detail the methodology for data collection, reporting, and the taking of any remedial action. Specifically, there is a requirement for the on-going monitoring of air quality, noise, surface water, the volume and quality of quarry water discharge, and groundwater levels.
 - Condition Nos. 28 & 29 of the notification of the decision to grant permission specifically ensure that the requirements for monitoring commitments in relation to air and noise are binding on the applicant.
 - With regard to water monitoring, the Board's attention is drawn to the following:
 - Chapter Nos. 8, 9 & 10 of the EIS.
 - The report entitled '*Hydrology and Hydrogeology: Supplemental Studies and Response to RFI Items*' as attached to the response to the request for further information.
 - The Water Management Plan submitted in response to the request for further information.
 - The Flood Risk Assessment submitted in response to the request for further information.
 - The Water Management Plan specifically states that the appointment of an independent auditor to assess all aspects of the proposed water management system, including the auditing of performance indicators and the monitoring of results, is integral to the proposed system.
 - Condition No. 13 as imposed by the Planning Authority has formalised the volunteered arrangement whereby an independent third party could be commissioned to oversee monitoring and the applicant has accepted the obligation to reimburse the Local Authority for the costs associated with retaining any such external consultant.
 - Extensive on-site hydrogeological studies were undertaken to facilitate a robust assessment of the impact of the proposed development on groundwater resources, with particular reference to existing groundwater wells, and the results of this analysis are presented in the EIS. This was subsequently supplemented by a considerable volume of additional confirmatory data collated in the preparation of the response to the

request for further information, including the report entitled '*Hydrology and Hydrogeology: Supplemental Studies and Response to RFI Items*'. From a review of the comprehensive assessment of the collected data, the Board is requested to note the following:

- It was never stated that all wells in the locality were monitored, however, the applicant is confident that the spatial extent of the monitoring network is extensive and appropriate in that it provides an adequate platform for assessing drawdown impacts surrounding the quarry.
 - Based on an analysis of the collected groundwater level data, there is clear evidence that outside of the immediate quarry area, the actual recorded drawdown impacts on local wells is negligible, albeit that some minor impacts were recorded in the late summer.
 - The applicant is acutely aware of the reliance of local landowners on the groundwater wells and has committed to the mitigation outlined in the EIS.
 - Where impacts on wells arise from dewatering of the quarry, the applicant will be responsible for financing remedial well works as set out in the EIS.
 - The applicant submitted documentary evidence that it liaised with local well owners in respect of potential impacts in response to the request for further information.
- In respect of the monitoring that will be undertaken during the operational phase of the development, the Board is referred to the proposed ongoing monitoring schedule which can be summarised as follows:
 - Existing water wells in the area were examined and assessed and on-going provision made for monitoring includes:
 - Monitoring wells around the quarry to be dipped on a monthly basis.
 - Monitoring of local private wells in the area to be completed on a quarterly basis until such time as dewatering in the southern quarry ceases.
 - Continuous water logging to be completed in the Ardfert South boreholes with quarterly downloading of data; continuing until dewatering on the southern quarry ceases; and

-
- All data to be submitted to Kerry County Council on an annual basis.
 - Monitoring and compliance with the monitoring programme, will be the responsibility of Ardert Quarry Products and will be carried out in-line with the agreed protocols
 - The technical information submitted in relation to groundwater and wells was subjected to a robust assessment by the Local Authority which engaged the services of a specialist engineering consultancy with expertise in the area of groundwater assessment. Indeed, the Planner's Report on file indicates that the specialist advisors to the Planning Authority considered the data collated and the assessment provided to be robust whilst their recommendation to grant permission clearly demonstrates that they were satisfied that the proposed mitigation strategy would address any impacts arising from the proposed development on groundwater resources.
 - The potential for impact on the River Tyshe was originally assessed in the EIS by way of channel capacity calculations and this was subsequently supplemented by the additional details submitted in response to the request for further information (which included a Water Management Plan and a Flood Risk Assessment). In assessing the adequacy of this information, it is of relevance to note that the proposed water management strategies were subjected to a detailed assessment by specialist advisors to the Planning Authority who concluded that permission should be granted for the proposed development.
 - With respect to flooding, a total of 9 No. conditions were attached to the grant of permission in order to ensure compliance with the agreed solutions and these are all agreeable to the applicant.
 - On the basis of the submitted information, the applicant refutes the need to undertake any additional assessment of flood risk and the suggestion by third parties that the matter has not been adequately dealt with.
 - Arising from a detailed assessment, it has been established that the proposed development does not constitute a flood risk and that appropriate mitigation measures have been incorporated into the design in order to ensure that this remains the case.
 - With regard to the mitigation of landscape / visual impacts, the Board is referred to the visual impact assessment set out in the EIS and is advised to consider the mitigation measures incorporated into the proposed Landscape Plan. Furthermore, having regard to the assessment of

residual impact, the general assertion by the appellant that the proposed development would result in a loss of residential amenity is unfounded.

7.2.3 Response to Third Party Appeal of Mr. James Kennedy & Others:

- The proposed development, though large in scale, represents an extension of an existing quarry. The extended area will be inherently linked and connected to the existing quarry with shared access roads, operational areas and facilities. The quarry will operate as a single site under a shared planning consent and with a single discharge licence.
- Consent for the proposed development has been lodged pursuant to the appropriate legal mechanism i.e. Section 34 of the Planning and Development Act, 2000, as amended.
- Full details of the proposed bridge and underpass construction are set out in the application documentation and additional details in relation to the permanent and temporary road structures were provided in response to the request for further information.
- The proposed bridge and underpass were fully assessed in the preparation of the Environmental Impact Statement and it is clear from a review of the Planner's Report that these elements of the wider proposal were given appropriate consideration by the Planning Authority.
- The bridge and underpass are permanent features that will remain in place after the cessation of quarrying activities on the site.
- It was clarified in response to the request for further information that the temporary roadway will be maintained by the applicant whilst the permanent road will be developed by the applicant before being transferred to the ownership of Kerry County Council.
- In relation to the visual impact of the proposed bridge and underpass, the Board is referred to the visual impact assessment contained in the EIS. With respect to the road, that assessment concluded – in regard to the new bridge and the associated loss of trees, that these elements will change the appearance of the road that lies between the existing and proposed quarry areas, noting that this will be a highly localised effect.
- The adequacy of the information provided in respect of flood risk and impacts on groundwater has already been addressed elsewhere in this submission, however, it is acknowledged that the appellant may be referencing the following 2 No. events:
 - There is an ongoing infrequent flooding problem on third party lands to the south of the quarry entrance, and this shallow flood water occasionally encroaches onto the road just west of the quarry

entrance. This flooding issue has nothing to do with pumped discharges from the quarry and is caused by fluvial flows in the Tyshe River upstream of the quarry and local variations in the topography on the effected lands. For the avoidance of doubt, it is also important to confirm that this issue is not caused by the existing (long established) culvert under the quarry yard, as this culvert has significant and unrestricted conveyance capacity.

- There was a flooding event in February, 2008 downstream of the quarry relating to placement of a 'V'-notch weir in the Tyshe River. This 'V'-notch weir was installed in the river channel between the R551 and the L2002 north of Ardfert village (c. 2km downstream of the quarry discharge location). The event occurred during a fluvial flood in the river, and the weir caused a blockage and associated upstream flooding. It eventually had to be removed by a local landowner to relieve the flooding pressure on the river. The quarry operators became aware of the issue and pumping from the quarry was turned off until the flood event had passed.
- Concerns with regard to the appellant's assertions in respect of the adequacy of the information provided in relation to monitoring and the regulation of the agreed monitoring regime have already been addressed elsewhere in this submission.
- With regard to the existing right of way through the application site, the Board is referred to Section 2.2.3 of the Planning Report that accompanied the subject application which states the following:

'It is noted that, by private arrangement, AQP facilitate access by a neighbouring landowner, across a part of the proposed Northern Quarry. It is proposed that the route of this access is altered to facilitate the proposed development. This will be achieved by re-routing the access around the outer boundary of the quarry via a purpose-built access road. It is important to note that the neighbouring landowner has been advised of these proposals and it has been made clear that the access arrangements remain unaffected. The new access road will be developed to the required finished standard before any works take place to affect the existing access road. There will therefore be no interruption – either permanent or temporary, to the access enjoyed by this neighbour'.

On the basis of the foregoing, it is submitted that the proposed development will not impact on the maintenance of this privately agreed access.

7.3 Response of the Applicant to the Third Party Appeal of Tracey & John Kearney:

- Each of the relevant sections in the EIS map the locations of all nearby residential receptors to illustrate the likely effects.
- Neither the existing or revised EIA Directive requires the preparation of a 'Health Impact Assessment'.
- The EIS meets the requirements to examine human health by using the vectors that are likely to give rise to pathways between emissions and receptors and fully accords with existing and draft guidance on Environmental Impact Assessment.
- The Draft EPA 'Advice Notes on Information to be contained in an EIS' have been prepared to take account of the revised Directive and state that:

'Health impacts are assessed via biophysical factors such as air, noise and water, as relevant. The Population and Human Health section cross-refers to those sections as well as assessments under other Directives (e.g. IED, SEVESO or Flood Risk Assessments) to check that all relevant vectors through which human health impacts could be caused are assessed'.

In this respect the Board's attention is drawn, in particular, to Sections 5.6 & 16.2.1 of the EIS and it is further submitted that all of the foregoing matters have been examined separately and that each of the relevant sections of the EIS have determined that there is no likelihood of significant or adverse impacts on human health.

- With respect to the suggestion that the consideration of alternatives is in some way deficient, it is submitted that Section 3 of the EIS provides a robust assessment of the alternatives considered and that this was accepted as adequate by the Planning Authority.
- In addition to the consideration of alternatives at the outset of the project, various alternatives were also considered in response to the queries raised in the request for further information. That response included a minor modification to the phased development of the quarry (i.e. an alternative phasing plan) which was proposed to ensure the mitigation of

impacts with respect to water management. The applicant's ability to propose such a modification was contingent on a full assessment of alternatives having taken place and is also indicative of the ongoing iterative cycle of impact assessment and mitigation that is fundamental to the EIA process.

- The information provided in the subject application and the assessment undertaken by the Planning Authority are considered to be sufficiently robust to ensure that an appropriately site-specific planning consent has been issued in accordance with the approach advocated in the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'*.
- Having regard to the *'Environmental Management Guidelines, Environmental Management in the Extractive Industry – Non-scheduled Minerals'* and the guidance contained therein in relation to good environmental practice and recommended emission limit values, it is submitted that the ELVs being sought for the subject site accord with industry standards and that these have been endorsed by the Planning Authority.
- The robust air assessment contained in the EIS clearly shows that the residual impacts on air quality at the site boundary and at the nearest residential receptors (including the appellant's family home) are well within the prevailing standards.
- The applicant has a strong track record of compliance and is committed to maintaining this position on site. The Board is also referred to the conditions of both the planning consent and the water discharge licence for the site which clearly show that proper protocols for the management of the quarrying activities will be implemented and subjected to ongoing monitoring and compliance checks.
- The expansion of the subject quarry is highly compliant with the provisions of the Kerry County Development Plan, 2015 and this has been reaffirmed in the assessment of the Planning Authority.
- The appellant would not appear to have fully considered the subject application as the documentation provided clearly describes an existing quarry which is being deepened within a small part of same that will in fact extend the quarrying operations further eastwards i.e. away from the appellant's family home.
- The proposed development includes a range of mitigation measures, such as the reinforcement of the site boundaries with landscaped berms, which will commence from a relatively early phase of operations with the proposed flooding of the southern part of the quarry after an initial 5-year period.

-
- All of the assessment criteria have shown that the proposed development will comply in full with industry standards with respect to emissions and operating parameters.
 - In relation to compliance with the provisions of the *'Development Management, Guidelines for Planning Authorities'*, a rationale has been provided for each of the conditions imposed by the Planning Authority which are considered to be reasonable and in line with good practice as regards the approval of quarrying activities / sites.
 - The implication that the inclusion of certain condition in the grant of permission is seeking to remedy deficiencies in the proposal is incorrect.
 - Whereas the Planning Authority could have relied on the first condition of the grant of permission to ensure the implementation of the various mitigation measures identified in the EIS etc., it opted to identify specific mitigation and monitoring requirements by way of individual condition. The applicant is amenable to these conditions which accord with prevailing practice as regards the approval of such large sites.
 - With regard to the planning history of the application site, in those instances when exceedances or breaches of planning permission were identified, these were considered to be of a relatively minor nature and were fully regularised. Furthermore, as a result of the applicant's engagement with the Planning Authority, the existing site is compliant and there are presently no open enforcement files nor are there any complaints or proceedings underway with respect to non-compliance with either planning consents or the water discharge licence.
 - In its assessment of the subject proposal the Planning Authority considered the applicant's record of compliance and concluded that it was appropriate to grant permission.
 - In relation to blasting activities at the site, the applicant retains independent contractors to undertake all aspects of blasting, including profiling, design, blasting, reporting and recording. All works are undertaken to the highest professional standards and the appellant's claims with regard to non-compliant monitoring of blasting activities are rejected.
 - All aspects of the local environment were examined in the EIS and whilst the appellants would not allow background noise monitoring to be carried at their dwelling house, the proximity of same was considered in the modelling described in the EIS.
 - The suggestion that there were flaws in the monitoring of wells is rejected. The assessment of groundwater impacts and any effects on wells is underpinned by a thorough and detailed understanding of the local

-
- hydrogeology which in turn relied on the considerable volume of physical groundwater data collected.
- The proposed development includes for a comprehensive groundwater monitoring regime.
 - The assertion in the grounds of appeal that the proposed water pump was not shown or assessed in the EIS is rejected. The pumping station and sump are detailed in the submitted drawings and the plant was considered in the noise assessment.
 - In relation to the inference that the flood events of February, 2008 were connected to the operation of the quarry, the Board is advised that said flooding occurred downstream of the quarry and was related to the placement of a 'V'-notch weir in the River Tyshe. In that instance there was a fluvial flood in the river with the weir causing a blockage which resulted in upstream flooding. The weir in question was subsequently removed by a local landowner to relieve the flooding pressure on the river. The quarry operators became aware of the issue and pumping from the quarry was turned off until the flood event had passed.
 - The application documentation clearly shows that with the implementation of defined mitigation measures, including discharge management via the IDMS, the operation and extension of the quarry will not significantly increase or contribute to flood risk in the area.
 - The groundwater impact assessments show that the proposed development will not negatively impact on groundwater resources in the area and provide for extensive monitoring to ensure full compliance in that respect.
 - The EIS shows that the proposed development in its entirety – including the operation of limited plant overnight – will operate within the prevailing standards with regard to daytime and night-time noise parameters.

7.4 Response of the Applicant to the Third Party Appeal of Frances Carmody:

- The Planning Report which accompanied the subject application described the land uses in the surrounding area and acknowledged the rural nature of the setting and the predominance of agricultural development as well as the established nature of the existing quarry. The Environmental Impact Statement similarly described the application site in the context of surrounding land uses.
- It is considered that the Planner's Report prepared in support of the notification of the decision to grant permission for the proposed development has clearly assessed and evaluated the context of the

development site and the compatibility of the proposed development with the established land-uses in the area.

- The detailed assessments provided as part of the planning application do not support the appellant's assertion that the proposed development will increase flood risk. With respect to the consideration of impacts on lands in the area, the Board is referred to the robust assessment carried out by the Local Authority and is further advised to take note of the following:
 - In its request for further information the Planning Authority sought submissions pertaining to flood flow and flood risk assessment under 6 No. separate headings.
 - In response to the request for further information, the submitted Flood Risk Assessment gave full consideration to the land uses adjoining the river downstream of the quarry.
 - Having reviewed the applicant's response to the request for further information, including the discharge management proposal, both the Planning Authority and its specialist advisors concluded that the quarry discharges could be managed in a controlled manner that would limit the flood risk impacts on land adjoining the river.
 - The scenarios assessed in the Flood Risk Assessment included those where there were high flow fluvial events and also a combination of high flow fluvial events and corresponding high tidal events.
 - A total of 9 No. conditions attached to the notification of the decision to grant permission reference the assessments, and even include specific criteria, that are intended to limit flooding impacts along the River Tyshe.

Accordingly, it is submitted that the assessment process was fair, thorough and conclusive whereas the appellant's assertions are unfounded and should be set aside.

- The potential for the proposed development to impact on the River Tyshe was originally assessed in the EIS by way of channel capacity calculations. In carrying out the surveys that assisted in that exercise, the appellant declined to permit survey work on her lands at that time, although surveying and channel capacity assessment were completed upstream and downstream of her property. The assessment of impact was subsequently supplemented by those documents submitted in response to the request for further information, with specific reference to the following:

-
- The report entitled '*Hydrology and Hydrogeology: Supplemental Studies and Response to RFI Items*'.
 - The Water Management Plan.
 - The Flood Risk Assessment.

A comprehensive Flood Risk Assessment for the River Tyshe and relating to the quarry discharges was thus undertaken in accordance with the relevant guidelines which incorporated:

- A detailed analysis of flood risk along the Upper and Lower Tyshe, including Q_{med} calculations for various flood flows in the river.
- A full assessment of Maximum Quarry Discharge volumes from Phase 1 (the peak quarry discharge volume phase occurring between 2017 and 2021) of the quarry development are presented using 100-year rainfall depths. It should be noted that this phase of quarrying is a short-term phase only taking place over the 4/5-year period from 2017-2021 – a duration commonly considered in EIA and planning terms as 'temporary'.
- A revised channel capacity assessment using the Q_{med} and Maximum Quarry Discharge volumes.
- Hydrological monitoring data collected from the River Tyshe at 5 No. locations.

Using the aforementioned hydrological data, a detailed analysis of flows in the Upper and Lower River Tyshe is presented in the FRA and the response to the request for further information. Critically, this assessment shows that water level impacts in the river from the quarry discharge are modest and can be reduced by the proposal for 24/7 pumping (which is currently ongoing).

- Arising from the detailed hydrological analysis, the applicant has committed to a revised quarry phasing programme and also to the implementation of an Intelligent Discharge Management System. Both of these measures will combine to ensure a minimal impact on water levels in the River Tyshe and also to eliminate the contribution to peak flood levels in the Upper and Lower sections of the river during extreme hydrological conditions (noting that such conditions are only expected to occur 4% of the time i.e. they are relatively infrequent).

-
- All flood risks have been thoroughly assessed and the implementation of the water management regime set out in the Water Management Plan will ensure that the potential for increased flood risk or flood water levels as a result of pumped quarry discharge in the Upper and Lower Tyshe River will be negligible. Indeed, where pumping is modified to a 24/7 regime the implementation of the WMP will manage to reduce a potential water level impact in the Lower River Tyshe to <40-70mm.
 - The specialist consultants engaged by the Local Authority concluded that the technical assessment carried out by the applicant was adequate and, having regard to broader considerations, the entire development was considered to be acceptable by the Planning Authority, subject to conditions (which are agreeable to the applicant).
 - The decision to grant planning permission for the proposed development, as well as the parallel decision to issue a revised water discharge licence for the site – is supported by the technical assessments conducted by the Planning Authority in addition to a variety of submissions received from third party bodies (e.g. Inland Fisheries Ireland).
 - With regard to the baseline hydrological condition of the Tyshe River, it is submitted that the appellant's personal observations are consistent with those outlined in the EIS i.e. that the Tyshe is a sedentary river in periods of dry weather (low flow) and can change in a very short period of time to a comparatively high flow river following rainfall events. The river has a 'flashy' response to rainfall in its upper reaches, and is also controlled by low gradients and a tidal boundary condition at the outlet to the sea (as explained in the application documentation).
 - It should be noted that the appellant's lands are already exposed to an inherent flood risk given their location alongside a river. This is clearly illustrated in the Preliminary Flood Risk Assessment which details the extent of a 1% AEP flood zone along the Tyshe River downstream of Ardfert.
 - The appellant's lands are situated within what has been termed the Upper Tyshe and there is a significant positive drainage gradient from her lands to the flatter gradient of the Lower Tyshe. For example, the cross-sections up-gradient of the appellant's lands indicate a river invert level of 7.923mOD whereas down-gradient of her lands there is a river invert level of 5.184mOD. This means that there is at least 3m of water level difference (i.e. a positive drainage gradient) between Ms. Carmody's lands and water levels that occur along the Lower Tyshe.
 - It is of relevance to note that the applicant has previously assisted the appellant by building a bridge across the river to allow access to lands to

the south of the river. Having the bridge in place means that there is no ongoing requirement to drive cattle or machinery through the river at any time.

- The channel capacity assessment has identified a 900mm diameter culvert downstream of the appellant's lands as a 'pinch-point' in the river system during high flows. This culvert could be upgraded subject to landowner consent and Section 50 approval.
- Quarry discharges to the Tyshe River during July, 2015 were relatively low, ranging between 12,942m³/d to 15,052m³/d, with one significant rainfall event occurring on 18th July, 2015. Notably, July, 2015 had a slightly below average rainfall total for the month based on the available data from Liscahane rainfall station. The association of animal health problems on the farm with flood flows in the River Tyshe appears to be unsupported by the available climatic and hydrological data.

Discharges of treated wastewater from the Ardfert wastewater treatment plant are a separate matter outside of the control of the applicant. However, it is understood that the wastewater treatment plant is due for upgrade and will be moved >450m to the north of its current location with works scheduled to commence in the coming months. Therefore, it is submitted that the appellant's concerns with regard to animal health issues should be resolved with the aforementioned relocation and upgrading of the treatment plant.

- The ecological and water assessments contained in the EIS have concluded that the discharges from the quarry actually serve to improve downstream water quality in the Tyshe River. Whilst there are clearly other diffuse and point source pressures on water quality within the river catchment, these cannot be controlled or regulated by the applicant.
- With regard to the erosion of the river channel, it is considered that this is a natural process within rivers with a 'flashy' response to rainfall.
- In the interests of clarity, it should be noted that the response to the request for further information states that the maximum quarry discharge will be limited to 40,000m³/d and also outlines the low frequency of such high discharge requirements. The average rate of discharge is anticipated to be 17,712m³/d, with higher rates only occurring 4% of the time in response to higher rainfall events. This pattern will continue during Phase 1 of the development, and expected discharge rates are summarised in Table E of the Water Management Plan.

-
- Further controls to ensure that discharges from the quarry do not exacerbate flood levels in the Upper and Lower River Tyshe can be summarised as follows:
 - The phasing of the quarry has been altered to allow cessation of pumping from the southern quarry by 2021. This will greatly reduce the discharge volumes from the quarry, and will also mean that from 2021 onwards the southern quarry can be used to buffer (attenuate) discharge flows to the river from the northern quarry.
 - The use of 24/7 pumping will distribute the quarry discharge flows evenly and will serve to help and enhance the ecological status of the Tyshe River.
 - Pumping of discharge water will be controlled and managed by the Intelligent Discharge Management System.
 - On the basis of the detailed assessments provided, it is submitted that the proposed development does not constitute a flood risk.
 - The proposed development represents a significant investment in the existing enterprise and the operation of the site has been specified to ensure that all future operations will be carried out in line with industry standards and norms.

N.B. The Board is advised that there is considerable cross-referencing between the applicant's responses to the various third party appeals, however, in the interests of conciseness and in order to avoid unnecessary repetition, I do not propose to detail same.

7.5 Response of Tracey & John Kearney to the Third Party Appeals of John Kearney, James Kennedy & Others, and Frances Carmody:

- The substance of these third party appeals only serves to underline the significant level of doubt over the applicant's ability to carry out the proposed development in a manner that will not impact on the amenities of landowners and residents in the area, having regard to the existing recurring issues pertaining to flooding and noise.
- The incomplete information on the nature of existing wells, and corresponding uncertainty over the implications for groundwater pollution, means that it is very difficult to accept that the proposed development accords with the proper planning and sustainable development of the area.

8.0 OBSERVATIONS:

8.1 An Taisce:

- Having regard to the site location in an area predominantly characterised by farmland and scattered housing, whilst the impact of the existing quarry on the surrounding landscape is considered to be low given the absence of any scenic amenity designation, it is submitted that such an assertion does not take into consideration the popularity of the village of Ardfert with visitors given its significant ecclesiastical importance which includes the ruins of 3 No. churches and a Franciscan Friary in addition to the remains of the gardens associated with the Crosbie family home. Indeed, visitors are likely to have views of the quarry from the grounds of the Friary.
- The existing quarrying operation dates from c. 1976 and has been expanded over the years to include additional activities such as the production of concrete products and ground limestone. The subject proposal seeks to extend the quarry by 26.32 hectares into an adjoining site and it is considered that this intensification of use may give rise to problems in the future.
- Surplus water from the existing quarry is pumped to the River Tyshe, and whilst the company has a licence to discharge this water to the river, it is proposed to increase the rate of discharge to 40,000m³/d. In this respect the Board is advised that the River Tyshe has a very small catchment and a relatively low flow rate, however, the upstream slopes cause the river to be 'flashy' and, consequently, rainwater floods down rapidly causing spikes in the water flow. If these spikes coincide with the discharge of water from the quarry, flooding can occur downstream. Indeed, local farmers have complained on numerous occasions about the damage to their lands from such flood events.
- The River Tyshe has been described as a valuable salmonoid spawning / nursery habitat which flows towards 2 No. Natura 2000 sites which must be protected.
- It has been noted locally over the years that the flow rate of the River Tyshe has changed whilst signs of sediment have also been observed in the river downstream of the quarry. Accordingly, it is queried whether the cause of these changes has been adequately investigated.
- The wastewater treatment plant serving the village of Ardfert is located downstream of the quarry and there is a danger that this facility could flood if the river level were to rise too high which could in turn lead to the contamination of adjacent farmland with raw sewage.

-
- The proposed extension is separated from the existing quarry by a roadway and, when operational, it will increase the level of disturbance to a number of dwelling houses in the vicinity.
 - It will be important to ensure that the landscaping proposals are carried out in order to reduce the visual and noise impact of the proposed development.
 - The existing grass surface of the northern extent of the application site serves to absorb a certain amount of the noise and vibration arising from the existing activities and this attenuation will be lost when quarrying operations expose the rock surface instead.
 - The proposed extension will increase the surface area from which water will be collected and discharged to the River Tyshe and whilst it is proposed to provide for improved control of this discharge by measuring the flow rate of the river and only discharging when there is spare capacity, this may not always be feasible. During periods of high rainfall the river level can rise quickly resulting in flash flooding which requires a rapid response.
 - The discharge from the quarry could contain contaminants arising from the blasting and processing operations conducted on site. Accordingly, it is queried whether the arrangements for the monitoring of discharge to the river are adequate.
 - The available documentation refers to a fracture in the limestone which could have implications for the presence of groundwater and could also lead to increased problems as regards discharge to the river.
 - The flooding of adjacent farmland would appear to be associated with the discharge of water from the quarry and, due to the topography of the areas, there is a lack of alternative routes for the discharge of excess water. Furthermore, climate change predictions indicate that rainfall will increase in future years which could have a significant effect on the amount of surface water within the quarry.
 - The proposed development should not be granted permission until such time as it can be conclusively shown that surface water from the quarry site can be satisfactorily dealt with and will not contribute to flooding downstream.

9.0 NATIONAL AND REGIONAL POLICY

9.1 The *'Quarry and Ancillary Activities, Guidelines for Planning Authorities'* published by the Department of the Environment, Heritage and Local Government in April, 2004 note the economic importance of quarries and the

demand for aggregates arising from the needs of the construction industry with particular reference to house building and infrastructure provision. They note that aggregates can only be worked where they occur and that many pits and quarries tend to be located within 25km of urban areas where most construction takes place.

Chapter 2 identifies appropriate development plan policies and objectives with regard to the development of quarries.

Chapter 3 identifies the potential environmental issues associated with the development of the extractive industry / quarries and recommends best practice / possible mitigation measures in respect of:

- Noise and vibration
- Dust deposition / air quality
- Water supplies and groundwater
- Natural heritage
- Landscape
- Traffic impact
- Cultural heritage
- Waste management

Environmental Management Systems are recommended as a quality assurance system to measure a company's operations against environmental performance indicators.

Chapter 4 refers to the assessment of planning applications and Environmental Impact Statements. It provides guidance on the information to accompany an application and the inclusion of possible planning conditions.

Chapter 5 refers to the implementation of the registration procedures set out in Section 261 of the Act.

9.2 The '*Environmental Management Guidelines, Environmental Management in the Extractive Industry (Non-Scheduled Minerals)*' published by the Environmental Protection Agency in 2006 are intended to complement existing national guidance and to be of assistance to operators, regulatory authorities, and the general public (They are also complemented by the '*Environmental Management in the Extractive Industry – Guidelines for Regulators*'). The guidelines provide general advice and guidance in relation to environmental

issues to practitioners involved in the regulation, planning, design, development, operation and restoration of quarry developments and ancillary facilities.

These environmental management guidelines also represent a summary of current environmental management practices for quarries and ancillary facilities (including manufacturing of concrete and bituminous mixes/asphalt products, and processing of dimension stone). They are based on a review of current environmental management practice in Ireland, the UK and Europe. Under each of the key environmental issues, good environmental practice is summarised together with recommendations for the use of environmental management systems (EMSs), and emission limit values (ELVs), where appropriate

9.3 The *'Guidelines on the Information to be contained in Environmental Impact Statements'* (2002) as published by the Environmental Protection Agency provide developers, competent authorities and the public at large with a basis for determining the adequacy of Environmental Impact Statements within the context of established development consent procedures and also serve to address a wide range of project types and potential environmental issues. The accompanying *'Advice Notes on Current Practice (in the preparation of Environmental Impact Statements)'* (2003) subsequently provide further detail on many of the topics covered by the Guidelines and offer guidance on current practice for the structure and content of Environmental Impact Statements.

9.4 The *'Revised Guidelines on the Information to be contained in Environmental Impact Statements'* (Draft) and the accompanying *'Advice Notes for Preparing Environmental Impact Statements'* (Draft) published by the Environmental Protection Agency in September, 2015 seek to update earlier guidance and have been drafted with the primary objective of improving the quality of Environmental Impact Statements with a view to facilitating compliance (with the Directive) and thereby contributing to a high level of protection for the environment through better informed decision-making processes. They have been written with a focus on the obligations of developers who are preparing Environmental Impact Statements, but are also intended to provide all parties in the Environmental Impact Assessment process, including competent authorities and the public at large, with a standard to measure whether EISs are fit for their purpose, – i.e. to provide adequate and relevant information to inform decisions about whether to grant or refuse permission.

9.5 The *'South West Regional Planning Guidelines, 2010-2022'* are designed to steer the future growth of the region over the medium to long term and to

implement the strategic planning frameworks set out in the National Spatial Strategy (NSS), 2002 and National Development Plan, 2007-2013 (*N.B.* These Guidelines will be superseded by the Regional Spatial and Economic Strategy and the National Planning Framework on the completion of same).

10.0 DEVELOPMENT PLAN

Kerry County Development Plan, 2015-2021:-

Chapter 8: Natural Resources:

Section 8.2: Extractive Industry: General Extractives Objectives:

- NR-1:* Maximise the economic potential and development of natural resources in a sustainable manner while ensuring no significant adverse effect on the environment including the integrity of the Natura 2000 Network through the implementation of the objectives and the Development Management Guidelines and Standards of this Plan.
- NR-2:* Maximise the employment potential of the natural resources within the County in a sustainable way through the promotion of associated industries at appropriate locations.
- NR-3:* Ensure that the development and exploitation of natural resources does not result in any significant adverse effects on the local community.
- NR-4:* Facilitate the sustainable development of the extractive industry and seek to ensure the ongoing availability of an adequate supply of aggregates for the construction industry, while ensuring environmental protection, through the implementation of the objectives and Development Management, Guidelines and Standards of this Plan.
- NR-5:* Ensure all extractive development proposals comply with the objectives of this plan as they relate to development management standards, flood risk management requirements and the protection of landscape, biodiversity, infrastructure, water and air quality, built and cultural heritage and residential amenity.

NR-6: Ensure that quarrying and mining proposals are not permitted in areas where the visual or other impacts of such works would significantly adversely injure the amenities of the area or create significant adverse affects on the road network in the area.

NR-7: Ensure that development for aggregates / mineral extraction, processing and associated concrete production will be prohibited in Prime Special Amenity Areas and will not generally be permitted in other open or sensitive landscapes.

Chapter 10: Natural Environment & Flood Risk Management:

Section 10.1: Introduction:

NE-1: Work with all stakeholders in order to conserve, manage and where possible enhance the County's natural heritage including all habitats, species, landscapes and geological heritage of conservation interest and to promote increased understanding and awareness of the natural heritage of the County.

NE-2: Ensure that the requirements of relevant national and EU legislation, including the Habitats Directive (92/43/EEC), the EU (Birds) Directive (79/409/EEC), the Environmental Impact Assessment Directive (85/337/EEC), the Water Framework Directive (2000/60/EC), and the Flood Directive (2007/60/EC), are met by the Council in undertaking its functions.

NE-4: Promote best practice with regard to natural heritage conservation and management.

NE-5: Ensure that the cumulative impacts are taken into account when evaluating the impacts of a particular proposal on biodiversity, particularly in relation to habitat loss and wildlife disturbance.

NE-7: Have regard to and implement the recommendations and provisions of the Planning System and Flood Risk Management guidelines (DoEHLG 2009).

NE-8: Facilitate the OPW in the preparation of Flood Zone Maps for Coastal Flooding and Catchment Based Flood Risk Management Plans and to have regard to these (where available) when

assessing planning proposals and when reviewing land zoning strategies.

NE-9: Liaise with the OPW on all issues involving river drainage and flood relief, especially when dealing with any development consent applications in the vicinity of important drainage channels.

Section 10.2: *Environmental Designations:*

NE-11: Ensure that all projects likely to have a significant effect on a Natura 2000 / European site will be subject to Habitats Directive Assessment prior to approval.

NE-12: Ensure that no projects which will be reasonably likely to give rise to significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites having regard to their conservation objectives, shall be permitted on the basis of this Plan (either individually or in combination with other plans or projects) unless imperative reasons of overriding public interest can be established and there are no feasible alternative solutions.

NE-13: Maintain the nature conservation value and integrity of all Natural Heritage Areas (NHAs), proposed Natural Heritage Areas (pNHAs), Nature Reserves and Killarney National Park. This shall include any other sites that may be designated at national level during the lifetime of the plan in co-operation with relevant state agencies.

Section 10.3: *Water Quality*

Section 10.14: *Environmental Impact Assessment*

Section 10.19: *Flood Risk Management*

Chapter 12: Zoning & Landscape:

ZL-1: Protect the landscape of the County as a major economic asset and an invaluable amenity which contributes to the quality of people's lives.

Section 12.3.1: *Zoning Designations: Rural General:*

Rural landscapes within this designation generally have a higher capacity to absorb development than the previous rural designations. It is important that development in these areas be integrated into their surroundings in order to

minimise the effect on the landscape and to maximise the potential for development.

Proposed developments in areas zoned Rural General, should in their designs take account of the topography, vegetation, existing boundaries and features of the area as set out in the Building a House in Rural Kerry Design Guidelines (Kerry County Council 2009). Permission will not be granted for development which cannot be integrated into its surroundings.

N.B. The proposed development site is located in an area which has been designated as ‘*Rural General*’ on Map 12.1(b) of Volume 3 of the Plan.

Chapter 13: Development Management – Standards & Guidelines:
Section 13.13: Extractive Industry Standards and Guidelines

11.0 ASSESSMENT

From my reading of the file, inspection of the site and assessment of the relevant local, regional and national policies, I conclude that the key issues raised by the appeal are:

- The principle of the proposed development
- The nature of the proposed development
- Environmental impact assessment
- Appropriate assessment
- Previous instances of non-compliance
- Other issues

These are assessed as follows:

11.1 The Principle of the Proposed Development:

11.1.1 The Kerry County Development Plan, 2015 recognises the importance of the extractive industry in economic and employment terms to the county through the production of aggregates and the associated manufacture of products (such as pre-cast concrete blocks and ready-mix concrete) for use in the wider construction sector. The Plan further states that the industry is necessary for continual economic growth; which is an integral requirement for the implementation of the National Development Plan, Transport 21 and private sector development. Similarly, the ‘*South West Regional Planning Guidelines, 2010-2022*’ acknowledge that the mineral resources of the region, especially

aggregates, contribute largely to the economy and operational aspects of the construction industry (buildings and infrastructure). Notably, the Guidelines also state that local authorities should identify and protect important strategic mineral reserves in their development plans.

11.1.2 In terms of national guidance, the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* published by the Department of the Environment, Heritage and Local Government in 2004 acknowledge the economic importance of the quarry industry in supplying the construction sector with aggregates and stone. This guidance also references the fact that major infrastructure projects will create a corresponding demand for aggregates that will support the continuing economic and social development of the country and maintain Ireland's international competitiveness.

11.1.3 Therefore, having regard to the foregoing, the planning history of the site, its established use as an operational quarry, the locational constraints of the quarrying industry, and the necessity to ensure an adequate supply of aggregates to facilitate the construction / building sector in the local area (in addition to the achievement of any wider strategic objectives for the area as set out in the Development Plan etc.), it is my opinion that the overall principle of the proposed development is acceptable.

11.2 The Nature of the Proposed Development:

11.2.1 Concerns have been raised in the grounds of appeal that the proposed development does not consist of the extension of an existing quarry but instead involves the development of an entirely new standalone quarry on lands which are physically separated from the existing operation by a public roadway. In this regard I would also advise the Board that further concerns were raised during the course of the assessment of the subject application by the Planning Authority that the proposed underpass, which is required to link the northwards expansion of the quarry with the existing pit area, may not actually be constructed by the applicant with the result that any material excavated from the northern extension would have to be transported along the surrounding road network to the detriment of local residents etc. in order to avail of the various processing plant etc. located within the confines of the existing quarrying operation.

11.2.2 Whilst I would acknowledge that the subject proposal involves the introduction of extractive activities into an area of land which is presently physically separated from the existing quarry, from a review of the submitted plans and particulars, in my opinion, it is clearly evident that the proposed

development consists of the extension of the existing quarrying operation in that it will be physically connected to same and will be directly reliant on the use of the existing access and servicing arrangements serving the current operation, including the ancillary processing and manufacturing activities. Furthermore, the provision of the proposed underpass and the associated bridge construction, which will accommodate the re-construction of Local Road No. L-10477-0, serve to link the northern extent of the site area with the existing quarry. In further support of the foregoing, it must be emphasised that the proposed development, as detailed in the submitted planning application, is subject to environmental impact assessment and that it is this proposal which is to be assessed for the purposes of the EIA Directive. Any other proposal, such as the development of a 'standalone' quarry which is physically separate from or unrelated to the existing extractive operation, has not been detailed in the submitted Environmental Impact Statement nor will it be subjected to environmental impact assessment in the consideration of the subject application. In effect, any alternative proposal is not being assessed as part of the subject application. Indeed, the development of an entirely new and physically separate quarry at the location proposed would most likely give rise to a different and / or additional set of environmental considerations (such as traffic impact on the local road network and other new servicing requirements e.g. water supply, wastewater treatment, electricity etc.) which have not been included in the assessment of the subject proposal.

11.2.3 Therefore, on the basis of the foregoing, I am satisfied that the proposed development has been correctly described in the application documentation, including the public notices, as the extension / expansion of an existing quarry. It is also of relevance to note that in the event of a grant of permission, and should the developer fail to comply with the terms and conditions of any such grant of permission, the Planning Authority will be empowered to commence enforcement proceedings in respect of any incidence of unauthorised development or breach of condition, including (but not limited to) any failure to develop the subject proposal as an extension linked to the existing quarry.

11.3 Environmental Impact Assessment:

11.3.1 Outline of Process:

11.3.1.1 In accordance with the requirements of Article 3 of the European Directive 85/337/EEC, as amended by Council Directives 97/11/EC and 2003/35/EC etc. and Section 171A of the Planning & Development Act, 2000, as amended, this process requires the Board, as the competent authority, to identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the Environmental Impact

Assessment Directive, the direct and indirect effects of the proposed development on the four indents listed in Article 3 of that Directive as set out below:

- a) human beings, flora and fauna,
- b) soil, water, air, climate and the landscape,
- c) material assets and the cultural heritage, and
- d) the interaction between the factors mentioned in paragraphs (a), (b) and (c).

11.3.1.2 This assessment also requires consideration to be given to, where relevant, the indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the proposal, including those which arise during the construction phase, which are essentially short-term and temporary, as distinct from the likely long-term effects arising from the operational phase.

11.3.1.3 The Environmental Impact Statement which has accompanied the subject application follows a grouped format structure with each environmental topic presented in a separate chapter. It includes a generally satisfactory description of the receiving environment, the proposed development, its impacts and proposed mitigation measures, and has been accompanied by a non-technical summary. In my opinion, this document can be described as 'adequate' in that it accords with the minimum requirements of Schedule 6 of the Planning and Development Regulations, 2001, as amended, and is sufficient to comply with Section 172 of the Planning and Development Act, 2000, as amended, and Article 94 of the Regulations.

11.3.1.4 In general, this part of my assessment of the subject application is informed by the contents and conclusions of the EIS and also by information provided during the various stages of the application / appeal process in relation to the likely effects of the development on the environment and its likely consequences for the proper planning and sustainable development of the area in which it is proposed to be situated. My assessment also has regard to potential mitigation measures, including those indicated in the EIS, and any others which might reasonably be incorporated into any decision to approve the development through the attachment of conditions.

11.3.2 Consideration of Alternatives:

11.3.2.1 Schedule 6 of the Planning and Development Regulations, 2001, as amended, requires an EIS to include *'An outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice, taking into account the effects on the environment'*. In this respect I would refer the Board to Chapter 3 of the EIS which confirms that the applicant has examined a number of alternative options with a view to complying with the foregoing requirement.

11.3.2.2 At this point I would also reiterate to the Board that concerns have been raised in the grounds of appeal with regard to the adequacy of the EIS which accompanied the subject application in terms of the consideration of alternatives pursuant to the requirements of the EIA Directive. In particular, it has been submitted that the need to provide for the adequate consideration of alternatives with regard to the subject proposal does not simply refer to an assessment of the alternatives available to a particular operator / applicant, but instead requires consideration to be given to the provision and availability of aggregates / crushed stone products etc. within the wider Kerry area in addition to the need to provide for additional capacity.

11.3.2.3 In reviewing the adequacy of the applicant's consideration of potential alternatives to the subject proposal, in the first instance I would refer the Board to Paragraph No. 3.2.1 of the EIS which references the 'do-nothing' scenario whereby the existing quarry will cease operation at the end of the permitted period thereby resulting in the subsequent closure of the site with an associated loss of local employment and economic activity in the area.

11.3.2.4 In terms of alternative site locations the EIS states that the relocation of the quarrying operation to an alternative site is not a viable option given that the applicant does not own any other similarly resourced lands in the area and as aggregates etc. must be quarried where they exist. It has been further submitted that the existing site has adequate resources with the potential to provide for additional long-term quarrying activity and that the exhaustion of the site is technically feasible, subject to a grant of permission, whilst the continued use of the existing site infrastructure represents a sustainable and rational use of that development.

11.3.2.5 In relation to alternative site designs / layouts, the applicant has submitted that the existing layout of the quarry has arose as the result of careful planning over the last 35 No. years in order to facilitate the extraction of the

greatest volume of rock material without causing undue impact on the receiving environment. It has also been stated that the current layout, whereby ancillary operations, storage and office accommodation etc. are grouped close to the main site entrance with the principle extraction areas located to the north of same, represents the optimal development of the quarry in economic and environmental terms whilst the proposed northwards expansion forms a logical progression of the existing operations which reflects the location of the available resources and the extent of those lands within the applicant's ownership.

11.3.2.6 In addition to the foregoing consideration of alternatives at the outset of the project, the applicant has further submitted that various alternatives were also considered in the response to the request for further information which resulted in a minor modification to the phasing of the quarry (i.e. an alternative phasing plan) in order to mitigate potential impacts with respect to water management.

11.3.2.7 Whilst I would accept that the consideration of alternatives set out in the submitted EIS is somewhat limited in that it has not included for any in-depth examination of the possibility of utilising alternative sources of aggregates as a means to meet the needs of the construction sector (e.g. the ability of other quarries to satisfy said demand or through the use of secondary (recycled) aggregates derived from construction & demolition waste), it must be acknowledged that the quarrying industry, by its very nature, is locationally-bound by the presence of the resource to be exploited i.e. the particular source of stone / aggregates. In this regard, and noting the historical use of the subject site, it is only reasonable to suggest that the continued operation and extension of the existing quarry may be preferable to the development of an alternative 'greenfield' site at some other location where there may be little or no history of the extractive industry. Similarly, the expansion of the existing quarry could serve to negate any requirement to intensify the operations at other quarry locations in order to meet demand.

11.3.2.8 Having regard to the foregoing, it is of relevance to note that the current *'Guidelines on the information to be contained in Environmental Impact Statements'* published by the Environmental Protection Agency in March, 2002 acknowledge the existence of difficulties and limitations when considering alternatives in the context of Environmental Impact Assessment. In this respect it should be noted that whilst EIA is confined to the assessment of the environmental effects which influence the consideration of alternatives, it is important to acknowledge that other non-environmental factors may have equal or overriding importance to the developer such as project economics, land

availability, engineering feasibility and planning considerations. Similarly, the consideration of alternatives also needs to be set within the parameters of the availability of land or the need for the project to accommodate demands or opportunities which are site specific.

11.3.2.9 Therefore, following a review of the available information, including the consideration of alternatives set out in the submitted EIS, in my opinion, the applicant has complied with the requirements of the Regulations insofar as it has provided a satisfactory examination of the main alternatives studied with regard to the project in addition to a reasoned explanation for the selection of the submitted proposal.

11.3.3 Human Beings:

11.3.3.1 In terms of assessing the potential impact of the proposed development on human beings, in the first instance, I would refer the Board to Chapter 5 of the submitted EIS which focuses attention on the wider issues of population (including settlement, employment and other socio-economic considerations) and human health.

11.3.3.2 Whilst I would generally concur with the findings of the EIS as regards the likely impact of the proposed development on human beings such as through the provision of employment opportunities and its contribution to economic activity in the wider area, it is of relevance to note that there are various inter-relationships between effects on the human environment and effects on other aspects of the environment such as air and water quality. Accordingly, in order to avoid unnecessary repetition, I would refer the Board to my assessment of the specific implications of the proposal as regards soil, water and air quality etc. as set out elsewhere in this report. Furthermore, although referenced in separate chapters of the EIS, I propose to focus the remainder of my assessment of the impact of the proposed development on human beings on the key issues of traffic, noise and vibration.

11.3.3.3 Traffic & Transport:

11.3.3.3.1 The proposed development site is presently accessed via an existing entrance arrangement onto the local road to the immediate south of the wider site area and it is of relevance to note that this access will continue to be used as the main entrance serving the expanded quarrying operations. Accordingly, in terms of assessing the likely impact of the proposal on the surrounding road network, I would refer the Board to Chapter 13 of the EIS which has focused its analysis of the likely traffic impact of the operational stage of the proposed

development along roadways in the vicinity of the site for a base year of 2017 and future plan years of 2022 & 2032. In this respect the applicant has utilised baseline traffic survey data (derived from peak hour traffic counts conducted on 31st August, 2015 & 10th September, 2015) in conjunction with traffic counter data available from the National Roads Authority to estimate the Annual Average Daily Traffic (AADT) volumes on the local road network. On the basis that the proposed development will give rise to the extraction of 15.86 million tonnes of limestone and 954,000 No. tonnes of overburden over a period of 25 years, Table 13.5 of the EIS proceeds to compare the traffic volumes arising from the existing quarrying activities with those likely to result from the expanded operations for the identified design years (*N.B.* In this regard I would advise the Board that it has been assumed that material is imported (i.e. cement products etc.) and exported to / from the site using trucks with a typical load capacity of 19 No. tonnes and that the quarry site will typically be operational for 10 No. hours per day over 250 No. days per annum. This is suggested as comprising a worst-case scenario in that it does not take account of traffic spread across Saturday mornings). Accordingly, it has been submitted that whereas an average of 440,000 No. tonnes of material was exported from the site in 2016 (with imported materials averaging 56,700 No. tonnes) it is anticipated that on average 490,000 tonnes of material will be exported from the site and 62,700 No. tonnes imported in 2017 which will subsequently rise to 650,000 tonnes and 81,500 No. tonnes respectively for the design years of 2022 and 2032. The estimated daily traffic volumes attributable to the proposed development can thus be derived from the foregoing data and in this respect it has been submitted that the subject proposal will give rise to 228 No. HGV two-way vehicle movements in 2017 (and 292 No. HGV two-way vehicle movements in 2022 & 2032) when compared to 196 No. movements in 2014 and 208 No. movements in 2016 for the existing operation. This has subsequently been assumed to equate to 22.8 No. HGV movements / hour in 2017 and 29.6 No. HGV movements / hour in 2022 & 2032 when compared to 19.6 No. HGV movements / hour in 2014 and 20.8 No. HGV movements / hour in 2016. Accordingly, on the basis of the submitted data, it is apparent that the proposed development will result in a notable increase in HGV traffic volumes along the surrounding road network, particularly from 2022 onwards (*N.B.* Whilst the proposal will also result in a minor increase in other traffic types to and from the site attributable to increased staff numbers etc., in my opinion, the impact of any such traffic volumes on the wider road network is likely to be negligible).

11.3.3.3.2 Having established the total average HGV movements likely to be generated by the proposed development within the various design years, the

applicant has submitted that the distribution of vehicles to and from the site is envisaged as following a similar pattern to that of the existing operation. Therefore, when combined with earlier manual traffic counts and NRA data, the foregoing assumption has allowed the applicant to estimate both the operational peak hour traffic volumes and the typical daily traffic volumes with the development in place along identified roadways in the vicinity of the site for plan years of 2017, 2022 & 2032 taking account of projected growth in background traffic volumes pursuant to NRA guidance.

11.3.3.3 Accordingly, on the basis of the available information, and given that the R551 Regional Road at Ardfert has a two-way urban road link capacity of 750 No. vehicles in each direction (i.e. 1,500 No. vehicles / hour two-way), it has been submitted that the urban road network at Ardfert will operate well within its link capacity for the predicted 2017, 2022 & 2032 traffic volumes with the proposed development in place. By way of further clarity, it has also been submitted that the existing priority controlled junction of the R551 Regional Road with Local Road L2002, with the one-way R551 Regional Road loop traffic management system within Ardfert, will continue to operate without significant traffic queuing or delay.

11.3.3.4 With regard to the 'load road' network, the EIS states that the National Roads Authority's 'TD9/12 Road Link Design' does not provide link capacities for non-national local roads, which typically have rural local road widths of less than 6.0m, however, for comparison purposes, it is noted that the link capacity of 5,000 No. vehicles (AADT) for roads with Level of Service 'D' is significantly higher than the highest predicted daily operational traffic volume of 2,904 vehicles on Local Road L2002 in 2032 with the proposed development in place.

11.3.3.5 Accordingly, it has been submitted that the proposed development will not have any significant adverse traffic impact on the capacity of the local road network which will continue to operate without any significant traffic queuing or delay.

11.3.3.6 From a review of the available data, whilst I would acknowledge that the proposed development will give rise to an overall increase in traffic volumes when compared to that associated with the historical operation of the existing quarry, it is notable that notwithstanding this increase, the total volume of traffic attributable to the proposed development will be considerably less than was previously anticipated during the assessment of ABP Ref. No. PL008.124451. In this regard I would advise the Board that the plans and particulars approved

under PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451, which authorised the retention of quarrying works on 5.18 hectares and the further extension of the quarry area by 11.69 hectares, referenced a likely normal flow of 200 No. trucks (i.e. 400 No. movements) per day to / from the site and a peak flow of 300 No. trucks (600 No. movements). Whilst the reporting inspector suggested that the overall number of truck movements to / from the site in that instance should be limited to the foregoing estimations, the ultimate decision of the Board to grant permission did not impose any such restriction. Accordingly, it would appear that the Board was previously satisfied that the surrounding road network had sufficient capacity to accommodate the traffic volumes detailed in the application documentation. Given that the subject proposal (as per Table 13.5 of the EIS) anticipates a combined average (maximum) of only 296 No. HGV movements per day to and from the site, which is considerably less than the daily average considered by the Board in its assessment of ABP Ref. No. PL08.124451, it would seem reasonable to conclude that the traffic impact of the subject proposal could be accommodated by the surrounding road network. Whilst I would accept that there will have been an increase in overall 'background' traffic levels since the Board's assessment of ABP Ref. No. PL08.124451, on the basis of the submitted information, and noting that there would not appear to have been any significant deterioration in the overall condition of the road network since 2002 nor has there been any introduction of other developments / uses which would give rise to significant traffic volumes in the immediate area, I am inclined to conclude that the likely trip generation associated with the operation of the proposed development will not give rise to any significant additional traffic impact.

11.3.3.3.7 In relation to the construction of the underpass beneath Local Road No. L-10477-0 and the associated development of a new bridge along a 37.5m stretch of this roadway, it is of relevance to note that it is proposed to provide a temporary roadway diversion within the confines of the application site in order to facilitate re-routed traffic during construction works thereby avoiding any interruption of access for local traffic. These works will necessitate the delivery of 2 No. 30m long precast bridge beams and associated concrete slabs which will comprise abnormal loads to be transported to the site by a specialist contractor in consultation with Kerry County Council, An Garda Síochána and any other relevant local authorities. The EIS further states that it is anticipated that these construction works will last for c. 18-24 months and that all associated site offices, compounds and parking etc. will be located within the confines of the site.

11.3.3.3.8 Whilst I would accept there will be some degree of nuisance and disruption to local residents and road users associated with the construction of the proposed overpass bridge and the associated temporary road diversion (and to a lesser degree in relation to the re-routing of a private access through the site), it must also be acknowledged that the very nature of construction works is inherently temporary and of limited duration thereby reducing the significance of the impact whilst the implementation of suitable mitigation measures through adherence to a Construction and Environmental Management Plan and best work practice will further serve to ameliorate any potential impacts. Therefore, on balance, it is my opinion that the short-term negative impact of the proposed construction works on the human environment by reason of traffic and general disturbance etc. does not warrant a refusal of permission.

11.3.3.4 Noise:

11.3.3.4.1 The process for the extraction of stone / aggregates gives rise to a variety of noise sources including the mechanical excavation of the pit face, blasting operations, the processing of aggregates such as crushing and screening, and the subsequent loading of material into waiting trucks and its transportation both on and off site. In this respect various concerns have been raised in the grounds of appeal as regards the potential impact of noise emissions emanating from the extended / expanded quarrying operations on the residential amenity and health of the occupants of nearby dwelling houses with further reference also being made to those aspects of the subject proposal which seek to relax the previously permitted restrictions on noise emission levels, to amend the hours of operation of the quarry, and to carry out lime-crushing operations on an occasional basis during night-time hours. In addition to the foregoing, it has also been asserted that there is a history of non-compliance as regards the control of noise / blasting operations on site and thus local residents have reservations as to whether or not the applicant will comply with any further conditions (in the event of a grant of permission) or even if it will be feasible to adhere to any such conditions.

11.3.3.4.2 In terms of assessing the impact of noise levels arising as a result of the proposed development I would refer the Board in the first instance to Chapter 10 of the Environmental Impact Statement which details the results of noise monitoring surveys carried out at identified Noise Sensitive Locations in the vicinity of the proposed development site. In this respect it should be noted that whilst the applicant has not identified all of those individual properties with the potential to be impacted by the proposed development within the surrounds of the application site, noise monitoring has been undertaken at a total of 4 No.

noise locations drawn from these properties in order to establish baseline noise conditions (*N.B.* This monitoring was undertaken on 14th October, 2015 during a normal working day when all on-site activities were observed and confirmed to be in normal operation). Having reviewed the positions of these Noise Monitoring Locations, I am generally satisfied that they are reasonably representative of those properties likely be impacted by noise emissions associated with the northwards expansion of the existing quarrying operation. In addition to the aforementioned noise monitoring, the EIS also includes reference to the results of historical noise surveys conducted in August, 2011 & October, 2014 at NML Nos. 1, 2 & 3 and further monitoring undertaken at the nearest residence to the southwest of the existing quarry (identified as NML5) (*N.B.* The measured dB_{LA90} value is typically used as a descriptor of background noise levels in that it accounts for the undue influence of momentary extraneous factors such as passing traffic, dogs barking etc. at the monitoring locations).

11.3.3.4.3 Having established baseline noise conditions within the receiving environment, the EIS subsequently proceeds to identify the various noise sources associated with the existing quarry in an effort to verify the results of the noise monitoring. In this respect it should also be noted that in order to determine the operational impact of the existing quarry on the receiving noise environment the applicant has utilised noise prediction modelling in accordance with *ISO9613-2 – Acoustics – Attenuation of sound during propagation outdoors – Part 2: General method of calculation (ISO9613 2:1996)* as a means of predicting the noise impact of the development. This was used to calculate the noise levels at various Noise Sensitive Locations within the site surrounds (*N.B.* Whilst the locations of NMLs 1, 2 & 3 as identified in Figure 10.2 for the purpose of noise modelling correspond to those of Noise Monitoring Locations 1, 2 & 3 as detailed in the noise survey undertaken in October, 2015, it should be noted that the remaining Noise Sensitive Locations contained in the modelling were not modelled in 2015, although Noise Modelling Location No. 4 does relate to the dwelling house (previously identified as NML5) to the southwest of the existing quarry as referenced in the earlier historical noise surveys in 2011 & 2014). Notably, the results of the aforementioned noise modelling of the existing quarry would seem to broadly correspond with those recorded during the noise monitoring surveys at the comparable locations.

11.3.3.4.4 In order to assess the potential future impact of the proposed development on the receiving noise environment, the 5 No. planned extraction phases were subjected to noise prediction modelling (as set out in Appendix 10 of the EIS) with the main differences between each phase relating to the location

/ extent of the excavation activities, the depth to the quarry floor and the siting of mobile screening / crushing plant and haul routes. This modelling also took account of the current location of all fixed equipment on site (e.g. the lime mill, chip mill and concrete plant) and the proposed landscaping berms which are to be incorporated into the site design. It is of further relevance to note that the prediction modelling undertaken for Phase 1 of the development modelled the extraction activities at existing ground level in order to represent the 'worst-case' early extraction works.

11.3.3.4.5 Table 10.8 of the EIS sets out the predicted daytime noise levels for the various future extraction phases at a total of 7 No. representative Noise Sensitive Locations and it is apparent from a review of same that the operational daytime noise levels associated with the various stages of the proposed development generally accord with the existing operational noise limit of $50\text{dB}_{\text{L}_{\text{Aeq,T}}}$. Whilst I would accept that the predicted noise levels for NML Nos. 5 & 6 during extraction Phase No. 2 are marginally (1-2dBA) above the existing operational noise limit, I would advise the Board that these figures will be below the amended noise threshold of 55dB(A) sought by the applicant and have been calculated on the basis of a 'worst-case' scenario.

11.3.3.4.6 In relation to the noise impact associated with off-site activities i.e. the additional traffic movements along the surrounding road network, Chapter 10 of the EIS provides for an analysis of same whereby the Sound Exposure Levels (determined under controlled conditions) for HGVs (traveling at low speeds) and light vehicles (at moderate speeds) have been used to calculate the likely noise levels at property facades set back 10m from the road edge with this data subsequently being used in combination with the expected peak hour traffic flows along each of the assessed routes within the surrounding road network, for both an opening year of 2017 and a future design year of 2032, in order to determine the likely change in noise levels attributable to the proposed development. In this regard it has been submitted that the likely change in noise levels will be minimal at less than $1\text{dB}_{\text{L}_{\text{Aeq,1 hr}}}$ over and above that experienced at present and, by way of further interpretation, it has also been stated that any such change in level will be barely perceptible with a negligible impact.

11.3.3.4.7 With regard to the possible noise impact arising from the proposal to operate the existing lime mill during night-time hours, in addition to the use of the pumping system to pump water from the quarry to the River Tyshe, I would refer the Board to the supplemental noise survey submitted by the applicant on 22nd July, 2016 in response to a request for further information which details the

results of noise monitoring undertaken at 4 No. representative Noise Monitoring Locations in the vicinity of the existing site in scenarios when the plant in question was both operational and switched off. Notably, in order to provide for a 'worst-case' operational analysis, the lime mill and water pumps were set to operate at full mode during the noise monitoring whilst the enclosure for the water pump had its door maintained open. In essence, the results of this survey work indicate that whilst the plant in question may be faintly audible in certain instances, the contribution of same to the background noise level in the receiving environment is minimal with no discernible tonal component. Therefore, it has been asserted that the foregoing elements of the proposed development will be able to operate comfortably within the night-time noise emission limit value of $45\text{dB}_{\text{LAeq},15\text{ mins}}$, although it is also recommended that the enclosure to the water pump is maintained closed so as to further reduce noise levels as far as practicable.

11.3.3.4.8 At this point it should be noted that the '*Quarries and Ancillary Activities, Guidelines for Planning Authorities*' acknowledge that most quarries are situated in areas of low background noise and that it is appropriate to consider this when setting noise limits. It is further stated that complaints can be expected where the noise levels from quarrying operations are between 5 to 10dB above background noise levels. In addition, in areas of high background noise levels, the EPA recommends that the noise levels at sensitive locations should not exceed a LAeq (1 hour) of 55dB(A) by daytime and a LAeq (15 minutes) of 45dB(A) by night-time.

11.3.3.4.9 On the basis of the available information, it would appear that the operation of the proposed development will give rise to an increase in overall noise levels at those properties in the vicinity of the application site (both by way of the on-site activities and the impact of the additional traffic movements), however, the noise prediction modelling has indicated that day-time noise emissions from the proposed works will broadly accord with the existing operational noise limit of $50\text{dB}_{\text{LAeq,T}}$ on site, with the exception of those noise levels predicted to be experienced at NML Nos. 5 & 6 during Phase No. 2 of the extraction operations (*N.B.* Noise Monitoring Location / Noise Modelling Location No. 2 has been disregarded from further assessment as this property is in the ownership of the quarry operator). Accordingly, it is this anticipated breach of the existing operational limit which would seem to form the rationale for the upwards revision of the permissible day-time noise emission limit to 55dB(A) in line with current guidance. In terms of the impact on night-time noise levels, I am satisfied

that the proposed development can operate within the existing limits whilst the impact of off-site activities (i.e. traffic movements) will be minimal.

11.3.3.4.10 Whilst I would acknowledge the legitimate concerns of the appellants with regard to the impact of noise emissions from the proposed development on the residential amenity of their properties, having regard to the existing baseline conditions and background noise levels in the area, in addition to the noise modelling undertaken as part of the subject application, it would appear that the operational daytime noise impact of the proposed development will only exceed the current emission limit values imposed on the existing quarrying activities (pursuant to ABP Ref. No. PL08.124451) at NML Nos. 5 & 6 during Phase No. 2 of the extraction operations (in a 'worst-case' scenario) by approximately 1-2dB, which could be categorised as barely perceptible. In this respect it is also notable that Section 10.6.1 of the EIS seeks to mitigate the aforementioned impact by assessing the requirement for higher screening berms along the north-western and south-eastern site boundaries having regard to noise monitoring undertaken during the initial extraction works in Phase 2 of the proposed development. Furthermore, it is of relevance to note that the predicted noise levels broadly adhere to current industry guidance as set out in the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* and the *'Environmental Management Guidelines' and the Environmental Management in the Extractive Industry (Non-Scheduled Minerals)'*. Accordingly, on the basis of the foregoing, and subject to the implementation of those best practice mitigation measures set out in Section 10.6.1 of the EIS, it is my opinion that the proposed development will not have a detrimental impact on the amenity of the surrounding area by reason of noise whilst I am also amenable to the imposition of the revised noise emission levels sought by the applicant.

11.3.3.5 Vibration:

11.3.3.5.1 The extraction activities associated with the proposed quarrying operation will involve the fragmentation of rock by means of blasting and thus concerns have been raised with regard to the impact of the resulting vibrations on surrounding properties and the likelihood of damage to same. In this respect I would refer the Board in the first instance to the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* which states that the Environmental Protection Agency recommends that in order to avoid any risk of damage to properties in the vicinity of a quarry, the vibration levels from blasting should not exceed a peak particle velocity of 12mm / sec as measured at a receiving location when blasting occurs at a frequency of once per week or less. In cases of more frequent blasting it is recommended that the peak particle velocity should

not exceed 8mm/sec. Similarly, the Guidelines recommend that blasting should not give rise to air overpressure values (i.e. pressure waves transmitted through the air) at the nearest occupied dwelling in excess of 125dB(Lin)_{max. peak} with a 95% confidence limit.

11.3.3.5.2 Having regard to the foregoing, Chapter 10 of the EIS outlines the potential impact of blasting associated with the proposed development and in support of same it includes a review of the results obtained from the monitoring of previous blasting operations conducted within the existing quarry (please refer to Appendix 10 of the EIS). In this respect it has been submitted that the monitoring undertaken between 2005 and 2014 confirms that all Peak Particle Velocity measurements recorded at those residential properties closest to the site during blasting operations were well within the vibration limit of 12mm/s (as imposed under ABP Ref. No. PL08.124451), with the exception of a single blast carried out in 2005 when a maximum value of 12.7mm/s PPV was recorded. With regard to air overpressure, it has been submitted that it is evident from a review of the blast monitoring activities that the limit of 125dB(Lin) has generally been adhered to with the exception of a small number of incidents which may be attributable to factors such as atmospheric pressure, wind gradients etc.

11.3.3.5.3 Having reviewed the blast monitoring data, whilst I would concede that the PPV values would generally seem to accord with the requirements previously imposed under ABP Ref. No. PL08.124451, I would have some concerns as regards the level of compliance with the air overpressure restrictions which do not appear to satisfy the 95% conformance rate referenced in the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'* as the individual air overpressure values recorded on several occasions exceeded the limit value by in excess of 5dB(Lin) (at the residence of J. Kearney). Notably, in Section 10.5.2 of the EIS the applicant has indicated that no changes are proposed to the blasting procedures currently utilised on site yet it has been stated that all blasts will be designed to adhere to a PPV of 12mm/s and an AOP of 125dB(Lin). By way of the mitigation of possible blasting impacts, Section 10.6.2 of the EIS proceeds to reference the blast design process and best practice.

11.3.3.5.4 In my opinion, the professional control of drilling and blasting operations can ensure, through the design of the layout of the workings, that blasts are directed away from sensitive neighbouring dwellings whilst the use of the 'delayed' blasting technique, whereby the blast takes place in a series of timed small explosions rather than a single large blast, can also help to minimise the vibration in the rock body. On the basis of the submitted information, it would

appear that whilst historically there have been some instances when the required limit values for peak particle velocity and air overpressure have been exceeded, it would seem reasonable to conclude that any blasting operations associated with the subject proposal could be controlled to such an extent as to comply with the requirements of the *'Quarries and Ancillary Activities, Guidelines for Planning Authorities'*. Therefore, subject to the appropriate management of blasting practices by way of condition, including the setting of air overpressure and peak particle velocity limits as per accepted guidance, a need for advance notification of blasts, and on-going monitoring of blasting operations with the results of same to be submitted to the Planning Authority for approval, I am satisfied that concerns with regard to the impact of vibrations from such activities can be mitigated to within acceptable limits. Finally, given the appellants' concerns with regard to the history of the quarry operator in terms of alleged past failures to comply with conditions, I would emphasise that the ultimate responsibility for the enforcement of same rests with the Planning Authority.

N.B. With regard to the health and safety implications of blasting, these are the responsibility of the Health and Safety Authority (HSA) and it is vital that quarry owners / operators comply with Health and Safety Codes and with any recommendations for safety made by HSA Inspectors. The relevant legislation is designed to protect those working in quarries, those visiting quarries, and members of the public in the immediate vicinity of quarries, who could be endangered by the operation of quarries.

11.3.4 Fauna and Flora:

11.3.4.1 In the first instance, and in order to avoid unnecessary repetition, I would advise the Board that the proposed development site is not subject to any National or European designation and that my assessment of the impact of the proposed development on the qualifying interests of Natura 2000 sites in the surrounding area pursuant to Article 6 of the Habitats Directive is set out elsewhere in this report under the section entitled 'Appropriate Assessment'. Accordingly, I propose to focus the following aspect of my assessment on the broader environmental impact of the proposed development on the remaining ecological considerations (i.e. those aspects of flora and fauna which are not subject to a requirement for 'appropriate assessment').

11.3.4.2 Chapter 6: *'Biodiversity'* of the EIS states that a variety of flora and fauna surveys (i.e. bird, badger & bat etc.) were undertaken both on site and along the River Tyshe (both upstream and downstream of the quarry water discharge point). Whilst these surveys have established that there are no notable

habitats or protected / rare species of flora present on site it is of relevance to note that it has been acknowledged that some of the habitats on site have the potential to support certain fauna groups, including a range of protected and notable species. In this respect it has been suggested that existing treelines on site may provide opportunities for the temporary summer roosting of bats or the nesting of birds whilst species such as Sand Martin and Kestrel have been observed within the active quarry. In addition, further survey work has recorded extensive evidence of badger activity within the proposed northern quarry in addition to an assemblage of various bat species within House No. 1 and its outbuildings (*N.B.* House No. 1 would appear to contain a maternity roost of Soprano Pipistrelle bats whilst a new record of Brown Long-Eared bat was also recorded within the adjacent outbuildings. A further new record of Common Pipistrelle was made at this location with Leisler's bats also known to be present. No bat activity was recorded at House Nos. 2 or 3). The site of the proposed northern extension of the quarry is also considered to be suitable for mammals such as fox, rabbit & Irish Hare. Whilst reference is also made to an otter having previously been observed within the existing southern quarry, it has been submitted that there are no habitats suitable for same within the confines of the site although it is acknowledged that otter may use the River Tyshe both upstream and downstream of the existing quarry.

11.3.4.3 In terms of the likely impact of the proposed development on habitats present on site, the direct loss of habitats within the operational area is inevitable, however, it is my opinion that these habitats are of a relatively low conservation value and thus the impact arising from the loss of same is not considered to be of significance.

11.3.4.4 In relation to flora and fauna, the proposed development will inevitably result in the loss of some plant and animal species from within the footprint of the proposed works, whilst it is also likely that the disturbance arising during the construction and operational periods may also indirectly impact on fauna using the site. However, given that there are no rare plant species within the site and as the fauna present (which includes some legally protected species such as badgers and bats) are typical of surrounding habitats at a local level, I would suggest that any such impacts will be of limited significance. With specific reference to the potential impact on bats, it should be noted that Dwelling House No. 1 will be retained as part of the proposed development and that Section 6.4.3 of the EIS states that floodlighting will not be used on site whilst noise modelling has concluded that there will be no significant increase in noise disturbance to bats roosting at this location.

11.3.4.5 With regard to the aquatic habitat, it should be noted that the River Tyshe is piped beneath the existing southern quarry and in this regard the applicant has suggested that there will be no direct impact on the aquatic ecology of same as the majority of the works will occur within the proposed northern extension of the quarrying operation. It has also been stated that there will be no upstream impact on the River Tyshe and that a qualitative analysis has established that the discharge of pumped water from the quarry to this watercourse is having a beneficial impact on downstream water quality. However, there is a subsequent acknowledgment that the development proposal will affect hydrology and hydrogeology in the vicinity of the site and that Section 8 of the EIS has identified the following potential impacts that could possibly affect surface waters and the aquatic ecology of the River Tyshe:

- Runoff during overburden stripping works
- Surface water quality from quarry discharge
- Hydrocarbons / chemicals
- The potential release of cement-based products
- Groundwater and surface water contamination from wastewater disposal
- The potential alteration of the surface water drainage regime.

11.3.4.6 Section 6.5 of the EIS proceeds to set out a series of mitigation measures with regard to flora and fauna on site (e.g. the translocation of hedgerows, the planting of additional landscaping, the requirement for a derogation licence as regards any destruction of active badger setts, the provision of compensatory artificial badger setts, and the consideration of bat species) with reference also being made to those measures set out in Section 8.7 (Hydrology and Hydrogeology) of the EIS with regard to the protection of downstream water quality and aquatic ecology (which will be considered in further detail elsewhere in this report).

11.3.4.7 In conclusion, it should be acknowledged that most forms of development will invariably impact on ecological considerations to some degree, however, in this instance, I am satisfied that, on balance, the residual impacts of the proposed development are both localised and of such limited significance and influence as not to warrant a refusal of permission. Accordingly, having considered the available information, in my opinion, the impact of the proposed development on the aforementioned flora and fauna on site is within tolerable limits.

11.3.5 Soils & Geology:

11.3.5.1 Chapter 7 of the EIS describes the soil and bedrock conditions underlying the subject site and I would advise the Board that these details have been derived from a review of various geological mapping (and geophysical survey work) and intrusive site investigations including exploratory drilling and the excavation of trial pits.

11.3.5.2 With regard to the topsoil classifications, the agricultural soils in the general site have been classified as 'Flat to Undulating Lowland Soils' which are primarily composed of minimal grey podzolic soils. The Teagasc Soil Map for Ireland shows that deep well-draining mineral soil and shallow well-draining mineral soil are dominant in the area with the former being mapped exclusively in the proposed northern extension area. The GSI subsoils map shows sandstone and shale tills overlying the area surrounding the existing quarry, including the proposed extension area. The findings of the trial pit investigations conducted within the northern quarry generally support the foregoing with the bedrock in the area found to be predominantly overlain by tills typically composed of sandy or gravelly clay with limestone and sandstone cobbles. The thickness of the overburden material was recorded as between 1.15m and 6.1m, with the exception of Trial Pit No. 15-14 where excavations were terminated at 5.1m below ground level without encountering bedrock due to the presence of dense cobbles. Further borehole testing has verified that the thickness of overburden on the western side of the proposed northern extension could exceed 15m in depth (due to the presence of a north-south trenching fault / fracture which intersects the western section of the existing quarry and the proposed extension area), however, this area is not proposed for extractive development. Notably, the subsoil is unsaturated and no water strikes or perched water tables were encountered and thus dewatering will not be an issue during earthworks.

11.3.5.3 The investigative works undertaken as part of the EIS have also acknowledged the presence of sand and gravel deposits to the south / southwest of the existing quarry and whilst it is accepted that the Local Authority abstracts groundwater from these deposits via a series of boreholes at Banna Road further west, it has been submitted that these deposits are likely to be somewhat disconnected from those local to the application site given the distance involved and the change in elevation between the two locations.

11.3.5.4 In relation to the bedrock geology underlying the subject site, the most recently available geological mapping for the region shows a number of

limestone formations (Lower Carboniferous or Dinantian) in the Ardfert area with the Rockfield Limestone Formation (well-bedded argillaceous limestones) being the lowest formation of relevance to the study area which is overlain by the Cloonagh Limestone Formation (with previous quarrying activities on site having verified that there is evidence of weathering within this bedrock unit). The Cloonagh Formation within the quarry is stated as being mainly composed of light grey, fine grained limestone which was found to be very solid and competent over much of the quarry and the proposed extension area.

11.3.5.5 In addition to the foregoing, it is of particular relevance to note that borehole testing along a north-south axis within the western sector of the site has intercepted clay-filled cavities at 60m below ground level and that previous workings within the western section of the existing southern quarry along the same line encountered a fracture / fault zone which is currently one of the primary sources of groundwater ingress into the existing quarry. Notably, geophysical surveys of the site have further indicated that this fracture / fault zone also exists to the west of the proposed northern extension area.

11.3.5.6 Within the main quarry floor of the existing excavations, geophysical surveying has indicated the presence of good quality, competent limestone to a depth of -54mOD with further confirmation of same provided by extensive exploratory drilling. No evidence of karstification was recorded and any water entering the boreholes was generally deemed to be emanating from shallow broken rock at the floor of the quarry. Accordingly, it is anticipated that the limestone proposed for extraction within the northern quarry extension will be of a similar high quality whilst the imposition of a 50m setback from the western fracture zone will serve to avoid potential water inflows. At this point I would refer the Board to Section 7.4.4 of the EIS which provides a summary of the current geological model for the site area and the presence of fault lines / fracture zones.

11.3.5.7 Potential negative impacts on the underlying soil / geology arising as a result of the proposed development include the direct physical impact of the excavations carried out during operational works, which will entail the removal and placement of soil and overburden to construct screening berms etc. followed by the subsequent extraction of the rock, whilst possible indirect impacts include the potential for the contamination of bedrock and groundwater underlying the site due to accidental spillages and leakages.

11.3.5.8 In relation to the physical impact of the proposed development on local geology, it should be noted that the quarrying of aggregates, by definition,

requires the excavation / removal of topsoil and overburden with the subsequent extraction of rock and, therefore, a direct physical impact on local bedrock within the quarry footprint is unavoidable. However, when taken in context, whilst these impacts are essentially permanent, they are not of such magnitude as to impact on the geological qualities of the wider area. The residual impact of these works will also be mitigated to some extent by the final restoration plan for the quarry site. It is also of relevance to note that there are no sites of geological heritage value in the vicinity of the application site and thus the direct impact of the proposed extraction works would seem to be of limited significance in wider geological terms.

11.3.5.9 With regard to the potential for the contamination of bedrock and groundwater resources, I am satisfied that the adoption of best practice measures with regard to the removal of soil and bedrock on site and the use of appropriate mitigation mechanisms in order to minimise the accidental release or discharge of hydrocarbons or other contaminated site runoff to ground should be sufficient to address these concerns.

11.3.6 Ground and Surface Waters (Hydrology & Hydrogeology):

11.3.6.1 Chapter 8: *'Hydrology & Hydrogeology'* of the EIS focuses on the likely hydrological and hydrogeological impacts arising as a result of the proposed development, including any potential impacts on ground and surface waters.

11.3.6.2 With regard to the receiving environment, I would advise the Board at the outset that the River Tyshe (which rises to the southeast of the site) is culverted beneath the southern extent of the application site where it flows diagonally below the block manufacturing yard before subsequently draining into the adjacent lands to the immediate west. The river is then joined by a number of other tributaries before it ultimately discharges into the sea approximately 6.5km northwest of the existing quarry. More notably, ground and surface waters which enter the existing quarry are presently being pumped to the River Tyshe via a discharge point located along the western boundary of the site where the culverted river emerges and it is this aspect of the wider development proposal which has given rise to various concerns in the grounds of appeal as regards the potential implications for the flooding of downstream lands (and the possible impact on aquatic ecology), particularly in light of the 'flashy' nature of the river catchment's response to rainfall events. Further concerns have been raised as regards the dewatering necessary to facilitate the proposed extraction activities and the potential for drawdown of nearby domestic water supplies.

11.3.6.3 Chapter 8 of the EIS, when taken in combination with the additional supplementary technical data and analysis submitted in response to the request for further information issued by the Planning Authority, provides an in-depth examination of the hydrological / hydrogeological receiving environment both in terms of the impact of the existing quarry operation on surrounding wells and the potential flood risk considerations further downstream along the River Tyshe. This includes, but is not limited to, an investigation of flow rates, hydraulic capacity and water quality within the River Tyshe, the characteristics of groundwater in the area (including levels and quality), the overall quality of quarry discharge waters (which comprises both surface water runoff and groundwater ingress), an identification of flood risk downstream of the application site, and the consideration of domestic and farm water supplies in the area (including both private wells and the existing Ardfert South boreholes which serve the Ardfert Water Supply Scheme). More specifically, the EIS (as supplemented by the response to the request for further information) has examined the anticipated / proposed quarry discharge rates and the impact of same on the River Tyshe in terms of flood flows and channel capacity. At this point I would advise the Board that the proposed development, as amended in response to the request for further information, will require the phasing of the extractive operations and the regulation / control of the pumped discharge of quarry water to the River Tyshe through the implementation of a Water Management Plan which will incorporate the use of an Intelligent Discharge Management System that will utilise real-time environmental data and available forecasts, in-combination with an existing knowledge bank, in order to determine if it is appropriate to allow the pumped discharge of waters from the quarry to the River Tyshe.

11.3.6.4 Section 8.5 of the EIS proceeds to identify the following predicted impacts (which I shall consider in conjunction with any mitigation proposed):

11.3.6.5 Groundwater dewatering:

11.3.6.5.1 The dewatering of the existing (and proposed) quarrying operation necessitates the pumping of large volumes of groundwater into the River Tyshe and this has the potential to result in a cone of drawdown within the groundwater system thereby reducing water levels and the available water volumes to other local groundwater users i.e. private / public wells / boreholes. In this respect I would refer the Board to Section 8.4.5 of the EIS which references the network of wells which were monitored for the purpose of establishing the baseline hydrogeology of the area and I would concur with the assertion by the applicant that the combination of these wells (which included both monitoring wells within and around the quarry site in addition to private water wells) is adequately

spatially representative of those wells in the local area. Further monitoring was subsequently undertaken in support of the applicant's response to the request for further information. In summary, it would appear that the monitoring of water levels within the identified wells suggests that the known fault / fracture along the western extent of the existing and proposed quarry areas may form a partial barrier to groundwater flow thereby limiting the western effects of quarry dewatering, although it is accepted that definitive conclusions should not be drawn in this regard. It has further been concluded that there appears to be limited drawdown influence to the south of the quarry, and that although late summer water levels in the sand and gravel aquifer appear to have been effected by pumping in the quarry, these impacts do not currently affect the operation of wells in that area to any significant extent which would warrant mitigation. In response to concerns relating to dewatering, it should be noted that the one of the aims of the proposed development is to reduce the pumping volumes (i.e. the requirement for dewatering) over time. This will be achieved by the shallower depth of the northerly quarry extension and its avoidance of the known western fault / fracture zone (*N.B.* The area will instead be used for the storage of overburden etc.). Indeed, it has been suggested that this area is already dewatered in part as a result of drawdown associated with the existing operations. Furthermore, the drawdown impacts attributable to the existing quarry are expected to reduce significantly once pumping ceases from the southern quarry and in this regard I would advise the Board that dewatering in this area will be completed by 2021 pursuant to the revised phasing plan detailed in the response to the request for further information (whereupon the southern quarry will be allowed to flood). It is also proposed to provide for continued monitoring of local groundwater levels and in those instances where impacts arise from dewatering it has been indicated that the applicant will be responsible for financing any required remedial works by way of the provision of either a deeper well at any effected location or the making available of an alternative water supply.

11.3.6.5.2 Whilst the pumping of groundwater from the aquifer is also likely to be reducing the natural baseflow into the River Tyshe downstream of the development, I would concur with the applicant that this is offset by the discharge of water from the quarry into the river.

11.3.6.6 Drawdown impacts on local private wells:

11.3.6.6.1 This matter has been considered in the preceding paragraphs.

11.3.6.7 Drawdown impacts on the Ardfert South Public Supply Wells:

11.3.6.7.1 These boreholes are located approximately 2.0km west-southwest of the application site and it is notable that the proposed development site is marginally beyond the Source Protection Area identified for these wells. Within the EIS it has been submitted that there is only anecdotal evidence to suggest that the existing quarrying operation may be affecting the Ardfert South boreholes. In this regard it has been stated that the presence of the known fracture zone along the western extent of the existing quarry may form a partial barrier to any water drawdown and that this potential barrier to flow was also assumed in the groundwater source protection report used to define the eastern boundary of the source protection zone (as referenced above). In addition to the foregoing, the applicant's response to the request for further information has asserted that monitoring data obtained for these wells does not indicate any external influence arising from pumping at the quarry. By way of mitigating any potential impacts, it is proposed to undertake continuous water logging of the Ardfert South boreholes on a quarterly basis until such time as dewatering of the southern quarry ceases (2021) when any likely drawdown will be considerably reduced. In the event of any significant impacts in terms of water yields being recorded, especially in late summer, mitigation will involve the provision of either a deeper well or the making available of an alternative water supply.

11.3.6.8 Impacts on surface water quality from runoff during overburden stripping works:

11.3.6.8.1 The excavation and stripping of overburden / soil etc. as part of the proposed northwards extension of the quarrying operation has the potential to give rise to the entrainment of solids in surface water runoff and thus flows of both surface water and groundwater into the proposed excavation will require suitable management so as to ensure that the sediment runoff is controlled and not pumped to the River Tyshe without having first been subjected to sufficient attenuation and settlement. Section 8.6.4 of the EIS sets out a series of mitigation measures designed to address the foregoing impacts which will include the erection of silt fencing, the planting of landscaped areas and perimeter berms, the provision of temporary settlement ponds, and the routing of collected runoff to the southern quarry for treatment prior to discharge to the River Tyshe.

11.3.6.9 Impacts on surface water quality from quarry discharge:

11.3.6.9.1 It is accepted that discharges from quarries can contain sediment / suspended solids, nutrients, hydrocarbons and various other potential contaminants / pollutants which have the potential to impact on receiving waters

and aquatic ecosystems. With regard to the quality of current quarry water discharges, reference has been made to previous instances of exceedances, relative to discharge licence limits, of suspended solids and other solids which can be attributed to sediment entrained in surface water runoff as opposed to the groundwater component. In this respect it is anticipated that the completion of certain improvements to the existing internal drainage management within the existing quarry and the adoption of appropriate mitigation measures for the northern extension (as set out in the EIS) will serve to improve suspended solid load in discharge waters whilst on-going monitoring will also be undertaken.

11.3.6.10 Nitrate / ammonia / nitrite content:

11.3.6.10.1 Previous monitoring of discharge water quality has shown the loading of nutrients (i.e. ammonia, nitrates & nitrites) to be typically very low. Whilst small percentages of nitrogen compounds can remain as a residual coating on rock after blasting activities, and although these have the potential to dissolve and enter watercourses, it has been calculated that any residual concentrations of same in the discharge water from the proposed development will be low and that, even if taken in conjunction with background levels in the groundwater, there will be no exceedance of the relevant Environmental Quality Standards for nitrogen compounds.

11.3.6.11 Potential release of hydrocarbons / chemicals:

11.3.6.11.1 It is acknowledged that the accidental spillage of fuel, oil etc. poses a significant risk to water quality in the area and any associated ecosystems, in addition to terrestrial ecology, however, it has been submitted that there has never been a detection of hydrocarbons, or an exceedance of pH or electrical conductivity, during the course of previous monitoring at the existing site and in this respect reference has been made to those measures already in place for the control of hydrocarbons etc. which serve to minimise the risk of any spillage that could lead to surface or ground water contamination. In my opinion, the adoption of similar provisions as set out in the mitigation measures detailed in Section 8.6.6 of the EIS will serve to protect water quality in the area from potential contamination due to accidental spillages etc.

11.3.6.12 Potential release of cement-based products:

11.3.6.12.1 The presence of cement-based products associated with the existing readymix plant and the concrete block manufacturing facility poses a risk to the contamination of both ground and surface waters, however, it has submitted that there are existing sedimentation and drainage systems in place at the ready mix plant and that the pH of the quarry discharge has never exceeded the permitted

range set out in the discharge licence. Section 8.6.7 of the EIS seeks to mitigate any potential risk of pollution from cement-based products by prohibiting the washing out of any plant used in concrete transport or concrete operations on site except in designed closed drainage areas or in a lined pond whilst no cement-contaminated water will be permitted to enter any drainage system, artificial drain or watercourse.

11.3.6.13 Groundwater and surface water contamination from wastewater disposal:

11.3.6.13.1 The release of effluent from a wastewater treatment system has the potential to impact on ground and surface water quality if the underlying ground conditions are not suitable for the treatment of same. In this respect the Board is advised that the existing quarry is served by infrastructure that includes a septic tank which discharges to ground having been previously approved in 1977. The subject proposal has sought to address the pollution risk posed by the increased usage of this substandard system due to the expanded operations on site through the installation of a new wastewater treatment plant that will operate in parallel with the existing foul services on site before discharging treated effluent to ground by way of a polishing filter. Having reviewed the available information, including the results of the trial hole and percolation tests contained in the submitted Site Characterisation Report, and having regard to the established use of the site, it is my opinion that the proposed installation and subsequent maintenance of the new wastewater treatment arrangement on site represents an improvement over the existing system.

11.3.6.14 Other Potential Hydrological / Hydrogeological Impacts:

11.3.6.14.1 With regard to the potential for the proposed development to alter the local surface water drainage regime, with particular to flood events, and to give rise to effects on downstream designated sites, I proposed to assess these items in further detail elsewhere in this report.

11.3.7 Air Quality:

11.3.7.1 The extractive industry by its very nature gives rise to dust generation through activities including the extraction / excavation of stone / aggregates from the quarry face, the processing of aggregates such as crushing and screening, and the associated loading and transportation of materials both within the pit itself and along designated haul routes. Accordingly, it is accepted practice to place a limit on fugitive dust emissions arising from quarry developments in order to protect the amenities of surrounding properties and to ensure that the operation complies with these limits by means of a system of regular monitoring.

The 'Quarries and Ancillary Activities, Guidelines for Planning Authorities' as published by the DoEHLG in 2004 specify that total dust deposition (soluble and insoluble) at site boundaries near quarry developments, based on the TA Luft Air Quality Standard, should not exceed 350mg/m²/day when averaged over a 30-day period. Notably, the 'Environmental Management Guidelines, Environmental Management in the Extractive Industry – Non Scheduled Minerals' as published by the Environmental Protection Agency in 2006 advocate a similar limit. The Guidelines also state that residents living in proximity to quarrying operations can potentially be affected by dust up to 500m from the source although continual or severe concerns about dust are most likely to be experienced within approximately 100m of the dust source.

11.3.7.2 At this point I would advise the Board that Condition No. 16 of the previous grant of permission issued in respect of ABP Ref. No. PL08.124451, which authorised the existing quarrying operations on site, imposed a considerably stricter dust emission limit than is currently typical practice as follows:

'The total dust emission arising from all the on-site operations associated with the proposed development shall not exceed 130 milligrams per metre squared per day averaged over a continuous period of 30 days when measured as deposition of insoluble particulate matters at any position along the boundary of the site. Soil stripping shall not take place in periods of extended windy or dry weather. Water shall be sprayed on the roads and exposed soil heaps in periods of windy and dry weather in order to reduce the potential impact of dust on neighbouring properties.'

Reason: In the interest of proper planning and development and the protection of the environment'.

11.3.7.3 Accordingly, the applicant has sought a relaxation of the aforementioned limit in favour of that presently advocated by the 'Quarries and Ancillary Activities, Guidelines for Planning Authorities'.

11.3.7.4 Chapter 9 of the EIS has focussed on the use of air dispersion modelling in order to predict the 'worst-case' dust deposition rates at sensitive locations beyond the site boundary which can be attributed to the proposed development. In this regard it has been submitted that the modelling has determined that emissions from the combined operational processes for the proposed development will result in a worst-case dust deposition rate averaged over the

full year of 175.4mg/m²/day at the boundary of the quarry. Accordingly, when taken in combination with a background deposition rate of 39mg/m²/day (typically applied in areas of open country), the combined dust deposition level would equate to 214.4mg/m²/day. The dispersion modelling has also seemingly confirmed that the levels of particulate matter (PM₁₀ & PM_{2.5}) which could potentially be experienced at sensitive locations beyond the site boundary during the quarrying works would be within acceptable limits.

11.3.7.5 Whilst I am amenable to accepting the conclusions of the ‘worst-case’ air dispersion modelling undertaken by the applicant, it is regrettable that the submitted EIS does not contain any data as regards historical dust monitoring of the existing quarrying operation which could potentially lend credence to (or indeed conflict with) the results of the prediction modelling, particularly in light of the specific concerns raised in the grounds of appeal. Nevertheless, in light of the mitigation measures set out in the EIS, in addition to the proposed construction of screening berms, the provision of landscaping, and the adoption of appropriate operational work practices such as the damping down of internal haul routes and the use of dust suppression measures, in my opinion, fugitive dust emissions from the site can be managed to an acceptable level by way of condition which will include a requirement for the implementation of a continual monitoring programme by way of an Environmental Management System.

11.3.8 Climatic Factors:

11.3.8.1 With regard to the operational impact of the proposed development, whilst I would acknowledge that the actual quarrying activities will invariably result in the emission of some greenhouse gases through the use of various plant and machinery and the transportation of aggregates for use off site, I would suggest that these can be mitigated by adherence to best practice site management including the maintenance of all plant and machinery in good working order and the shutting off of equipment during periods of inactivity. Furthermore, I would suggest that these considerations should be taken in context given that the proposal to extend the existing quarry would probably represent a more sustainable option in terms of limiting GHG emissions than the development of a new ‘stand-alone’ facility as it will avail of existing services and infrastructure.

11.3.8.2 Accordingly, having considered the available information, on balance, I am inclined to accept that when taken in context, and given the scale of the activity involved, the proposed development will not be likely to give rise to any significant impact on wider climatic considerations.

11.3.9 Landscape:

11.3.9.1 From a review of Map No. 12.1(b) of the Kerry County Development Plan, it can be confirmed that the subject site is located within an area designated as '*Rural General*' and that such areas are considered to have a higher capacity to absorb development than other rural designations. Furthermore, the site in question is not located within, or in the immediate vicinity of, any amenity or scenic designation nor will it be readily visible from any view listed for preservation in the Development Plan.

11.3.9.2 Chapter 11 of the EIS includes an analysis of the potential visual impact of the proposed development on the surrounding area and focuses its assessment on those views available towards the application site from 16 No. representative vantage points along the public road network. In this regard, I would accept that the proposed deepening works within the southern quarry, in addition to the continued retention of the existing infrastructure and ancillary structures etc. within that part of the quarry, will not give rise to any significant visual impact on the wider landscape over and above that already in existence. However, it is also clear that the proposed northwards extension of the quarrying activities has the potential to increase the localised visibility of the works, particular when viewed from Local Road No. L-10477-0. In support of the foregoing, I would refer the Board to the photomontages included in Appendix 11 of the EIS which relate to those 6 No. selected views where the visual impact of the proposed development is likely to be greatest and in need of further assessment.

11.3.9.3 In order to address the visual impact of proposed development, with particular reference to the northwards extension of the quarry itself, Section 11.7 of the EIS details various proposals to provide a permanent physical barrier around the perimeter of the excavation through the erection of earthen screening berms with landscaping / planting atop same. This will be supplemented in part by the planting of the spoil / soil placement areas, further roadside amenity planting, and the erection of a timber screen along the proposed bridge construction. Whilst it is acknowledged that these works will occur over a period of time and that any new planting will need to mature, in my opinion, the residual visual impact of the proposal on completion of the aforementioned mitigation works will be both limited and localised and does not warrant a refusal of permission.

11.3.9.4 With regard to the proposed bridge construction, given the site context, I am inclined to suggest that the visual impact of same will be limited to the immediate locality and is unlikely to detract from the rural character of the wider area or to result in any significant loss of amenity.

11.3.10 Material Assets:

11.3.10.1 Having reviewed the available information, I would concur with the findings set out in Chapter 12 of the EIS that the proposed development will not give rise to any significant impact as regards the demand for electricity, telecommunications or water supply services given the continued use of existing / established infrastructure and services. Therefore, I propose to focus the remainder of this aspect of my assessment on the impact of the proposed development on architectural and archaeological heritage considerations.

11.3.10.2 Architectural & Cultural Heritage:

Having reviewed the submitted information, in my opinion, the proposed development will not give rise to any significant impact on items of built or cultural heritage in the surrounding area.

11.3.10.3 Archaeological Heritage:

In terms of the archaeological heritage implications of the proposed development, following a review of the available information set out in Chapter 15: 'Archaeology & Cultural Heritage' of the EIS, including the results of the field inspection and investigative test trenching, in my opinion, the submitted proposal is unlikely to have any significant impact on items of archaeological interest. However, in line with the recommendations of the Dept. of Arts, Heritage and the Gaeltacht, and given the possibility of encountering unknown subsurface features due to the scale of the development proposed, I would suggest that archaeological monitoring of the stripping of spoil / overburden should be undertaken as a condition of any grant of permission.

11.3.11 Interactions and Cumulative Effects:

With regard to the inter-relationships between several of the foregoing factors / impacts, in my opinion, these interactions have been satisfactorily addressed throughout the EIS and the further submissions received by the Planning Authority.

11.3.12: Environmental Impact Assessment: Conclusions:

Having regard to the foregoing, I consider it reasonable to conclude on the basis of the information available, which I consider adequate, that the proposed

development, subject to the implementation of the recommended mitigation measures and adherence to suitable monitoring protocols, will not give rise to any unacceptable residual impacts on the surrounding environment.

11.4 Appropriate Assessment:

11.4.1 From a review of the available mapping, including the data maps from the website of the National Parks and Wildlife Service, it is apparent that whilst the proposed development site is not located within any Natura 2000 designation, it is of relevance to note that the subject proposal includes for dewatering of the proposed excavations and the subsequent discharge of both ground and surface waters from the site to the River Tyshe at a point located approximately 5.0km east and upstream of the Akeragh, Banna and Barrow Harbour Special Area of Conservation (Site Code: 000332) and the Tralee Bay Complex Special Protection Area (Site Code: 004188). In this respect it is of relevance to note that it is the policy of the planning authority, as set out in Chapter 10 of the Kerry County Development Plan, 2015, to conserve, manage and, where possible, enhance the County's natural heritage including all habitats, species, landscapes and geological heritage of conservation interest and to promote increased understanding and awareness of the natural heritage of the County. Furthermore, Objective NE 12 of the Plan states that no projects which will be reasonably likely to give rise to significant adverse direct, indirect or secondary impacts on the integrity of any Natura 2000 sites, having regard to their conservation objectives, will be permitted (either individually or in combination with other plans or projects) unless imperative reasons of overriding public interest can be established and there are no feasible alternative solutions.

11.4.2 In effect, it is apparent from the foregoing provisions that any development likely to have a serious adverse effect on a Natura 2000 site will not normally be permitted and that any development proposal in the vicinity of, or affecting in any way, a designated site should be accompanied by such sufficient information as to show how the proposal will impact on the designated site. Therefore, a proposed development may only be authorised after it has been established that the development will not have a negative impact on the fauna, flora or habitat being protected through an Appropriate Assessment pursuant to Article 6 of the Habitats Directive. Accordingly, it is necessary to screen the subject proposal for the purposes of 'appropriate assessment'.

11.4.3 Having reviewed the available information, in light of the nature and scale of the proposed development, the specifics of the site location relative to certain Natura 2000 sites, and having regard to the prevailing site topography, in my

opinion, by employing the source/pathway/receptor principle of risk assessment, it can be determined that particular consideration needs to be given to the likelihood of the proposed development to have a significant effect on the conservation objectives of the Akeragh, Banna and Barrow Harbour Special Area of Conservation and the Tralee Bay Complex Special Protection Area on the basis that the lands in question are situated upstream of these Natura 2000 sites and drain towards same via the River Tyshe i.e. it will be necessary to consider the potential for hydrological and water-based / pollution / contamination impacts. In this respect I would further advise the Board that whilst there are a number of other Natura 2000 sites within a 15km radius of the proposed development site, including the Tralee Bay & Magharees Peninsula, West to Cloghane Special Area of Conservation (Site Code: 002070) and the Magharee Islands Special Protection Area & Special Area of Conservation (Site Codes: 004125 & 002261), given the separation distances involved and the absence of any pathways, such as direct hydrological links, between the proposed works and those areas, it is my opinion that there is no potential for the subject proposal to adversely impact on those European Sites.

11.4.4 At this point it is of relevance to note that the Akeragh, Banna and Barrow Harbour Special Area of Conservation comprises a large coastal site which includes a wide diversity of habitats and has been designated as being of considerable conservation significance due to the presence of the following habitats which are listed on Annex I of the E.U. Habitats Directive, including one priority habitat, and its significance as a wintering site for significant numbers of waterfowl:

- Annual vegetation of drift lines
- Salicornia and other annuals colonising mud and sand
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Mediterranean salt meadows (*Juncetalia maritimi*)
- Embryonic shifting dunes
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)
- Fixed coastal dunes with herbaceous vegetation (grey dunes)
- Humid dune slacks
- European dry heaths

11.4.5 Accordingly, the NPWS conservation objectives applicable to the site seek to maintain or restore the favourable conservation condition of the Annex I

habitats (i.e. the qualifying interests) for which the Natura 2000 designation has been selected.

11.4.6 The Tralee Bay Complex Special Protection Area is an internationally important wetland for wintering waders and wildfowl and supports an internationally important population of Light-bellied Brent Goose as well as nationally important populations of a further 21 No. species. It has been designated as a Special Protection Area under the EU Birds Directive and is of special conservation interest for the following species: Whooper Swan, Light-bellied Brent Goose, Shelduck, Wigeon, Teal, Mallard, Pintail, Scaup, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Lapwing, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone, Black-headed Gull and Common Gull. The NPWS conservation objectives applicable to the site seek to maintain the favourable conservation condition of the aforementioned species as well as the 'A999: Wetlands' habitat as a resource for the regularly-occurring migratory waterbirds that utilise it.

11.4.7 The subject application has been accompanied by a 'Screening Report' which essentially states that the proposed development will not result in any direct impact on the qualifying interests of the aforementioned Natura 2000 sites (such as by way of loss of habitat) and that any indirect impact on water quality within the River Tyshe, which flows through the designated sites, will be satisfactorily mitigated by the various pollution prevention / control measures set out in Section 8.7 of the EIS. This report subsequently concludes that the proposed development will not result in any likely significant direct or indirect impacts, either alone or in combination, on the structure, function and conservation objectives for the Akeragh, Banna and Barrow Harbour Special Area of Conservation and the Tralee Bay Complex Special Protection Area or any other Natura 2000 site.

11.4.8 In the Planning Authority's initial screening of the subject application for the purposes of appropriate assessment, the report of the Biodiversity Officer concluded that further information was required in respect of the potential impact of the proposed development on the protected water-dependent habitat of 'Humid dune slacks' within the Akeragh, Banna and Barrow Harbour Special Area of Conservation given the effects of the proposal on groundwater. Accordingly, in response to a request for further information issued by the Planning Authority, the applicant submitted a document entitled '*Hydrology and Hydrogeology: Supplemental Studies and Responses to RFI Items*' (prepared by Hydro Environmental Services) which stated that no impacts on the Special Area of

Conservation were anticipated as a result of the proposed development as any impact on the groundwater regime in that area would require the cone of drawdown associated with the quarrying operation to extend almost as far as the coast (i.e. in a westerly direction). In this respect it was further submitted that the monitoring of groundwater levels in the area of the quarry had established that there was very limited drawdown to the west and south of the quarry and that the presence of the western fracture zone most likely formed a barrier which prevented the influence of groundwater drawdown from the quarry extending in a westerly direction. In addition, it was noted that the Ardfert South boreholes were located between the quarry site and the Special Area of Conservation and that there was no evidence to suggest that the pumping of the quarry was impacting on those wells. It was also submitted that the dune slacks are located to the west of the Tyshe River and that there is 1.5-3.0km of relatively flat land between Ardfert and the dunes and, therefore, there is limited 'potential' or 'driving' head [pressure] available to force groundwater up to feed water into the dune slacks (i.e. the available gradient is too shallow). Accordingly, the case has been put forward that any groundwater influence on dune ecology must be local to the dunes and driven by local topography and a probable perched water within the dune systems themselves rather than any significant dependence, other than as a support function (underpinning), on regional groundwater flows.

11.4.9 Following consideration of the aforementioned additional information provided by the applicant, the Biodiversity Officer of the Local Authority proceeded to complete an updated screening of the proposed development which accepted the conclusions set out in the *'Hydrology and Hydrogeology: Supplemental Studies and Responses to RFI Items'* and, therefore, concluded that the development proposal, both individually or in combination with other plans / projects, was not likely to have a significant effect on any European Site and thus there was no requirement to undertake a Stage 2: Appropriate Assessment through the submission of a Natura Impact Statement.

11.4.10 Having reviewed the available information, I am inclined to concur with the findings of the hydrological and hydrogeological investigations undertaken by the applicant that the effect of dewatering at the proposed quarry works will not extend a sufficient distance westwards to impact on any localised groundwater influence on dune ecology and that other factors, including the presence of the western rock fracture and topographical considerations, similarly serve to support the finding that the development proposal is unlikely to have a significant effect on the water-dependent habitat of 'Humid dune slacks' within the Akeragh, Banna and Barrow Harbour Special Area of Conservation.

11.4.11 By way of further clarity, and in the interest of completeness, it should be noted that any deterioration in water quality downstream as a result of the proposed works (such as by way of sedimentation, pollution or other contamination) could potentially have a significant adverse impact on those protected habitats and species etc. located within downstream Natura 2000 sites which are to be maintained and / or restored to a favourable conservation condition pursuant to the relevant conservation objectives. In this respect it is apparent that the applicant has placed a considerable emphasis on the implementation of best practice measures in arriving at the conclusion that the proposed development is unlikely to give rise to any significant direct or indirect impacts on any of the identified Natura 2000 sites (and other downstream ecology) and thus the compilation of a Natura Impact Statement for the purposes of a Stage 2 Appropriate Assessment is not required. Accordingly, the question arises as to whether or not best industry practice can be considered to form an integral part of the development in question or if its constitute a means of 'mitigation' which cannot be considered as part of the appropriate assessment screening process. In this regard I would refer the Board in the first instance to the judgement of Mr. Justice Robert Haughton in the case of *Ratheniska Timahoe and Spink (RTS) Substation Action Group and Environmental Action Alliance Ireland v. An Bord Pleanala: 2014 JR 340*, which concerned the Board's decision to grant approval for a development comprising electricity transmission infrastructure and associated works (the Laois – Kilkenny Reinforcement Project), wherein it was held that it was reasonable for both the Inspector and the Board, in the context of assessing any likely "significant effect" when screening the proposed development for the purposes of appropriate assessment, 'to assume that best practice construction management techniques would be adopted to prevent any deterioration of water quality within or upstream of the River Nore SPA'. This judgement provides some useful clarity as regards 'best practice construction methods' and would seem to lend credence to the suggestion that it is entirely permissible to consider the implementation of best practice methods when screening a particular project for the purposes of appropriate assessment. Further support for this position can be derived from *Rossmore Properties Ltd. and Kilross Properties Ltd. v. An Bord Pleanala: 2014 JR 320* which concerned the Board's determination of ABP Ref. Nos. RL09.RL3080, RL09.RL3081 & RL09.RL3113 wherein it had held that the works in question constituted development which was exempted development. In his judgement in that case, Mr. Justice Hedigan stated that 'Where the mitigating factor in question is an intrinsic part of the work to be carried out it makes no sense that [the Board should not take it into account]'. It was also noted that in

the ruling in the case of *Harte DC v Secretary of State for Communities and Local Government* it was stated that ‘*If certain features (to use a neutral term) have been incorporated into that project, there is no sensible reason why those features should be ignored at the initial, screening, stage merely because they have been incorporated into the project in order to avoid, or mitigate, any likely effect on the SPA*’. Therefore, on the basis of the foregoing, it would seem that if the implementation of the various best practice methods proposed to be employed during the course of the works can be held to form an intrinsic part of the works, then it is entirely reasonable to have regard to same in screening the development for the purposes of appropriate assessment.

11.4.12 Accordingly, in my opinion, it is reasonable to conclude that, on the basis of the information available, which I consider adequate in order to issue a screening determination, the proposed development, both individually and in combination with other plans or projects, would not be likely to have a significant effect on any European site and, in particular, specific Site Codes: 000332 & 004188, in view of the relevant conservation objectives, and that a Stage 2 appropriate assessment (and the submission of a NIS) is not therefore required.

11.5 Previous Instances of Non-Compliance:

11.5.1 With regard to the allegations of past failures by the quarry owner / operator to comply with the conditions imposed in respect of previous grants of permission issued on site, in the first instance, it should be noted that the Board has no function in respect of issues pertaining to enforcement and, therefore, such matters should be referred to the Planning Authority. Furthermore, in relation to the apparent suggestion in the grounds of appeal that the proposed development should be refused permission under Section 35 of the Planning and Development Act, 2000, as amended, on the basis of the applicant’s past failures to comply, I note that it appears that following consideration of same the Planning Authority did not deem it necessary or appropriate to invoke the provisions of Section 35 of the Planning and Development Act, 2000, as amended. Furthermore, it is my understanding of the legislation that the provisions of Section 35 are not applicable to the Board and therefore I do not propose to comment further on this matter.

11.6 Other Issues:

11.6.1 Flooding Implications:

11.6.1.1 It is apparent that the proposed expansion of the existing quarrying operation necessitates the dewatering of the extraction areas and the associated discharge of groundwater ingress and surface water runoff from within the said

excavations to the River Tyshe. In this respect I would advise the Board that the subject proposal seeks to increase the volume of water which will be discharged from the wider quarry to the River Tyshe (*N.B.* It is proposed to increase the maximum discharge limit to 40,000m³/day, although it has been submitted that such a level is only expected to occur <4% of the time. Furthermore, it is my understanding that a revised discharge licence, which sought the aforementioned increase in the discharge limit, has received approval). Accordingly, concerns have been raised that the proposed increase in the volume of water likely to be discharged to the River Tyshe as a result of the proposed development will contribute to an increase in the frequency and extent of the flooding of lands located downstream of the application site. Further concerns have been raised as regards the potential impact of the increased flow rate in the river in terms of erosive capabilities, health and safety, ecological implications etc.

11.6.1.2 At this point I would advise the Board that the subject application has been accompanied by a considerable volume of technical data and analysis based on an investigation of the hydrological and hydrogeological characteristics of the area which has been supplemented by additional details, including a Flood Risk Assessment, submitted in response to a request for further information issued by the Planning Authority. Furthermore, it is of relevance to note that the Planning Authority engaged the services of a technical specialist to aid in its assessment of the foregoing and to evaluate the associated implications for the proposed development.

11.6.1.3 From a review of the available information, and as a means of establishing whether or not the proposed development site is located in an area of flood risk, I would refer the Board to the National Flood Hazard Mapping available from the Office of Public Works (www.floodmaps.ie) which, although not recording any flood events in the immediate surrounds of the subject site or any benefitting lands between the site and the coastline, does reference previous instances of flooding alongside the River Tyshe within the village of Ardfert and beyond downstream of the site. However, whilst this mapping serves as a useful tool in highlighting the potential for flood events in a particular area, it must be conceded that it is not definitive and thus it would not be appropriate to rely on same for the purposes of flood risk assessment.

11.6.1.4 Having considered the historical 'National Flood Hazard Mapping' available from the Office of Public Works, I would refer the Board to the 'Preliminary Flood Risk Assessment' prepared by the OPW in 2011 as part of the National CFRAM Programme which essentially encompassed a national

screening exercise to identify areas where there may be a significant risk associated with flooding. More notably, the mapping compiled as part of this exercise indicates that land immediately alongside the River Tyshe, including that immediately west and downstream of the application site, is within the indicative extent of a 1% AEP (1 in 100) fluvial flood event. However, it is important to note that the PFRA is not a detailed assessment of flood risk and is rather a broad-scale assessment, based on available or readily-derivable information, to identify where there is a genuine cause for concern that may require national intervention and assessment rather than locally developed and implemented solutions.

11.6.1.5 Therefore, it is perhaps of greater relevance to consider the updated mapping prepared by the Office of Public Works and published in 2016 as part of its Draft Flood Risk Management Plan for UoM 23: 'Tralee Bay – Feale', which identifies the indicative extents of 1% & 0.1% AEP fluvial flood events in several areas alongside the River Tyshe located downstream of Ardfert in the vicinity of Banna.

11.6.1.6 On the basis of the available information, in my opinion, it is reasonable to conclude that there is a recorded history of flood events of varying degree alongside the River Tyshe downstream of the subject site and, in light of the proposal to increase the discharge of quarry water to the River Tyshe and the potential for same to exacerbate the flooding of downstream lands, the submission of a Flood Risk Assessment was warranted.

11.6.1.7 At this point I would refer the Board to Chapter 8: *'Hydrology and Hydrogeology'* of the EIS and the contents of the response to the request for further information issued by the Planning Authority, with particular reference to the documents entitled *'Hydrology and Hydrogeology: Supplemental Studies and Responses to RFI Items'*, the *'Water Management Plan'* and the *'Flood Risk Assessment'*.

11.6.1.8 The submitted details include an estimation of the likely maximum quarry discharge rates over the various phases of the development, an analysis of flow rates and channel capacity within the River Tyshe downstream of the site, and a proposal whereby a Water Management Plan will be implemented on site to regulate the continuous pumped discharge of quarry waters to the river in order avoid exacerbating downstream flood events. In this regard, I would advise the Board that the estimated maximum quarry discharge rate (100-year) of 52,436.8m³/day will occur during Phase 1 of the proposed development (as amended in the response to the request for further information) when Bench Nos.

3 & 4 will be extracted within the existing southern quarry in tandem with the stripping of topsoil / overburden within the proposed northern quarry extension and the excavation of Bench No. 1 within that area. It is anticipated that Phase No. 1 of the development will be completed by 2021 at which point quarrying activities within the existing southern quarry will cease with that area allowed to flood whilst excavations will continue into the northern extension. It is this initial phase of the overall development which is of particular concern in terms of quarry discharge and the potential for downstream flooding as the dewatering requirements in later phases (i.e. Phase Nos. 2-5) will be significantly less at 24,950.56m³/d given that there will no longer be a requirement to dewater the existing excavation which extends to a much greater depth. Therefore, in order to address the issue of quarry discharge during Phase No. 1 it is proposed to implement a Water Management Plan for the site which will incorporate an Intelligent Discharge Management System whereby quarry discharge will be controlled / regulated having regard to river conditions / flood events. In effect, the proposed water management system will entail the adaptation of the existing pumping system on site to provide for a continuous discharge by way of pumping on a 24/7 basis all year round (thereby providing for a more regulated pumping regime which would be better for flows and aquatic life in the River Tyshe), with the exception of those periods during certain fluvial flow and tidal events when pumping will cease and on site attenuation / storage will commence. In this respect it is proposed to avail of the attenuation storage within the floor of the quarry as required during critical flood events in order to manage and regulate pumped discharge from the quarry with a full 2-day attenuation capacity of 104,980m³ available within the existing quarry. Pumping of waters will be managed by an Intelligent Discharge Management System, which is effectively *‘a decision-making process that analyses real time environmental data and available forecasts, and also uses an existing knowledge bank, to determine if it is appropriate to allow pumped discharge from the quarry into the Tyshe River’*, and Section 3.3.1 of the Water Management Plan sets out a series of restrictions on the pumping of discharge from the quarry, including a provision whereby pumping will cease when a significant fluvial flood flow is predicted / recorded in the Upper Tyshe River with pumping to only re-commence once certain identified water level and tidal criteria have been satisfied. Accordingly, the case has been put forward that if pumping from the quarry is controlled pursuant to the submitted Water Management Plan, with particular reference to the implementation of the IDMS, then the potential for any increase in flood risk, or flood water levels, as a result of the pumped quarry discharge in the Upper or Lower Tyshe River will be negligible.

11.6.1.9 It should be stressed that the foregoing paragraph consists of only a brief summation of the applicant's proposals to regulate the discharge of water from the quarry with a view to avoiding any increased flood risk downstream and I would reiterate that significant hydrological data and analysis has been submitted by the applicant with a view to supporting the feasibility of the proposed discharge controls.

11.6.1.10 Having reviewed the available information, and noting the recommendations of the specialist expertise engaged on behalf of the Planning Authority in its assessment of the aforementioned Water Management Plan etc., it would appear that strict adherence to the required protocols should obviate any potential increase in the flood risk to those lands situated downstream of the application site.

N.B. The Board may wish to have regard to the requirement for the proposed development to obtain an amended discharge licence and the fact that matters such as discharge rates and water quality will be subject to regulation by same. In this respect it would appear that a revised discharge licence has already issued under Ref. No. W190 dated 13th October, 2016.

11.6.2 Interference with a Private Access Arrangement / Right of Way:

11.6.2.1 At present, it would appear that a local resident retains a right of way through the northern extent of the application site to a neighbouring property and, therefore, concerns have been raised in the grounds of appeal as regards the implications of the proposed northwards expansion of the existing quarry for this existing route and the necessary to provide for an alternative access arrangement. In this respect I would advise the Board that the 'Planning Report' which has accompanied the planning application states that the applicant facilitates access by a neighbouring landowner across part of the proposed northern quarry area '*by private arrangement*' and that it is intended to re-route this access around the outer boundary of the proposed quarry works via a new purpose-built roadway which will be completed to the required finish prior to any works being undertaken that would impact on the existing access road. It has been further stated that the affected party has been advised of the foregoing proposals and that it has been made clear that there will be no interruption (either permanent or temporary) to the access enjoyed by this neighbour.

11.6.2.2 In respect of the foregoing, I would advise that it is not the function of the Board to adjudicate on the legality of matters pertaining to any infringement of third party property rights. Accordingly, any alleged interference with an

existing privately agreed right of way / access arrangement is essentially a civil matter for resolution between the parties concerned and in this respect I would refer the Board to Section 34(13) of the Planning and Development Act, 2000, as amended, which states that '*A person shall not be entitled solely by reason of a permission under this section to carry out any development*'.

11.6.3 Wider Public Health Considerations:

11.6.3.1 With regard to the wider concerns expressed in the grounds of appeal as regards the potential impact of the proposed development on human health / public health considerations, including the health and well-being of the occupants of nearby properties, in my opinion, the foregoing environmental impact assessment has given due consideration to those impacts on the receiving environment likely to be attributable to the proposed development which could be construed as giving rise to public health concerns (e.g. dust deposition, noise emissions & impacts on water quality etc.), and it has been concluded that any such impacts can be mitigated to such an extent as to accord with accepted practice whilst the provision of an appropriate monitoring system will ensure compliance with same.

11.6.4 The Construction of the Proposed Bridge:

11.6.4.1 Details of the proposed bridge construction were submitted to the Planning Authority on 22nd July, 2016 in response to a request for further information and it is my opinion that these plans and particulars are sufficient for the purposes of assessing the subject application.

11.6.5 Hours of Operation (including lime-crushing operations):

11.6.5.1 At present, the existing quarry is authorised to operate between the hours of 0730 and 1930, Monday to Saturday inclusive (with no operations to be carried out on Sundays or Bank Holidays) pursuant to Condition No. 13 of the grant of permission issued in respect of PA Ref. No. 00/3519 / ABP Ref. No. PL08.124451. However, the subject application has sought to operate the proposed quarry between the hours of 07:00 and 19:00, Monday to Saturday inclusive, whilst permission has also been sought to carry out lime-crushing operations on an occasional basis during night-time hours.

11.6.5.2 In this regard I would refer the Board to Section 4.7 of the '*Quarries and Ancillary Activities, Guidelines for Planning Authorities, 2004*' which states the following:

'It is recommended that normal operations should be confined to the hours between 07:00 and 18:00, Monday to Friday inclusive (excluding Bank Holidays) or as may be agreed with the planning authority, and between 07:00 and 14:00 on Saturdays, with no quarrying, processing or associated activities being permitted on Sundays or public holidays. Where market conditions to the nature of particular ancillary processes (such as concrete batch manufacture) would require greater flexibility of working hours, it is imperative that such flexibility be discussed with the planning authority at the pre-application stage, and addressed in the planning application'.

11.6.5.3 Having reviewed the available information, it is my opinion that the applicant has offered no clear rationale for the amendment of the permitted working hours of the existing quarrying operation. Indeed, the case could be made that the hours of operation previously approved for Monday-Friday inclusive generally adhere to the recommendations of the aforementioned guidelines whilst the allowance for a continuation of those working hours into Saturdays already provides the applicant with the additional benefit of accommodating further works on site. Similarly, I am unconvinced that the applicant has established any specific need to undertake lime-crushing operations during night-time hours (notwithstanding that these operations may only be conducted on an occasional basis), particularly in light of the generous working hours already permitted on site. Accordingly, I would recommend that there be no alteration of the hours of operation on site from those previously permitted under ABP Ref. No. PL08.124451.

11.6.6 The Location of the Ancillary Site Operations:

11.6.6.1 Condition No. 5 of the previous grant of permission issued in respect of ABP Ref. No. PL08.124451 stated the following:

'Within four years of the date of this order, the developer shall submit for the written agreement of the planning authority proposals for the relocation of the plant and storage areas associated with the crushing of limestone to an alternative area within the site, to the north of the existing location of this plant. The relocation shall take place within three months of the receipt of written agreement from the planning authority. The relocation shall take place before five years have elapsed from the date of this order.

Reason: In the interest of protecting the visual amenities of the area and reducing noise impacts from the operations by moving the stockpiles and plant to an area where there is a greater level of screening provided by the quarry sides'.

11.6.6.2 It would appear that this condition was not complied with and the Planning Authority subsequently authorised the retention of the existing crushing and screening plant (and the associated material stockpiles) at their current locations in its determination of PA Ref. No. 15/245 wherein it was held that the relocation of the aforementioned items would not significantly improve the visual impact of the development given the context of the established use on site whilst the installation of cladding to the plant in question would serve to reduce the noise impact. Further considerations in the assessment of that application included an assertion by the applicant that the relocation of the plant northwards would effectively require it to be sited within the active extraction area of the quarry thereby potentially obstructing or compromising the ability to progress works within the permitted extraction area and undermining the viability of the quarrying operation.

11.6.6.3 Having considered the foregoing, and in light of the established nature of the existing operations, in addition to the noise impact assessment and noise prediction modelling undertaken as part of the submitted Environmental Impact Statement, I am amenable to the retention of the existing ancillary plant etc. at their current locations.

12.0 RECOMMENDATION

Having regard to the foregoing I recommend that the decision of the Planning Authority be upheld in this instance and that permission be granted for the proposed development for the reasons and considerations set out below:

Reasons and Considerations:

Having regard to the established use for quarrying activity on part of the lands and to the pattern of development in the vicinity, it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the amenities of the area or of property in the vicinity, would not have unacceptable impacts on ecology, water quality or the landscape, and would be acceptable in terms of traffic safety and convenience. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

CONDITIONS

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application as amended by the further plans and particulars submitted on the 22nd day of July, 2016 and the 4th day of August, 2016, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.

2. All of the environmental, construction and ecological mitigation measures set out in the Environmental Impact Statement and other particulars submitted with the application and in the further information submitted to the planning authority on the 22nd day of July, 2016, shall be implemented by the developer in conjunction with the timelines set out therein, except as may otherwise be required in order to comply with the conditions of this order.

Reason: In the interest of clarity and the protection of the environment during the construction and operational phases of the development.

3. This permission shall cease to have effect twenty-five (25) years from the date of this order. The quarry use shall then cease, with all related structures removed and remedial works including reinstatement works to be carried out to the satisfaction of the planning authority, unless prior to the end of that period, planning permission shall have been granted for the continuance of the use and retention of the structures for a further specified period.

Reason: In the interests of residential and visual amenity and to ensure appropriate restoration of the site.

4. Prior to commencement of excavation in the area that is the subject of this application, the developer shall obtain a discharge licence from Kerry County Council for the discharge of waters from the quarry floor under the provisions of the Local Government (Water Pollution) Acts, 1977-2007.

Reason: In the interest of public health and to protect the groundwater resources and the surface water resources of the area and the amenities of property along the receiving watercourse.

5. The quarry, and all activities occurring therein, shall only operate between 0730 hours and 1930 hours, Monday to Saturday. No activity shall take place outside these hours or on Sundays or public holidays.

Reason: In order to protect the residential amenities of property in the vicinity.

6. During the operational phase of the development, the noise levels from within the boundaries of the site, measured at noise sensitive locations in the vicinity, shall not exceed the following:

- (a) an Leq,1h value of 55 dB(A) during the period 0800 hours to 1800 hours Monday to Saturday inclusive.

- (b) an Leq, 15 min value of 45 dB(A) at any other time. Night time emissions shall have no tonal component.

Reason: In order to protect the residential amenity of property in the vicinity.

7.
 - (a) Blasting operations shall take place only between 1000 hours and 1700 hours Monday to Friday and shall not take place on Saturdays, Sundays or public holidays. Monitoring of the noise and vibration resulting from blasting and the frequency of such blasting shall be carried out at the developer's expense by an independent contractor who shall be agreed in writing with the planning authority.

- (b) Prior to the firing of any blast, the developer shall give notice of his intention to the occupiers of all dwellings within 500 metres of the site. An audible alarm for a minimum period of one minute shall be sounded. This alarm shall be of sufficient power to be heard at all such dwellings.

Reason: In the interest of public safety and residential amenity.

8.

- a) Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).
- b) A monitoring programme, which shall include reviews to be undertaken at annual intervals, shall be developed to assess the impact of quarry blasts. Details of this programme shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any works on the site. This programme shall be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

Reason: To protect the residential amenity of property in the vicinity.

9.

- a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement dates and the frequency of monitoring results, and details of all dust suppression measures.
- b) A monthly survey and monitoring programme of dust and particulate emissions shall be undertaken to provide for compliance with these limits. Details of this programme, including the location of dust monitoring stations, and details of dust suppression measures to be

carried out within the entire quarry complex, shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall include an annual review of all dust monitoring data, to be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

Reason: To control dust emissions arising from the development and in the interest of the amenity of the area.

10.

(a) The wheels and undersides of all vehicles transporting aggregate from the site onto the public road shall, prior to the exit of such vehicles onto the public road, be washed in a wheel washing facility, which shall be constructed, installed and operated in accordance with the requirements of the planning authority.

(b) In dry weather conditions, all roads within the site and the active working face shall be sprayed with water at least three times a day.

Reason: In the interest of traffic safety and convenience, and to protect the amenities of the area

11. All loads of dry fine materials shall be either sprayed with water or covered/sheeted prior to exiting the quarry.

Reason: In order to prevent dust emissions, in the interest of amenity and traffic safety.

12. The developer shall manage drainage from the quarry site in accordance with a Water Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall include details of the design and operation of flow control devices, including the Intelligent Discharge Management System (IDMS), and shall incorporate a monitoring programme relating to the control and management of water on the site. The plan shall provide for the monitoring of ground and surface water quality, levels and

discharges on the site and for ongoing sampling of the Tyshe River upstream and downstream of any discharge and ongoing monitoring of the capacity of the settlement lagoons and attenuation areas.

Reason: In order to protect water quality.

13.

- (a) Groundwater monitoring wells shall be installed in the vicinity of the site, at locations to be agreed in writing with the planning authority prior to commencement of development. Water levels in these wells shall be recorded every month. A log of these levels shall be submitted to the planning authority on a quarterly basis.

- (b) An alternative water supply shall be made available by the developer, at his expense, immediately it becomes evident from the monitoring programme that the quality or quantity of water in the vicinity is being adversely affected. Alternative water supplies may be secured by the deepening of private wells, drilling of new wells or other such alternatives as may be specified by the planning authority.

Reason: To protect and monitor groundwater in the vicinity of the site.

14.

- (a) Surface water run-off from open cut areas shall not be discharged directly to any watercourse. All such water shall be trapped and directed to temporary settling ponds.

- (b) Prior to commencement of further quarrying works on the site, the developer shall have installed on lands within his control, a mechanism to facilitate treatment of all discharges to surface water arising from the entire quarry complex. The specific nature, layout and location of such facilities shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In the interest of public health and to protect water quality.

15.

- (a) The settlement ponds shall be cleaned out at monthly intervals. Details of the proposed use, handling, and destination of the removed

silt shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

- (b) Any excavation required to accommodate the settlement ponds, cut-off drains and storage ponds shall be agreed in writing with the planning authority prior to such works being undertaken.

Reason: In order to ensure the efficient operation of the settlement ponds.

16. All over ground tanks containing liquids (other than water) shall be contained in a waterproof bunded area, which shall be of sufficient volume to hold 110 per cent of the volume of the tanks within the bund. All water contaminated with hydrocarbons, including stormwater, shall be discharged via a grit trap and three-way oil interceptor with sump to a watercourse. The sump shall be provided with an inspection chamber and shall be installed and operated in accordance with the written requirements of the planning authority.

Reason: In order to protect groundwater and surface water.

17. The development shall be operated and managed in accordance with an Environmental Management System (EMS), which shall be submitted by the developer to, and agreed in writing with, the planning authority prior to commencement of development. This shall include the following:

- (a) Proposals for the suppression of on-site noise.
- (b) Proposals for the on-going monitoring of sound emissions at dwellings in the vicinity.
- (c) Proposals for the suppression of dust on site and on the access road.
- (d) Proposals for the bunding of fuel and lubrication storage areas and details of emergency action in the event of accidental spillage.
- (e) Details of safety measures for the land above the quarry, to include warning signs and stock proof fencing.

(f) Management of all landscaping with particular reference to enhancing the ecological value of the woodland/grassland on the bunds and buffer areas.

(g) Monitoring of ground and surface water quality, levels and discharges.

(h) Details of site manager, contact numbers (including out of hours) and public information signs at the entrance to the facility.

Reason: In order to safeguard local amenities.

18. Scrap metal and other waste material shall be removed at least annually from the site in accordance with the written requirements of the planning authority. Such materials shall be deemed to include scrapped trucks, other scrapped vehicles, empty oil barrels, broken or otherwise unusable truck bodies, worn out conveyor belts/chains, worn out batteries, unusable tyres and worn out conveyor/roller shafts.

Reason: To protect the amenities of the area.

19. The developer shall submit annually, for the lifetime of the permission, a map of the progression of the phased development of the quarry and of the quarry perimeter, surveyed against established perimeter beacons, the form and location of which shall be agreed in writing with the planning authority prior to commencement of quarrying works.

Reason: In order to facilitate monitoring and control of the development by the planning authority.

20. The site shall be screened in accordance with a scheme of screening measures and boundary treatment in respect of the entire quarry complex, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This scheme shall include the timeframe, specific location(s), and final form and height of proposed screening berms, details of all planting proposed on existing and proposed screen berms, details of the ongoing care and management of such planting, details of a phased programme of landscaping within the quarry and details of an adequate barrier to prevent unrestricted access to the top of the quarry face from adjacent lands.

Reason: In the interest of visual amenity and to safeguard the amenities of residential property in the vicinity during the operating phase of the development

21. All proposed screening measures, including improvements to boundaries and the provision of any fencing and berms, shall be completed prior to commencement of extraction within the northern quarry extension on site.

Reason: In the interest of visual amenity and to safeguard the amenities of residential property in the vicinity during the operating phase of the development.

22. All topsoil shall be stripped and stored separately from overburden. Detailed proposals in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

Reason: In order to protect the residential amenities of property in the vicinity.

23. The construction of the new bridge and the associated works to Local Road No. L-10477-0 shall be managed in accordance with a Construction Management Plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall provide details of intended construction practice for the development, including hours of working, noise management measures, traffic management measures, and off-site disposal of construction/demolition waste.

Reason: In the interests of public safety and residential amenity.

24. Construction and demolition waste shall be managed in accordance with a construction waste and demolition management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall be prepared in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects", published by the Department of the Environment, Heritage and Local Government in July 2006.

Reason: In the interest of sustainable waste management

25. The developer shall facilitate the preservation, recording and protection of archaeological materials or features that may exist within the site. In this regard, the developer shall -

- (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development,
- (b) employ a suitably-qualified archaeologist who shall monitor all site investigations and other excavation works, and
- (c) provide arrangements, acceptable to the planning authority, for the recording and for the removal of any archaeological material which the authority considers appropriate to remove.

In default of agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination.

Reason: In order to conserve the archaeological heritage of the site and to secure the preservation and protection of any remains that may exist within the site.

26. A comprehensive plan for the restoration of the entire quarry following the cessation of quarrying works shall be submitted to, and agreed in writing with, the planning authority within six months from the date of this order. This plan shall include proposals for re-use of the quarry and measures to ensure public safety therein. The developer shall commence implementation of the agreed site restoration plan within the area of the site within one month of cessation of extraction in this area and shall have completed this part of the plan within 12 months of commencement.

Reason: In the interest of public amenity and public safety.

27. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security

shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure the satisfactory restoration of the site in the interest of visual and residential amenity.

28. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

Reason: It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

29. The developer shall pay to the planning authority a financial contribution as a special contribution under section 48(2) (c) of the Planning and Development Act 2000, as amended, in respect of road signage and lining works along the local road network. The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála for determination. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be updated at the time of payment in accordance with changes in the Wholesale Price Index – Building and Construction (Capital Goods), published by the Central Statistics Office.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning

authority which are not covered in the Development Contribution Scheme
and which will benefit the proposed development

Signed: _____

Robert Speer
Inspectorate

Date: _____