



Development

Permission for continued use of the previously permitted developments including the existing quarry, stone extraction and processing and related ancillary buildings and facilities including the concrete batching and block making facilities; Permission for a small lateral extension of c.1.8 ha from the existing quarry area to give an overall extraction footprint of c.16.8 ha; Permission for the deepening of the extraction area in part, by 2 no. benches; Realignment of the existing internal access road, with relocation of the existing weighbridge and office; Permission for an overburden storage area along the eastern site boundary covering an area of c.1.1 ha; Permission for a construction and demolition waste recovery facility which provides for the importation, storage, processing and recovery of waste concrete arising from concrete plants on a 3.9 ha site within the existing quarry and provision for a hardstanding area for stockpiling and crushing of waste materials and a waste inspection/quarantine shed; Restoration of the site to a combination of beneficial ecological and agricultural after-use; All associated site works within an overall application area of 49.4 ha and all for a period of 21 years.

Location	Castletown Quarry, Tromman Townland, Rathmolyon, Co. Meath
Planning Authority	Meath County Council
Planning Authority Reg. Ref.	TA170519
Applicant(s)	Kilsaran Concrete
Type of Application	Permission
Planning Authority Decision	Grant
Type of Appeal	First and Third Party
Appellant(s)	<ol style="list-style-type: none"> 1. Kilsaran Concrete 2. Eco Advocacy CLG
Observer(s)	<ol style="list-style-type: none"> 1. An Taisce 2. Meath Environmental Protection Alliance
Date of Site Inspection	14 th November 2018
Inspector	Niall Haverty

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1.0 Site Location and Description

- 1.1. The appeal site, which has a stated area of 49.4 ha, is located in the townland of Tromman, c. 2km west of the village of Rathmolyon and c. 6km south west of Trim in County Meath.
- 1.2. The site comprises an existing operational limestone quarry and associated lands, which is referred to as Castletown Quarry. It abuts a second operational quarry to the east, which is referred to as Trammon Quarry, and which is under separate ownership/operation (Keegan Quarries). The applicant owns further lands to the east and north of Trammon Quarry, with a total landholding of c. 94.5 ha.
- 1.3. The site is accessed from the R156 Regional Road to the south, via a c.400m long private roadway with recessed gated entrance. It is bounded by the R156 and residential/agriculture properties to the south, by the Keegan quarry to the east, by the Rathmolyon/Moynasboy stream and agricultural lands to the north and by further agricultural lands to the west.
- 1.4. There are numerous mature trees within the appeal site, primarily along the haul road, with more recent screening-type planting and embankments along the public road. In addition to the extraction area, the site includes weighbridge, offices, wheelwash, car parking areas, stockpile storage, concrete batching plant, concrete block plant and yard, water treatment facilities and associated development.
- 1.5. The surrounding area is rural in character and is characterised by rolling agricultural fields with well-defined field boundaries comprising hedgerows and trees. Significant one-off ribbon development has occurred along the regional and local roads in the vicinity of the site, with the closest residential dwellings located c. 100m from the southern site boundary, along the R156. I note that aerial photography indicates that there are a considerable number of quarries and sand and gravel pits in the wider area.

2.0 Proposed Development

- 2.1. The proposed development is described as follows:
 - The continued use of the previously permitted developments under Planning Reg. Ref. Nos. TA160094, TA/150309, TA/70175 (PL17.227088), TA/30258

(PL17.206229), 00/2156 (PL17.125619) and 98/1981 (PL17.111632) including the existing quarry, stone extraction and processing and related ancillary buildings and facilities including the concrete batching and block making facilities;

- Permission for a small lateral extension of c.1.8 hectares from the existing quarry area, permitted under Reg. Ref. TA/70175 (PL17.227088) to give an overall extraction footprint of c.16.8 hectares;
- Permission for the deepening of the extraction area in part, by 2 no. benches from the current floor level of c.36m AOD to a final depth of c.0m AOD. The current permitted quarry floor level is c.24m AOD under Reg. Ref TA/70175 (PL17.227088);
- Realignment of the existing internal access road over a distance of c.400m to release rock reserves beneath for extraction, with relocation of the existing weighbridge and office;
- Permission for an overburden storage area along the eastern site boundary covering an area of c.1.1 hectares;
- Permission for a construction and demolition waste recovery facility which provides for the importation, storage, processing and recovery of waste concrete arising from concrete plants operated by Kilsaran on a 3.9 hectare site within the existing quarry and provision for a hardstanding area for stockpiling and crushing of waste materials and a waste inspection/quarantine shed;
- Restoration of the site to a combination of beneficial ecological and agricultural after-use;
- All associated site works within an overall application area of 49.4 hectares and all for a period of 21 years.

2.1.1. It can be seen from the above that there are essentially four main elements of the proposed development:

1. Continuation and deepening of quarry, including storage of overburden and continuation of related processing, batching, block-making activities.

2. Lateral extension of the quarry, requiring the realignment of the existing access road and relocation of the weighbridge and office.
 3. Provision of a construction and demolition waste recovery facility.
 4. Restoration of the site.
- 2.1.2. I note that the proposed rate of extraction is c. 800,000 tonnes per annum, which is stated to be in line with previous permission at the site (PL17.227088; Reg. Ref. TA/70175), resulting in a 19-year life for the quarry with the final 2 years required for restoration and associated aftercare.
- 2.1.3. With regard to the proposed C&D waste recovery facility, the EIS states that the maximum intake shall be 35,000 tonnes per annum of waste concrete, made up of a combination of future concrete returns from Kilsaran concrete plants in the Dublin region and existing concrete returns stockpiled on the site by the previous quarry operator. It is stated that the waste concrete material will be crushed to produce an aggregate which can be used to construct hardstanding areas and unpaved access roads for construction sites, agricultural holdings, forestry etc.
- 2.1.4. The proposed development, including the restoration proposals, is described in more detail in Section 2 of the EIS.

3.0 Planning Authority Decision

3.1. Decision

- 3.1.1. Meath County Council decided to grant permission, and the following summarised conditions are noted:
- C2: Permission shall be for a period of 10 years. No excavation works shall be undertaken below 18m AOD.
 - C3: revised site layout and extraction plan to be submitted in compliance with Condition 2.
 - C4: Development shall comply with conditions under previous grants of permission.
 - C6: HGV traffic limited to 280 trips per day over 5.5 days per week.

- C7: Annual intake of waste at C&D facility shall not exceed 35,000 tonnes.
- C8: Imported material shall comprise demolition waste only.
- C9: Proposals for stockpile management to be submitted.
- C10: Operating hours.
- C11: Weekly groundwater monitoring and quarterly reporting.
- C12: Monthly monitoring of neighbouring private wells and quarterly reporting.
- C13: Remedial works to private wells if required.
- C14: Monitoring of water quality and levels in Rathmolyon/Moynasboy Streams for the effects of dewatering where it is part of the Natura site.
- C15: If groundwater abstractions have had or are likely to have a negative impact on the SAC the developer shall undertake remedial works.
- C16: Environmental Management Plan.
- C18: Noise limits.
- C20: Annual noise surveys.
- C21: Dust limits.
- C23: Blasting requirements.
- C24: Vibration limits.
- C27: Noise, dust, groundwater and surface water monitoring.
- C29: Revised restoration plan to be submitted in accordance with condition 2.
- C31: Aerial photographs and maps to be submitted annually to enable the PA to assess the progress of extraction.
- C33 – C35: Development contributions.
- C36: Special contribution of €120,000.
- C37: Bond.

3.2. Planning Authority Reports

3.2.1. The Planning Officer's reports can be summarised as follows:

- Planning Authority concur with conclusion of AA Screening Statement, that Stage 2 NIS is not required.
- Operating hours will be conditioned to match existing hours.
- A palisade fence of greater height than the proposed 1.5m post and wire fence will be required. Monitoring of the security of the site should be carried out regularly.
- The development is acceptable in principle.
- Subject to compliance with mitigation measures, the development will not have a dust deposition impact.
- The analysis of the effects of drawdown on wells and the proposed mitigation measures are acceptable. It is noted that the area under the influence of drawdown includes the Rathmolyon Stream at Trommon Bridge which is part of the River Boyne and River Blackwater SAC. Should the application be granted, conditions requiring the monitoring of the stream and ceasing of quarrying shall be included.
- It is appropriate to limit the depth of excavation to 18mOD and to a period of 10 years as a consequence of the concerns in relation to impact on groundwater and the designated site.
- Stockpiles should be surveyed and reduced in height to mitigate against visual impact.
- Stockpile is a source of dust and requires more effective management. Truck wash required also.
- The trees to be retained at the south western corner of the site effectively screen that area of the quarry effectively. It is considered that a reduction in the stockpile height will reduce visual impact.
- Condition required to ensure truck wash is provided within 3 months.

- Having regard to the suitability of the site from a technical perspective, together with the nature and scale of the development, it is considered that the development would not seriously injure the amenities of the area, would not lead to the creation of a traffic hazard nor traffic inconvenience and would be in accordance with the proper planning and sustainable development of the area.

3.2.2. A document attached to the planning file, signed by the Acting Chief Executive of the Planning Authority, states that the Planning Officer's report contains a fair and reasonable assessment of the likely significant effects of the development on the environment and that the assessment as reported is adopted as the assessment of Meath County Council.

3.3. **Other Technical Reports**

3.3.1. **Road Design Office:**

- No objection, subject to contribution of €293,150. If a shorter permission is granted, the amount could be reduced to €120,000.

3.3.2. **Environment:**

- Reference is made in the Planning Officer's report to an Environment report. Upon request, the Planning Authority were not able to locate said report and they indicated that mention of the report may have been a typographical error.

3.4. **Prescribed Bodies**

3.4.1. **Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs:**

- In order to mitigate the potential impact of the loss of semi-natural habitat on bats and birds, the following conditions are recommended:
 - Loss of bat habitat should be compensated for.
 - Removal of the mature treeline should take place outside of bird nesting season.

3.4.2. **An Taisce:**

- 21 year duration is undesirable. Development should be limited to a 5 year period.
- Consideration of extraction depth on hydrology and groundwater quality.
- Clearly defined reinstatement strategy required.
- Cumulative impact on R156 with other quarry operators.

3.5. Third Party Observations

- 3.5.1. A number of third party observations were made and the issues raised were generally as per the third party appeal.

4.0 Planning History

4.1. Appeal Site

- 4.1.1. The appeal site has a relatively extensive planning history, which can be summarised as follows:

- **Reg. Ref. TA/180336:** Application granted in May 2018 to extend the duration of planning permission Reg. Ref. TA/70175 (ABP Ref. PL17.227088) for a further 5 year period (to January 2024).
- **Reg. Ref. TA/160094:** Permission granted in 2016 for an agricultural lime production and storage unit.
- **Reg. Ref. TA/150309:** Permission granted in 2015 for a substation building.
- **17.QV.0182 (Reg. Ref. QY76):** The Board decided, in 2014, to set aside the Planning Authority's determination made under section 261A of the Planning and Development Act 2000, as amended.
- **PL17.227088 (Reg. Ref. TA/70175):** Permission granted in 2009 for an extension by deepening to the existing quarry over an area of 16.1 ha and all site development and associated landscaping, restoration and other ancillary works. Condition 3 limits the permission to 10 years and limits the depth of excavation to 24m AOD.

- PL17.206229 (Reg. Ref. TA/30258):** Permission granted in 2004 for: extension of an existing quarry over an area of 12.36 ha; relocation of the car parking area, offices, canteen and staff facilities permitted under Reg. Ref. 98/1981; the extension of the existing north-eastern quarry face from the extent permitted under Reg. Ref. 98/1981 (0.72 ha); the reconfiguration of the banking and road layout permitted under Reg. Ref. TA/20222; the erection of 2 No. portacabins for staff use (combined area c. 40 sq m); a storage shed (c. 107 sq m); ancillary toilet facilities; a septic tank and percolation area; and all site development and associated landscaping and restoration works.

Retention permission was also granted for: the extension of the north eastern quarry face from the extent permitted under Reg. Ref. 98/1981 (2.67 ha); the processing area and associated processing equipment and storage areas to the north east of the permitted location under Reg. Ref. 98/1981 (0.34 ha); the access road to the north-east of the permitted location under Reg. Ref. 98/1981; the fuel tanks to the east of the permitted location under Reg. Ref. 98/1981 (c. 157 sq m); the concrete batching plant to the north of the permitted location under Reg. Ref. 00/2156 (0.1158 ha); the sand manufacturing plant (0.118 ha) and 3 No. associated settlement lagoons (0.786 ha).
- Reg. Ref. TA/20222:** Permission granted in 2002 for construction of an asphalt plant, bunded fuel oil tank, control cabin, 3 No. bunded bitumen tanks, 5 No. aggregate storage space, oil interceptor and associated development.
- PL17.125619 (Reg. Ref. 00/2156):** Permission granted in 2002 for permission for a concrete batching plant for export of c. 25,000 metres per annum of concrete off site; a Concrete Block Plant, including a concrete batching plant and block manufacturing building, with a gross floor area of c. 2,376 sq m for the manufacture and export off site of c. three million blocks per annum and all associated infrastructure and structures including a materials feed hopper; 5 No. 50 tonnes capacity aggregate bins; two cement silos; conveyors; conveyor rails and belts; 2 No. washout bays; a block storage area and all other associated development.
- PL17.111632 (Reg. Ref. 98/1981):** Permission granted in 1999 for development comprising a quarry and associated activities over an area of 37

ha, to include: quarrying over an area of 9.9 ha; processing area (2.75 ha) and associated processing equipment and storage areas; land conveyors; offices; canteen and staff facilities (77.7 sq m); and associated septic tank and percolation area; weighbridge; wheelwash facilities; maintenance facility (14.4 sq m); bunded fuel storage unit; settlement and stilling ponds and associated outfall to a surface watercourse on site; car parking; portable power generator; demolition of a habitable house; new vehicular access and access road; and associated development works.

- 4.1.2. The applicant states that the site also has a discharge licence from Meath County Council (Ref. 14/04) and that a waste facility permit (Ref. WMP 2007/73) was issued to the previous owner of the quarry in 2008 for a period of three years, which has since expired.

4.2. Surrounding Area

- 4.2.1. The adjoining Keegan's Trammon Quarry development also has an extensive planning history. The most recent cases that came before the Board are as follows, and may be referred to for details of the planning history associated with that quarry:

- **ABP-305384-19:** Application for further development of quarry. Deemed invalid.
- **ABP-305049-19:** Current application for substitute consent.
- **ABP-303334-18:** In May 2019 the Board granted an application for leave to apply for substitute consent.
- **PL17.249285 (Reg. Ref. TA161345):** Permission refused in 2018 for relocation of a permitted concrete block yard from the site of an established and permitted quarry, precast concrete manufacturing plant, and block manufacturing facility located on the northern side of the R156 Regional Road, to the southern side of the R156, at Tromman, Rathmolyon, County Meath, and the development of an ancillary mixing/batching plant and associated development, works and landscaping.

5.0 Policy Context

5.1. National Planning Framework (Project Ireland 2040) and National Development Plan 2018-2027

- 5.1.1. These joint documents set out a vision for the future development of the country and, in particular, to support the sustainable development of rural areas by encouraging growth. National Policy Objective 23 seeks to facilitate the development of the rural economy through supporting, amongst other sectors, a sustainable and economically efficient extractive industry sector, whilst at the same time noting the importance of maintaining and protecting the natural landscape and built heritage which are vital to rural tourism.

5.2. Regional Spatial and Economic Strategy for the Eastern and Midlands Region 2019-2031

- 5.2.1. The following Regional Policy Objective is noted:
- **RPO 6.7:** Support local authorities to develop sustainable and economically efficient rural economies through initiatives to enhance sectors such as agricultural and food, forestry, fishing and aquaculture, energy and extractive industries, the bioeconomy, tourism, and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting the natural landscape and built heritage.

5.3. Eastern-Midlands Region Waste Management Plan 2015-2021

- 5.3.1. Section 7.3.1 notes that the estimate of C&D waste arisings for the Region in 2012 is 1.91 million tonnes, and that as the construction sector begins to record increasing activity, appropriate processing facilities need to be in place to facilitate increased reuse, recycling and recovery of this waste stream.
- 5.3.2. Section 11.2.2 notes that given the decrease in the number of operational landfills, alternative recovery options will be required to facilitate recovery of C&D waste. It states that concrete, stone and other masonry-type waste can be crushed and

screened and used as a substitute for virgin quarried stone material in a variety of engineering applications.

5.4. Meath County Development Plan 2013-2019

5.4.1. The following Sections, Policies and Objectives of the Meath County Development Plan 2013-2019 are considered to be relevant to the proposed development:

- **CS OBJ 7:** To promote rural economic development by recognising the need to advance the long term sustainable social and environmental development of rural areas and encouraging economic diversification and facilitating growth of rural enterprises...
- **WS POL 2:** To protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the county and to control development in a manner consistent with the proper management of these resources.
- **Section 7.14 'Water Quality':** This water environment is sensitive to most forms of development. It can be affected both directly, for example, through river engineering works and water extraction for consumption, and indirectly, for example through pollution from surface water run-off, and agricultural and industrial processes.

The Council is responsible for the protection of all waters in the County. The planning system has a major role to play in ensuring the protection, maintenance and improvement of water quality through the location and management of development.

Natura 2000 sites are sensitive to changes in water volume and quality. The Council recognises the importance of maintaining the favourable conservation status of aquatic species and habitats that are qualifying interests/conservation interests of these sites.

- **WS SOBJ 9:** To promote compliance with environmental standards and objectives established—
 - (i) for bodies of surface water, by the European Communities (Surface Waters) Regulations 2009;

(ii) for groundwater, by the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in river basin management plans.

- **WS POL 19:** To protect groundwater resources having regard to the County Meath Groundwater Protection Plan.
- **WS POL 20:** To ensure through the implementation of the River Basin Management Plans and their associated programmes of measures, and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters throughout the county.
- **WS POL 32:** To ensure that a flood risk assessment is carried out for any development proposal, where flood risk may be an issue...This assessment shall be appropriate to the scale and nature of risk to the potential development.
- **PC POL 1:** To seek to preserve and maintain air and noise quality in the county in accordance with good practice and relevant legislation.
- **NH POL 1:** To protect, conserve, and seek to enhance the County's biodiversity.
- **NH POL 2:** To promote measures to protect biodiversity in the development management process by creating and improving habitats, where possible.
- **NH POL 5:** To permit development on or adjacent to designated Special Areas of Conservation, Special Protection Areas, National Heritage Area or those proposed to be designated over the period of the plan, only where an assessment carried out to the satisfaction of the Meath County Council, in consultation with National Parks and Wildlife Service, indicates that it will have no significant adverse effect on the integrity of the site.
- **NH POL 8:** To seek to ensure that development does not have a significant adverse impact, incapable of satisfactory avoidance or mitigation, on plant, animal or bird species protected by law.
- **NH POL 18:** To encourage the retention of mature trees and the use of tree surgery rather than felling where possible when undertaking, approving or authorising development.

- **Section 9.8 Landscape:** The appeal site is primarily located within the 'Central Lowlands (Landscape Character Area 6)', with a portion of the site within the 'Rathmoylan Lowlands' (Landscape Character Area 13). Both LCAs are described as 'high' landscape value. LCA 6 is described as of 'moderate' landscape sensitivity (i.e. a landscape that can accommodate a certain amount of change without affecting its overall character), while LCA 13 is described as having 'high' landscape sensitivity (i.e. a vulnerable landscape, likely to be susceptible to change). Policies of the plan seek to protect landscape character (LC SP 1; LC OBJ 1); and to assess proposals having regard to the recommendations of the Meath Landscape Character Assessment 2007 (LC OBJ 2).
- **Section 9.10 Views and Prospects:** There are no protected views or prospects in the vicinity of the appeal site, with the closest being viewpoints 78 and 79, c. 3km to the north west. Policies of the development plan seek to preserve views and prospects listed in Appendix 12 of the Plan (LC OBJ 5).
- **RUR DEV SO 1:** To support the continued vitality and viability of rural areas, environmentally, socially and commercially by promoting sustainable social and economic development.
- **RUR DEV SO 2:** To identify and protect rural resources such as locally and regionally important aquifers and water sources from development which would prejudice their sustainable future usage.
- **RUR DEV SO 3:** To identify and protect known or potential aggregate resources, where feasible, from development which would prejudice their sustainable future usage.
- **RD POL 21:** To ensure that projects associated with the extractive industry carry out screening for Appropriate Assessment in accordance with Article 6(3) of the E.C. Habitats Directive, where required.
- **RD POL 22:** To facilitate the exploitation of the county's natural resources and to exercise appropriate control over the types of development taking place in areas containing proven deposits, whilst also ensuring that such developments are carried out in a manner which would not unduly impinge on the visual amenity or environmental quality in the area.

- **RD POL 23:** To support the extractive industry where it would not unduly compromise the environmental quality of the county and where detailed rehabilitation proposals are provided.
- **RD POL 24:** To seek to ensure that the extraction of minerals and aggregates minimise the detracting from the visual quality of the landscape and do not adversely affect the environment or adjoining existing land uses.
- **RD POL 25:** To ensure that the extractive industry and associated development minimises adverse impacts on the road network in the area and that the full cost of road improvements, including during operations and at time of closure, which are necessary to facilitate those industries are borne by the industry itself.
- **RD POL 26:** To ensure that all existing workings shall be rehabilitated to suitable land uses and that all future extraction activities will allow for the rehabilitation of pits and proper land use management. The biodiversity value of the site should be considered in the first instance when preparing restoration plans. Where land filling is proposed, inert material is the preferred method. Each planning application shall be considered on a case by case basis and where relevant will be dealt with under the relevant regional Waste Management Plan.
- **RD POL 27:** To ensure that development for aggregates / mineral extraction, processing and associated processes does not significantly impact in the following areas:
 - I. Existing & Proposed Special Areas of Conservation (SACs);
 - II. Special Protection Areas (SPAs);
 - III. Natural Heritage Areas and Proposed Natural Heritage Areas;
 - IV. Other areas of importance for the conservation of flora and fauna;
 - V. Areas of significant archaeological potential;
 - VI. In the vicinity of a recorded monument, and;
 - VII. Sensitive landscapes.
 - VIII. World Heritage Sites.

- **WM POL 7:** To encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects.
- **WM OBJ 17:** To require developers to prepare construction and demolition waste management plans for new construction projects over certain thresholds which shall meet the relevant recycling/recovery targets for such waste in accordance with the national legislation and national and regional waste management policy.
- **WM OBJ 18:** To seek to ensure in cooperation with relevant authorities that waste management facilities are appropriately managed and monitored according to best practice to maximise efficiencies and to protect human health and the natural environment.

5.5. Quarries and Ancillary Activities: Guidelines for Planning Authorities

5.5.1. These Guidelines were issued by the then-named Department of Environment, Heritage and Local Government in April 2004. They provide guidance to planning authorities on planning applications and development plan policy as well as section 261 of the 2000 Act. The importance of quarries is emphasised and the continued need for aggregates is highlighted. The potential for environmental impacts needs to be considered. The Guidelines recommend that in formulating development plan aims and strategy, in an area containing significant aggregate resources; the plan should acknowledge their economic value, which may be of national or regional importance. Since aggregates can only be worked where they occur, priority should be given to identifying the location of major deposits, and to including a commitment to safeguard valuable unworked deposits for future extraction. The Guidelines go on to address the assessment of applications and Environmental Impact Statements [now EIARs], and the formulation of planning conditions – including issues related to noise and vibration, dust, water supplies and groundwater, traffic, archaeology, water, environmental monitoring, waste management, contributions, extraction limits, and the documentation which should be included in an application.

5.5.2. With regard to waste management, Section 3.9 states:

- Recycling of concrete requires that it be crushed to smaller sizes in order to meet the grading requirements for specified materials and thereby be made

suitable for beneficial re-use in various construction applications. Such crushing is similar to typical rock crushing in a quarry, and would thus be a compatible use. The availability of a choice of raw aggregates and construction-and-demolition (C and D) waste-derived aggregates for the purposes of new construction would also serve to limit the depletion of natural resources;

- Quarries should consider using inert C and D waste arisings, which do not have the potential to displace natural aggregates, for reinstatement and restoration purposes on the quarry site. Production residues may be useful for backfilling pits and quarries.

5.6. Other Guidelines

5.6.1. **EPA Guidelines on Environmental Management in the Extractive Industry (2006)**

- 5.6.2. These Guidelines recognise that quarry developments, by their nature, will have effects on the ecology of a site and necessitate the removal of habitats. However, the Guidelines also acknowledge that restoration schemes can often enhance the diversity of a site and its surrounding area.
- 5.6.3. The Guidelines note that groundwater can be impacted by quarries of a certain depth. In this regard, they recommend that the hydrogeological regime surrounding the site be examined, and the site's depth and location be devised to ensure that no significant adverse impacts will occur.
- 5.6.4. The Guidelines set out a number of management procedures to minimise the generation of dust.
- 5.6.5. The Guidelines advocate that an Environmental Management System (EMS) be adopted by developers. Appendix C of the Guidelines sets out the recommended contents of same.

5.7. Natural Heritage Designations

5.7.1. The appeal site is not located within or immediately adjacent to any sites with a natural heritage designation. The following Natura 2000 sites are within a 15km radius of the site:

- River Boyne and River Blackwater SAC (site code 002299): c. 250m west.
- River Boyne and River Blackwater SPA (site code 004232): c. 2.1km north west.
- Mount Hervey Bog SAC (site code 002342): c. 12.6km south west.

5.7.2. The closest NHA/pNHA to the site is the Rathmoylan Esker, c. 2.5km to the east.

6.0 The Appeals

6.1. First Party Grounds of Appeal

6.1.1. A first party appeal against Condition Nos. 2 and 36 was submitted by SLR Consulting on behalf of the applicant. The issues raised can be summarised as follows:

- **Condition No. 2:**
 - The applicant asks that this condition be amended to permit extraction to a depth of 0m AOD and for a period of 21 years.
 - Paragraphs 4 and 5 of the Planner's report appear to be in contradiction.
 - Groundwater draw-down maps submitted were conservative, and mitigation measures were proposed.
 - The assessment did not show any negative drawdown on surface watercourses in the area. The surface watercourses are not in hydraulic continuity with the underlying groundwater in the bedrock aquifer.
 - The water table in the limestone bedrock is at depth and does not contribute to the baseflow of the stream.
 - A hydrogeological report is submitted with the appeal. This report concludes that the Trommon Stream and associated SAC will not be

impacted by the drawdown of the groundwater table in the limestone bedrock at depth.

- Applicant is happy for the Board to attach an additional condition to demonstrate that quarrying activity does not impact on water flow in the Trommon Stream (suggested wording provided). This would include a flow monitoring programme prior to extraction below 18m.
- **Condition No. 36:**
 - Kilsaran Concrete is not opposed in principle to contributing towards road improvements in the area benefitting the development.
 - Condition 34 requires the payment of €310,800 towards the provision, refurbishment, upgrading, enlargement or replacement of public roads and public transport infrastructure.
 - Although Condition No. 36 states that the monies are intended to go towards the ongoing maintenance of the R156 North Road, there is no basis or justification provided in the Planner's Report. There is no specification for the nature, scope and extent of the works, or details on how the figure of €120,000 was calculated or what proportion of costs are being allocated to Kilsaran Concrete.
 - On that basis, the Board is asked to delete Condition No. 36.
 - Condition No. 26 of previous grant Reg. Ref. TA/70175 required a special contribution under section 48(2)(c) for road improvements/pedestrian linkages. In the Inspector's Report (PL17.227088), the Inspector recommended deletion of the Condition, but the Board included a Condition requiring a special contribution of €102,500. This was paid in full in 2014.
 - This grant differs from the previous grant, in that quarries now come under the general financial contributions category, and contributions have been levied under Conditions 33, 34 and 35.
 - Condition 36 is double charging of a contribution already levied under Condition 34. This is contrary to the guidance contained in the Development Contributions Guidelines for Planning Authorities.

- A number of previous grants of permission at Castletown Quarry have included public road contributions.

6.1.2. As noted above, a hydrogeological report, prepared by SLR Consulting, was submitted with the first party appeal.

6.2. **Third Party Grounds of Appeal**

6.2.1. A third party appeal was submitted by Eco Advocacy CLG. The main planning issues raised can be summarised as follows:

- The reduction in time from 21 to 10 years by the Planning Authority is of no meaningful significance. The applicant would re-apply in 9 years time.
- Continuous extensions to time frame of quarry are unreasonable and not in keeping with proper planning and sustainable development. Residents who have endured nuisance and traffic hazard have a legitimate expectation that the quarry will be reclaimed and reintegrated.
- The trees and other features that formed an integral part of the quarry reinstatement are now proposed to be removed.
- Proposed depth is unacceptable. Impact of dewatering on water table and wells.
- 1998 EIS stated that following the cessation of pumping a lake with the water level at 67m AOD would be formed.
- Development creates pathways for contamination of the groundwater aquifer. Limestone should be sourced from mountainous regions.
- No mention of Doolyston Bog, a short distance to the west. Dewatering would impact on this habitat.
- Original decision of the Board in 1999 (PL17.111632) stated that there shall be no excavation below a level of 54m AOD.
- The Board is asked to procure the independent assistance of a hydrogeologist.
- Dust impacts.

- Quarrying operations must cease and the site be reinstated in accordance with previous permissions.
- It is dangerous and no longer good practice to leave large open lakes after cessation of quarrying. Such lakes have been responsible for many deaths.
- Impact on mature trees and bat habitat.
- Tree grouping is essential to soften the impact of the quarries on the landscape.
- Anything other than a full and proper restoration to agricultural use is an unacceptable loss of land resource.
- Trees that it is proposed to remove are of historic importance. They form the historical driveway to what was a Tudor house.
- Trees were to be left in situ as part of the reinstatement plan in the 1998 EIS.
- Requirement to notify households within 500m of blasting is inadequate. All houses within 1.5km must be notified.
- Damage to third party properties from blasting.
- Planning Authority has not examined if previous financial obligations regarding bonds and development contributions have been complied with. FOI request demonstrates that there are significant outstanding financial contributions.
- Planning Authority has failed to enforce monitoring and compliance requirements.
- Permission should be refused on the basis of past failures to comply and material contravention of previous conditions.
- Truck movements alone and in combination with neighbouring companies would be unacceptable.
- Traffic hazards on R156 and impacts on residential amenity.
- Air quality and noise impacts, including particulate matter from diesel emissions.

- Visual and landscape impacts. Screening banks are not a good fit with the landscape.
- Working hours are not complied with.
- Quarry cannot be looked at in isolation. It must be considered with adjoining Keegan Quarry and nearby Rathcore quarry (PL17.249132) in terms of hydrogeology, traffic movements, compliance and reinstatement.
- No engagement with the community.
- South County Meath has suffered from a proliferation of quarries. Further consents should be considered overdevelopment.
- Quarries are not sustainable development.

6.2.2. The third party appeal was accompanied by, *inter alia*, information obtained under a Freedom of Information Request regarding compliance with development contributions attached to previous permissions, newspaper articles regarding drowning incidents at quarries, and photographs of the site.

6.2.3. The appellant has also made an application for costs under section 145 of the Acts.

6.3. **First Party Response to Third Party Appeal**

6.3.1. A response to the third party appeal was submitted on behalf of the applicant by SLR Consulting. The issues raised can be summarised as follows:

- **Impact on groundwater levels and quality:**
 - The potential impact on groundwater levels has been calculated with drawdown modelled at 50m, 100m, 500m and 1000m for transmissivities of 40m²/d and 2m²/d.
 - Groundwater within the aquifer currently provides baseflow to the River Boyne and tributaries. The discharged abstracted groundwater will therefore not significantly alter the quality of the surface waters.
 - An Assimilative Capacity Assessment and Mass Balance calculation for the Rathmolyon/Moynasboy stream has been undertaken which indicates that under the 95%ile flow conditions, there is no assimilative capacity for BOD as the levels exceed the Environmental Quality Standard. Hence it

follows that the Mass Balance in the receiving waters for BOD, with the discharge from the quarry, also exceeds the EQS.

- For the remainder of the water quality parameters assessed there is sufficient available assimilative capacity in the Knightsbrook River for the discharge from the quarry.
- Quarries are not like other industrial activities when undertaking Assimilative Capacity Assessments, as during periods of low flow in the Knightsbrook River it is unlikely that there will be any discharge from the quarry, as groundwater inflows to the sump will be negligible.
- The ACA for the impact on receiving water quality during low flow conditions is a largely informative exercise only and is a conservative assessment.
- **Impact on wells in the area:**
 - The closest residential well is c. 280m south west of the sump, however this is not used as a water supply.
 - Residential well R7, adjacent to monitoring well DW-D, is 480m west of the sump and is calculated as having a potential drawdown of 23m, should interconnected fractures exist at depth.
 - The calculations are conservative and actual drawdown is likely to be significantly less, due to lower permeability limestone at depth.
 - Groundwater levels will continue to be monitored and the applicant will mitigate any impacts on local supply wells, which may include deepening of wells or provision of alternative water supply.
- **Impact on adjacent surface watercourse:**
 - A hydrogeological report was submitted with the first party appeal. To further investigate geological and hydrogeological conditions between the quarry and the Tromman Stream, the applicant obtained permission from a local landowner to install a new offsite groundwater monitoring borehole between the quarry and the stream.

- The geological profile at this borehole shows that groundwater within the bedrock is present at depth, with a significant thickness of dry shale bedrock separating the Tromman Stream and the groundwater table.
- The Tromman Stream is therefore not in hydraulic continuity with the underlying groundwater in the bedrock aquifer. The Stream is underlain by glacial till which is underlain by unsaturated shale bedrock. The water table in the limestone bedrock is at depth and does not contribute to the baseflow of the Stream.
- The Tromman Stream and SAC will not be impacted by the drawdown of the groundwater table in the limestone bedrock at depth.
- Monitoring of boreholes will continue.
- There is no hydrogeological reason for limiting the level of extraction to 18mOD, rather than 0mOD.
- In order to demonstrate that quarrying is not impacting on water flow in the Tromman Stream it is recommended that prior to extraction below 18mOD, a flow monitoring programme be implemented at a suitable location on the stream, with details to be agreed with the Planning Authority.
- If future monitoring indicates a significant reduction in stream flow caused by quarrying activity, then any quarry operations below 18mOD will cease until otherwise agreed with the Planning Authority.
- **Restoration proposals:**
 - The current restoration proposals provide for the quarry to be allowed to naturally fill with water and for the immediately surrounding area to be left for natural regeneration with the majority of the processing area restored to agricultural grassland and the addition of a number of hedgerows and woodland planting.
 - The proposals are very similar to what was previously permitted.
 - The natural habitat and agricultural afteruses are beneficial afteruses as recommended in the EPA Guidelines.

- It would be unsustainable to artificially dewater the void and restore it to agricultural land. The only other option would be to fill the void with inert material, which would require a separate grant of planning permission and waste licence.
- It is acknowledged that quarry lakes can be dangerous, however the risk of accidents is low as long as the boundaries are adequately secured and signposted.
- The existing screening berms, while artificial and with steep slopes in places, blend with the surrounding vegetation.
- The majority of the trees in the south eastern corner of the quarry, some of which will be removed, are non-native species. The woodland planting proposed in compensation contains native species only.
- **Impact on local properties due to blasting:**
 - Blasting operations are carried out one to two times per month, with monitoring of vibration and overpressure. Monitoring results indicate compliance with condition limits imposed on the site. In 2017 there were no complaints regarding blasting or property damage.
 - Blasting is carried out during specified times, with 24 hour advance notification in writing to all residences within 1km.
- **Impact of noise and dust:**
 - Blasting operations comply with condition limits and are carried out in accordance with the mitigation measures set out in the DoEHLG Guidelines, 2004.
 - Traffic movements only occur during specified times. In 2017 there were no complaints regarding traffic movements.
 - Noise monitoring results indicate that the recorded noise levels attributable to the operation of the quarry generally comply with emission limits.
 - Noise mitigation measures are implemented as per DoEHLG Guidelines, 2004.

- Dust deposition monitoring indicates that the quarry complies with the emission limit value. Mitigation measures are in place, as per the DoEHLG Guidelines 2004 and EPA Guidance. In 2017 there were no complaints regarding dust.
- **Impact of Traffic/Diesel:**
 - Air quality in the area is good.
 - There will be no additional quarry traffic movements over and above those associated with the existing quarry.
 - The C&D waste recovery facility will result in 10 HGV trips per day, which is not significant in terms of existing vehicle flows.
 - None of the roads in the network meet any of the criteria set out in the DMRB for assessment of air quality and the impact will be 'negligible'.
- **Removal of tree line habitat:**
 - There is no contradiction in Sections 1.82 and 1.83 of the NTS.
 - Ecological Impact Assessment sets out likely impacts on bat species and measures to offset these impacts, including alternative roosting sites, enhancement of existing and retained habitats and maintenance of dark corridors.
 - Applicant has also decided to augment the existing hedgerow on the eastern boundary in those locations where it adjoins the proposed re-aligned road. This will further enhance the potential commuting habitat for bat species.
 - Viewpoints illustrate that none of the trees to be removed are in particularly elevated positions. Retained trees will effectively screen the trees to be removed.
 - Neighbouring quarries will still be separated by a significant stand of trees, softening their impact.
 - The trees along the avenue referred to in the Meath Archaeological and Historical Society submission are close to the site boundary and won't be removed.

- The lodge is not part of the original Trammont Estate and is not a protected structure or included on the NIAH. It will not be affected by the proposed development.

6.3.2. The first party response to the third party appeal was accompanied by a number of Figures, showing groundwater monitoring well locations, additional viewpoints, tree proposals and existing environmental monitoring locations.

6.4. **Third Party Response to First Party Appeal**

6.4.1. A response to the first party appeal was submitted by Eco Advocacy CLG. The issues raised can be summarised as follows:

- Planning Authority does not have a hydrogeologist on their staff, nor have they sought the services of one. Their analysis is therefore without foundation.
- Appellant has engaged the services of a hydrogeologist, and his report is enclosed with the submission. Due to time and financial constraints, the hydrogeologist has not inspected the site or examined the documentation regarding the adjoining Keegan Quarry.
- Depths of 18m or 0m AOD are unprecedented.
- Applicant's discussion on SAC should be disregarded.
- Applicant is appealing Condition 36 but there are significant outstanding financial contributions.
- The applicant states that the R156 has not been upgraded or improved, however it has been upgraded and the appellants have photographs of this.
- Appellants are making an application under s145 for additional costs incurred in the preparation of the Hydrogeological Report.

6.4.2. As noted above, the submission included a Hydrogeological Report, prepared by Envirolitic Ltd., which seeks to provide a response to the hydrogeological issues raised in the first party appeal, as well as matters arising from the EIS.

6.5. Planning Authority Response

6.5.1. The Planning Authority's response to the first party appeal can be summarised as follows:

- The special contribution of €120,000 was applied in respect of road strengthening works to the R156 and local road network in the vicinity of the site over the life of the operation.
- The roads concerned are the R156-77, R156-98, R160, R159.
- Details of the costs involved and the benefitting infrastructure are indicated in the attached Appendix.
- The proposed development will have an impact on existing infrastructure and the developer should be requested to make a contribution to the rehabilitation of the road network in the area.
- The sections of road to be upgraded are not included in the DCS and in that regard the public infrastructure concerned does not constitute a part of any infrastructure, facility, project or service under the current Meath DCS under section 48 or section 49 of the Act.

6.6. Further Responses

6.6.1. First Party Response to Planning Authority Response

6.6.2. A response to the Planning Authority's response to the first party appeal was submitted by SLR Consulting on behalf of Kilsaran Concrete. The issues raised can be summarised as follows:

- Condition No. 36 was imposed in respect of "expenditure that is proposed to be incurred by the Planning Authority in respect of road strengthening works to the R156 and local road network in the vicinity of the site over the life of operations".
- The Planning Authority's submission has provided a different rationale for the contribution, yet the sum remains the same.

- The original basis for the Condition was for “strengthening works”, yet the table submitted now includes for “junction improvement works”, which was not included in the justification or Road Design Office reports.
- The percentages set out in the appendix do not correspond with the values in the EIS for traffic flows.
- The submission has still not provided clear details as to how the contribution was calculated, nor has it provided detailed specifications of the proposed works which are deemed “exceptional” and not already covered by Condition No. 34.
- The Board is asked to delete Condition No. 36.

6.7. Observations

6.7.1. Two observations were received from An Taisce and Meath Environmental Protection Alliance, respectively. The observations raise similar issues to those raised in the third party appeal, as well as the following:

- Impact of dewatering and groundwater pollution on drinking water supplies.
- Quarries in the area have a history of non-compliance with planning conditions and none have been reinstated.
- Quarries should be developed on a phased basis with restoration at the end of each phase.
- An Taisce request that if permission is granted, the time period should be limited to five years.

7.0 Planning Assessment

7.1. I consider that the key planning issues arising from the appeals are as follows:

- Principle of proposed development.
- Geology, hydrology and hydrogeology.
- Removal of mature trees.
- Noise and vibration.

- Dust and air quality.
- Landscape and visual impact.
- Traffic and transportation.
- Quarry restoration.
- Architectural and Archaeological Heritage.
- First party appeal:
 - Condition 2: Depth of Excavation and Duration of Permission.
 - Condition 36: Special Contribution.
- Other issues.
- Appropriate Assessment.

7.2. Principle of Proposed Development

7.2.1. Quarrying and Related Development

7.2.2. Permission is sought for the continuation and deepening of an existing quarry, including the storage of overburden and the continuation of related aggregate processing, concrete batching and block-making activities. Permission is also sought for the lateral extension of the quarry, related relocation of an existing access road, weighbridge and office and the restoration of the site. Finally, permission is also sought for the provision of a construction and demolition waste recovery facility on the site, which I have addressed separately below.

7.2.3. The Meath County Development Plan 2013 – 2019, reflecting national and Regional planning policy, acknowledges the economic importance of aggregate extraction to the rural and wider economy, whilst noting the potential for adverse environmental and social effects. Consequently, policies of the Plan seek to facilitate adequate supplies of resources, subject to consideration of the environmental, traffic and social impacts arising (see Section 5.4 above).

7.2.4. The appeal site is situated in a rural area with a history of quarrying, in a landscape that is mostly of medium sensitivity (LCA 6), albeit with a small part of the site within a landscape of high sensitivity (LCA 13). The existing quarry is relatively long-

established and the existing extraction area is well screened by a combination of topography, screening berms and mature vegetation. The first planning application for quarrying was granted in 1999 (PL17.111632) and this permission, as well as subsequent permissions, included conditions to control blasting, noise, vibration, dust, discharge of water and restoration. The proposed development provides for the on-going operation of the existing quarry, its lateral extension and its deepening. It also includes on-going operation of the existing processing, concrete batching, block-making and other related activities and development.

7.2.5. I note the concerns raised by third parties regarding the substantial extension of quarrying beyond the original timescale set out in earlier permissions, which primarily relate to the environmental, traffic and social effects of the quarry in the local area. Whilst I acknowledge these concerns, I would also acknowledge that such quarries make an important contribution to the supply of aggregates in the region and that the applicant is entitled to make an application for the continued operation/expansion of the quarry. Furthermore, as minerals can only be worked where they occur and as the physical infrastructure for the quarry is already in place, the proposed development does provide, in principle, an efficient use of the existing resource and the wider resources of the countryside.

7.2.6. Within this context, I consider the proposed development to be in accordance, in principle, with the policies of the County Development Plan, which facilitate the development of the industry and the sustainable development of rural areas. This is however, subject to further consideration of the likely impacts of the proposed development on local residents, on the environment, on traffic, as well as the broader principles of proper planning and sustainable development. These issues will be addressed in the following sections of this report.

7.2.7. **Construction & Demolition Waste Recovery Facility**

7.2.8. With regard to the proposed construction and demolition (C&D) waste recovery facility, I note that both planning and waste management policy documents support the principle of C&D waste recycling in the interest of sustainable development. The Eastern-Midlands Region Waste Management Plan 2015-2021 states that appropriate processing facilities need to be in place to facilitate increased reuse, recycling and recovery of the C&D waste stream. It notes that given the decrease in

the number of operational landfills, alternative recovery options will be required to facilitate recovery of C&D waste and it states that concrete, stone and other masonry-type waste can be crushed and screened and used as a substitute for virgin quarried stone material in a variety of engineering applications. The County Development Plan is also supportive of this approach, and I note Policy WM POL 7 in particular, which seeks to encourage the recycling of construction and demolition waste and the reuse of aggregate and other materials in future construction projects. Similarly, Section 3.9 of the Quarries and Ancillary Facilities Guidelines for Planning Authorities notes that the crushing of concrete for recycling purposes is similar to typical rock crushing in a quarry and would thus be a compatible use. It states that the availability of C&D waste-derived aggregates would also serve to limit the depletion of natural resources.

- 7.2.9. The EIS states that the material to be processed at the proposed C&D waste facility comprises concrete returns from concrete manufacturing plants operated by the applicant, as well as historic concrete returns which are currently stored on-site. Given that 'construction and demolition waste' has a wider connotation in waste management policy, and that the processing and storage of other forms of C&D waste would have the potential to result in additional environmental issues, I recommend, if the Board is minded to grant permission, that a Condition be included in the interests of clarity and environmental protection to ensure that: only uncontaminated concrete material from concrete manufacturing plants operated by the developer and concrete material currently stored on site shall be accepted at the proposed C&D recovery facility; that general C&D waste arising from construction sites shall not be accepted at the facility; and that it shall not accept waste materials from any third parties.
- 7.2.10. Finally, I note that the proposed intake of up to 35,000 tonnes per annum of concrete returns at the facility would not be of a scale to require a Waste Licence from the EPA, although a Waste Permit is likely to be required from the Local Authority.
- 7.2.11. Having regard to the foregoing, and subject to appropriate conditions, I consider the proposed C&D waste recovery facility, as described in the EIS, to be a use that is compatible with the quarrying and related operations that are in place at the appeal site. I therefore consider it to be a form of development that is appropriate in

principle, subject to further consideration of how it accords with the proper planning and sustainable development of the area.

7.3. **Geology, Hydrology and Hydrogeology**

7.3.1. The third party appeal raises various issues regarding the impact of the development on groundwater, surface water and wells. The Planning Authority also included a condition limiting the depth of excavation to 18m AOD and for a period of 10 years, as a result of concerns regarding potential impacts on groundwater. This condition is the subject of the first party appeal (refer to section 7.11 below).

7.3.2. Soils and Geology is addressed in Section 5 of the EIS, while ground and surface water is addressed in Section 6.

7.3.3. **Soils and Geology**

7.3.4. With regard to soils and geology, Teagasc soil mapping shows the current extraction area underlain by grey brown podzolics and brown earths derived mainly from calcareous parent materials, while the northern part of the site is underlain by renzinas and lithosols, with the parent material being carboniferous limestone sands and gravels. However, due to the ongoing quarrying operations, soils have been removed from a large portion of the site area. Subsoils around the quarry site range in thickness from 2 – 9m and comprise grey-brown, very stiff, stony limestone dominated glacial tills. With regard to regional bedrock geology, current excavations indicate that the geology is more complex than the GSI mapping suggests, with Lucan Formation at the western end of the area in faulted contact with a block of Waulsortian limestones in the southern part of the area, where the existing quarry is located. The central and eastern/north eastern part of the area is believed to be underlain by a zone of structurally controlled altered lithologies, termed ‘earthy beds’. These are interpreted as structurally controlled, hydrothermally decalcified Lucan Formation with the ‘earthy’ texture deriving from residual clay and silica material.

7.3.5. In terms of local geology, the main extraction area at Castletown quarry is developed primarily in clean Waulsortian limestones, with some excavation into the interbedded shaley, siliceous limestones and calcareous mudstones and shales of the Lucan Formation in the north western part of the quarry. A thin (c. 2-5m) mudstone dominated interval between the top of the Waulsortian and the Lucan Formation is

interpreted as being a thin development of Tober Colleen Formation, and is visible in the southwestern face of the quarry (see Plate 1 of the Hydrogeological report submitted with the first party appeal).

7.3.6. There will be direct impacts on remaining soils and subsoils within the quarry site and on the existing bedrock deposits within the extraction area. It is proposed to mitigate these impacts by storing the excavated soil and subsoils for re-use in screening berms and quarry restoration works, with measures to minimise erosion of topsoil. The EIS considers that there will be no residual impact on soils as a result of the proposed development, and I consider this conclusion to be reasonable.

7.3.7. **Surface and Ground Water**

7.3.8. The bedrock aquifer at the site is the Dinantian limestones, and it is classified as being a Locally Important Aquifer (LI), which is identified as bedrock which is moderately productive in local zones. Groundwater vulnerability ranges from high to extreme across the site. The quarry void is in the Longwood Groundwater Body (GWB), which has a 'Good Status' classification. The GSI summary for this GWB states that it is composed primarily of low permeability rocks, although localised zones of enhanced permeability do occur. The aquifers within the GWB are generally unconfined, but may become locally confined where the subsoil is thicker and/or lower permeability. The GSI summary notes that most flow in this aquifer will occur near the surface, in the upper 10m, comprising a weathered zone with a connected fractured zone below this. It notes that deep water strikes in more isolated faults/fractures can be encountered at 50 – 70m below ground level. The regional groundwater flow direction is to the north west, although on a local scale groundwater will follow the local hydraulic gradient towards rivers in the area. Primary porosity and hydraulic conductivity within the rocks is low due to the fine-grained argillaceous nature of the aquifer, and groundwater flow and storage is therefore via secondary features and cavities, enhanced by karstic weathering.

7.3.9. Section 6.69 of the EIS states that pumping tests were undertaken at the site in 1998 and 2003. The tests in 1998 were focused on the Waulsortian Limestones, which was found to be heterogenous with transmissivities ranging from 0.068m²/day to 10.9m²/day. The recovery rate for groundwater levels was noted as very slow. The tests in 2003 focussed on the Lucan Formation, and noted that at a pumping rate of

100m³/day, there was a rapid drawdown and recovery. The EIS states that fractures are likely to diminish with depth, and lower inflows would be expected when deepening the quarry in future phases.

- 7.3.10. The closest recorded karst feature to the site is a spring c. 2.3km to the south east. St Gorman's Well, a warm spring which produces water with a temperature of c. 20°C is located c. 6.5km to the south.
- 7.3.11. There are no identified GSI source protection areas for groundwater supply wells in the vicinity, although there are numerous domestic wells in the vicinity and a well-fed public water supply operated by Meath County Council is located c. 400m south west of the site. With regard to the well survey undertaken by the applicant, the applicant has assumed that a number of residences in the vicinity are on a mains supply. The third party appellant contends that this has been erroneously assumed where no response to the well survey letter was received.
- 7.3.12. I note that a disused well at receptor R10, a short distance to the south west of the quarry void, was in use until 2010, when recharge ceased. The well is stated as being 210 feet deep (i.e. 64m), within shale, and water inflow was noted during drilling at c. 60 feet (i.e. 18m). The EIS states that surface water ingress may be entering the well. A nearby monitoring well (DW-G) had a water level of 15.59m below ground, while a deep monitoring borehole (DW-D; 116m depth) and shallow chamber (3.5m depth), both located at R8, had water levels of c. 1.7 – 1.8m below ground.
- 7.3.13. The existing quarry is worked dry, with surface water and groundwater inflow collected in the sump on the quarry floor and pumped to the existing water treatment facility located in the north western corner of the site, which includes a series of reed beds settlement ponds and gravel/boulder rock filter beds.
- 7.3.14. The existing permission under which the quarry is operated (and the duration of which has been extended to 2024) permits a maximum depth of 24m AOD, with extraction currently stated to be at a maximum depth of c. 36m AOD. The proposed lateral expansion and deepening of the quarry to 0m AOD would result in a continued requirement for dewatering, and it is proposed that groundwater inflow would continue to be treated in the existing water treatment facility.

- 7.3.15. Following treatment, water is discharged under licence to the Rathmolyon/Moynasboy stream which runs in an east/west direction along the northern boundary of the site. Some of the collected water is also used within the quarry for dust suppression, wheel wash, stockpiles etc. Groundwater from an onsite well is also used as a potable supply.
- 7.3.16. The Rathmolyon/Moynasboy Stream to which water is discharged changes course c. 500m to the west of the site to run northwards and it discharges to the Knightsbrook River c.5km to the north. The Knightsbrook River discharges to the River Boyne c. 10km downstream of the quarry discharge point, where it enters the area covered by the River Boyne and River Blackwater SAC and SPA. The Lower Knightsbrook River downstream of the site is reported as having Good Status river water quality for 2010-2015.
- 7.3.17. Another watercourse, the Tromman Stream, is located a minimum distance of c.420m to the west of the appeal site and is contained within the SAC. The Tromman Stream runs in a general south-north direction, discharging to the River Boyne c. 2.5km north west of the appeal site. While the Tromman Stream runs parallel to a stretch of the Rathmolyon/Moynasboy stream, with a minimum separation distance of c. 80m, there would appear to be no surface water connection between the two, despite OSI Discovery and EPA mapping indicating such a connection.
- 7.3.18. The discharge licence for the quarry development, which was granted in June 2014 (Ref. DL14/04), states that the total volume of effluent to be discharged shall not exceed 22m³ per hour and that maximum daily volume shall not exceed 530 m³ per day. Samples are taken at the discharge point and tested against quality standards for pH and various pollutants and parameters.
- 7.3.19. I note the statement at section 6.45 of the EIS that the pump has operated at an average rate of 131 m³ per hour, peaking at 171 m³ per hour at the end of February 2017, i.e. in exceedance of the discharge licence, and the statement that an updated discharge licence will be applied for. With regard to surface water quality, discharge quality appears to have generally been in compliance with discharge licence limits, albeit with occasional exceedances for BOD, COD and TPH (Total Petroleum Hydrocarbons).

- 7.3.20. It is not clear from the information submitted why the volume of water being discharged is so much greater than permitted under the Discharge Licence which was granted in 2014, and far beyond that predicted in the previous application on the site (refer to section 14.4 of the Inspector's Report on case PL17.227088, where it is noted that the applicant had stated that water abstraction would most likely not go beyond 354 m³ per day). I would have a significant concern that the increased volume of water requiring discharge is reflective of an inadequate or incomplete understanding of the underlying hydrological and hydrogeological situation and the cumulative effects on groundwater levels of dewatering by two adjacent but unrelated quarries.
- 7.3.21. With regard to the adjacent quarry, there is very little information in the documentation submitted regarding the cumulative impacts of the two quarries on groundwater and surface water. Where water levels are referenced by the applicant, I would note that these are not resting levels, but levels recorded in an environment where groundwater is being actively drawn down by two quarry operators engaged in progressive deepening of quarry voids. I do not consider that the applicant has provided adequate information regarding this cumulative impact, and the possible combined zone of influence and cone of depression on groundwater and surface water bodies.
- 7.3.22. With regard to the ability of the Rathmolyon/Moynasboy stream to receive discharge water from the appeal site, I note that an Assimilative Capacity Assessment and Mass Balance Report was included as Appendix 6-E of the EIS. It states that the pump is used intermittently, and that the average discharge over a seven week winter period was c. 0.011 m³/s, which equates to c. 40 m³ per hour (i.e. in excess of the discharge licence limit).
- 7.3.23. In my opinion the averaging of the discharge over the entire 7 week period results in an artificially low discharge rate of c. 40m³ per hour, by including time that no discharge was occurring. A more appropriately conservative approach would be to utilise the average discharge rate for the time that the pump is in operation, which is 131 m³ per hour, as noted above, or the maximum flow which is 171m³ per hour.
- 7.3.24. I also note that the 95%ile flow in the Rathmolyon/Moynasboy stream is stated in the report to be 0.052m³/s, which contradicts Table 6-4 of the EIS, and the associated

EPA HydroTool output provided in Appendix 6-B, where the 95%ile flow is stated to be 0.029m³/s. The 95%ile flow utilised in the calculations would therefore appear to be incorrect. Given this error and the use of what I consider to be an artificially low discharge rate, I am not satisfied that the results of the Assimilative Capacity Assessment and Mass Balance Report can be relied upon by the Board.

- 7.3.25. Notwithstanding these issues, I also note that the report states that under the 95%ile flow conditions in the receiving water, there is no assimilative capacity for BOD, as the levels in the stream exceed the Environmental Quality Standard.
- 7.3.26. Given that the applicant has submitted information that the rate and volume of water discharge to the Rathmolyon/Moynasboy stream is consistently and significantly in excess of that permitted under the discharge licence for the site, that there have been a number of exceedances for various pollutants, and that the submitted information regarding the assimilative capacity of the stream is questionable, it would not be appropriate, in my opinion, to grant permission on the basis of the information submitted.
- 7.3.27. In this regard, consideration must be given to the provisions of the Water Framework Directive, as transposed by article 5 of the Surface Water Regulations, which state that permission cannot be granted for development which may cause a deterioration of the status of a surface water body. While the status of the Knightsbrook River to which the Rathmolyon/Moynasboy Stream discharges was 'Good' for the 2010-2015 period, having regard to the uncertainties with regard to water volumes being discharged, whether this will increase with increased depth of excavation, and the uncertainty with regard to the assimilative capacity of the stream (particularly with respect to BOD), I am not satisfied that the applicant has adequately demonstrated that the proposed development would not cause a deterioration in the status of this surface water body.
- 7.3.28. With regard to potential impacts on the nearby Tromman Stream, the applicant contends that this stream is not in hydraulic continuity with the underlying groundwater, as it is underlain by glacial till which is in turn underlain by unsaturated shale bedrock (see Figure 4-1 of Hydrogeological Report submitted with first party appeal). As evidence of this, the first party appeal includes details of a new borehole DW-H, which encountered a water strike at 65m and 85m, within the limestone

bedrock, which rose to 1.9m BGL the following day. However, I note that the disused well at R10 had encountered water inflow within the shale layer at 18m, and also that the shallow chamber at R8 had a water level similar to that encountered at DW-H. On this basis, I am not satisfied that the applicant has unambiguously demonstrated that the proposed development would not impact on the Tromman Stream, or that the ongoing cumulative pumping by two adjacent quarries has not resulted in the lowering of groundwater levels and subsequent removal of baseflow from the Tromman Stream which could be exacerbated by further deepening of the quarry void, notwithstanding the glacial till that appears to generally underly the stream. While the applicant suggests that a flow monitoring programme be put in place, I consider that such potential impacts should be fully assessed prior to the granting of planning permission. In this regard I note the significant potential drawdown outlined in Table 1 of the first party response to the third party appeal.

7.3.29. In conclusion, I am not satisfied that the applicant has conclusively demonstrated a suitable level of investigation and an adequate understanding of the impacts of the proposed development, including the cumulative impact with the adjoining quarry, on the surface and groundwater environment. Based on the information before the Board, I do not consider that it is possible to draw satisfactory conclusions in relation to these matters. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area and I recommend that planning permission be refused.

7.4. Removal of Mature Trees

7.4.1. The proposed development includes the eastward realignment of the existing internal access road over a distance of c. 400m in order to facilitate the extraction of the rock reserves beneath. This would require the removal of a c. 195m treeline (a stated area of c. 0.9 ha) containing numerous mature trees along the existing access road, and the third parties contend that this will result in landscape and visual impacts, architectural heritage impacts, and ecological impacts, particularly in relation to bats.

7.4.2. The mature tree species within this woodland area include sycamore, horse chestnut, beech, copper beech, holly, Turkey oak and common line, with an understorey of dogwood, hazel, hawthorn, blackthorn, elder bramble, raspberry and

snowberry. Ground flora is dominated by a carpet of ivy, with numerous other species also present. Despite the excavation and dewatering that is occurring on either side of the woodland area, the trees in question appeared to me to be in generally good health.

7.4.3. I note that said trees are not the subject of a Tree Preservation Order, and that they do not appear to be afforded any particular protection or designation under the County Development Plan. However, Policies NH POL 16 and NH POL 18 seek to promote the preservation of semi-natural woodland and trees, and to encourage the retention of mature trees where possible, respectively.

7.4.4. Figure ABP-3, submitted by the applicant in response to the third party appeal, is a useful aerial photograph, identifying the individual trees to be removed and retained. Approximately 25 No. mature trees, as well as young trees and shrubs to the east of the existing access road will be removed. These comprise the majority of the mature trees on the narrow strip of land that separates the two operational quarries. Approximately 8 No. mature trees will be retained at the northern end of the strip, in the vicinity of the stone outbuildings associated with the former Trammont House, as well as a larger number of trees to the southern end, which provide a visual break between the two quarries and screening from the public road. The applicant is also proposing to plant two areas of oak woodland at the northern and southern ends of the strip, to compensate for the loss of mature trees. This woodland planting will include hazel and birch as nurse species, to help the oak establish on the site. As the trees mature, and are thinned, the applicant anticipates that 6 – 8 No. oak trees will remain in each of the two new woodland areas. The applicant is also proposing to augment the existing hedgerow along the eastern boundary between the two quarries with additional planting.

7.4.5. **Ecological Impact**

7.4.6. Section 4 of the EIS addresses ecology, and Appendix 4A contains a Bat Survey and Evaluation Report, prepared by SLR Consulting. The study area for the report comprises the woodland area that it is proposed to remove to facilitate the lateral expansion of the quarry. Bat surveys undertaken on behalf of the applicant indicate that the woodland area is used by at least five species of bat, with a further two species also historically recorded. The bat roost resource at this location, which

comprises the stone outbuildings and five trees which are identified as being of moderate to high suitability for roosting bats, is considered to be 'Local (higher)'. The bat habitat resource is considered to be of 'County' value for *Myotis* sp. (likely to be the whiskered bat) and 'Local (higher)' for all other species, including common pipistrelle, soprano pipistrelle, Leisler's bat and Daubenton's bat.

- 7.4.7. I note that the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs submission to the Planning Authority did not object to the proposed development, and instead recommended conditions to mitigate the potential impact of the loss of semi-natural habitat on bats and birds. Their recommended conditions related to compensation for the loss of bat habitat and requiring that the removal of the mature treeline take place outside of bird nesting season.
- 7.4.8. In order to offset the loss of potential bat habitat, the applicant is proposing to provide alternative roosting sites, comprising a minimum of 15 No. bat boxes on retained mature trees and 2 No. larger pole-mounted bat houses. The applicant also contends that the replacement woodland planting mentioned above will provide enhanced habitats, and that the hedgerow along the eastern site boundary will be reinforced with dark corridors maintained along site boundaries to provide enhanced commuting habitats for bats.
- 7.4.9. The woodland area that it is proposed to remove appears to be used by commuting bats and I would have a concern that the removal of the treeline, which currently provides continuous vegetation between the outbuildings and the southern site boundary, would have the potential to isolate the outbuildings. Only a narrow strip of land would be retained to accommodate the relocated access road and the boundary hedgerow. While the applicant proposes to reinforce the hedgerow and maintain a dark corridor along the boundary, it is not clear how this will be effectively implemented in circumstances where the relocated access road is positioned close to the boundary and hedgerow. Notwithstanding this, I note that no lighting columns are indicated on the drawings submitted. Should any lighting be provided along the access road in the future for health and safety reasons, it should be feasible to ensure that it is positioned along the western edge of the access road, with suitable cowling to minimise light spill and that is switched off outside of the operational hours of the quarry (operation ceases at 18:00), in the interests of providing a dark corridor.

7.4.10. In conclusion, while some degree of severance may occur, with a resultant loss of potential bat habitat, the applicant is proposing a suite of compensation and mitigation measures which will ensure that there is high suitability roost sites and bat boxes at either end of the quarry expansion area.

7.4.11. Subject to the implementation of these measures and the monitoring of tree removal by a licenced ecologist following a pre-development bat survey, and noting that the existing quarry and access road are long-established, I do not consider that the proposed development is likely to result in any significant impact on the conservation status of local bat populations.

7.4.12. **Architectural Heritage and Historical Value**

7.4.13. With regard to issues of architectural heritage and the historic value of the avenue and tree planting, I note that Trammont House no longer exists, with the exception of two stone outbuildings and a gate lodge in poor condition. None of these structures are protected structures, included on the National Inventory of Architectural Heritage or listed as recorded monuments, and none of them will be directly affected by the proposed development. I consider that the local topographic environment is already heavily degraded by the presence of two quarries either side of the avenue and I do not consider that any residual historic or heritage value that the trees possess as a surviving fragment of the Trammont house landscaping are sufficient to warrant their protection on these grounds alone.

7.4.14. **Landscape and Visual Impact**

7.4.15. Figure ABP-1, submitted by the applicant in response to the third party appeal, shows three viewpoints towards the trees to be removed. The views are from the site entrance on the R156, just inside the site entrance, and from a local road at Corballis, c. 1km south of the site entrance.

7.4.16. Having reviewed the information submitted, and having inspected the site, I consider that the trees in question are not particularly elevated topographically, and only appear so in aerial photography due to the presence of quarry voids on either side. While the mature trees act as a buffer between the two large-scale operational quarries, this is generally only apparent from aerial views, with the retained trees in the south eastern corner of the site generally screening views of the quarry

expansion area from the surrounding area at ground level. The proposed additional woodland planting will further assist in screening the development.

- 7.4.17. Having reviewed the information submitted by both the first and third parties, and having inspected the site and surrounding area, I do not consider that the removal of the treeline and subsequent extraction of this area will result in any significant landscape or visual impact.

7.5. **Noise and Vibration**

7.5.1. **Noise**

- 7.5.2. The third party appeal contends that the development will result in impacts on residential amenity due to noise, vibration and blasting-related property damage.
- 7.5.3. Noise and vibration are addressed in Section 9 of the EIS. With regard to noise, nearby sensitive receptors are identified in Table 9-7 with their locations shown in Figure 9-1 of the EIS. There are c. 20 dwellings within 500m of the site, and c. 70 within 1km of the site.
- 7.5.4. The quarry's currently permitted hours of operation are 08:00 – 18:00, Monday to Friday and 08:00 – 14:00 on Saturday with truck loading activities permitted between 07:00 – 08:00. I note that the third party appellant contends that these hours are not being complied with, however no evidence of non-compliance has been furnished.
- 7.5.5. Noise is currently monitored at 2 No. locations (referred to as N1 and N2), at the southern and northern boundaries of the site, respectively. The noise monitoring results set out in Appendix 9-B of the EIS indicate noise levels generally below 55 dB(A)_{L_{Aeq}}, albeit with a small number of exceedances. I note that the monitoring results relate to four individual dates over a two year period. Given that noise is monitored at the site boundary, I consider it likely that the noise levels experienced at the nearest noise sensitive receptors from existing operations at the appeal site are not likely to exceed the current noise limit, given the relationship between noise attenuation and distance. I note in this regard the applicant's statement that no complaints were received in relation to noise or traffic movements in 2017.

- 7.5.6. Sections 9.69 – 9.83 of the EIS assess the likely significance of noise arising from stripping of overburden, extraction and processing of stone, and processing of C&D waste (equipment assessed is listed in Sections 9.72, 9.75 and 9.77).
- 7.5.7. I note that the proposed maximum extraction rate is 800,000 tonnes per annum, in line with previous applications. However, it appears from Section 13 of the EIS, 'Roads and Traffic', that the current extraction rate is c. 450,000 tonnes per annum¹. It appears to me that the baseline noise monitoring results may, therefore, arise from a rate of extraction that is roughly half of what may occur in the future. This issue is not addressed in the noise section of the EIS, however I note that the noise prediction assessment assumes that noise sources are operating 100% of the time at the closest distance to the sensitive receptors. While the applicant considers this to be a very conservative and worst-case scenario, I consider it to be appropriate given the likely future increase in extraction rate.
- 7.5.8. I note that the assessment allows a -10 dB(A) reduction for noise screening by existing berms for overburden screening and C&D waste processing, with a greater -15 dB(A) reduction for stone extraction due to noise screening by the existing berms and the quarry face.
- 7.5.9. Table 9-9 presents predicted operational noise levels at the nearest sensitive receptors for the three stages of operation. It indicates that noise will be within criterion limits for overburden stripping (I note that a higher limit applies to this temporary activity), stone extraction and C&D processing. Predicted cumulative impacts are shown in Table 9-10 and are typically negligible to minor, with the exception of receptors R5 and R6 (residences immediately south west of the extraction area), where a moderate short-term noise impact is predicted, reducing to minor for the long-term. Various good practice mitigation measures are set out in Section 9.100 and 9.102, with the applicant noting that such measures will reduce typical noise levels by 5dB(A). Tables 9-12 to 9-14 set out the residual noise impacts (i.e. predicted noise after mitigation) and the EIS concludes that the current permitted daytime noise emission levels are unlikely to be exceeded at nearby sensitive receptors and that the resultant increase in noise level is unlikely to be perceptible at nearby noise sensitive receptors.

¹ I note from the more recent extension of duration application (Reg. Ref. TA/180336) that the current extraction rate is now stated to be c. 600,000 tonnes per annum.

7.5.10. The proposed development seeks to deepen the existing working quarry, extend it laterally, and introduce C&D waste processing, which is a similar activity to the existing rock processing operation. I consider that no significant change is proposed to working methods and having regard to the generally high level of compliance with existing noise emission limits, the screening effects of existing berms and the quarry face, and the implementation of best practice mitigation measures, the conclusions of the noise impact assessment appear reasonable and I consider that significant residual noise impacts on sensitive receptors are unlikely to arise.

7.5.11. **Vibration and Blasting**

7.5.12. With regard to vibration and blasting-related damage, the applicant states that blasting operations are carried out one to two times per month, that monitoring of vibration and overpressure is undertaken and that 24 hour advance notification is provided in writing to all residences within 1km.

7.5.13. Condition 15 of permission PL17.111632² imposes controls on blasting activities. These controls relate to vibration and overpressure limits, advance notification to residents, sirens before blasting and allowable hours for blasting (11:00 – 18:00, Monday to Friday). I note that the vibration and overpressure limits set out in the condition are consistent with the recommendations set out in the Quarries and Ancillary Activities Guidelines for Planning Authorities 2004 and the EPA Guidelines on Environmental Management in the Extractive Industry (2006), that is that vibration levels shall not exceed a peak particle velocity of 12mm/sec and air overpressure values shall not exceed 125 dB (Lin)_{max peak}, when measured at any noise sensitive house within the surrounding area.

7.5.14. Blasting is monitored at 2 No. off-site locations to the south of the quarry. The vibration and overpressure monitoring results set out in Appendix 9-C of the EIS for the period January 2015 – December 2016 demonstrate that vibration and overpressure levels have been in compliance with the abovementioned Condition, and I note the applicant's statement that no complaints were received in 2017 in relation to blasting or property damage.

² Condition 2 of subsequent permission PL17.227088 required the development to be carried out and operated in accordance with the plans and particulars of PL17.111632, except where modified.

- 7.5.15. As noted above, the proposed maximum rate of extraction is 800,000 tonnes per annum in line with previous applications, while extraction appears to be occurring at a lower rate of c. 450,000 tonnes per annum. While blasting is currently occurring 1 – 2 times per month, the EIS does not address the requirement for additional blasting arising from an increased rate of extraction. Notwithstanding this, it appears that blasting operations to date have not resulted in significant vibration impacts and have been compliant with limits set out in planning conditions.
- 7.5.16. The proposed development would result in deepening of the quarry and a lateral expansion, which will bring blasting operations marginally closer to residential dwellings. However, having regard to the history of compliance with blasting limits on the site, the relatively low number of residential properties in the vicinity, and subject to appropriate conditions regarding monitoring, notification and vibration/overpressure limits, I do not consider that blasting associated with the proposed development is likely to result in any significant impacts on sensitive receptors.

7.6. Dust and Air Quality

- 7.6.1. The third party appeal raises concerns with regard to air quality impacts, including dust emissions and diesel-related emissions.
- 7.6.2. Air quality is addressed in Section 8 of the EIS. Nearby sensitive receptors are identified in Table 8-4 and illustrated in Figure 8-2. Dust deposition monitoring is undertaken at 4 No. locations around the perimeter of the site, as indicated in Figure 8-2, and baseline monthly dust monitoring results for the period November 2014 – January 2017 are set out in Table 8.3. The table indicates that dust has been generally in compliance with the standard emission limit value of 350 mg/m²/day set out in the Quarries and Ancillary Activities Guidelines for Planning Authorities (2004) and the EPA Guidelines on Environmental Management in the Extractive Industry (2006), but there have been a small number of exceedances at monitoring point D3. It should be noted that Condition 4 of permission PL17.111632³ (Reg. Ref. 98/1981), which pre-dated the publication of the Planning Guidelines and EPA Guidelines, imposed a significantly lower dust deposition limit of 130 mg/m²/day.

³ Condition 2 of subsequent permission PL17.227088 required the development to be carried out and operated in accordance with the plans and particulars of PL17.111632, except where modified.

- 7.6.3. The impact assessment contained within the EIS seeks to assess each of the activities associated with the proposed development for potential air quality impacts including particulate matter emissions (including dust), traffic exhaust emissions and impacts on ecological receptors.
- 7.6.4. The significance of impacts is considered to be dependent upon the magnitude of the emissions, the prevailing meteorological conditions (i.e. wind direction/speed and rainfall patterns) and the proximity of sensitive receptors to the emission sources. As noted above, there are c. 70 residences within 1km of the site and the boundary of the River Boyne and River Blackwater SAC is c. 250m to the west.
- 7.6.5. The report concludes that during stripping, construction and restoration activities, the overall risk category is 'negligible' but that in the absence of mitigation measures, the effects of dust during dry and windy conditions could lead to occasional increases in nuisance dust and 24-hour mean PM₁₀ concentration immediately surrounding the application area. However, it considers that such effects are not significant due to the limited duration of such meteorological conditions and the limited scale of construction activities.
- 7.6.6. Given the location and relatively small scale of the proposed overburden storage area, to the north east of the proposed quarry void, and the short-term nature of these works (stripping, berm construction and restoration) and the proposed mitigation measures for these phases of the development, set out in Section 8.127 of the EIS, these findings seem reasonable.
- 7.6.7. With regard to the extraction and processing of rock and the processing of C&D waste, the potential for deposited dust emissions at nearby sensitive receptors is set out in Table 8-13, which sets out the risk of impact without consideration of mitigation measures. The risk of impact is highest at receptors R3, R4, R5 and R6, sited to the immediate south west of the site, where a 'Slight Adverse' impact is predicted. At all other receptors the predicted impact is 'Insignificant' or 'Acceptable'. Again, this assessment would seem reasonable, given the proximity of the development to these receptors and prevailing wind direction.
- 7.6.8. For particulate matter (i.e. PM₁₀), the assessment notes that a UK Local Air Quality Management Technical Guidance document states that fugitive dust from quarry operations and stockpiling can contribute up to 5µg/m³. While the applicant contends

that potential PM₁₀ impact will be far lower than this, it is utilised to ensure a robust assessment. The maximum annual mean background concentration levels of PM₁₀ in comparable sites is 9µg/m³, and therefore cumulative levels are predicted to remain well below the annual objective of 40µg/m³ set out in the Air Quality Standards Regulations, 2011, with the impact classified as being 'negligible'. I consider this conclusion to be reasonable given the conservative approach adopted. While the adjacent quarry may result in elevated baseline concentrations, there is no reason to believe that cumulative PM₁₀ concentrations are close to the 40µg/m³ annual objective.

- 7.6.9. Section 8.33 of the EIS refers to the levels of dust deposition likely to affect sensitive ecological receptors, i.e. over 1000mg/m²/day. Historic dust deposition monitoring results indicate dust emissions from quarrying and processing activities are well below this threshold and having regard to the nature of the proposed development, I consider that the proposed development is unlikely to have any significant impact on nearby ecological receptors.
- 7.6.10. Section 8.123 of the EIS deals with cumulative impacts and states that no other local developments are likely to impact on air quality and therefore, cumulative effects will not arise. With regard to the existing adjacent quarry, it is noted that there could be occasional increase in nuisance dust and 24-hour mean PM₁₀ concentration during dry and windy conditions. Given the limited duration of such conditions and the historic dust monitoring records which demonstrate that existing dust emissions are generally compliant with the 350 mg/m²/day limit. I am satisfied, therefore, that no significant cumulative impact is likely to arise.
- 7.6.11. Mitigation measures are set out in Tables 8-14 and 8-15 of the EIS for the different phases of the development. The measures proposed are generally typical industry good practice measures, similar to those set out in the Planning Guidelines and EPA Guidelines. They include minimising drop heights, water sprays to moisten handled material/haul routes, processing of material on the quarry floor, paving of haul routes and control of vehicle speed, seeding of soil mounds etc. With the implementation of the mitigation measures the EIS considers that residual dust impacts at sensitive receptors will reduce with, at worst, an 'acceptable' impact on those receptors likely to be most adversely affected.

7.6.12. At the time of my site inspection there was no obvious evidence of dust emissions or deposition in the vicinity of the site, however I accept the appellant's general contention that quarrying and related processing, stockpiling and transport activities can result in dust emissions, and there is clearly potential for cumulative dust impacts with the adjacent quarry, which is not owned or operated by the applicant. Notwithstanding this, the dust deposition monitoring results included in the EIS demonstrate that the applicant has operated the quarry generally in compliance with standard dust emission limit values for the industry, which are designed to protect the amenity of sensitive receptors. Furthermore, the assessment methodology and conclusions of the EIS seem reasonable given the nature of the development, topography and screening berms and location of receptors, relative to the site and prevailing wind direction. I note, also, the applicant's response to the third party appeal, in which it is stated that no complaints regarding dust were made in 2017. I conclude, therefore, that the applicant has demonstrated that the proposed development can be operated within the industry-standard dust emission limit values set out in the relevant Planning Guidelines and EPA Guidelines, and subject to the implementation of the mitigation measures outlined in the EIS and the imposition of suitable conditions regarding dust management and monitoring, I do not consider that the proposed development is likely to give rise to significant dust impacts, to the detriment of property, public health, local roads and ecological receptors.

7.6.13. With regard to potential air quality impacts arising from traffic exhaust emissions, the applicant, in responding to the appeal, states that the site and surrounding area fall into Air Quality Zone D, categorised as rural locations throughout Ireland. No monitoring for air pollutants is undertaken in the vicinity of the site, with the closest EPA monitoring station being located in Kilkitt, Co. Monaghan, c. 60km north of the site. PM₁₀ and NO_x background concentrations at that station are below the annual mean Air Quality Standards thresholds. Guidance provided in the Design Manual for Roads and Bridges (207/07) sets out criteria for assessment of air quality and is primarily focused on roads with relatively high changes in flows or a high proportion of HDV traffic. The criteria include daily traffic flows increasing by 1,000 AADT movements or more, or HDV flows increasing by 200 AADT or more.

7.6.14. While the applicant contends that the quarry operations will not result in any additional traffic movements over and above that associated with the existing quarry

development, I note that existing extraction rates from the quarry are significantly lower than the rate previously permitted and currently proposed in this application. Notwithstanding this, having regard to the traffic generation figures set out in Section 13 of the EIS, I do not consider that an increase in traffic flows to the level previously permitted would be sufficient to satisfy the abovementioned DMRB criteria. With regard to the proposed C&D waste recovery facility, I note that it will result in c. 10 HGV trips per day, which in my opinion is not significant in terms of existing vehicle flows. On this basis I am satisfied that the proposed development is not likely to result in significant additional air pollution.

7.7. Landscape and Visual Impact

- 7.7.1. The third party appellant raises issues of landscape and visual impact arising from the quarry development. I have dealt with the potential impacts associated with the proposed removal of trees in Section 7.4 above, and will address wider landscape and visual impacts in this section.
- 7.7.2. Section 10 of the EIS includes a Landscape and Visual Impact Assessment (LVIA), and includes a Zone of Theoretical Visibility (ZTV) map, identification of landscape designations and photographs from various viewpoints. Photographs from additional viewpoint locations were submitted in response to the appeal.
- 7.7.3. The appeal site is primarily located within the 'Central Lowlands (Landscape Character Area 6), with a portion of the site within the 'Rathmoylan Lowlands' (Landscape Character Area 13). Both LCAs are described as 'high' landscape value. LCA 6 is described as of 'moderate' landscape sensitivity (i.e. a landscape that can accommodate a certain amount of change without affecting its overall character), while LCA 13 is described as having 'high' landscape sensitivity (i.e. a vulnerable landscape, likely to be susceptible to change). Policies of the plan seek to protect landscape character (LC SP 1; LC OBJ 1); and to assess proposals having regard to the recommendations of the Meath Landscape Character Assessment 2007 (LC OBJ 2). I note that there are no protected views or prospects in the vicinity of the appeal site, with the closest being viewpoints 78 and 79, c. 3km to the north west.
- 7.7.4. With regard to landscape impacts, the LVIA considers that the proposed development will have a minor, i.e. not significant, additional level of landscape

impact. Since the majority of the area within which quarrying is proposed is an existing quarry void, the areas of additional vegetation removal and topsoil storage will be limited. Having regard to the undulating topography of the landscape and the dense planting which limits views of the development, I do not consider that there will be any fundamental change to the key characteristics of the landscape within the study area, as set out in the LCA, and I therefore concur with the conclusion of the LVIA that the additional landscape impact will be minor.

- 7.7.5. With regard to visual impacts, I note that six viewpoints were chosen for assessment, and I am satisfied that they represent relatively typical views towards the quarry from the surrounding area.
- 7.7.6. As a result of local topography and existing mature vegetation, the existing extraction and processing areas of the quarry are generally not visible from the surrounding area, and this can be seen in the photographs submitted from the chosen viewpoints. Some of the trees that it is proposed to remove are, however, visible, as are the tops of materials stockpiles from certain views. However, the more substantial stockpiles associated with the neighbouring unrelated quarry operation are generally more visible from the identified viewpoints.
- 7.7.7. With regard to visual receptors, two grouped visual receptor areas are identified, representing local residences and road users. These are identified as having medium sensitivity, with the magnitude of the change being identified as negligible to slight. The significance of the visual impact is therefore considered to be minor to moderate/minor. While no specific mitigation measures were proposed in the EIS, it was subsequently proposed to provide additional tree planting and reinforcement of hedgerows.
- 7.7.8. I am satisfied with the methodology utilised in the LVIA submitted, and consider that it adequately assesses the overall landscape and visual impact of the proposed development. The existing quarry operation including buildings, plant and the void itself is well-screened and set back within the landholding, and is not generally visible from the surrounding area as a result of topography, screening berms and intervening mature vegetation, which the applicant is proposing to supplement to replace the trees proposed to be removed. On this basis, I am satisfied that the

proposed development would be satisfactory in the context of overall visual impact and landscape character.

7.8. Traffic and Transportation

- 7.8.1. The third party appellant contends that the proposed development, together with nearby quarries, will impact on traffic congestion, traffic hazards and that these traffic-related impacts will negatively affect residential amenity.
- 7.8.2. Traffic and transportation is addressed in Section 13 of the EIS. It states that access to the site is directly from an access point on the northern side of the R156 Regional Road. This road is c. 6m in width and has centreline markings, but no edge markings. The road surface is stated to be in a good state of repair, generally, albeit with the existing site entrance and the road to the west stated to be in a poorer state of repair, with some edge settlement.
- 7.8.3. Traffic surveys show that the predominant flow of traffic at Castletown Quarry is to and from the east, while the predominant flow of traffic at the adjacent unrelated Keegan Quarry site is to and from the west. On the date of the traffic survey, the Keegan Quarry also generated 73% more traffic than the Castletown Quarry.
- 7.8.4. The survey of existing traffic movements at the site entrance recorded a total two-way traffic flow on the R156 between the hours of 07:00 and 19:00 of 2,268 vehicles. This was almost evenly split between eastbound and westbound traffic, with c. 14% of vehicles in both directions being HGVs. The morning peak occurred during 08:00-09:00, and the evening peak during 17:00-18:00, with off-peak flows less than half of peak hour flows.
- 7.8.5. Based on an annual output of 800,000 tonnes of aggregate per annum (as per existing permission), over five and a half working days per week (278 working days per year) and an average load of 20 tonnes per vehicle, the EIS estimates a HGV trip generation rate for aggregate production of 143 HGV trips per day. This compares to a surveyed figure of 86 HGV trips per day, which is based on the extraction rate of c. 450,000 tonnes per annum which was occurring at the time the EIS was prepared and which also includes concrete and concrete block production. (As noted elsewhere in my report, the aggregate extraction rate appears to have increased to c. 600,000 tonnes per annum in more recent times.)

- 7.8.6. Based on the higher extraction rate, and allowing for ready mix and block production, the existing potential daily traffic generation is 159 HGV trips plus staff trips. I note in this regard that the EIS contains a discrepancy in the number of staff employed in the quarry, which is stated as being 10 No. and 20 No. in Sections 3 and 13 of the EIS, respectively. In either case, I do not consider that the employment traffic movements are significant in the context of the HGV traffic arising.
- 7.8.7. With regard to the proposed C&D waste facility, it is intended to process 35,000 tonnes per annum, comprising a mix of on-site stockpiles of concrete returns and future concrete returns from Kilsaran concrete plants in the Dublin Region. The HGV traffic generation associated with the activity, with a conservative assumption that all C&D material is imported and exported, is forecast to be 16 No. HGVs per day.
- 7.8.8. As noted in the EIS, the TIA that was undertaken in connection with the previous application (PL17.227088; TA/70175), (and upon which basis the Board granted permission and under which the quarry is currently operated), estimated traffic movements in the peak morning hour were 73 No. vehicles per hour. Based upon the traffic survey and an increase to 800,000 tonnes per annum, in line with the current permission, the potential peak hour movements are c. 43 No. HGVs. Given that it is not proposed to increase the overall extraction rate as a result of the proposed development, and even allowing for the additional C&D waste traffic, the proposed development will not result in any increase in HGV traffic at peak times beyond that previously assessed and deemed acceptable. With regard to a future year of 2036, traffic associated with the quarry will marginally decrease as a percentage of overall traffic, given growth on the network and a steady extraction rate. The impact of the development is considered, therefore, to be neutral. That is, existing users of the receiving road should not experience a perceptible change in the day-to-day traffic generation of the site.
- 7.8.9. The EIS considers that there are not likely to be any capacity issues at local junctions in the vicinity of the site. Given the rural location and relatively low overall level of traffic observed on the surrounding road network, this conclusion appears reasonable to me.
- 7.8.10. The third party appellant notes the presence of other quarries in the area, and the potential cumulative traffic impacts. I would note that existing traffic arising from any

operational quarries in the area would have been captured in the traffic survey that was undertaken and incorporated in the results of the traffic assessment.

7.8.11. With regard to mitigation measures, the EIS states that there will be no increase in traffic on the local road network and no additional wear and tear, and that any development contribution levied will be partially allocated for ongoing road maintenance. It does, however, state that road strengthening work is required over a 400-500m section of the R156 at the site entrance and to the west, and suggests that any contribution reflect the relative proportion of overall HGV traffic that the development represents. Alternatively, it suggests that Kilsaran could undertake the work, with the differential cost of the works deducted from the overall development contribution. While I accept that the proposed development will not result in a significant increase in traffic movements above existing levels, it will significantly extend the lifetime of the quarry and HGV traffic in the vicinity. I therefore consider it reasonable that the developer make a contribution towards road strengthening works, and I have addressed the nature and level of this contribution separately in Section 7.11 below. It is also proposed to erect advance warning signs on the approaches to the site access.

7.8.12. Finally, with regard to possible conditions restricting output from the quarry and associated development, I note that the Quarries and Ancillary Facilities Guidelines for Planning Authorities 2004 state that:

“Planning authorities should avoid attaching conditions which limit the quantity of material which may be extracted annually, except where this is strictly needed to regulate environmental impacts, e.g. where traffic movements, amount of blasting, etc. have been linked in the EIS to anticipated annual extraction rates, and the acceptability of the development has been decided on that basis.”

7.8.13. It is clear that the extraction rate has fluctuated significantly over time, from 800,000 tonnes per annum (as per existing permission) to c. 450,000 tonnes per annum (at the time the EIS was prepared) to c. 600,000 tonnes per annum (stated current rate as per Reg. Ref. TA/180336). Having regard to this variation, which is likely a function of wider economic factors in the region, I do not consider it necessary to impose an extraction limit as a condition, should the Board be minded to grant

permission. I consider that the assessment of the traffic impact set out in the EIS is suitably robust, having considered both the lower 450,000 tpa and the higher 800,000 tpa output levels, and having regard to existing traffic levels on the local network, I do not consider that a condition limiting the extraction rate or HGV movements is required.

- 7.8.14. In conclusion, and subject to the imposition of suitable conditions, I do not consider that the proposed development would have any significant impacts on traffic congestion or result in the creation or exacerbation of a traffic hazard.

7.9. Quarry Restoration

- 7.9.1. The third party appeal contends that the restoration proposals, including the creation of an artificial lake, are dangerous and that such lakes have resulted in many deaths. They contend that it is no longer good practice to leave large open lakes after cessation of quarrying.
- 7.9.2. The restoration and aftercare proposals for the quarry are described in Sections 2.177 – 2.189 of the EIS and are illustrated in Figures 2-6 and 2-7 of the EIS. The general proposals include the removal of all stockpiles and processing plant and the breaking up of hardstandings and spreading of overburden. It is proposed to restore the processing area to the north of the quarry void to agricultural grassland, with hedgerow planting between it and the quarry void, and hedgerow bisecting the area. The disused settlement ponds in the north east corner of the site will be left to dry out and naturally regenerate. The C & D waste storage and processing areas to the north west of the quarry void, and the margin between the northern edge of the quarry void and the restored grassland area will be re-graded and left for natural regeneration. Boundary vegetation and the replacement woodland planting (see Section 7.4 above) will be retained.
- 7.9.3. With regard to the quarry void, this will be allowed to naturally flood with water, with a stated rebound level of c. 60m AOD. A 1.5m high post and wire fence is proposed around the flooded quarry void. While I would agree with the appellants that the creation of an open water body results in potential health and safety risks, I consider that this can be appropriately addressed through appropriate design, security measures and monitoring. Having regard to the sections through the flooded quarry

void contained in Section 2-7, and the very steep and deep nature of the void, I do not consider that a 1.5m high post and wire fence would be adequate to ensure public safety, notwithstanding that the existing site boundary fencing, gates and hedgerows will also be retained. Should the Board be minded to grant permission, I consider that the issue of fencing, signage and aftercare can be adequately addressed by condition, requiring such matters to be submitted to the Planning Authority for their agreement.

7.9.4. With regard to alternative proposals for restoring the quarry void, I would concur with the applicant that the only obvious alternatives to allowing the void to naturally flood would be to either pump water from it in perpetuity, which would be unsustainable and would not resolve the health and safety issues associated with an open steep-sided void, or to infill it, which would require a very large volume of inert material to be imported to the site, which would have the potential to result in a range of additional impacts.

7.9.5. I consider that the restoration proposals are the most environmentally benign option for the site, and that the proposed mix of agricultural grassland, hedgerows, an open water body and naturally regenerated areas will result in an opportunity to create a rich and diverse habitat in a rural area which is otherwise generally intensively farmed. I consider that the proposed approach is therefore reasonable and that it would be consistent with policies NH POL 1 and RD POL 26 of the Meath County Development Plan.

7.10. Architectural and Archaeological Heritage

7.10.1. As noted elsewhere, the Trammont Estate was located on the appeal site. Trammont House is no longer extant, and the only surviving elements of the Estate appear to be a gate lodge, two stone outbuildings and some of the mature trees which previously lined the avenue to the house. I have addressed these trees in Section 7.4 above.

7.10.2. None of the surviving structures associated with Trammont House are listed as protected structures, included on the National Inventory of Architectural Heritage or listed as recorded monuments. I also note that none of them will be directly affected by the proposed development. The structures are in relatively poor condition and are

currently disused, however they form an important function in providing potential roosting areas. Given that there will be no direct impacts on these structures, and noting the ecological benefits associated with such disused outbuildings, such as their use by bats for roosting, and their lack of significant architectural heritage value, I do not consider it necessary or appropriate to require their renovation by way of condition, should the Board be minded to grant permission.

7.11. First Party Appeal

7.11.1. **Condition 2: Depth of Excavation and Duration of Permission**

7.11.2. Condition 2 limits the duration of the permission to 10 years (unless a further grant of permission is issued) and states that no excavation works shall be undertaken below 18m AOD. The first party appeal seeks to amend this condition, limiting the duration to 21 years, with no excavation below 0m AOD. The first party has also proposed an additional condition, requiring no excavation below 18m AOD until a flow monitoring programme is put in place to demonstrate that water flow in the Tromman stream is not being affected.

7.11.3. I have addressed surface water and groundwater issues in detail in Section 7.3 above, and I am recommending that permission be refused on the basis on the basis that the applicant has not adequately demonstrated that the proposed development would not have unacceptable impacts on surface water or groundwater, either individually or cumulatively with the adjoining operational quarry.

7.11.4. However, should the Board be minded to grant permission, I consider that, having regard to: the proposed depth of excavation; the proposed rate of extraction (800,000 tonnes per annum); the proximity of residences with domestic wells; the nearby watercourses which could be affected by dewatering; and the large adjoining quarry operated by a third party which is also engaged in dewatering activities; that the imposition of a ten-year permission would be appropriate in the interests of development management and orderly development.

7.11.5. I also consider the restriction on depth to be a reasonable precaution in this situation, where there is an immediately adjacent quarry operated by a third party, which has also excavated to significant depth and which is also engaged in dewatering activity. Furthermore, the fact that the applicant is pumping water from the sump at a rate

significantly in excess of discharge licence limits and that predicted in previous applications, may indicate that groundwater inflows are higher than were expected at the time of the licence application. Given the nature of groundwater flow through fractures, and the inherent unpredictability and potential for intersecting such a fracture in a quarry of this scale and depth, I consider that a cautious approach is warranted.

7.11.6. Therefore, given the potentially complex impacts on the water environment arising from the interaction between the Castletown Quarry and the adjacent operational quarry which is separate ownership and the uncertainties with regard to future dewatering and impacts on surface water and groundwater, I consider it appropriate to impose limits on the depth of excavation and the duration of extraction if the Board is minded to grant permission. I therefore recommend that Condition 2 be included.

7.11.7. **Condition 36: Special Contribution**

7.11.8. Condition 36 requires the developer to pay the sum of €120,000 to the Planning Authority as a special contribution under section 48(2)(c) of the Act, towards expenditure that is proposed to be incurred by the Planning Authority in respect of road strengthening works to the R156 and local road network in the vicinity of the site over the life of operation.

7.11.9. The first party appeal seeks to have this condition omitted, on the grounds that it constitutes double-charging (€310,800 being payable under Condition 34 for roads and public transport infrastructure in accordance with the section 48 Development Contribution Scheme) and that the basis of the calculation and the specification for the exceptional works is not clear. The first party contends that, unlike in the previous grant of permission under PL17.227088 (Reg. Ref. TA/70175), quarries now come under the terms of the Development Contribution Scheme.

7.11.10. I note that the basis of the calculation was originally set out in the Road Design Office report dated 5th March 2018. This states that previous road contributions imposed by the Board under Reg. Ref. TA/70175 was €102,500 for road works in Rathmolyon village and that this figure could be indexed up from 2007 and doubled, as that permission was for a period of 10 years rather than 21 years. A contribution figure of €293,150 was therefore established. The report states that if a shorter permission of 10 years was granted, then the special contribution could be

reduced to €120,000. The report does not identify any particular works requiring a special contribution.

- 7.11.11. Subsequently, in responding to the first party appeal, the Planning Authority stated that the special contribution of €120,000 was applied in respect of road strengthening works to the R156 and the local road network in the vicinity of the site, with the roads concerned being the R156-77, R156-98, R160, R159. The Planning Authority states that the sections of road to be upgraded are not included in the Development Contribution Scheme and that as the proposed development will have an impact on existing infrastructure, the developer should be requested to make a contribution to the rehabilitation of the road network in the area. The Planning Authority submitted a table setting out the benefitting infrastructure, the costs involved and the percentage attributed to the proposed development.
- 7.11.12. The first party contends that the Planning Authority has provided a different rationale for the contribution, that it now includes 'junction improvement works' in addition to 'strengthening works' and contends that the percentages attributed to the proposed development do not correspond with EIS traffic flow figures.
- 7.11.13. Having reviewed the documentation on file, I would concur with the applicant that the rationale provided by the Planning Authority to the Board for the calculation of the €120,000 contribution differs from the initial rationale set out in the Road Design Office report. Notwithstanding this, given the volume and nature of HGV traffic associated with the quarry, I consider that it is appropriate that the applicant make a contribution towards road strengthening works on the roads affected. As the relevant sections of roads are not included in the Development Contribution Scheme, it is reasonable, in my opinion, to seek the payment of a special contribution under section 48(2)(c) of the Act and such a contribution would not constitute double-charging.
- 7.11.14. Given that HGV traffic, rather than car traffic, is the main reason roads in the vicinity would require strengthening, I consider it appropriate that the percentage of the total costs apportioned to the proposed development should be related to the percentage of HGV traffic that the proposed development represents on the applicable roads.

7.11.15. Section 7.12 of the Development Management Guidelines for Planning Authorities 2007 states that:

“...‘special’ contribution requirements in respect of a particular development may be imposed under section 48(2)(c) of the Planning Act where specific exceptional costs not covered by a scheme are incurred by a local authority in the provision of public infrastructure and facilities which benefit the proposed development. A condition requiring a special contribution must be amenable to implementation under the terms of section 48(12) of the Planning Act; therefore it is essential that the basis for the calculation of the contribution should be explained in the planning decision.

This means that it will be necessary to identify the nature/scope of works, the expenditure involved and the basis for the calculation, including how it is apportioned to the particular development.”

7.11.16. The Planning Authority’s response to the first party appeal includes a table which sets out a total cost for each element of the works, and then sets out a cost for a 21 year permission, which equates to 84% of the total costs. It is not specified how this figure was derived (although I note that 21 years is 84% of 25 years). Neither is it clear how the percentage attributed to the development was derived and in this regard I would concur with the applicant that the table do not appear to be consistent with the recorded traffic flows set out in the EIS.

7.11.17. With regard to the nature of the ‘junction improvement works’ referred to in the Planning Authority’s submission, it is not clear what is proposed. Having inspected the site and vicinity, said junctions appeared to be in reasonable condition and I did not note any significant visibility issues.

7.11.18. While I am recommending that permission be refused on other grounds, should the Board be minded to grant permission, I recommend that an amended condition requiring the payment of a special contribution under section 48(2)(c) be included. I recommend that an unspecified condition be included, requiring a contribution to be paid towards road strengthening works on the R156, between the junction of the R159 and R160, with the amount apportioned to the proposed development to be based on the percentage of total recorded HGV traffic on this road that the Castletown Quarry represents. The amount of the contribution should

be agreed between the Planning Authority and the developer or, in default of such agreement, the matter should be referred to the Board for determination.

7.12. **Other Issues**

7.12.1. Compliance Issues

7.12.2. The third party appellant contends that the subject quarry and other quarries in the area have not been operating in compliance with conditions attached to existing permissions, including non-payment of financial contributions. As the Board has no powers of enforcement, action in respect of any such non-compliance would be an issue for the Planning Authority or Courts, as relevant.

7.12.3. Application for Costs

7.12.4. The Board should note that the third party appellant has made an application for costs under the provisions of section 145 of the Planning and Development Act 2000, as amended. The appellant also made a supplemental application for costs in their response to the first party appeal.

7.13. **Appropriate Assessment**

7.13.1. Introduction

7.13.2. The application was accompanied by an Appropriate Assessment Screening Report, prepared by SLR Consulting. It identifies the following 3 No. Natura 2000 sites within a 15km radius of the site:

- River Boyne and River Blackwater SAC (site code 002299): c. 250m west.
- River Boyne and River Blackwater SPA (site code 004232): c. 2.1km north west.
- Mount Hervey Bog SAC (site code 002342): c. 12.6km south west.

7.13.3. The AA Screening Report screens out Mount Hevey Bog SAC from further consideration on the basis of distance and lack of any potential source-pathway-receptor link between it and the appeal site. Given the location of this Natura 2000 site at a significant remove from the appeal site and noting the absence of direct

pathways for pollutants from the site to reach the Natura 2000 site, this conclusion seems reasonable.

7.13.4. **Qualifying Interests and Conservation Objectives**

7.13.5. The qualifying interests and associated conservation objectives for the remaining two Natura 2000 sites are as follows:

Name	Site Code	Qualifying Interests	Conservation Objectives
River Boyne and River Blackwater SAC	002299	<ul style="list-style-type: none"> - Alkaline fens; - Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i>, <i>Salicion albae</i>) (priority habitat); - River Lamprey (<i>Lampetra fluviatilis</i>); - Salmon (<i>Salmo solar</i>); - Otter (<i>Lutra lutra</i>) 	To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
River Boyne and River Blackwater SPA	004232	<ul style="list-style-type: none"> - Kingfisher (<i>Alcedo atthis</i>) 	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interest for the SPA

7.13.6. I note that the site vulnerabilities for the River Boyne and River Blackwater SAC include, inter alia, 'mining and quarrying: sand and gravel extraction'.

7.13.7. **Potential Effects**

7.13.8. Incidental rainfall, surface water run-off and groundwater within the quarry void are and continue to be pumped from the quarry sump to an existing water treatment facility and discharged to the Rathmolyon/Moynasboy stream which runs in an east-

west direction along the northern boundary of the landholding. This stream changes course c. 500m to the west of the site to run northwards, directly adjacent to the boundary of the River Boyne and River Blackwater SAC. The stream discharges to the Knightsbrook River c.5km to the north, and the Knightsbrook River discharges to the River Boyne c. 10km downstream of the quarry discharge point, where it enters the area covered by the River Boyne and River Blackwater SAC and SPA. The Tromman Stream is located a minimum distance of c.420m to the west of the appeal site and is contained within the River Boyne and River Blackwater SAC. The Tromman Stream runs in a general south-north direction, discharging to the River Boyne c. 2.5km north west of the appeal site. While the Tromman Stream runs parallel to a stretch of the Rathmolyon/Moynasboy stream, with a minimum separation distance of c. 80m, there would appear to be no surface water connection between the two, despite OSI Discovery and EPA mapping indicating such a connection.

7.13.9. The AA Screening Report identifies a series of potential hazards arising from the proposed development that might affect the interests or features for which the River Boyne and River Blackwater SPA and SAC were designated, and considers the likelihood of any significant effects from these hazards.

7.13.10. The potential hazards identified in the AA Screening Report are as follows:

Potential Hazard	River Boyne and River Blackwater SAC	River Boyne and River Blackwater SPA
Habitat loss, damage and disturbance.	√	X
Effects of habitat loss, damage, fragmentation and disturbance to qualifying species.	√	X
Disturbance (i.e. noise, vibration and visual disturbance).	√	X
Dust deposition.	√	X
Changes in air quality (traffic emissions).	√	X
Alterations to hydrogeological and hydrological conditions.	√	√

Changes in water quality (ground and surface waters).	√	√
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7.13.11. **Assessment of Likely Effects**

7.13.12. I consider that the applicant has identified an appropriate range of potential hazards. Having regard to the location and characteristics of the appeal site, the nature of the proposed development, the distance to the designated sites and the information submitted, I consider that the key hazards are alterations to hydrogeological and hydrological conditions and changes in water quality.

7.13.13. Quarrying could give rise to pollutants in discharge waters, for example from hydrocarbons, siltation, waste water. If uncontrolled, these could result in pollution of the protected sites. Alternatively, dewatering associated with quarrying could remove base flow from water bodies supplying water to the protected sites.

7.13.14. Table 3 of the AA Screening Report sets out an ‘assessment of hazards and likelihood of significant effects of the project’. With regard to the ‘changes in water quality’ hazard, it is stated that the continuance of use and extension and the development of the C&D waste recovery facility is not predicted to require any changes to the existing discharge licence. However, as acknowledged in Section 6.45 of the EIS, the quarry has been discharging water to the Rathmolyon/Moynasboy stream at a rate significantly in excess of its Discharge Licence limits (average of 131 m³/hr vs 22 m³/hr). Section 6.112 of the EIS states that Kilsaran will apply for a review of their existing discharge licence to accommodate the predicted increase in discharge flow arising from the additional dewatering associated with the deepening of the quarry.

7.13.15. Also, as noted elsewhere in this assessment, there are a number of issues with the Assimilative Capacity and Mass Balance report submitted with the application which, in my opinion, render it potentially unreliable.

7.13.16. While the c.9.4km distance from the River Boyne and Blackwater SAC/SPA would likely allow for a significant dilution effect for any contaminants entering the stream, I consider that the AA Screening Report does not provide sufficient scientific certainty to support the conclusions drawn regarding likely significant effects on the River Boyne and River Blackwater SAC/SPA, given the issues identified above.

Having regard to the source-pathway-receptor model, I therefore consider that the screening exercise is inadequate.

7.13.17. With regard to potential in combination effects, section 8.0 of the AA Screening Report states that “the adjacent quarry operated by Keegan Quarries Ltd. already forms part of the baseline conditions from which this assessment has been carried out and therefore is not deemed relevant to include any in-combination assessment of this development”. Given that the two adjacent quarries are simultaneously and actively engaged in the progressive deepening of quarry voids, and associated dewatering of groundwater and discharging of collected groundwater and surface water to the Rathmolyon/Moynasboy stream, I consider that a more detailed consideration of potential in combination effects is required.

7.13.18. On the basis of the information provided with the application and appeal, in the absence of a Natura Impact Statement, and in light of the assessment carried out above, I am not satisfied that the proposed development individually, or in combination with other plans or projects would not be likely to have a significant effect on the River Boyne and River Blackwater SAC and SPA (Site Codes 002299 and 004232, respectively), or any other European site, in view of the site’s Conservation Objectives. In such circumstances the Board is precluded from granting permission.

8.0 Environmental Impact Assessment

8.1. Introduction

8.1.1. The planning application and associated EIS was submitted to the Planning Authority prior to 16th May 2017, the date for transposition of Directive 2014/52/EU amending the 2011 EIA Directive. Under the transitional provisions of the 2014 Directive, the 2011 Directive (2011/92/EU), as transposed into Irish legislation, will apply, as outlined in the Department of Housing, Planning, Community and Local Government Circular Letter PL1/2017.

8.1.2. The EIS is laid out in one volume and a Non-Technical Summary was also submitted. Having reviewed the EIS, I am satisfied that the information contained therein generally complies with article 94 of the Planning and Development

Regulations 2001, as amended. I have carried out an examination of the information presented by the applicant, including the EIS, and the submissions made during the course of the application and appeal. A summary of the results of the submissions made by the planning authority, prescribed bodies and appellants has been set out at Section 6.0 of this report.

- 8.1.3. This EIA has had regard to the application documentation, including the EIS, technical appendices, other application documentation, the observations and appeals received and the planning assessment completed in Section 7.0 above. As a number of the issues considered in this section of the report have already been addressed in the planning assessment above, it should be read, where necessary, in conjunction with relevant sections of the planning assessment.

8.2. Consideration of Alternatives

- 8.2.1. As the proposed development relates to the continuance and extension of an existing long-established quarry serving markets in the Greater Dublin Area, I consider that the ability to consider alternatives is somewhat constrained. I note from the EIS that alternatives in the context of alternative sources of aggregate (such as from increased recycling or marine sources) and alternative locations have been considered.
- 8.2.2. I acknowledge that aggregates can only be worked where they occur and as a relatively low-value, high-density material, must be located within reasonable distance of key markets in order to make transport costs economically viable. In the context of an established quarry, I consider that the more sustainable approach is to consider the continuation and extension of the established quarry, rather than the development of a new quarry on a greenfield site. Thus, pursuing alternative locations and alternative sources of aggregates elsewhere, while resources are evidently available within the established quarry holding, would appear unwarranted in the instance where it is established that the proposed development would not be likely to have significant adverse environmental effects. I am therefore satisfied that the EIS has satisfactorily addressed the issue of alternatives.

8.3. Environmental Impact Assessment

8.3.1. In accordance with the requirements under Article 3 of the EIA Directive and Section 171A of the Planning and Development Act 2000, as amended, the environmental impact assessment is carried out under the following headings:

- Human beings, flora and fauna,
- Soil, water, air, climate and landscape,
- Material assets and cultural heritage,
- The interaction of the above.

8.3.2. The EIA has had regard to the application documentation, including the EIS and NIS, the written submissions, the applicant's response and the Planning Assessment, above.

8.4. Human Beings, Flora and Fauna

8.4.1. I have considered all of the submissions made in relation to human beings, in addition to those issues specifically identified in Section 3 of the EIS and in other related sections which may impact on human beings, such as air, water, noise, dust, traffic and landscape impacts.

8.4.2. Positive impacts on human beings potentially arise from continued employment associated with the quarry (direct and indirect) and the continued supply of aggregates in the region. Negative impacts potentially arise as a consequence of emissions to air, water, noise, dust, vibration and traffic.

8.4.3. Different sections of the EIS deal with the above impacts and I have assessed each of these impacts above. Subject to the implementation of appropriate mitigation measures, adherence to standard emission limits for the extraction industry, and the imposition of suitable conditions, I do not consider that significant environmental impacts will arise as a consequence of noise, dust, vibration or traffic, from the proposed operation of the quarry and related development, by itself or in conjunction with other developments (i.e. cumulative impacts). However, as discussed above, I do not consider that the applicant has adequately demonstrated how surface and groundwater will be managed or an adequate understanding of the groundwater

regime in the vicinity of the site. The proposed development, may therefore give rise to significant adverse impacts on surface water bodies, well water and public water supplies in the vicinity of the site.

- 8.4.4. Impacts on flora and fauna are considered in Section 4 of the EIS. I have considered this information and that submitted in the course of the appeal by the applicant, prescribed bodies and third parties. The proposed development occurs within an existing quarry environment and, with the exception of the proposed lateral extension area (i.e. the treeline area that it is proposed to remove), the remainder of the quarry site is not considered to be particularly sensitive in terms of ecology. While the proposed lateral extension may result in some loss of potential bat habitat, the applicant is proposing a suite of compensation and mitigation measures which will ensure that there is high suitability roost sites and bat boxes at either end of the quarry expansion area. Subject to the implementation of these measures and monitoring, I do not consider that the proposed development is likely to result in any significant impact on the conservation status of local bat populations. With regard to designated sites of nature conservation interest in the wider environment, including Natura 2000 sites, these are generally substantially removed from the appeal site. However, with regard to the discharge of water to the Rathmolyon/Moynasboy Stream at a rate significantly in excess of the existing discharge licence limit, and in the absence of a Natura Impact Statement I am not satisfied that the proposed development individually, or in combination with other plans or projects would not be likely to have a significant effect on the River Boyne and River Blackwater SAC and SPA (Site Codes 002299 and 004232, respectively), or any other European site, in view of the site's Conservation Objectives. (see Section 7.13 above).

8.5. Soil, Water, Air, Climate and Landscape

- 8.5.1. I have considered all of the submissions made in relation to soil, water, air, climate and landscape, in addition to those specifically identified in Sections 5, 6, 7, 8 and 10 of the EIS.
- 8.5.2. The proposed development takes place within an active working quarry, and with the exception of the lateral expansion, will entail deepening of the existing quarry void and continuance of related activities, as well as the development of a C&D waste facility within the existing development footprint. Subject to implementation of

mitigation measures, impacts on soil and geology will be modest, and will primarily relate to the loss of the existing mineral resource.

- 8.5.3. Impacts on surface and groundwater are discussed in detail above and it is considered that the applicant has failed to adequately demonstrate that water to be discharged from the quarry can be accommodated in downstream water bodies without resulting in adverse effects on water quality. In addition, as discussed above, I have concerns regarding the applicant's understanding of groundwater flows in the vicinity of the site and potential impacts of groundwater drawdown on wells and surface water bodies, including the cumulative impact with the adjacent operational quarry. I consider, therefore, that there is a risk of significant adverse impacts as a consequence of the proposed development.
- 8.5.4. As stated above, subject to compliance with proposed mitigation measures, standard emission limit values for the industry, and the imposition of suitable conditions, I do not consider that significant adverse effects on air quality, noise or vibration will arise as a consequence of the proposed development. Given the relatively modest scale and nature of the development, no significant impacts on climate are likely to arise.
- 8.5.5. The appeal site is primarily located within the 'Central Lowlands (Landscape Character Area 6)', with a portion of the site within the 'Rathmoylan Lowlands' (Landscape Character Area 13). Both LCAs are described as 'high' landscape value. LCA 6 is described as of 'moderate' landscape sensitivity (i.e. a landscape that can accommodate a certain amount of change without affecting its overall character), while LCA 13 is described as having 'high' landscape sensitivity (i.e. a vulnerable landscape, likely to be susceptible to change). I note that there are no protected views or prospects in the vicinity of the appeal site, with the closest being viewpoints 78 and 79, c. 3km to the north west. Within this context, the appeal site is well screened from public view by a combination of topography, screening berms and mature vegetation. The proposed development, which primarily comprises a deeper excavation and relatively modest lateral extension, will not therefore be widely visible and will not detract from the landscape character. While a number of mature trees would be felled, these would not significantly alter views to the site or the landscape character and replacement woodland planting is proposed. I consider that no significant adverse landscape or visual impacts are therefore likely to arise as a consequence of the development.

8.6. Material Assets and Cultural Heritage

- 8.6.1. Impacts on material assets and cultural heritage are dealt with in section 11, 12 and 13 of the EIS. I have considered all the submissions made in relation to these matters in addition to those specifically identified in each section of the EIS. A number of the matters arising have also been addressed in the Planning Assessment above.
- 8.6.2. With regard to traffic, as stated previously, the proposed development will extend the period of operation of the quarry, however it is stated that extraction rates will not exceed existing permitted levels (i.e. 800,000 tonnes per annum) and vehicle movements, including HGVs, will not increase above existing levels. The principal effect of the proposed development will therefore be to extend existing levels of quarry traffic over a longer duration. However, as discussed above, subject to strict adherence to mitigation measures (including hours of operation), I do not consider that traffic impacts will be significant.
- 8.6.3. Impacts on cultural heritage are addressed in Section 11 of the EIS and in my planning assessment above. The proposed development entails the deepening of the existing quarry void and continued operation of quarrying and related processing and manufacturing facilities, which all relate to already disturbed ground. While the trees within the proposed lateral extension area appear to be associated with the avenue to Trammont House, I note that the house no longer exists, with the exception of two stone outbuildings and a gate lodge which are in poor condition. None of these structures are protected structures, included on the National Inventory of Architectural Heritage or listed as recorded monuments, and none of them will be directly affected by the proposed development. I do not consider that any residual historic or heritage value that the trees possess as a surviving fragment of the Trammont house landscaping are sufficient to warrant their protection on these grounds alone. I therefore do not consider that any significant adverse impacts on cultural heritage will arise.

8.7. The Interactions of the Above

- 8.7.1. I have considered all of the submissions made in relation to impacts on inter-relationship between factors, in addition to those specifically identified in Section 14

of the EIS. As noted above, significant impacts arise by virtue of interactions between human beings and water; and between water and flora and fauna and are discussed above.

8.8. Summary

- 8.8.1. In summary, having regard to the failure to adequately demonstrate that the proposed development individually, or cumulatively with the adjacent operational quarry, would not impact on surface water quality as a result of discharge of abstracted groundwater, or that the lowering of groundwater is not impacting on flows to existing wells and surface water bodies, it is considered that the proposed development will give rise to significant adverse effects on water quality in nearby surface water bodies and on water supplies to water bodies and properties in the vicinity of the site.

9.0 Recommendation

- 9.1. I recommend that planning permission be refused for the reasons set out below.

10.0 Reasons and Considerations

1. Having regard to the information provided in the Environmental Impact Statement submitted with the planning application in relation to hydrogeology and hydrology in the vicinity of the proposed quarry, and the submissions made in connection with the application and appeal, the Board is not satisfied that the proposed development, either individually or cumulatively with the adjacent operational quarry, would not give rise to the pollution of surface water bodies, adversely impact on water supplies in the vicinity of the site or reduce base flows in nearby surface water bodies. The proposed development would, therefore, be contrary to policies of the Meath County Development Plan 2013 to 2019 and to the proper planning and sustainable development of the area.
2. On the basis of the information provided with the application and appeal and in the absence of a Natura Impact Statement the Board cannot be satisfied that the proposed development individually, or in combination with other plans

or projects would not be likely to have a significant effect on the River Boyne and River Blackwater SAC or SPA (Site Codes 002299 and 004232, respectively), or any other European site, in view of the sites' Conservation Objectives. In such circumstances the Board is precluded from granting permission.

Niall Haverty
Senior Planning Inspector

22nd October 2019