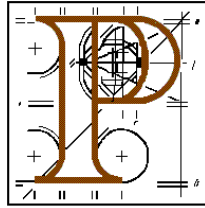


An Bord Pleanála



Inspector's Report

DEVELOPMENT:- Quarry at Coolishall, Gorey, Co Wexford

Planning Authority: Wexford County Council

Applicant: Fraser Court Ltd

Planning Authority Reference : Q045

Application Type: Application for Substitute Consent.

Related Review Case : QV0245

DATE OF SITE INSPECTION : 27th February 2015

INSPECTOR: Mairead Kenny

SITE

The site is located at Coolishall Upper, Gorey, Co. Wexford. The site is approximately 2.5 km south-west of the town of Gorey. This rural area is predominantly in agricultural in character and land use. There are two small clusters of dwellinghouses in the immediate vicinity of the site, one at close to the entrance road to the east and the other to the north-west of the site.

There are two access routes into the overall holding. The northern route is 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 very wide and there is a right hand turning lane from the regional road into the quarry.

The site comprises an existing quarry and quarry 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. The stated overall area to which this application relates is 3.9461 hectares and the base of excavation is stated to be at 98mOD. The highest point of the original ground level of the hill which is now developed as a quarry is stated to be 175mOD.

The development is most visible from the south / south-east and is further described in the report below. At the time of inspection extraction was ongoing in the area of the original quarry which adjoins the area subject of this application. The ongoing extraction is at a significantly deeper level.

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.

DESCRIPTION OF PROPOSAL

The application is for substitute consent for extraction of stone in an area of 3.2862 hectares below the previously permitted level of stone quarry extension as permitted under reg. ref. 980589 and 20000280 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.

The application is accompanied by a remedial Environmental Impact Statement.

The application is accompanied by a screening statement for Appropriate Assessment which made a finding of no significant effects. That specifically referred to the Slaney River Valley cSAC.

The application submissions include a list of drawings notably a restoration plan, archaeological location plan and other plans and sections.

The development is served by a private well and there is a conventional septic tank system. Surface water is disposed to watercourses and discharged to settlement lagoons for recycling.

The application for substitute consent relates to the deepening and widening of the extraction zone as follows :

- the deepening of part of the permitted quarry below the authorised level of 117mOD – this is shown on drawing C-33-102 and is shaded in pink and is of stated area of 3.2862 hectares,
- the lateral extension of the permitted quarry area which is now subject of the application for substitute consent – this is shaded in blue and is of stated area of 0.6951 hectares.

The area defined in the application thus substantially comprises previously quarried lands. The total area of 3.9461 hectares is marked by a red line on the application drawings. For the purposes of assessment of environmental impacts the adjoining extraction area, which is within the original quarry (authorised under an earlier permission) and is below the permitted level of 117mOD is considered in the rEIS – this is hatched in green drawing C-33-102.

The applicant states that on-going up-date topographical surveys show that part of the area below the 117m boundary (shaded pink) and part of the area outside the boundaries of the original stone quarry (shaded blue) were extracted between July 2008 and August 2012 and are calculated as 3.2862 hectares (492,930 cubic metres – circa 1,232,325 tonnes) and 0.6951 hectares (139,00 cubic metres – circa 347,550 tonnes) respectively.

The estimated rate of extraction within the substitute consent area and for the duration of the period to which the application for substitute consent applies was 225,000 tpa and in the overall quarry including the substitute consent area was about 250,000 tpa.

The method of extraction involved periodic blasting of rock, hauling along a dedicated haul road to the existing processing areas for crushing and processing into various grades for distribution or use in the various manufacturing processes within the overall site. Hours of operation of all quarry activities is based on condition 6 of PL26.235738 for the tarmacadam plant and were between 0800-1800 Monday to Friday and 0800-1600 Saturday. 50 persons were employed in total on site (25 in quarry activities) and a further 10 were employed directly in haulage.

Within the substitute consent area surface water run-off is directed into primary and secondary settlement ponds within the quarry and then pumped to 2 interconnected 50,000 litre water storage tanks for use in the concrete products manufacturing processes, with excess water discharging to 2 no ancillary water storage ponds

shown on drg. C-33-106. Within the overall development the detailed works for the disposal of surface water run-off from the access road as approved under PL26.235738 (drg C-33-106) are substantially complete. Surface water run-off from existing manufacturing and processing areas is as shown on C-33-106 and from roofs of the pre-cast concrete products manufacturing building and yard is / will be discharged to the watercourse to the north (rear) as shown and as previously approved.

Other elements of the development, which are briefly described in the application cover letter include a truck wheel-wash, two wells and surface water arrangements. Environmental impacts arising which are subject of specialist reports include hydrogeological impacts, noise, dust / air quality impacts, vibrations, flora and fauna and archaeological impacts.

As the subject development relates to deepening and slight widening of an existing pit the landscape effects caused are described as neutral, imperceptible and permanent in nature and therefore no remedial measures are recommended. The approved re-grading of existing embankments to the south-east and north-west and the proposed screen mounding and planting have been / are being carried out as permitted under PL26.235738 – this includes reinstatement of original field boundaries / hedgerows at the top of the south-east facing embankment as shown. Substantial planting has been carried out in 2010-2012 and is ongoing.

On completion of stone extraction in the overall quarry all plant and machinery will be removed from the extraction area and the void will be flooded to a level of 117mOD approximately resulting in a wetland / wildlife reserve (C-33-112). Quarry faces will be benched to encourage regeneration of natural vegetation and wildlife.

There is no oil or fuel storage within the substitute consent area.

On file are two sets of drawings – maps and drawings received by Planning Authority on 4th July 2013 with application and submissions received with the application for substitute consent lodged on 7th August 2014. Appendix 2 refers to enforcement details under file 0023/2013 and Appendix 3 shows a map of water supply pipes in the area.

PLANNING HISTORY

The application form details list 14 no. applications relating to this quarry. The dates of making the applications are between 1980 and 2013.

The most relevant planning history is summarised below.

I refer the Board to a copy of key map drg C-33-90 which shows the location of some applications – this is in the pouch attached to the rear of this report.

Area B refers to an application under **Planning Reg. Ref. 20130442** for extraction at an area to the north-west of the substitute consent area. The proposed extraction

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

- Potential to generate 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.
- Would materially contravene objective NH01 of the CDP as it has not been demonstrated that would not adversely affect the Slaney River Valley cSAC which is an Annex 1 habitat.
- Has not been demonstrated that the proposed development would not endanger public safety by reason of traffic hazard and would not obstruct other road users – inadequate information.
- Has not been demonstrated that would not interfere with landscape character as insufficient information has been submitted to demonstrate whether the effect of the development can be satisfactorily mitigated.
- Has not been demonstrated that the proposed development would not impact on safety and / or would not impact on the stability of the geology of the site and the adjoining land.

The internal reports on file note that the 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.

It was also indicated that a Stage 2 NIS is required and has not been submitted with regard to the discharges to the watercourse to the north of the site which leads to the Slaney cSAC. The supporting report of the Senior Environmental Scientist dated 23rd August 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, groundwaters, impacts of fugitive dust emissions and noise from the site on and impacts of dewatering etc. A Stage 1 Habitats Directive Assessment report determines that the applicant should submit a NIS.

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.

Under **Planning Reg. Ref. 2009/0453** an application to retain and complete an embankment and for retention of a truck parking area was refused permission for reason that the development would result in a significant negative impact on the visual amenities of the area and that the proposed development would be 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 at the junction.

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

The Board's Inspector visited the site in June 2010 and notes the following in her report :

- Third party objections refer to breaches of permission most notably with regard to noise and traffic safety by reason of use of the unauthorised rear entrance and to odour from the batch plant and dust emissions including breaches in 2002 and 2005 as measured by surveys for court proceedings
- Breaches of hours of operation have also occurred according to objectors and construction of a retaining wall and concrete area without permission
- Planning Authority has failed to enforce conditions according to submissions
- Planning Authority considered that permission should be granted and indicates that enforcement actions have been pursued
- The applicant indicates that annual assessment reports of ongoing monitoring have been submitted to the Planning Authority since 2006
- Implementation of the landscape plan, which has been an issue over the years, is ongoing
- The situation has changed significantly since the monitoring in 2005 the applicant states and a third party response concurs that dust emission are within standards
- No special landscape designations apply – the development is subject to licence under the Air Pollution Act.

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 4 – tanks to be bunded
- Condition 5 – site to be landscaped throughout the entire quarry in accordance with drawing C33-37

- Operating hours to be restricted to 0800 to 1800 Monday to Friday and 0800 to 1600 hours on Saturdays
- Wheelwash and water spraying, dust monitoring and annual report, noise levels, lighting
- 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.

On site of SU0113

Under **Planning Reg. Ref. 20000280** permission was granted to retain development comprising stone extraction on 1.456 hectares of land adjoining an existing quarry. Under **Planning Reg. Ref. 980589** permission was granted for the extraction of stone on 5.37 hectares of land adjoining an existing quarry. 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 29th August 2000 include :

- To be in accordance with submissions including EIS
- 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 5th 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.

At area of ongoing extraction

The original quarry permission dates to 1980 - Planning Reg. Ref. 20,408. A map of the relevant area and the decision order is attached to this report. The only condition attached to the permission relates to the repair of the N11.

PLANNING POLICY CONTEXT

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 enterprises sustainable 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.

PRESCRIBED BODIES SUBMISSIONS

National Roads Authority

The NRA notes the traffic analysis outlined in section 9 of the rEIS, the estimated average extraction output per annum, the previous decision of the Board under PL26.235738 and the provisions of condition 15 which manage truck movements at this location. Subject to the operations based on the analysis set out in the rEIS the Authority has no specific objection in principle to the proposal. Where intensification of operations above the levels presented in the rEIS arise a Traffic and Transport Assessment should be undertaken and this should consider the impacts on the national road network.

Inland Fisheries Ireland

The IFI notes the location of the quarry within the catchment of the Slaney/Bann River SAC and the Banogue River, The Slaney is noted to be an important Spring Salmon and sea trout fishery and to support several species listed in Annex II of the Directive – the main channel of the Slaney and a number of tributaries including most of the Bann are candidate SACs under the Directive. The Bann is an important

salmon spawning / nursery tributary of the Slaney and the Bann is also known to contain populations of *Margaritifera margaritifera*. The Banogue is an important salmonid tributary of the Owenavorrhagh River with good populations of salmon, brown trout and sea trout and the Owenavorrhagh catchment supports several species listed in Annex II of the Directive. Concerns include :

- Any potential for acid rock drainage generation
- Query as to why groundwater samples were taken from borehole MW3 rather than MW1 which is at a lower level
- Concerns that the run-off of surface water from the manufacturing and processing areas including the ready-mix plant and tarmacadam plant flows into the primary settlement pond and that much of the water is then discharged into surface water to the north which flow to the Bann – apart from settlement for suspended solids there appears to be no treatment of these waters prior to discharge to the Bann – this treatment is unlikely to alter the pH of waters that have been contaminated by concrete / cement
- Long-term and representative monitoring of the waters being discharged to surface waters to the north of the site is requested so that the threat to surface waters can be assessed
- It is clear that the quarry floor is below groundwater level and that future quarrying will increase the area below groundwater level and the future increased contributions of groundwater to the on-site drainage system needs to be considered
- Clarification is required regarding the volumes of water from the quarry site being discharged to surface waters located on lands to the north of the site
- The location of the septic tank and percolation area should be clarified and the applicant should demonstrate that they comply with the EPA CoP

Geological Survey of Ireland

The GSI has indicated that it has no comment to make in relation to the Remedial Natural Impact Statement compiled to support the application.

Health Service Executive

In a submission dated 18th September the following comments are made :

- The assessment is based on the documents received, site visit, meeting and additional information provided on 11th September including in relation to aggregate testing for Pyrite content and telephone contacts with regard to water quality testing, noise and dust pollution

- Comment are offered in relation to public consultation, consideration of alternatives, assessment of description of physical environment including soils / geology, water and environmental management
- There is a complaint facility in place and neighbours are contacted monthly prior to blasting and regular contacts need to be maintained
- The consideration of alternatives is not applicable as this is an EIA for existing development
- A full hydrogeological assessment by a professional hydrogeologist is required to fully describe the groundwater surrounding the site
- The quarry is in a similar geological formation as Belcarrig and has a testing programme for pyrite and to date has not encountered any problems – ongoing testing should continue, staff should be appropriately trained and a Pyrite Incident Plan be put in place and implemented as necessary
- Heavy metal content of rock, dust and aggregates should be monitored – metals isolated within the quarry environment have included elevated zinc, cyanide, aluminium, manganese and iron in water and occasional analysis of dusts would be recommended
- The quarry owners have requested a hydrogeologist to do some water quality testing but a full hydrogeological assessment is required to establish the permanent and intermittent water table, the quality of the water in the quarry and neighbouring wells in order to guarantee the long-term viability of the groundwater which is an Extremely Vulnerable Regionally Important Aquifer which is extremely important for public and private water supplies
- As well as bacterial and general physical and chemical parameters the presence of heavy metals and acidity should be closely monitored and breaches of the drinking water guidelines should be acted upon
- The aquifer water table should not be breached by quarrying at any stage and monitoring of water quality at most vulnerable areas and times of the year should be continuous
- When the quarry is being restored / decommissioned sufficient overburden or an engineered lining should be put in place to protect the aquifer and pond water should pass through an adequate attenuation layer prior to gaining access to the aquifer
- Hydrocarbons should be excluded from the aquifer through improvement management including a comprehensive EMP – the EMP to be drawn up should be implemented and monitored to ensure compliance with all current

planning conditions and good practice with regard to blasting, dust control and noise

- The HSE has not received complaints regarding this quarry
- In conclusion the monitoring of pyrite and heavy metals is important to sure environmental management into the future, a full hydrogeological assessment is required to prevent quarrying below the water table in future and to monitor water quality at present and into the future operational phase of the quarry and in the early part of the restoration phase – an EMP also including remediation measures, compliance with conditions and good practice to ensure quarry impacts do not affect public health.

REPORT OF PLANNING AUTHORITY

The report of the planning authority follows the format set out under section 177I(1) of the Planning and Development Act as amended.

Information relating to development : the planning history related to the quarry is summarised. In relation to section 261 registration the applicant notified the Planning Authority on 18th August 2004 that it was not intended to register the quarry as Planning Reg. Ref. 980589 was granted in 2000 within 5 years of the coming into effect of s261. Planning Reg. Ref. 980589 refers to an application for extension of an existing quarry incorporating additional 5.370 hectares which was granted permission. Under Planning Reg. Ref. 20000280 an application for retention of an existing stone extraction on 1.456 hectares adjoining the existing quarry was granted permission.

Information relating to enforcement : details of enforcement of conditions of 20000280, 980589 and 960479 were previously sent to the Board in relation to the review case QV0245 and a further enforcement file has been opened pursuant to the s261a process and a copy of the documentation on this file ref. 0023/2013 is attached.

Development plan provisions : relevant policies of the county development plans in operation since 2001 are listed. Under the 2001 to 2007 plan the quarry lies within / adjoining a sensitive landscape and adjoining a vulnerable ridge and scenic route. Under the 2007-2013 plan the site is within the Uplands Character Unit and quarrying in this area was not precluded in principle. Under the current plan the site is within the Lowlands landscape character unit and quarrying in this area was not precluded in principle.

Effects on the Environment : there has been past enforcement action related to the activities on the site which was prompted by complaints from local residents. There are no archaeological or cultural assets within or close to the development. The unauthorised extraction subject of this application is largely within part of the site where authorised activity has previously taken place.

The rEIS is unclear with regard to the quantity and quality of discharges to the stream to the northwest of the site which appears to flow to the River Bann 2km further northwest which is part of the Slaney cSAC. A greater degree of clarity regarding the discharges is required to enable assessment of the potential impacts if any on the cSAC. On 18th September it was noted that there was a significant flow of water entering the stream from the site.

It is apparent that there is a greater degree of dewatering taking place than was apparent in 2012 when the assessment referenced the EIS submitted under 980589 in which the water table was stated to be 98.7mOD. The level of dewatering is directly related to the unauthorised extraction below the water table which this application seeks to regularise. Further information should be submitted.

The use of the existing on-site system to cater for water generated by extraction below the water table in addition to surface water has not been authorised and this was not indicated in application 20090014. Use of the stream at the northwest of the site for discharges has only been permitted for surface water from the yard and access road permitted under Planning Reg. Ref. 20022897. No discharge licence has been applied for. Further information should include clarification on volume of water being discharged to the stream, the quality of water being discharged and measures to enhance water quality, clarification relating flow route and ultimate destination of the waters and up to date monitoring of adjoining residential wells. The need for a stage 2 Habitats Directive assessment should be considered.

There is no evidence that the extraction below the water table is having an adverse impact on public wells in the vicinity although a general decline in yield has been investigated by AWN under a commissioned study. The Council has not received complaints from adjoining residential properties. An up to date monitoring of residential wells should be undertaken in order to more definitively establish no adverse impacts.

The Council has no information which establishes that the unauthorised extraction has directly had adverse effects on the environment in respect of climate, noise and vibration. The Council has received on-going complaints regarding dust generation from a resident to the north east of the site which could be attributable to other activities including concrete manufacturing or stockpiles.

The Planning Authority does not consider that the unauthorised extraction has directly had adverse visual impacts on the landscape.

The Planning Authority has not information to suggest that traffic levels generated by the unauthorised extraction has had adverse impacts on the environment.

If quarrying ceases the Planning Authority has no objections to the restoration proposals.

If quarrying is to continue the Planning Authority considers that the effect of the development on the ground and surface water environment is a major element for which remediation is required. Further information is required. Appropriate remediation measures can only be designed and implemented once the impacts are fully established.

Overall the Planning Authority considers that it is difficult to isolate and assess the effects on the environment generated by the unauthorised quarrying from the noise, dust, traffic etc generated by the other activities. However, it is considered that consent should not be granted as insufficient information has been submitted to enable impacts on the ground and surface water environment to be properly assessed.

An Bord Pleanála should direct the applicant to cease extraction operations further to s177J unless and until the potentially adverse effects on the water environment are clearly established and controlled. Work at the site was ongoing on 18th September 2014 – it is unclear at present how such work could be regularised.

If permission is to be granted a number of conditions are recommended including :

- management and remediation of the adverse effects on the environment generated by the development to be permitted
- timescale for ceasing of quarrying operations and removal of stockpiles and machinery from the site
- effective restoration of site which should not require generation of significant further traffic levels and / or other regulative consents
- prevention of pollution affecting the environment, neighbouring amenities during closure and remediation and restoration processes
- measures including fencing and signage
- financial contributions for the unauthorised extraction which has taken place
- clarification regarding what is authorised by such a substitute consent permission.

In a further submission dated 1st December the Planning Authority notes the comments of IFI and re-iterates its s177L report identifies concerns regarding the issue of the level of information presented relating to possible impacts of the development on waters particularly surface water discharges. The Planning Authority has no evidence currently regarding Acid Rock Drainage at the quarry.

FIRST PARTY COMMENT

The applicant has responded in a submission dated 5th December 2014 in relation to the comments of IFI and the Planning Authority dated 3rd September 2014 and 13th

October 2014. The submission notes that the Planning Authority states that there is no extant permission for quarrying at the site and in response the applicant refers to page 1 of the rEIS which refers to the water table restriction for the purposes of environmental assessment – that being the area below 117mOD. The applicant is stated to be presently extracting within the original permission Ref 20.408, which site adjoins the substitute consent boundary.

The report notes that both parties identified a need for further information and provides a direct response.

In response to IFI :

- Acid rock drainage occurs from rock weathering processes where rocks with significant sulphide such as pyrite is present and is exacerbated by quarrying
- At the quarry it is understood that pyrite concentrations are frequently measured as part of the internal quality control – lab tests can include where necessary tests for Total Sulphur Content – confirmation letters are also issued as part of the overall quality control and include where appropriate details on the presence / absence of pyrite – the intention on carrying out further quarrying is to undertake further quarry rock description
- It is also understood that a representative of the HSE visited the quarry in August 2014 to discuss water quality and pyrite and communicated potential concerns regarding Balcarrighill while indicating an initial overall satisfaction that similar concerns were not identified at this site
- The limited field monitored parameters at the current final discharge point SW3 indicates pH value consistently within IGVs and the sulphate values reported at MW1 lie within the Groundwater Guideline Value
- However the reported values for SW3 are elevated in comparison with a range of 512-588mg/l reported in monitoring to date
- Initially results for sulphate would indicate the absence of ARD at the site especially in the deeper area at MW1 and the concentrations observed at SW3 possibly represent influences from site operations including flows from yards – following discussions it is understood that the quarry management will consider options for primary treatment of surface water prior to its discharge off site in the vicinity of SW3
- Contrary to comments relating to sampling undertaken both MW3 and MW1 have been sampled as indicated on Table 5.11 of rEIS – MW3 in 2010 and MW1 in 2014
- AWN has recently been requested as part of the environmental management to take groundwater samples from MW1 and to sample SW3 which is

primarily groundwater but will also have a surface water component from settlement ponds and since the rEIS was submitted two additional samples have been collected – results are presented in Appendix A2

- The management has confirmed that there is no treatment of on-site wastewater other than settlement of suspended solids and results of monitoring in Appendix A1 do not indicate that pH of discharged waters is a current issue or concern
- The operator recognises that there is limited surface water quality data and it is agreed that the monitoring undertaken in 2014 essentially represents the first year of monitoring and that it will continue to include the suite of parameters listed
- MW1 is an ideal existing monitoring well as it is the lowest monitoring well within the quarry extraction area and SW3 is at the final point of the site
- As stated in the rEIS the upgrading of the surface water system will incorporate a more tailored piping system in the block-making yard to include an oil-interceptor at the point of pre-discharge
- In 2011 the WYG report estimated a groundwater dewatering rate of 437m³/day to final extraction depth of 100mAOD – the final extraction depth is understood to be a few metres below this and limited data is available on the discharge rates to calculate this contribution from groundwater
- Interim flow metres are installed at SW3 in addition to the discharge flow metre (block yard) installed up-gradient of the existing water storage / silt separation tank and readings are now collected for these and used to interpret water volumes arising at the quarry
- Table 1 shows the cumulative total (m³) of water discharged since April 2014 from the water storage tanks and final cumulative outflows from October 2014 via SW3 to the nearby watercourse and shows daily flow equivalents
- This data also allows for interpretation of water usage – e.g. the October increases would reflected enhanced dewatering activities and perhaps a reduction in the need for water at the Readymix plant – these are spot readings which should be noted
- The on-site foul water was briefly covered in the rEIS sections 5.3.18 and 5.4 and AWN has been advised that the structure is a holding tank which was constructed a number of years ago and is emptied annually and it has been proposed to undertake more regular maintenance (e.g. bi-annually) and to keep formal records and to assess the condition of the holding tank in terms of its integrity and ‘fit-for-purpose use in line with current EPA guidelines’.

In response to comments made by the Planning Authority the first party states :

- A geotechnical assessment has not been undertaken for the site but will be considered and the operator will liaise directly with the Planning Authority
- Water volume being discharged has been addressed above
- Water quality issues are addressed above also and it is proposed to upgrade the settlement ponds upgradient of SW3 including the addition of further settlement / storage ponds along the flow route – no washing takes place at the yard to the east of SW3
- A description is provided of the flow route and ultimate destination of waters discharged from the site and is shown on Figure 1 attached
- In relation to the up to date monitoring of residential wells combined water levels for residential properties and individual domestic surveys for 2011 and 2014 are presented in Appendix B – it is understood that no formal complaints have been received over the years – some of the domestic wells were due to be incorporated into the mains supply with development of the Gorey RWSS scheme
- The Gorey RWSS is at a considerable distance from and down-gradient of the quarry perimeter – the nearest supply wells to the quarry are TW26 and TW27 and are down-gradient of the quarry – there is understood to have not been any formal complaint to date relating to impacts on the public boreholes.

ISSUES AND ASSESSMENT

I consider that the application for substitute consent may be considered under the following headings :

- Principle of development and matters to be considered
- Environmental Impact Assessment with particular reference to impacts on soils, geology and groundwater, landscape and visual impacts, roads and traffic, cultural heritage issues, noise and air quality, human beings and ecology
- Appropriate Assessment
- Other matters including consideration of conditions.

Principle of development and matters to be considered

The Board is tasked with determining whether the development which took place during the relevant period was acceptable in terms of the environmental impacts including impacts on residents, material assets and protected habitats. This application for substitute consent, if permitted, will not authorise further extraction and in this context operational conditions are not necessary, directly relevant or

capable of enforcement. In the event of further applications for continuance of quarrying or expansion of activities at the site all matters would be re-visited. In deciding whether a grant of permission is appropriate the merits of the development and the associated impacts, which have taken place and which may be ongoing are assessed, taking into account mitigation measures.

The principle of development is acceptable by reason of the location of the area of extraction within an authorised quarry and immediately adjacent an area of extraction. I submit that it is of particular importance that the Board take into account the fact that the permission for the area presently being extracted is not limited by conditions relating to the depth of extraction or duration of the operation. It would appear that pending resolution of the status of the area subject of the current application, the operator has continued to extract at a deeper level within the area authorised in 1980 under Planning Reg. Ref. 20408.

The substitute consent area and the authorised area are contiguous and share site facilities. As such the Board may wish to consider the extent to which impacts from the substitute consent differ from impacts which would have been experienced anyway from the continued extraction in the original quarry area. With the possible exception of impacts on groundwater, I suggest that there is no likelihood of significantly different impacts but that the duration of impacts is extended.

The Board will note that the unauthorised extraction subject of this application is largely within part of the site where authorised activity has previously taken place under Planning Reg. Ref. 980589 and 20000280. The application comes about mainly due to extraction within the permitted area but below the permitted level. There has also been some additional lateral extraction beyond the permitted area.

In relation to the principle of the development in terms of planning policy I consider that the development conforms with the prevailing planning policy subject to being acceptable in relation to environmental impacts. I note in particular that the site is served by the regional road network and that the landscape designation for this area is at the lowest level presented under the development plan policies and landscape character assessment. Comments submitted by the Planning Authority indicate that for the period 2007-2013 the area in which the site is situated was defined as being within the Uplands Character Unit and it is noted that this type of development was not precluded by that designation. The available information indicates that the development which has taken place at this site accords in strategic terms with the prevailing planning policy and with the policies which would have existed at that time.

In relation to the consideration of alternatives, the existence of the reserve and the direction and extent of extraction which had taken place prior to the subject development greatly limited the possible alternatives which might be considered in preparing the rEIS. I note the comment of the HSE that consideration of alternatives

for a retrospective process and concur generally that such a requirement would be inappropriate.

Having regard to all of the above the development is acceptable in principle.

Environmental Impact Assessment

In the foregoing the discussion focuses on the environmental impacts which have occurred and whether or not the development would have been considered to be acceptable in that context. The significant impacts include Soils and Geology and Water, Landscape and Visual Impacts, Roads and Traffic and Noise and Air Quality.

Soils, Geology and Water

This aspect of the development is the most significant in terms of environmental impacts and also the potential for consequences for ecology including the River Bann which is part of the River Slaney cSAC. This section of the report addresses the following concerns :

- Overview of site and data and assessment undertaken
- Impacts on soils and geology
- Impacts on groundwater
- Surface water quality impacts.

Overview

The site is used for the open case extraction of Felsic Volcanic type rock as well as on-site manufacturing of concrete, blocks and Tarmacadam. At its peak output 250,000 tpa were quarried and in recent years the level of extraction has reduced to 100,000 tpa.

In relation to the sources of information relied upon in the preparation of the remedial EIS these are listed in section 5.2.2 and include reference to the report of WYG dated April 2011 entitled *Hydrological Assessment of Proposed Quarry Extension*, the June 2013 publication prepared by PD Lane Associated entitled *Environmental Impact Assessment* and the data from the quarterly groundwater monitoring rounds for 2014. In addition there is reference to communications between NPWS and Roger Goodwillie in May 2011 and contacts between the GSI and AWN in June 2014. 'It is also understood that no previous intrusive investigation or geophysical survey has been carried out at the site and consequently no site specific hydrogeological data is available in this regard' it is stated.

Regarding the Water Quality Assessment the rEIS in section 5.2.3 notes the relevant provisions of the Water Framework Directive and the standards which apply to surface water quality and groundwater quality. Baseline water quality monitoring was undertaken during the quarterly groundwater monitoring of the site in March 2014 and in June 2014 for a number of listed parameters.

In terms of the site context the main surface water features in the area are the Gorey river to the south-east which is a tributary of the Owenavorrhagh River which flows north-east and to the west / north-west of the quarry is part of the River Bann which is a tributary of the Slaney, a cSAC. Figure 8.3 of the rEIS shows the surface water drainage systems in the area.

The rEIS describes how run-off from the manufacturing and processing areas on site flows towards the primary settlement pond at 110mOD and from there by way of a culvert to the second settlement pond. Water from the secondary settlement pond is pumped to steel storage tanks to the north and from these tanks water is pumped out for use in manufacturing with excess water cascading out of the tanks into an un-lined channel and from there to ancillary storage ponds and out of the site to a stream to the north. I return to these arrangements later.

The Board is advised that the main conclusion presented in the rEIS is that there have been no likely significant impacts on the geological and water environments associated with the quarry development to date and that it is not anticipated that any additional impacts will arise following the implementation of the remedial and mitigation measures set out in section 5.6 – these include reference to future excavation, which may relate to the area beside the substitute consent area where there is no limit on the depth of extraction or the duration of the operation.

Soils and Geology

In relation to the impact on soils and geology the rEIS identifies a number of significant effects including :

- extraction to 100.98m involving removal of 225,000 tpa from the entire quarry area including areas outside the substitute consent area between 2005 and mid 2012
- no sites of geological heritage interest have been impacted
- the removal of the protective topsoil and subsoil and the excavation below the water table in particular has increased the vulnerability of the site to contamination by spillage
- no evidence from site walkover of potentially hazardous substances or spillages or wastes and no known reports of soil, surface water or groundwater contamination
- no significant increase in surface water and no likely impact on the surrounding agricultural lands as a result of the excavation
- some possibility of loss of soil where extraction area widened.

I note that the subject development largely involves extraction, which is significant in terms of the output but which is largely within the permitted area. A relatively small

lateral extension occurred. There is an ongoing impact in terms of the vulnerability category of the site. Remediation of the site would be appropriate and is addressed in section 5.6.2 of the rEIS. In this context and having regard to the rEIS and the submissions of third parties and the Planning Authority, I do not consider that the subject development gave rise to effects which would have been deemed to be unacceptable in terms of the impacts on soils and geology. The related matter of potential groundwater impacts is now addressed.

Groundwater

The development undertaken is known to have involved some dewatering from within the substitute consent site. Not only has excavation below the water table taken place but the quarry void would have captured rainwater and groundwater seepage, which would also have to be managed.

Pumping of water to remove groundwater and / or surface water would have particular relevance in this case for two reasons. First the groundwater in the area is important as a source of public supply. Thus any impact on the level of groundwater or on groundwater quality is potentially particularly significant. Secondly, the selected option to remove water from the site involves diverting water (mainly groundwater) towards the a drain which appears to connect to the river Bann, which is of ecological importance. The development which has taken place also gives rise to concerns relating pyrite and to other groundwater concerns. I address the impact on groundwater levels and quality below.

Impact on groundwater level

The applicant's submissions include reference to the site walkover in June 2014 when 'the extent of the volume of water within the quarry subject area indicates that the quarry had been developed below the water table at the point of the deepest excavation'. I refer to the information on file and note the reference in the report of the Planning Authority to a water table at 98.7mOD, which was the basis for the s261a assessment in 2012. That figure was taken from the EIS submitted in association with Planning Reg. Ref. 98/0589, which proposed extraction to 117mOD and which was restricted by condition to working above the water table and for ten years only.

The submissions on the current case file include the report of WYG submitted to the Planning Authority in July 2013 as part of an EIS connected a proposed major extension to the quarry. That information includes updated data derived from three monitoring wells installed in 2013.

The EIS presented with the current application notes that the groundwater levels in boreholes for the period 2010-2013 were much higher - in the region of over 120m. The level at MW1, the deepest point, which is within the application site is around 105mOD in 2010 reducing to 97mOD in 2014.

While the EIS references (on page 37) these levels as being representative of the ingress of a surface water component as well as formation groundwater, I consider that the totality of the evidence clearly indicates the degree to which the quarrying took place below the water table.

In terms of impacts I refer firstly to the potential groundwater impacts on the local rivers and streams. The Regionally Important Fissured Bedrock Aquifer has the potential to support regional groundwater supplies and provide significant baseflow to surface water features. The submissions presented by the applicant do not demonstrate that potential hydraulic connectivity (groundwater or surface water connections) between the quarry and the rivers in the area have been thoroughly investigated but the rEIS does (on page 48) address and dismiss the likelihood of impacts on the river by dewatering and / pollutants via the groundwater system.

In this circumstance based on the available information the Board cannot conclude beyond scientific doubt whether or not there is a potential for drawdown (or contamination) from the quarry affecting the aquifer including the aquatic environment. This is a major quarry and the resource is potentially of considerable socio-economic significance if further extraction were to be authorized. A detailed hydrogeological assessment would be appropriate in this context. However, I submit that for the purpose of the current case, particularly in view of the comments below under Appropriate Assessment, the evidence requirement is less onerous. I consider that the evidence that the river system was not significantly and adversely affected through groundwater impacts is reasonable and sufficient.

I now refer to the impact on the capacity of wells. The aquifer supports a major groundwater abstraction for Gorey with a number of production wells in the River Banogue a few kilometers east / south-east of the quarry. I note the report of WYG and the submissions presented with the current application. The WYG report models the scenario whereby the overall extraction in the then proposed 5 hectare extension combined with the substitute consent site is extracted to 100mOD and concludes that the zone of contribution would not impact on wells. The evidence points therefore to little or no likelihood of impacts arising from the development which has taken place.

The Planning Authority indicates that there is a general decline in yield in the area, which has been investigated by AWN under a study commissioned. The submission of AWN under the current application confirms that the focus of that study in fact was on how the public water supply would affect wells and surface water in the area. The Planning Authority report also states that there is no evidence that the extraction below the water table is having an adverse impact on public wells in the vicinity. I consider that this conclusion is generally supported by the tabular data presented in the rEIS.

Both the first party and Planning Authority refer also to the lack of complaints in relation to the impact on private wells in the vicinity of the site. The Planning Authority considers up to date monitoring of residential wells should be undertaken. In my opinion the applicant has addressed this matter adequately through the submissions in the rEIS including section 5.6 in relation to extraction which has taken place. I consider that there is no requirement for ongoing monitoring in relation to the development subject of the current application. Ongoing monitoring by the applicant as described in submissions is noted.

Based on the information on the file I consider that the Board can be reasonably satisfied that the development to date has not had significant adverse effects on the groundwater levels or on rivers or streams. Localized impacts are acknowledged but there is no indication that any private wells or public supplies in the vicinity have been significantly affected.

I note that the Planning Authority has outlined a range of further information required, which I consider relates primarily to ongoing / further excavation. I agree that dewatering which has occurred is directly related to the extraction subject of this application but consider that the two impacts arising which are of relevance relate to the discharge of that pumped water outside the site and to the ongoing aquifer vulnerability. Statements made by the IFI and the Planning Authority in relation to information presented regarding the volume of water pumped are noted and I address this further below in terms of the impact on local streams.

Groundwater quality

I note that the HSE recommends that the Board require the submission of a full hydrogeological assessment to fully describe the groundwater surrounding the site and in particular to establish the permanent and intermittent water table and water quality issues in order to guarantee the long-term viability of the groundwater. As outlined above I am unconvinced that for the purposes of the current application there is a need for further assessment regarding the water table, given that the applicant acknowledges that extraction has involved dewatering and in the absence of evidence of impacts on wells or streams in terms of drawdown. The matter of groundwater quality impacts is discussed next. Aquifer vulnerability is described in the applicant's submissions as Extreme, based on desktop research and a site walkover. The GSI database identifies no groundwater source protection zones in the immediate vicinity of the quarry. Nevertheless if groundwater contamination had arisen this would be of significant concern in view of the importance of the resource and in the context of prevailing legal requirements.

Groundwater quality assessment in the rEIS is based on sampling undertaken in 2010 and 2014 at different boreholes. The applicant's explanation (in response to IFI) for the selected boreholes is reasonable in my opinion as it incorporates the deepest location and the best available data. The results of the survey indicate that

the water is free of microbial contamination but also demonstrates a range of exceedances of standards for a number of parameters including zinc, cyanide and hydrocarbons, related possibly to the manufacturing and processing areas of the quarry and generally occurring only once. Recent monitoring, which relates to the period after the making of this application also shows some exceedances of parameters, but no discernible patterns – Appendix 2 of applicant’s submission received on 8th December refers.

The rEIS addresses the potential for hydrocarbon spillages mainly in a qualitative manner noting the lack of evidence on site for significant spills and pointing to the practices which are in place to address such events.

Regarding on-site treatment of foul waters the site is served by a septic holding tank, which is an underground holding tank which is emptied by an apparently appropriate company. The applicant’s proposals to undertake more frequent maintenance in the future (bi-annually) are a tacit acknowledgement that best practice has not been undertaken in the past. However, in view of the absence of evidence for exceedances of microbial standards, there is no indication that this aspect of the operation has given rise to groundwater contamination in the past.

I consider that the main concern in relation to water quality issues and potential ongoing impacts which have arisen due to the extraction which has occurred is the aquifer vulnerability and in particular whether it is necessary to consider as part of the restoration plan to install overburden or even an engineered lining as proposed by HSE. I suggest that use of liners (but not necessarily fully engineered liners) may well warrant consideration as part of an overall enhanced surface water treatment and / or disposal system. In the absence of further extraction and activity on site the Planning Authority is satisfied that the applicant’s restoration plans will address concerns and I agree with that position.

The second concern which may be deemed to be related to the development which has taken place is the suitability of the surface water system in place and to its status. I note the rEIS (on page 50) describes the present system whereby surface water infiltrates through the gravity through settlement ponds. The Board may wish to consider whether this is acceptable given that the surface water system takes the outfalls from the Tarmacadam plant for example. There are also outstanding issues in relation to the 1.032 hectares unauthorized concrete block yard at the north of the site. To the extent that the rEIS addresses only the extraction which is subject of this application and the adjacent area of extraction, the simple nature of the surface water system may be deemed acceptable, with the exception of the matter of the outfall to the north, which is addressed below.

A further concern is identified in the report of the HSE on the matter of pyrite. The comments offered are useful in relation to future extraction and also confirm that problems have not been encountered to date. The matter of acid rock drainage

generation can be discounted to date but requires consideration in relation to ongoing / future extraction. Ongoing monitoring is warranted and is recommended.

In relation to measures to protect the aquifer ongoing monitoring and best approach to site management is warranted to ensure that the extraction and the associated surface water system has not and is not causing problems in terms of groundwater impacts. I submit that there is no evidence to suggest that the extraction gave rise to any adverse impacts. The surface water regime is further considered in the next section of this report in the context in particular of the impact on the aquatic environment.

Impact on streams in area

In the foregoing I include some information relevant to Appropriate Assessment, which is also separately addressed later. I have outlined above the surface water management system in place. The arrangements described above have been altered slightly on site as part of ongoing changes and the ancillary storage ponds which previously existed have been replaced with a new temporary channel (excavated in the same vicinity) the purpose of which is to manage the surface water flows. I noted during my site inspection that from that location water flows towards the north and out of the quarry and to a local stream at the opposite side of the minor road. It is suggested by the applicant that as the flow along the unlined channels reduces with distance there is some degree of percolation of the water into the aquifer and the final discharge to the local stream is therefore relatively small. (Figure C-33-106 shows the on-site surface water management system).

I note the conclusion presented in the Appropriate Assessment screening report presented with the Review application, which refers to the lack of hydraulic connectivity between the development and the Bann. I consider that this matter needs to be re-visited. The rEIS refers (on page 28) to the flow of water from the quarry and the discharge to a local stream. The Board will note the location of SW3 at the north of the site. From this point excess water from time to time is discharged from the quarry site. The pathway taken is by way of a channel to the south of the county road and from there to a drain and onto a small stream and to the River Bann system.

The drain was dry at the time of my inspection. At times however including after significant rainfall events there would be substantial water flowing from the site. Deepening of the extraction level would also have resulted in greater dewatering and a need to increase the volume to the outfall, depending also on on-site demands for processing water.

The Planning Authority on inspection of the site on 18th September 2014 noted significant flow from the site into the minor stream leading to the Bann. Other inspections at different times produced different results – e.g. The Board's previous Inspector noted the surface water pathways within the site under section 3.5.2 of her

report. She referred to use of water from the quarry in the concrete production and also noted that water drains back into the site as the conveying channels are unlined. Her conclusion was that the final discharge into the stream 'is therefore relatively small'. The assessment of AWN Consulting, based in part on a site walkover in June 2014, notes that water is discharged to a local stream, while noting that the final discharge is relatively small.

The evidence presented indicates that the situation is very variable. At times there is inadequate water to meet on-site processing requirements and the applicant has to draw on wells. At times of high rainfall there appears to be a requirement to discharge significant volumes of water to the stream which leads to the Bann. The problem in terms of assessment of the impacts which have previously occurred is that up to recently the discharge point SW3 was not monitored and while the applicant suggests that the volumes of water discharged can be estimated, in practice the flows were not monitored and volumes are uncertain and variable. It is unknown when the practice of discharge to the drain / stream commenced and the Planning Authority notes that it was not referenced in a 2009 planning application. The assessment of WYG in 2011 however notes that discharges to the stream were made.

I submit that the concerns arising from the existing surface water system, which operated for a period of the extraction subject of this application, to the extent that it can be understood would include the following :

- that the run-off of surface water from the manufacturing and processing areas including the ready-mix plant and tarmacadam plant flows into the settlement ponds and at times much of the water is then discharged into surface water to the north which flow to the Bann
- apart from settlement for suspended solids there appears to be no treatment of these waters prior to discharge to the Bann
- the principle of the discharge point requires consideration and there was a requirement in the permission for the Tarmacadam plant that the surface water arrangements be agreed – the evidence presented indicates that the outfall was not agreed under that permission
- if the discharge point is deemed acceptable a discharge licence would be required
- there is potential for groundwater contamination due to use of unlined channels but that risk is associated primarily with the manufacturing facilities.

Of the above my primary concern would relate to the impacts on the Bann, which provides a pathway to the Slaney and on its fisheries and protected species, including Freshwater Pearl Mussel. I consider that the quality of that discharge and

its effects on the aquatic environment have not been thoroughly assessed in the applicant's submission.

As a general comment, I agree that the lack of treatment (other than settlement of suspended solids) prior to discharge to the surface water system is of concern. I note that IFI appears primarily concerned with the waters from the ready-mix and tarmacadam plant and does not address in detail the previous extraction. I agree with the position of the Planning Authority in general in relation to the lack of information available regarding water quality data. Further, there is considerable difficulty in separating water quality effects which are related to the development from those which are not. In this regard I note reference of IFI to pH changes related to cement and to the proposal by the applicant to install a better drainage system at the block yard to the north of the site. In effect it would appear to me that the evidence suggests that the subject extraction has not given rise to water quality impacts in itself. However, the extraction has been facilitated by the construction of a surface water management system including a discharge outside the site, which by reason of its function with respect to the manufacturing activities may well have resulted in significant adverse impacts on the natural environment.

The Board may wish to consider the matter of indirect effects. In the most conservative approach it might be considered that the extraction undertaken facilitated the continued operation of the Tarmacadam plant and the manufacturing of concrete and concrete block. Thus any contamination which might have arisen due to processing would be connected to the subject development. However, there is also an argument presented by the applicant that there is an unrestricted permission at the adjoining plot; in that sense the indirect effects such as water quality impacts from the concrete block yard / manufacturing would have occurred with or without the subject development. The only feasible approach in my opinion is to have regard primarily to the effects which arose from the extraction and in terms of water quality impacts from that activity alone I do not consider that there is any reason to conclude that a refusal of permission is warranted.

It is apparent that the development undertaken and subject of the current application was connected with the construction of a surface water system, which included discharge to the drain to the north of the site and that this system constructed at that time was never authorized for this purpose. The Planning Authority acknowledges the use of the stream to the north is authorized but only for surface water associated with the nearby yard and specifically was not part of the permission granted under PL26.235738 (2009/0014). The evidence indicates that the extraction subject of the current application therefore has relied on a surface water system which has not been authorised and which remains in situ. The requirement under condition 3b of PL26.235738 regarding installation of a surface water system to deal with all surface water on site can only be reasonably interpreted to mean be related to the entire quarry. That condition remains enforceable.

On a related point, I note that the decision of the Planning Authority under Planning Register Reference 2013/0442 indicates a requirement for submission of a NIS. The Planning Authority has made a similar case in the current application and I agree with that position having regard to the nature of the discharge and the pathway to the nearby SAC. I address that matter later below. In the absence of a requirement that the surface water system be significantly amended, the development subject of this application which might be considered to include the surface water system in place, which could give rise to significant ecological impacts including on fisheries and species protected under the Habitats Directive if it continued to operate in association with the apparently authorised extraction on the authorised plot.

The Board should note that the Planning Authority remains of the view that the information presented is inadequate. I agree that in terms of the data presented the applicant's submissions are lacking detail. The applicant has acknowledged a number of areas where data is limited. It is the position of the Planning Authority that the rEIS is unclear in relation to discharge volumes, the quality of water being discharged and measures to enhance water quality and other matters. The information presented is described by the Planning Authority as a major element of the development for which remediation is required and such remediation can only be designed once impacts are fully established.

I agree with the parties that a new surface water system is required and that it might require a treatment component and a discharge license. However, I am not satisfied that there is evidence to support a conclusion that the requirement for changes arises from the extraction which took place. Rather, I am of the opinion that the manufacturing and processing site activities may have contributed to surface water quality issues and that the relevant pathway would have been the surface water system, which was installed at least partly in response to the need to handle water arising from the extraction.

I recommend that the Board clearly indicate in its Decision or Direction that a grant of permission in this case does not in any way authorise the surface water system on site including for future extraction and / to cater for surface waters associated with manufacturing. On that basis, I conclude that the development subject of the current application has not given rise to significant adverse consequences in terms of the surface water resources.

Landscape and visual impacts

In overall terms in relation to the additional landscape impacts the development would not have resulted in any change in landscape character or resulted in the removal of any landscape features of significance. The landscape which existed in this area has long been altered by the quarry on site which dates to 1980 and the original peak site level of 175mOD together with the agricultural landscape has been radically modified since that time. The applicant's submissions note that portions of

plant equipment in particular are visible from the surrounding landscape including from parts of the M11 but photomontages provided indicate that these views will be softened and screened in time by planting.

The rEIS submitted includes a technical assessment of the impacts involving analysis of the line of sight from key points and concludes in relation to the deepening and widening of the excavation that there are no views of the subject development from the south-east. A minor alternation in views from the north to west is noted as there was a lowering of ground level due to the lateral extension.

Having regard to the nature of the subject development I consider that the conclusion set out in the rEIS that any addition landscape or visual impacts because of the subject development were 'neutral, imperceptible and permanent in nature' is reasonable. I note also the statements of the Planning Authority that the unauthorised extraction has not directly had adverse visual impacts on the landscape and to the location of the site within the 'Lowlands' character unit in which quarrying is not precluded in principle.

The Board may wish to consider whether it is appropriate in this instance to attach conditions relating to landscaping. On the basis of the findings in the rEIS the applicant's position is that no remedial measures are recommended. There is merit in that position for a number of reasons. First, site landscaping requirements of the Board were set out in 2010 by condition of permission granted for the Tarmacadam plant, which is the most visible element of the quarry. That requirement was that the entire site be landscaped and this is being pursued. The Board may wish to consider whether the attachment of a similar condition in the current case would be redundant. Secondly the main view into the quarry floor is from the south and it is clear from site inspection that there are additional reserves to the north and that further excavation in that direction in the future is likely to be proposed. Any landscaping required would be short-lived in the event that further expansion to the north was permitted.

On the other hand, there are reasons for the attachment of landscaping / restoration condition in this case. In particular it is advisable that the Board's decision address the scenario that no further applications for quarrying take place at this part of the quarry. As such a grant of permission in the absence of a landscaping condition would leave no requirement to restore the area subject of the current application, which would be undesirable in terms of aquifer protection, safety, ecology and visual amenity. I therefore reject the applicant's position and consider that a condition requiring restoration is appropriate.

I conclude that the landscape and visual impacts of the development subject of this application were minor in nature but consider nevertheless that mitigation is required and that this can be achieved by condition. I recommend that the Board refer in its

conditions to a requirement to comply with the terms of PL26.235738, which will suffice.

Roads and Traffic

The site is served by a private access road which connects with the R772 and is under 5km from the national road network. The junction and the private lane have been previously determined to be acceptable for the purposes of quarrying. The regional road is marked with a right turn lane and the entrance is wide and offers good sightlines. I am satisfied that the development would have been suitably served by the good entrance which was in place. In relation to the impact on road structure for the duration the Planning Authority has not indicated any concerns. The application of a condition requiring payment of the Development Contribution Scheme would be appropriate.

I submit that the significant impacts in terms of roads and traffic relates to the level of traffic generated during the relevant period and any consequences for the capacity of the road network. There was also use of an entrance to the north of the site, which would have resulted in possible hazards.

The focus of the rEIS submissions relates to traffic generated. It notes that the application period was one of high market demand and consequently relatively high volumes of traffic generation. Data presented includes a traffic survey carried out at the end of July 2014, which I consider is relevant insofar as the trends emerging are likely to apply for the duration of the extraction subject of this application. These trends include a fairly even split in terms of the direction of HGV traffic leaving the site at the main entrance at the R772. About 25% of HGV traffic on this regional road is deemed to be associated with the quarry. In overall terms it is stated that over 5% of PCU traffic on the regional road was related to the ongoing unapproved extractions. The estimate derived was that the increase in cumulative HGV movements was in the order of 15% above that which would have been generated had the unauthorised extraction not taken place. Utilising these figures it was demonstrated that the flows at the existing ghost island were within the DMRB guidance.

Having regard to the road conditions in the vicinity of the quarry including proximity to the national road network, I am satisfied based on the evidence presented that the development which took place did not result in material adverse consequences for roads and traffic in the area.

The Board will note that there were concerns in the past arising from the use of an entrance at the north of the site. The Board's Inspector when visiting the site in 2010 was satisfied that the entrance did not appear to be in use by vehicles associated with the quarry. The use of the rear entrance by HGVs would have been unsafe to the extent that it occurred, but it would appear to have been for short duration. There is no indication of any accidents occurring as a result of the use of this

entrance but no doubt indirect effects would have been significant including in relation to noise and dust emission. The available information however indicates that the use of this entrance which occurred would not warrant a refusal of permission and no mitigation issues arise as the future use for quarrying is not authorised. I do not consider it necessary to require complete removal of the entrance, which serves agricultural lands.

I note the submission of the NRA which indicates no objection in principle subject to the operations being based on the analysis set out in the rEIS. In the event of an intensification of traffic above those levels a Traffic and Transport Assessment would be required in order to assess the impact on the national road network. I note that the development is close to the Gorey roundabout at the N11. I consider that there is no reasonable likelihood that the development had an adverse impact on the functioning of the national road network and there are no submissions to this effect on the file. The NRA statements relate mainly to future quarrying which is not relevant.

In conclusion on the basis of the evidence presented the Board can be satisfied that the development did not give rise to significant adverse impacts on roads and traffic, other than for the duration of use of the northern site entrance and that the only requirement in terms of condition is payment of the appropriate amount under the Scheme.

Noise and air quality impacts

The rEIS notes that the current elevation of the active quarry face being significantly below the surrounding ground level offers very significant attenuation of noise and dust emissions. In the assessment of noise and air quality impacts I submit that the topography together with the established nature of the activity have minimised the noise and air quality impacts perceived by local residents. However, the site context includes a relatively high number of rural dwellinghouse in the immediate vicinity and the operation has involved blasting. I consider below the evidence in relation to noise and air quality impacts.

Noise The assessment of the historic noise for the duration benefits from quarterly noise monitoring which has been undertaken. The noise monitoring undertaken comes about on foot of a planning condition and data presented shows noise survey results for the period 2006-2013. The results presented in the rEIS indicate that at the nearest noise sensitive receptors (N1 and N2 about 200m to the south of the site boundaries) site activities would have been audible and would have been experienced in the context of noise from passing traffic, the noise arising was not intrusive and there would have been no breaches of normal noise standards.

The quarrying operation subject of this application benefited from a number of mitigation measures including the level at which excavation was taking place, the presence of screening banks and, in more recent years, good practice measures

under the Environmental Management System. The applicant's submissions reasonably conclude that the operation noise would not have been unacceptable or in breach of standards. However, it is also acknowledged that the construction phase impacts during soil stripping and the exposure and extraction of rock from the lateral extension would have been more significant in terms of noise generated but would also have been of short duration.

I consider that it is reasonable for the Board to conclude that the operational noise which occurred in the relevant period did not result in unacceptable noise nuisance or noise disturbance at noise sensitive receptors. The construction phase noise impacts were of short duration and not unusual in terms of their nature and in the context of an existing authorised quarry. There is no evidence indicate that the development has had unacceptable consequences in terms of noise impacts or that a refusal or significant amendment to the development would have been required.

Vibration In relation to the impact of vibration it is noted that blasts occurred on a monthly basis during the peak production period. All blasting is stated to have been undertaken by an approved contractor who managed and controlled the volume of rock extracted during each blast and minimised the generation of ground vibrations and air overpressure. The HSE refers to the prior notification of residents. Blast mitigation measures and air overpressure mitigation measures set out in section 7.6.2 and 7.6.3 of the rEIS refer. Monitored results undertaken for blast events are indicated to be below the specified limits of 12mm/sec for vibration and 125bD(L)_{max peak} air overpressure. I am satisfied based on the evidence presented that the Board can reasonably conclude that the quarrying which occurred would not have significantly impacted the nearest sensitive receptors due to vibration and air overpressure impacts.

Air quality I submit that while there is evidence on file relating to previous breaches of conditions and standards related to dust emissions, the information also indicates that since around 2006 the quarry appears to have been operated in a manner which minimised dust emissions and which is unlikely to have resulted in any breaches of recognised standards. That conclusion was drawn in the report of the Inspector under PL26.235738 which relates to the situation in 2010.

The Board is advised on the other hand that there have been on-going complaints submitted to the Planning Authority in relation to dust generation. The Planning Authority report indicates that these were from a resident to the north east of the site and that the subject of any impacts could be attributable to other activities including concrete manufacturing or stockpiles. For a duration also it is evidence that dust from the access road did result in adverse impacts on nearby residential properties. Lateral expansion of the quarry and the topsoil stripping phase would have been short-lived but significant nuisance could have arisen.

The majority of the development subject of this application relates to the extraction of rock at the base of the quarry. Due to the low lying level and the location of the development relative to residences and within an operating quarry, I do not consider that the Board can conclude that the development overall was unacceptable. In terms of cumulative impacts the existing plant on the site is licenced and the comments above also apply, i.e. the evidence indicates that the cumulative impacts which arose are not likely to have resulted in significant adverse impact on sensitive receptors or the environment.

Cultural Heritage

The nearest cultural heritage sites of interest are earthworks 460m and 1.3km away and church sites which are over 1.1km away. Having regard to the nature of the development for which consent is sought and to the very minor associated change in landscape character which resulted I do not consider that any adverse impacts on the setting of nearby sites or monuments has arisen. The development has not directly impacted any sites of cultural heritage significance. There is no indication that the development is likely to have impacted on previously formerly unidentified archaeological or other remains. In view of all of the above, I agree with the conclusion in the rEIS that the development has not resulted in any significant adverse impacts on cultural heritage.

Appropriate Assessment

The site is under 2km from the river Bann which is part of the Slaney River cSAC which is designated for a number of aquatic dependent species including Freshwater Pearl Mussel, Lamprey (3no. species), Twaite Shad, Atlantic Salmon, Otter and Seal. There is no information presented on file in relation to species which are qualifying interests in terms of their presence in the Bann in the vicinity of the quarry. However, IFI in its submission to the Board notes that the Bann is an important salmon spawning / nursery tributary of the Slaney and is also known to contain populations of Freshwater Pearl Mussel.

The background to the matter of Appropriate Assessment includes a number of facts on the file 26.QY.0245. The screening report presented states that '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'. Given the scale of the quarry and the 1.7km distance from the Bann dust impacts were discounted as being of significance.

The Planning Authority determined that a Stage 2 Habitats Directive Assessment was not required 'having regard to the screening report'. The Board's Inspector and the Board were in generally in agreement. Therefore Board as the competent authority on the issue has already decided that submission of a Natura Impact Statement is not required in relation to the development. The Board in its Direction

under 26.QV.0245 decided having regard to matters including the screening exercise which was carried out on behalf of the Planning Authority and to the limited potential for connectivity to European Sites that the development was not carried out on this site after 3rd July 2008 that would have been likely to have a significant effect on any European Site.

I submit based on the above that the matter of Appropriate Assessment related to the development which has taken place is closed. Assessment of impacts which have taken place are discussed above under the Environmental Impact Assessment section of this report. I do not consider that there is any legal avenue under which the Board could request submission of a Natura Impact Statement as is now recommended by the Planning Authority. My comments herein relate obviously to the subject application only and have no bearing on any future extraction which may be authorised at the site or on any ongoing authorised quarrying and related activities.

Other Issues

The Planning Authority has requested An Bord Pleanála to direct the applicant to cease extraction operations further to s177J unless and until the potentially adverse effects on the water environment are clearly established and controlled. The report presented by the Planning Authority notes that work at the site was ongoing on 18th September 2014 and states that it is unclear how such work could be regularised. At the time of my inspection all extraction within the area of the substitute consent site had ceased, apart from at the location of overlap with 20408, which I understand to be authorised.

The Board may wish to consider whether it is appropriate to issue a comment in the Direction relating to information to be presented under future applications or appeals. I note for example that the recent planning history includes an application accompanied by an EIS for an extension of almost 5 hectares to a floor of 100mOD. Amongst the reasons for refusal were matters related to deficiency in data including in relation to soils and water, traffic, noise and air quality and other impacts. There is a significant resource at this location and applications for permission are likely.

CONCLUSIONS AND RECOMMENDATION

Due to the nature of this application there are inherent difficulties in obtaining baseline data and in the assessment of impacts which are likely to have occurred. That is a feature of all applications for substitute consent before the Board. In this case I am not in agreement with the consideration of the Planning Authority in relation to the deficiency of information, which I consider is generally adequate for the purpose.

My sole concern in this regard relates to the surface water discharges. However, I am satisfied that if the Board only considers the extraction which took place, it is reasonable to conclude that the applicant has adequately demonstrated that the development was not likely to have given rise to significant adverse impacts on fisheries and aquatic ecology. No evidence has been presented in relation to recorded damage to the aquatic ecology. It is also reasonable to infer that use of the outfall to the north of the site has been intermittent and short-lived.

I recommend that permission be granted for the reasons and conditions set out below.

REASONS AND CONSIDERATIONS

Having regard to the nature and scale of the development, the planning history on the overall site and the pattern of development in the area, it is considered that the extraction which took place and is subject of this application for substitute consent did not have a significant adverse effect on the environment. The subject development therefore is not contrary to the proper planning and sustainable development of the area.

CONDITIONS

1. This grant of substitute consent shall be in accordance with the plans and particulars submitted to An Bord Pleanála with the application on the 10th day of December 2014. The grant of substitute consent relates only to development undertaken as described in the application. It does not authorise any future development including excavation on this site. It does not authorise any use of the surface water system in situ, particularly the discharge to the surface waters beyond the site limits, except to the extent that such use has been previously authorised by the Planning Authority.

Reason: In the interest of clarity.

2. All environmental mitigation measures identified within the remedial Environmental Impact Statement shall be implemented in full, save as may be

required in order to comply with other conditions attaching to this order. This shall provide *inter alia* for groundwater monitoring.

Reason: To protect the environment and to ensure protection of the aquifer, which is of Extreme vulnerability as a result of the development which has taken place and to ensure the proper planning and sustainable development of the area.

3. The conditions of PL26.235738 shall apply in relation to the development, save where the Planning Authority agrees in writing to the conditions being waived.

Reason: To protect the environment and the amenities of the area and to ensure the proper planning and sustainable development of the area.

4. Details of site safety measures shall be provided to the Planning Authority for written agreement.

Reason: To ensure public safety.

5. Within three months of the date of this order, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or other security to secure the satisfactory restoration of the site, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory completion of the restoration of the site. 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.

6. The developer shall pay to the planning authority a financial contribution in respect of roads 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 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 amount payable 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.

Mairead Kenny

Senior Planning Inspector

21st May 2015