



An  
Bord  
Pleanála

## Inspector's Report QD0027

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<b>Development</b>	Extension to existing quarry.
<b>Location</b>	Coolishal Upper, Gorey, Co. Wexford.
<b>Planning Authority</b>	Wexford County Council.
<b>Applicant</b>	Faser Court Ltd.
<b>Type of Application</b>	Application under section 37L.
<b>Observers</b>	None
<b>Date of Site Inspection</b>	27 <sup>th</sup> February 2015.
<b>Inspector</b>	Mairead Kenny.

## 1.0 Introduction

- 1.1. This report overlaps with the report on concurrent case SU0113.
- 1.2. This application relates to a proposed extension at an existing quarry at a location northwest of the area subject of the application for substitute consent. The area of the extension is 3.8245 hectares.
- 1.3. SU0113 refers to the unauthorised deepening and lateral extension of the permitted quarry by 3.2862 hectares below the previously permitted level of the stone quarry and for the extraction of stone in an area of 0.6951 hectares outside the previously permitted boundaries.
- 1.4. The planning authority has recently refused permission for a recycling system for re-use of wash-water in the concrete manufacturing process, for a truck-wash bay and for retention of the concrete block storage yard and concrete block manufacturing batching plant and workshop building and retention of the relocation of the extended / updated concrete batching plant.

## 2.0 Site Location and Description

- 2.1. The site is located at Coolishal Upper, Gorey, Co. Wexford. The site is approximately 2.5 km southwest of the town of Gorey. This rural area is predominantly agricultural in character and land use. There are two small clusters of dwellinghouses in the immediate vicinity of the site, one close to the entrance road to the east and the other to the northwest of the site.
- 2.2. There are two access routes into the overall holding. The northern route is stated to be reserved for agricultural uses. The quarry access is from the former N11 (now the R772) to the south-east of the holding. The entranceway is wide and there is a right hand turning lane from the regional road into the quarry.
- 2.3. The site contains an existing quarry and related activities. The activities which are currently carried out on the overall lands comprise extraction of rock and processing of raw materials into products, including the manufacture of ready-mix concrete, concrete blocks, pre-cast concrete products and asphalt / tarmacadam products using raw materials from the quarry.

- 2.4. The stated overall area to which this application relates is 3.8245 hectares and of the overall quarry is 30.590 hectares. The stated area of the overall holding is 42.568 hectares.
- 2.5. The quarry and associated lands are situated within a hill which has a peak elevation of 175mOD. The site entrance level from the regional road is at 72mOD. The existing ground level at the location of the proposed extension is between 130mOD and 150mOD. The stated current elevation at the lower level of the existing extraction is at 100mOD.
- 2.6. The site of the proposed extension is most visible from the south / south-east. The landscape character comprises a pleasant but relatively unremarkable rural area.
- 2.7. The Coolishal hill is the catchment boundary between two river catchments, the Owenavooraigh and the Slaney. To the southeast is the Gorey River a tributary of the Owenavooraigh and to the northwest is the catchment of the Bann, a tributary of the Slaney.
- 2.8. At the time of inspection in connection with the concurrent application, extraction was ongoing in the area of the original quarry which adjoins the area subject of this application. The owner/operator also pointed out ongoing works in the provision of an upgraded surface water management system. This includes a monitoring point SW3 installed at the northern end of the quarry . At this location I also noted the existence of a drain under the public road and connected with a small stream and to the Bann.
- 2.9. Photographs of the site and surrounding area which were taken by me at the time of inspection are attached to the rear of this report.

### **3.0 Proposed Development**

- 3.1. This application relates to an extension of stated area of 3.8245 hectares together with landscaping mounding and ancillary works.
  - 3.1.1. The extraction will rely on use of the existing access road from the former N11 to the south and use of existing internal routes and parking.
  - 3.1.2. The extraction will take place over 15 years assuming extraction at a rate of 250,000 tonnes per annum (tpa).

- 3.1.3. Working will be in a north/north-westerly direction and in two phases.
- Phase 1 – 8 years – to lower limit of 113mOD.
  - Phase 2 – 7 years – to a lower limit of 90mOD.
- 3.1.4. The proposal involves an upgraded and improved surface water management system. This has been subject of a separate application to the planning authority<sup>1</sup> but is also described in the current application submissions as detailed below.
- 3.1.5. Processing and stockpiling of materials will take place within the boundaries of the overall quarry including part of the area subject of the current application for substitute consent (SU0113).
- 3.1.6. Hours of operation will be in accordance with the permission PL26.235738.
- 3.1.7. A total of 60 employees will be based at the site and a further 10 persons directly employed in haulage.
- 3.1.8. Periodic blasting (once every two months) will be required.
- 3.1.9. Landscape and visual screening will involve construction of clay mounds along the southwestern edge of the proposed quarry extension and supplementing it with an extensive programme of woodland tree planting. A phased planting programme will be carried out at the commencement of the extraction works in the extension. Screen mounding and planting to the southeast and northwest of the existing quarry has been undertaken and substantial planting undertaken. Site restoration provides for flooding of the void.
- 3.2. The **application submissions** include:
- Application letter by PD Lane and Associates
  - Environmental Impact Statement
  - Drawings received on 2<sup>nd</sup> January 2016
  - Kilgallen and Partners Consulting Engineers – Surface Water Drainage – dated 20<sup>th</sup> January 2016
  - AWN Consulting - review of Kilgallen and Partners design of new water management system – dated 22<sup>nd</sup> January 2016

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<sup>1</sup> Reg. ref. 20160122 – permission refused.

- Stage 1 Screening for Appropriate Assessment dated July 2012.

3.2.1. Regarding surface water management the application submissions note:

- The purpose of the surface water system upgrade in the overall quarry and in the manufacturing and processing areas in particular is to allow for cessation of discharge of waters from the quarry and the manufacturing areas. Works for disposal of surface water run-off from the existing quarry access road approved under PL26.235738 (20090014) have been completed.
- Surface water from the manufacturing / processing areas will be recycled for use in the concrete manufacturing process. It discharges to the interconnecting settlement ponds / sump prior to being pumped to interconnecting 50,000 litre water storage tanks for use in concrete products manufacturing processes as detailed in the Kilgallen report and drawings 15093-101, 15093-102, 15093-103. The Kilgallen report outlines further drainage works including kerbing, berms, drains, gullies, and sediment control trenches.
- Surface water run-off within the existing extraction area is directed into the existing interconnecting ponds / sump and used for manufacturing and processing as described above.
- Surface water run-off from the proposed extraction area 'will be managed in a similar manner where water will be directed into settlement ponds where water can then be used for dust control'.
- As a result there will be no discharge of water from the site to the rear/north.
- The report of AWN sets out a number of monitoring proposals and points to the need for ongoing review.

3.2.2. A truck wash bay for the purposes of washing out of ready-mix truck drums will be installed adjacent to the ready-mix plant and subject to the separate application.

3.2.3. Water supply for purposes other than supply for manufacturing and related operations will be from existing bored wells. These will supply the offices and toilets and the entrance sprinklers. Up to recently one of the wells (TW1) served to supply water to the concrete products manufacturing. Water for the sprinkler heads in the yards will be from the recycled sources.

## 4.0 Submissions

### 4.1. Planning Authority

4.1.1. The report of the planning authority includes the following comments:

- Similarity between proposed area of extraction and that proposed under reg. ref. 20130442 although current proposal is deeper.
- Regarding the reasons for refusal above the planning authority consider that determining this s37L application with the substitute consent application will go some way to addressing the uncertainties related to impacts on environment and traffic.
- Current application 20160112 and consideration of same will also help address previous uncertainties.
- Clarity is required regarding intentions for on-going and future extraction work within the existing area of extraction as the planning authority do not consider that the ongoing and future quarrying within this area is authorised – the quarry was not subject to the s261 registration process and the operators may not now revert back to reg. ref. 20408 after the process has concluded - reg. ref. 980589 has expired.
- Regarding water management the dwellinghouses to the north and northwest are served by private wells – the impact of existing or proposed dewatering and conditions relating to effective monitoring and actions need to be considered.
- Discharge of surface waters from the site was never authorised or subject to discharge licence and the application includes measures to cease.
- Regarding residential amenities the extraction extends in the direction of residences although a buffer of 200m remains – rock processing and stockpiling after initial extraction need not take place in the area of extraction.
- The Board are requested to consider in relation to the stockpiling and processing on the eastern side of the site (which is elevated) whether this is the most appropriate location on the lands for stockpiles etc., whether further

structures or landscaping are required to contain the potential for noise and dust generation and / or whether the use of previously extracted areas would be a more appropriate location (high faces enclose noise and dust).

- Whether there is a need for additional buffering of the access road to mitigate noise and vibration at a dwellinghouse might be considered.
- The existing entrance to the R772 is considered to be of adequate and traffic should be restricted to the regional road.
- Early implementation of landscaping on the north-western side of the site will assist in mitigation for any adverse visual impacts – aspects of the landform on the overall site did not appear to be authorised including the yard and an expanded surface area used for stockpiling and landscaped embankment at the eastern side – while the visual impact of these features may be mitigation with landscaping clarity is required as to whether these features can be formally authorised through this application.
- Existing landscaping within and at the boundaries of the site is not considered to be formally authorised previously because of the unauthorised status of aspects of aspects of the landform.
- The Board will no doubt consider the appropriateness of the current use of waste concrete blocks at the north-eastern boundary of the site.
- There is no objection in principle to the area of extraction if adverse effects can be prevented, controlled and mitigated.
- A warning letter was issued relating to possible unauthorised quarrying, manufacturing and landforms / usage – letter and response are enclosed.
- If permission is granted for the substitute consent and s37L application it is hoped that there will be greater clarity regarding permitted operations and conditions, which will be of great benefit to the community, operator and planning authority – clear and enforceable conditions should be attached in relation to a number of listed items.

## 4.2. Prescribed Bodies

The application was referred to Irish Water, the HSE, An Taisce, TII, DCENR, IFI, An Chomhairle Ealaion, Heritage Council, Failte Ireland and DAHG.

4.2.1. **Transport Infrastructure Ireland** states that subject to quarrying based on the analysis set out in the EIS, the Authority has no specific objection in principle.

4.2.2. **Department of Arts, Heritage and the Gaeltacht** recommends that archaeological monitoring be undertaken at the site and addressed by condition presented. The potential presence of Peregrine Falcon needs to be clarified and if necessary taken into account in any restoration plan by retaining suitable nesting ledges. NPWS is aware of nesting peregrines in the quarry. They require consideration to avoid disturbance in nesting season. There is a conflict in the AA screening report and the EIS regarding the distance to the nearest Natura 2000 site (1.7km according to the screening report and 3km according to the EIS).

4.2.3. **Inland Fisheries Ireland** request clarification on the lower limit of extraction relative to the lower limit of the existing quarry, the potential for Acid Rock Drainage. IFI express concern relating to:

- the elevated sulphate concentrations, zinc concentrations
- groundwater flow relative to the Banoge/Owenavorrhagh system
- the potential that the development which is within the Bann River catchment may create a preferential flow path from the fissured bedrock aquifer which might result in transfer of significant volumes of water from this important aquifer contributing to the Bann and Slaney SAC
- absence of biological monitoring of the small watercourse to the north of the quarry, which would have allowed for long-term monitoring of impacts from the quarry upon the Bann River tributary
- has any modelling been undertaken of the Bann River tributary to the north of the existing quarry, which represents salmonid habitat
- need to consult EPA and GSI.

4.2.4. **Health Service Executive** notes the parallel application for a recycling system for re-use of washwater and retention of yards and buildings and that it was not



consulted on this. The EMS in place at the quarry is verified by competent persons within the quarry and outside specialists. All potential Environmental Health impacts have been addressed and mitigation described. There are no habitable houses within 300m in third party ownership. No complaints received by HSE from public. No quarrying should be permitted below the groundwater table level or within a distance of same that could contaminate the groundwater. All mitigation should be implemented in full and ongoing Environmental Plan including quarterly monitoring and annual reporting should continue. Incremental restoration is appropriate. No extension within 300m of any future dwelling or other sensitive user.

- 4.2.5. **Irish Water** notes that the site is 800m from the Coolishal Bore Hole and Water Treatment Plant which forms part of the Gorey Regional Water Supply Scheme. It is unclear if the proposed development would result in any water table lowering on the Coolishal bore hole zone of contribution. The applicant should provide clarification to ensure that Irish Water assets will be protected from quarry related activities.

#### 4.3. **Third Party Observations**

None.

#### 4.4. **Further submission – first party response to planning authority**

The applicant in correspondence dated 19<sup>th</sup> April 2016 refers to the report of the planning authority and responds in particular on the proposed surface water and states:

- A recent geotechnical assessment report by Advanced Mining Solutions in April 2016 has provided guidance on the appropriate areas for extraction – these coincide with the boundary area of the current SU and S37L application
- Due to the increasingly confined nature of the current quarry pit it is imperative that those applications be granted soon
- Given the concerns in recent reports of WCC and IFI regarding potential impacts on wells, discharge of surface water and impact on the cSAC and potential groundwater contamination a programme of works has been agreed with the operators as presented on drawing number 15093-104PL1 and

includes updating of the domestic well survey in April 2016, implementation of a water management plan for the quarry within 6-10 weeks and sampling from the watercourse at SW4 and monitoring of MW1 -MW3.

## 5.0 Planning History

5.1. The most relevant planning history is summarised below. I attach an overview map which shows the general locations of these applications.

5.2. Under **reg. ref. 20160122** an application was refused by the planning authority on 27<sup>th</sup> October 2016 for –

- A truck wash-bay and surface water recycling system in the manufacturing areas to facilitate the re-use of surface water in concrete manufacturing
- Retention of existing 3.357 hectare yard for storage of concrete blocks
- Retention of concrete block manufacturing batching plant and a workshop
- Retention of the relocation of extended / updated ready-mix concrete batching plant within the boundaries of the original approved quarry.

The reasons for refusal related to insufficient information regarding:

- The planning status of previous and proposed quarrying operations
- The capacity and traffic levels of the activities subject of this application
- Intentions for the development proposed should quarrying operations cease.

It was considered that the applicant had not demonstrated that the proposed development taken in conjunction with existing and proposed development on the overall site would not cause serious air, water or noise pollution and/or endanger public safety by reason of traffic hazard or obstruction.

5.2.1. The information on file indicates that the activities on site are interlinked with processing being dependent on raw materials quarried at the site,. capacity of the plant was not quantified but described as being dependent on demand and highly variable. The planning report acknowledges that implementation of the measures recommended in the submissions of Kilgallen and AWN would be a significant improvement but are connected to the quarrying applications which are

undetermined. The planning authority indicates concern that it might be premature to decide the application pending the decision on the two concurrent applications.

5.2.2. The Environment Section report dated 4<sup>th</sup> April recommends further information including in relation to the impact of dewatering on groundwater levels and the impact of discharge of surface and groundwater on receiving waters. This report was apparently not available to the planner and the recommendations were not included in the requested further information. The subsequent Environment Section report sets out a range of conditions to be attached and recommends a grant of permission.

5.3. **SU0113** – This is the concurrent application for substitute consent in an area of 3.2862 hectares below the previously permitted level of stone quarry and for the extraction of stone in an area of 0.6951 hectares outside the boundaries of the original stone quarry and the previously permitted extensions – reg. ref. 20,408, 980589 and 20000280 refer.

5.3.1. The application was accompanied by a remedial Environmental Impact Statement and by a screening statement for Appropriate Assessment which made a finding of no significant effects.

5.4. **Planning Reg. Ref. 20130442** – This refers to an application for permission for extraction at an area broadly similar to the current site.

5.5. The proposed extraction area was 4.894 hectares and the level of extraction is 100m OD. The Planning Authority refused permission for reasons related to :

- Significant adverse effects on the environment and on amenities of property in the area in relation to air, water and noise pollution, vibration and impacts on groundwater – deficiencies in submitted information.
- Not demonstrated that would not adversely affect the Slaney River Valley cSAC which is an Annex 1 habitat.
- Not demonstrated that would not endanger public safety by reason of traffic hazard and would not obstruct other road users – inadequate information.
- Not been demonstrated that would not interfere with landscape character as insufficient information submitted.

- Not demonstrated that would not impact on safety and / or would not impact on the stability of the geology of the site and the adjoining land.

5.6. The internal reports on file note that:

- Traffic should be assessed based on the peak potential output of the plant and if necessary to apply assumptions on the likely maximum levels achievable over the life of the operations.
- Stage 2 NIS is required and has not been submitted with regard to the discharges to the watercourse which leads to the Slaney cSAC.
- Senior Environmental Scientist refers to the completely unacceptable nature of the EIA due to the paucity of data and the age of the data submitted and the neglect to examine the impacts of a number of discharges from this site to surface waters, groundwater, impacts of fugitive dust emissions and noise from the site on and impacts of dewatering etc.

5.7. The quarry was registered under **ref. QY/10**. It has been subject of a review by the Board under case ref. 26.QV.0245 – the relevant Wexford County Council reference is Q045.

5.8. Under **Planning Reg. Ref. 20090453** an application to retain and complete an embankment and for retention of a truck parking area was refused permission for reason of significant negative impact on the visual amenities, premature pending agreement of a restoration plan for the site, inadequate details regarding existing and proposed levels of the embankment and the parking and the integrity of the embankment and surface water disposal, failure to demonstrate adequate sightlines.

5.9. Under **PL26.235738 / Planning Reg. Ref. 20090014** permission was granted on 22<sup>nd</sup> July 2010 for asphalt manufacturing plant and associated works. The site outlined comprised a small part of the overall holding.

5.9.1. Conditions attached included :

- Condition 3b – the developer to submit details to indicate that a surface water system has been installed that can adequately deal with all surface water on site – to include as built drawings and a cross section.

- Condition 5 – site to be landscaped throughout the entire quarry in accordance with drawing C33-37.
- Condition 12 – no more than 28 truck movements per working day in each direction and daily record to be kept by use of truck traffic counter.

5.10. Under **Planning Reg. Ref. 20000280** permission was granted to retain development comprising stone extraction on 1.456 hectares of land adjoining an existing quarry.

5.10.1. Under **Planning Reg. Ref. 980589** permission was granted for the extraction of stone on 5.37 hectares of land adjoining an existing quarry.

5.10.2. These two areas combined are now subject of the application for substitute consent. The submissions under Planning Reg. Ref. 20000280 state that the depth of extraction and other details would be regulated under Planning Reg. Ref. 980589 which was accompanied by an EIS – there was some overlap between the two sites as extraction had commenced on part of the 5.37 hectare site. The conditions of Planning Reg. Ref. 980589 thus regulate the overall 5.37 hectare site, which includes the 1.456 hectare site and are thus pertinent to the site of the application for substitute consent. Those conditions of the decision of 29<sup>th</sup> August 2000 include :

- Ten year permission from date of decision to include site reinstatement
- No excavation below water table, established in the EIS at 98.7mOD
- Measures to protect amenity including dust, noise and vibration control measures which are in some cases below the normal standards
- Monitoring and submission of annual reports by independent person
- Aquifer protection measures set out in report of 5<sup>th</sup> July 2000 of KT Cullen to be implemented as part of the overall development works
- Landscaping plan to be agreed and completed within one year.

5.11. The original quarry permission dates to 1980 - **Planning Reg. Ref. 20,408**. The only condition attached to the permission relates to the repair of the N11. The planning authority has referred in its submission on the current application to this permission stating that it cannot be relied upon by the developer for future extraction.

## 6.0 Policy Context

### 6.1. Development Plan

The relevant plan is the Wexford County Development Plan 2013 -2019 which includes the following policies :

- Restrict extractive industry where could significantly impact on European Sites or pNHAs – ED09
- Maximise biodiversity of site and ensure best practice in design and operation – ED10 and ED11
- Provide for manufacture of concrete and tarmac and consider use of worked out sites for deposit and recycling of inert waste – ED12 and ED13
- Have particular regard to visual impacts, methods of extraction, noise levels, dust prevention, protection of rivers, lakes and other water sources, impacts on residential and other amenities, impacts on road network, road safety, reinstatement and landscaping of worked sites – ED17
- Section 6.4.5 refers to facilitating the appropriately sited, design and well managed development of the extractive industry while ensuring protection of the environment, landscape, residential and tourist amenities
- The site is within a Lowland area under the landscape Character Assessment. The plan includes a range of specific policies in relation to Upland, River Valley, Coastal and Sensitive Areas.

Quarries and Ancillary Activities Guidelines 2004 set out requirements in terms of the siting, design and operation of quarries.

### 6.2. Natural Heritage Designations

The Slaney River Valley SAC lies broadly north-west of the Coolishal Hill and is about 1.7km from the crest of the hill. The nearby stream to the northeast of the site provides a pathway to the European Site. The qualifying interests are:

1029 Freshwater Pearl Mussel *Margaritifera margaritifera*

1095 Sea Lamprey *Petromyzon marinus*  
1096 Brook Lamprey *Lampetra planeri*  
1099 River Lamprey *Lampetra fluviatilis*  
1103 Twaite Shad *Alosa fallax*  
1106 Atlantic Salmon *Salmo salar* (only in fresh water)  
1130 Estuaries  
1140 Mudflats and sandflats not covered by seawater at low tide  
1355 Otter *Lutra lutra*  
1365 Harbour Seal *Phoca vitulina*  
3260 Water courses of plain to montane levels with the *Ranunculion fluitantis*  
and *Callitriche-Batrachion*  
91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles  
91E0 \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-  
Padion*, *Alnion incanae*, *Salicion albae*).

The conservation objectives are site specific.

## 7.0 Assessment

7.1. In terms of the principle of the development and consideration of the key planning and environmental issues in this case the significant issues fall under the following headings:

- Groundwater and surface water impacts
- Appropriate Assessment
- Environmental Impact Assessment
- Other issues.

## 7.2. Groundwater and surface water impacts

### 7.2.1. Overview

7.2.2. I consider that the site is located in an area which would be deemed to constitute a sensitive receiving environment for the proposed quarry extension. The EIS indicates the following which I consider relevant as an overview:

- Regionally Important Fissured Bedrock Aquifer, which supports a major groundwater abstraction for the town of Gorey production wells within 800m to 2km of the quarry at locations to the east/south east of the quarry
- Crest of Coolishal Hill is the groundwater divide of two groundwater bodies – Ballyglass GWB which is poorly productive and that within which the site lies is likely to be the Gorey GWB with a fissure flow regime<sup>2</sup>
- Northeast of the quarry site a small stream connects with the River Bann, a sensitive fisheries and a tributary of the Slaney close to the designated area of the Slaney River Valley cSAC (Site Code 0781)<sup>3</sup> – history of discharges and potential hydraulic connectivity
- Activities include concrete block, ready-mix and asphalt production.

7.2.3. I am of the opinion that the critical matter for the Board to decide in this case is whether or not the applicant has demonstrated a sound conceptual understanding of the groundwater system, which will be affected by the proposed development. That understanding is necessary as a foundation for consideration of likely impacts on

- nearby private wells – water levels and quality
- public water resources – water levels and quality
- the nearby stream – water quality or baseflow impacts from dewatering and whether cessation of discharges as proposed is feasible
- resulting potential for consequences for fisheries and the European Site.

7.2.4. The background to the current application includes an acknowledgement by the planning authority (as part of the consideration of application 20130442) that the extent of discharges to the nearby stream was not known when the planning authority considered a Stage 1 screening report for appropriate assessment. That

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<sup>2</sup> Transmissivity estimates for Ballyglass GWB to northwest of quarry is 1-10m<sup>2</sup>/d and for Gorey GWB ranges between 20-300m<sup>2</sup>/day. Groundwater abstraction scheme wells to south and east of quarry as shown on figure 7.6 of EIS.



matter is excluded from consideration under SU0113. The same screening report is presented in this application.

- 7.2.5. The background also includes enforcement proceedings arising from the large concrete block storage area at the northern end of the site and concerns relating to water quality effects.
- 7.2.6. Arising from these concerns the focus of the application submissions in this case relate to the preparation of a surface water management system for the site. The two supplementary technical reports on file address this matter in terms of the volume of surface water generated from the existing and future expansion areas taking into account rainfall patterns and incorporating measures to deal with infiltration to groundwater.
- 7.2.7. The general thrust of the system, resulting in a planned future zero discharge beyond the site to the stream to the north is to re-use the estimated average annual run-off of 21,349m<sup>3</sup> on site in processing where the calculated average annual demand for water of 18,840m<sup>3</sup>.
- 7.2.8. The applicant's submission of April 2016 to the Board indicates a 10 week timescale for implementation. I did not re-inspect this site for the purposes of the current application. However a number of features of the proposed surface water management system were in place at the time of my inspection in connection with SU0113 and I consider that the Board can be satisfied that any outstanding matters relating to completion could be addressed by condition.
- 7.2.9. In relation to the processing water requirement I note that the production output will vary according to market demand. The surface water management system designed does not address the scenario whereby there is considerable demand for rock extraction which is not balanced with a requirement for concrete products. In the event of a consideration of a favourable decision this might be addressed by condition.
- 7.2.10. In so far as the Kilgallen report aims to address (primarily) surface water discharge through re-use within the processing on-site it appears to me to be generally acceptable and I agree with the planning authority submission that it would clearly constitute a significant improvement. The Kilgallen report was independently

reviewed by AWN who suggest a number of modifications and reviews all of which I consider appear capable of implementation.

7.2.11. I am therefore satisfied that for the early stages of extraction the surface water management system appears to constitute a suitable solution and be acceptable in terms of its capacity and overall design and purpose. I note the potential for significant benefit in terms of groundwater quality, a matter which is referenced in various reports of Council officials including in relation to other application. In the scenario where there is a balance between dewatering and processing waters the surface water recycling proposed would reduce the requirement for groundwater pumping for production and potentially allow for cessation of discharge to the nearby surface water.

7.2.12. The issue of concern is whether the design proposed can cater for future extraction at depth including dewatering and whether this is fully considered and based in sufficient site investigations. The information available in terms of potential for groundwater impacts is now further considered.

7.2.13. **Groundwater – overview of applicant’s assessment**

7.2.14. The intention is to develop the quarry extension in two phases with benches at 113mAOD and 90mAOD – the extraction floor would be 10m below the existing lowest level of extraction.

7.2.15. I consider that there are a number of matters of significant concern in terms of the information presented by the applicant. In general it appears that understanding of the environment is not demonstrated to be based on hydrogeological data but in critical respects appears to be reliant on professional judgements, which are valuable but not sufficient in themselves in the context of the sensitive receiving environment and the depth of the proposed extraction and nature of the existing quarry.

7.2.16. The EIS acknowledges the limitations on data on historical water levels but notes that ‘limited groundwater level data for borehole at the wider quarry site is available for 2010 after the drilling of monitoring wells on sites’. The interpreted groundwater contour at the location of the extension is 120mAOD and the static water level of MW2, which is within the area of the proposed extension are between 120m and

130m AOD for 2014 and 2015<sup>4</sup>, which levels are stated to be from surface water ingress as well as groundwater.

- 7.2.17. Information presented in relation to groundwater flow direction is based on measured borehole levels. The general trend is stated to be likely to be to the east and towards the Gorey and therefore any dewatering would have minimal effects. Information presented under reg. ref. 20160122 notes the level of the Bann as being at about 59m AOD and that groundwater flow northwest of the site is assumed to be towards the Bann.
- 7.2.18. For the purposes of assessment of hydrogeological conditions arising in the current application the EIS is not based on a specific detailed investigation such as a suitably designed pumping test. This is effectively acknowledged in the EIS on page 36 wherein it is stated that no intrusive investigation has taken place and that hydrogeological information is limited in availability.
- 7.2.19. There have been a range of consultants involved in assessments at this site over the last decade. The most comprehensive site investigations appear to have been undertaken in 2011 by WYG, which included a Groundwater Impact Assessment. While this relates to the general location of the subject extraction it cannot be relied upon for the current application as the assessment was for a less deep quarry and conditions on site are changed.
- 7.2.20. The conclusion of the above assessment is worth referencing however as an indication of the possible scale of impact arising from the proposed development. In that case for a final level of 100mOD a dewatering rate of 466m<sup>3</sup>/day would result.
- 7.2.21. The information before the Board does not in my opinion present an adequate assessment of dewatering for the subject development. It is essential that volumes are quantified in view of the proposal to cease discharges from the site.
- 7.2.22. Regarding the potential to impact on nearby well levels the applicant refers to well surveys and the absence of complaints regarding impact on private wells. A useful figure presented in the EIS (page 49) relates to the former pumping of TW1 which was used up to recently to pump an average of 40m<sup>3</sup>/day (presented in the EIS as 30,000 - 40,000 litres per day). This would appear to have been the main pressure on the water-table arising from the quarry activity. In the context of the relatively small amount of abstraction for water supply purposes (TW1) and the stated limited

dewatering arising from quarrying to date at the location of MW1 (the lower quarry floor) I consider that caution should be exercised in making inferences from historical well levels as a basis for predictions. Again, I am of the opinion that there is insufficient information presented and inadequate site investigations undertaken to support the position adopted in relation to water levels and wells.

- 7.2.23. I note other supporting and related information presented by the applicant. It is stated that the cumulative impact on groundwater levels will be unlikely to alter the local groundwater regime significantly beyond the boundary and in this regard the applicant refers to the relatively low permeable rock with discrete / isolated fracturing and refers also to the WYG report of 2011 (page 64 EIS). I am not convinced that it is demonstrated that with extraction to the depths proposed in the current application that the same conditions will be encountered.
- 7.2.24. I consider that under the EIA Directive, to enable the Board and the public to fully comprehend the implications of the proposed development there is a requirement that the applicant present a detailed assessment of the likely significant impacts, including a full understanding of the baseline conditions and presenting a dewatering assessment which can be relied upon as a basis for predicting the impacts on water.
- 7.2.25. I consider that there is a need also to take a look at the entire site and the activities when considering the surface water and groundwater impacts. The development subject of the current application cannot be divorced from the continued processing activities and the associated block storage area. As such any proposed surface water management system should properly be assessed within an application which considers the extraction together with the processing activities.
- 7.2.26. Regarding the understanding of the hydrogeological impacts I note that there is available a level of previous investigations and physical infrastructure (3no. monitoring boreholes and 3no. abstraction wells and since 2015 data loggers) on which to base a more comprehensive assessment in the event that the Board considered it appropriate to request additional information.
- 7.2.27. In terms of the hydrogeological information before the Board it can only be considered inadequate in my opinion. By failing to provide a quantified assessment of the fundamental matter of dewatering I consider that the applicant's submissions

on groundwater impacts and therefore also on surface water management and appropriate assessment cannot be relied upon.

**7.2.28. Potential for impacts on nearby stream**

7.2.29. I turn next to the particular matter of the nearby stream to the north. The impact of the dewatering is described on page 55 of the EIS as creating a cone of drawdown at the quarry with deeper groundwater flow predominantly eastwards towards a tributary of the Owenavorrhagh River (the Gorey river). That would potentially impact on the zone of contribution to public water supplies.

7.2.30. Regarding the potential for an impact on the Slaney cSAC the data provided does not give much comfort in my opinion. On page 55 there is reference to the groundwater flow to the northeast of the quarry being assumed to be towards the Bann, which is a reasonable if general assumption based on topography. The same chapter refers in section 7.3.16 to the NPWS database and the SAC at 2.5km<sup>3</sup> away – no map is provided of the designated area and there is no description of surface pathways. Further on in the description of the potential impacts of the subject application area there is an acknowledgement of historical discharges a small watercourse to the north of the site and a reference to the proposed future discontinuation of that discharge. The next page refers to the site being underlain by two groundwater bodies and the statement

*With this in mind, while not strictly proven in the context of the subject planning application area, the potential does exist however for hydraulic connectivity between groundwater at the application / general site-wide quarry area and the main Bann and Owenavorrhagh Rivers.*

7.2.31. This is a highly significant statement in the context of a fissured regional aquifer and the proximity to the SAC. It further emphasises the need for detailed hydrogeological investigations. The text of the EIS ultimately dismisses such concerns stating that groundwater flow is likely to be to the east and towards the

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<sup>3</sup> In fact it appears to be about 1.7km.

Gorey and that the dewatering will have minimal effects. The EIS concludes in this regard that future excavation will have minimal effects.

- 7.2.32. The latter is supported by reference to WYG report of 2011 (which was for excavation to only 117mAOD) which stated that dewatering rates for bedrock extraction to 117mAOD were relatively small owing to the location on the crest of a hill and the low permeability of the bedrock. I do not consider that this is relevant in view of the proposed depth of excavation.
- 7.2.33. The potential for changes to baseflow of a stream feeding a European Site requires full consideration. The adequacy of a surface water management system to cater for the volumes arising (in the context of processing and storage activities) and where the alternative is to discharge to the northern stream also requires to be firmly based in best practice. In the context of the Habitats Directive and Water Framework Directive as well as the public and private water supplies in the area I submit that the assessment, which relies considerably on judgements and on a report which is not specific to the development is not adequate.
- 7.2.34. In relation to the assessment of the potential for impacts on the Bann and the SAC either as a result of inadequate surface water management resulting in discharges and secondly to changes to water level or direction I consider that the EIS presented is deficient due to the lack of hydrogeological data based on ground investigation. As such I consider that the concerns raised in the submissions of IFI and the impact on the European Site cannot be properly assessed.

### 7.3. **Appropriate Assessment**

- 7.3.1. The EU Habitats Directive (92/43/EEC) Article 6 (3) requires that 'any plan or project not directly connected with or necessary to the management of the (European) Site, but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in light of its conservation objectives'. The competent national authorities shall agree to a plan or project only having ascertained that it will not adversely affect the integrity of the Site concerned.

- 7.3.2. The applicant's submissions include a Stage 1 Screening Assessment. This presents data relating to the potential for the proposed development to impact upon the integrity of the Natura 2000 site Slaney River Valley cSAC, Site Code 000781.
- 7.3.3. I consider that the decision to give consideration to the single nearby site is appropriate in view of the distance to other European Sites (over 14km) and the nature of the proposed development.
- 7.3.4. The Slaney River Valley SAC lies broadly north-west of the Coolishal Hill and is about 1.7km from the crest of the hill. A nearby stream to the northeast of the site provides a pathway to the European Site.
- 7.3.5. The qualifying interests of the Slaney River Valley SAC are:
- 1029 Freshwater Pearl Mussel *Margaritifera margaritifera*
  - 1095 Sea Lamprey *Petromyzon marinus*
  - 1096 Brook Lamprey *Lampetra planeri*
  - 1099 River Lamprey *Lampetra fluviatilis*
  - 1103 Twaite Shad *Alosa fallax*
  - 1106 Atlantic Salmon *Salmo salar* (only in fresh water)
  - 1130 Estuaries
  - 1140 Mudflats and sandflats not covered by seawater at low tide
  - 1355 Otter *Lutra lutra*
  - 1365 Harbour Seal *Phoca vitulina*
  - 3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitriche-Batrachion*
  - 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles
  - 91E0 \* Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*).
- 7.3.6. The conservation objectives are site specific.
- 7.3.7. The application submissions include a Stage 1 Appropriate Assessment report which concludes:

*There will be no risk of significant negative affects on the **Slaney River Valley cSAC** either alone or in combination with other plans or projects, and therefore, no adverse effect on the integrity of these Natura 2000 sites as a result of the quarry development. Therefore, Stage 2 of the Appropriate Assessment process (Natura Impact Statement) is not required.*

7.3.8. The Stage 1 report includes the following comments as the basis for the above conclusion:

*The quarry site is .... Approximately 1.7km from the boundary of the cSAC along the River Bann. There are no surface water features that connect the quarry site with the Bann River. As such, there is no pathway by which the quarry development could indirectly affect water quality within the river and consequently affect any of the Annex I habitats or Annex II species for which the cSAC is selected.*

7.3.9. Having regard to the nature of the development and the context I consider that the development could potentially give rise to adverse impacts on the Site in the following respects:

- Through groundwater or surface water contamination including pollution by hydrocarbons or silt and compounds arising from the processing
- The above are of concern in particular if the proposed surface water management system cannot be relied upon but also as a result of alterations to the groundwater and in the context of a highly vulnerable aquifer
- Through deposition of dust.

7.3.10. In terms of the particular aspects of the development I consider that the following are relevant:

- While the development is likely to give rise to levels of dust this is unlikely to be of particular concern due to the separation distance which is well beyond the limit for serious dust exposure to be likely.



- The information presented in the application submissions proposed that the surface water management will in the future contain all water generated within the site. However as presented above there are potential (surface water and underground) pathways between the quarry and the cSAC. The potential for such connectivity has not been subject of detailed site investigations. In the context of the requirements of the Habitats Directive, which includes that decisions be based on best scientific information I do not consider that this is sufficient.

7.3.11. I note that the EIS in Chapter 6 refers to a stated distance to the cSAC of over 3km. The direct measurement from the quarry to the cSAC is in fact no more than 1.7km and to the connecting stream / drain a short distance. The current application is intrinsically connected with the production of raw material for block manufacture and thereby with the storage yard located at the north-eastern end of the site. The potential for impact on the cSAC either through ground water contamination or direct discharge to SW3 and is a further pathway for potential giving rise to potential significant effects.

7.3.12. I note that the most recent application to the planning authority (reg. ref. 20160122) indicates that an additional surface water monitoring point is installed downstream of the quarry near where the small stream enters the Bann and that the findings are supportive of claims for no hydrocarbon pollution on site and other matter. The big issue here in my opinion relates to the long-term effect of dewatering which I consider is not thoroughly addressed.

7.3.13. Based on the available information I conclude that the Board cannot be satisfied that the development would give rise to 'no significant effects' and I am of the opinion that unless highly persuasive and comprehensive additional data is provided in relation to the hydrogeological impacts and the proposals for surface water management and groundwater protection, a finding of 'no significant effects' cannot be made. As such I consider that there is a requirement for a Stage 2 assessment including submission of a Natura Impact Statement.

## 7.4. Environmental Impact Assessment

- 7.4.1. An EIS for this development is not mandatory as the proposal does not meet the requirement of being for the 'Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares'. In the context of the existing development and the environmental receptors it is reasonable to conclude that the development would be likely to give rise to significant effects on the environment. As such assessment of the project under the Directive is appropriate.
- 7.4.2. In relation to a number of the issues which require assessment under the Directive I consider that information provided in the EIS is sufficient to enable an assessment of some of the likely significant effects on the environment arising from the proposed development. These include likely significant effects on cultural heritage, landscape and air and climate and material assets and human beings and flora and fauna. In respect of a number of effects of the development on soil and water and aquatic ecology I consider that the information presented in the EIS is not sufficient.
- 7.4.3. On this basis I do not consider that the requirements of the EIA Directive and Planning and Development Regulations 2001, as amended are met.
- 7.4.4. I note that the applicant indicates that no significant difficulties were encountered in compiling information. A non-technical summary is provided.
- 7.4.5. The issues arising can be addressed under the following headings:
- Proposed development and alternatives
  - Human Beings
  - Flora and Fauna
  - Soils & Geology
  - Water
  - Air & Climate
  - Noise and Vibration
  - Landscape and Visual Impact
  - Material Assets
  - Cultural Heritage

- Interaction of the foregoing.

#### 7.4.6. **Proposed Development and Alternatives**

7.4.7. The consideration of alternatives is generally adequate. The location of the proposed extension is a natural direction for extension and is optimal in economic and environmental terms according to the applicant. The submissions do not demonstrate that the value of the resource is such that alternative supplies of similar material are unavailable. The site is however subject of considerable investment in infrastructure including monitoring and processing plant and is well located relative to the road network and in an area of relatively low density population. As such in principle I consider that the extension of the existing quarry is acceptable and that alternatives have been adequately considered in the EIS.

#### 7.4.8. **Human Beings**

7.4.9. The likely significant impacts on human beings include maintenance of employment and the continuation of existing impacts on air and climate, noise, landscape and visual, water and traffic for a duration of an additional 15 years. Air and traffic impacts experienced at a house near the access road is subject of particular comment by the planning authority and mitigation measures suggested. The continuation of employment is the main positive effect. Other potential impacts are not likely to be more intensely experienced by human beings than the existing impacts. Localised air impacts can be addressed by planning condition. Subject to operating the development in accordance with best practice and the mitigation measures set out in the EIS I consider that residential impacts on human beings are not likely to be significant. The matter of private wells is considered elsewhere.

#### 7.4.10. **Ecology**

7.4.11. The site's proximity to the cSAC is noteworthy and the potential for significant effects is unresolved in the application submissions. I consider that the finding of no significant effects is not demonstrated as discussed in the section entitled 'Appropriate Assessment' above.

7.4.12. The EIS chapter on flora and fauna focuses on the quarry site and presents very limited data in relation to the surrounding area and the potential for impacts. This is

of particular importance in the consideration of aquatic ecology which I consider to be grossly deficient in view of the depth of the proposed extraction and the consideration of soils and water.

- 7.4.13. Potential for impacts on aquatic ecology arising from the possible creation of a preferential flow path is set out by IFI<sup>4</sup>, who identify the Bann (within which catchment IFI state that the subject extension would lie) and its importance as a habitat for a range of the species including Freshwater Pearl Mussel, Lamprey and Otter. The IFI submission outlines the concerns relating to concentrations of substances and need for monitoring and modelling.
- 7.4.14. My conclusions in relation to hydrogeology and surface water management are also relevant to my conclusion that the assessment of the effects on aquatic ecology are poorly described in the applicant's submissions.
- 7.4.15. The EIS refers to presence of Peregrine Falcon. NPWS refer also to disturbance avoidance and provision of nesting ledges for that species. This can be addressed by condition. I consider that the impact on Ecology is otherwise adequately considered in the EIS.
- 7.4.16. The matter of aquatic ecology is not fully considered. Otherwise I consider that the Board can be satisfied that the proposed development would not give rise to significant residual effects on flora and fauna.
- 7.4.17. **Soils and Geology and Water**
- 7.4.18. The significant effect is the removal of protective topsoil and subsoil resulting in an increased vulnerability of the soils and geology and groundwater as well as removal of an average of 250,000 tpa of rock over the 15 year operational period.
- 7.4.19. Appropriate, standard practices during the construction phase will ensure against the potential for pollution of soil. Storage and reinstatement of topsoil as part of the restoration plans will provide for protection of the resource for future use.
- 7.4.20. Regarding protection of surface water and groundwater the construction of an adequate surface water management system is required and is proposed. The groundwater impacts include potential for changes in direction and reductions in

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<sup>4</sup> The Board is advised that the submission of IFI has not been circulated to the applicant.

level in addition. Connected possible impacts include reduction in the baseflow of the stream / Bann and on private wells. While there are no reported effects on wells arising from impacts to date the nature of the proposed development involves extraction to greater depth.

7.4.21. Geological heritage impacts are not anticipated.

7.4.22. Regarding the impacts on soils, geology and water I consider that the information presented is not based on comprehensive site investigations and cannot be relied upon. This matter has been covered in more detail above.

7.4.23. I conclude that the possibility of adverse residual effects must be considered based on the available information.

#### 7.4.24. **Air and Climate**

7.4.25. The extraction facilitates the continued process on site including a concrete batching plant and asphalt plant both controlled by licence. The processing and conveyancing of raw material and finished product disperses emissions including in the direction of the residential cluster close to the site access road and the entrance.

7.4.26. Construction phase stripping and bund construction has potential for the worst impacts on human beings, which effects are short-lived and generally amendable to mitigation. Operation phase extraction and transfer are likely to constitute the most significant effects but the amount of PM<sub>10</sub> is likely to be very limited.

7.4.27. The suitable location of spoil heaps and other mitigation measures will ensure that no significant adverse impacts arise and the dust deposition standards will not be breached. I note the concern identified by the planning authority in relation to the location and planning status of an existing stockpile and of some processing plant positioned at the eastern side of the site and on elevated lands. I consider positioning of future stockpiles arising from the current application could be addressed by condition.

7.4.28. Control of dust impacts through sound management properties is anticipated to eliminate nuisance impacts. Working within the quarry void in particular in the later stages will minimise impacts. In general the conditions arising at this site are such that they are open to mitigation to ensure compliance with relevant standards including when considered in combination with other processing.

7.4.29. Subject to the recommended condition and to implementation of measures outlined in the EIS it is reasonable to ensure that will be are no significant residual effects.

7.4.30. **Noise and vibration**

7.4.31. The most severe noise impacts on residential properties nearby (to the north and to the east) are likely to be experienced during removal of overburden, which is a short term activity. During the operational phase noise experienced at the nearest noise sensitive receptors will vary depending on the level (depth) of extraction.

7.4.32. I accept as proposed that the quarry can operate in accordance with normal noise limit standards and note the data in relation to the existing extraction. The material requires blasting on average twice a month and standard notification procedures will apply.

7.4.33. I refer the Board to the comments in the Council's report in relation to the history of complaints from a resident adjacent the access. I consider that some measures may be warranted in view of the proximity of houses to the site access road / entrance. I suggest that additional mitigation of noise (and air) impacts could be addressed by condition.

7.4.34. Subject to the above I consider that the Board can be satisfied that there would be no significant residual effects.

7.4.35. **Landscape and Visual Impact**

7.4.36. The primary receptors are uses of the public road network and local residents. There are does not contain landscapes or features which would be highly valued.

7.4.37. The operational phase involving extension of the quarry to more elevated lands resulting in changes to vegetation. I agree with the assessment in the EIS that the landscape and visual impacts will be negative, moderate and short term in nature during the site preparation and early phases of extraction. The creation of screen mounding will constitute new landforms which I submit would not be out of character with the area which is agricultural and which already contains a substantial quarry. The screen planting on maturation will add to the screening of views to the new excavation.

7.4.38. Planting of trees is outlined on the restoration plan. After extraction the restoration involves allowing the void to flood and the creation of a few wildlife zones above the water level. Outline drawings provided are generally adequate to enable the Board to assess the application but for the purposes of implementation and possible enforcement require to be more detailed.

7.4.39. I accept the conclusion presented in the EIS that the following implementation of proposed remedial measures the proposed development will be neutral and largely imperceptible in terms of landscape and visual impacts.

#### 7.4.40. **Traffic and Transport**

7.4.41. There is no anticipated change to the existing traffic patterns or levels. Future traffic levels from the development are well understood being identical to the existing quarry.

7.4.42. Other than the extension of the duration of the project there are no residual effects are anticipated.

#### 7.4.43. **Cultural Heritage**

7.4.44. The nearby archaeological sites are described and the absence of prior records of archaeological sites or finds within the site proposed development site are noted. The assessment provided is very brief but I consider it to be adequate. In the event of a grant of permission however there are very limited mitigation measures set out in the EIS and the detailed condition recommended by DAHG should be attached in its entirety in this context.

7.4.45. There is no evidence of likely significant residual effects.

#### 7.4.46. **Interaction of the Foregoing**

7.4.47. I consider that the main interactions arise between soils and geology and water and ecology and that these are not adequately considered in the applicant's submission. Additional interactions arise between landscape and soils and geology and human beings and air, none of which would be described as having a significant adverse effect.

## 7.5. Other Comments

- 7.5.1. The Board is referred to the comment of the planning authority which raises a number of matters of concern regarding the planning status of some major elements of the existing quarry and ancillary operations. While the scope of this application is connected with the existing plant and yard insofar as they cannot operate without further extraction, the Board may wish to consider the extent to which it can enter into the matter of resolving issues related to possible unauthorised developments. In my view the Board should restrict its consideration of this application strictly to the matter before it namely the quarry extraction and any measures directly related to the control of emissions arising.
- 7.5.2. The planning authority has set out a range of planning conditions in the event of a grant of permission.

## 8.0 Recommendation

I recommend that permission be refused for the reasons and considerations below.

### Reasons and Considerations

It is the policy of the planning authority as set out under objectives ED-09 and WS-01 of the Wexford County Development Plan 2013-2019 to ensure that a strict precautionary approach is taken in the consideration of proposed quarries and potential impacts on European Sites and to protect existing and potential water resources for the county.

Having regard to the highly sensitive nature of the receiving environment, to the depth of the proposed quarry and to the limited intrusive investigations carried out in relation to the proposed development, the Board is not satisfied that the applicant has demonstrated sufficient knowledge of the impact of the proposed development on groundwater and surface waters, including as a result of dewatering. The Board is also not satisfied that it is demonstrated that the capacity of the proposed surface water management system is adequate to cater



for the proposed development and that the discharges from the site can be eliminated.

Based on the information available the Board considers that the proposed development might, therefore, have a significant adverse effect on groundwater and surface water quality, on aquatic ecology, on public and private water supplies and on the conservation and protection of the Slaney River Valley Special Area of Conservation (Site Code 000781).

The proposed development would therefore contravene objectives ED-09 and WS-01 of the development plan and thus be contrary to the proper planning and sustainable development of the area.

Mairead Kenny

Senior Planning Inspector

22<sup>nd</sup> November 2016