Inspector's Report

ABP-321806-25

Development	Extension of Kilmacow Quarry authorised via planning reference 16/700. The application is accompanied by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).
Location	Aglish North, Granny, Kilmacow, Co. Kilkenny
Planning Authority	Kilkenny County Council
Planning Authority Reg. Ref.	2460100
Applicant(s)	Roadstone Limited
Type of Application	Planning permission
Planning Authority Decision	
Type of Appeal	Third Party
Appellant(s)	David Williamson and Claire Buckley
Observer(s)	None
Date of Site Inspection	30th June 2025
Inspector	Mary Kennelly

Contents

1.0 Site Location and Description

1.1. The site is located in a rural area, in the townlands of Granny and Aglish North, at the southern end of County Kilkenny, close to the boundary with County Waterford. It is situated c. 4km to the northwest of Waterford City. The area is predominantly rural and agricultural in nature and there are a number of single rural dwellings and farm buildings in the vicinity. The site relates to an existing limestone quarry, Kilmacow Quarry), which has been established at this general location since the 1970s. The site incorporates the existing quarry entrance from the south and the access route through the main quarry site, with the proposed extension area located to the north-east of the existing pit. The site also includes part of a neighbouring farm and farmyard.

1.2. The quarry is accessed from the southwest via a local road which branches off the main Waterford to Limerick Road, (N24), approx. 3 km to the west of the roundabout junction with the M9 motorway. It is also located within the Waterford-Cahir Study Area, a proposed road improvement scheme linking Waterford at the M9 and Cahir at the M8. The existing Kilmacow Quarry has a permitted extractive area of c. 27ha and together with ancillary infrastructure, extends to 62.07ha. The site area the subject of this application/appeal is stated to be 10.3 hectares, of which 0.95ha is in separate land ownership.

1.3. The site is screened by screening berms and mature hedgerows. There are a number of recorded monuments in close proximity to the site. A cottage listed on the NIAH (Ref. 1240-4301) is located to the southwest of the site. Powerlines bound the site to the southeast and the Yellow Option corridor for the Waterford-Cahir Road Scheme is located to the north of the site. The Waterford-Limerick railway is located c.540m to the north of the site and the N24 is located c. 214m to the south. The Flemingstown Stream is located c.90m (at the closest point) from the site and flows into the Middle Suir Estuary (c.1.4km to the southwest), which forms part of the Lower River Suir SAC. The existing attenuation ponds within the quarry discharge to the Flemingstown Stream under a Local Authority Discharge Licence.

2.0 **Proposed Development**

2.1. Permission is sought for the extension of Kilmacow Quarry, authorised via planning reference 16/700, to adjoining agricultural lands to the east with known quality reserves of aggregates. The extension will cover an area of c.10.3 hectares and seeks to complete 5 no. benches, each 15m high, to a level of -45mOD, which is consistent with the existing permitted levels. The proposed depth of excavation will align with the existing quarry and is proposed to a depth c.79m below existing ground level. A stated total of c.479mm of hedgerows/ treelines, and c.0.27ha of scrub will be removed to facilitate the proposed development.

2.2. The proposed development will extend the quarry into the adjoining agricultural lands to the north-east, including lands owned by Mr. Clohessy. It is proposed to demolish and remove 2 no. agricultural sheds and a small pump house within the Clohessy farmyard as part of the development. The proposal also includes the completion of boundary berms, access tracks and associated safety features at the site boundary. The Clohessy farmyard and remaining buildings will be left intact and fenced off from the proposed development. It is stated that the Clohessy family would vacate the farmhouse should planning permission be granted.

2.3. The proposed development will involve blasting, extraction and processing of rock using mobile primary crushing / screening and associated plant on the quarry floor. It will utilise existing established quarry infrastructure including entrance, office/welfare facilities, carpark, wheel wash, weighbridge, haul routes and other ancillary infrastructure for further secondary processing of aggregates. The quarry would operate within the permitted output rates which are 700,000 to 1,000,000 tonnes per annum and quarrying will take place below the groundwater table. The proposed hours of operation Set out in the submitted planning application are -

Construction - 0700-1900 Mon-Fri and 0700-1300 Sat.

Operational – 0700-2000 Mon-Fri and 0700-1800 Sat.

No working is proposed for Sundays or public holidays.

2.4. The estimated reserve within the site is stated as 2,920,000m³ or 7,592,000 tonnes. A planning permission of 20 years is being sought for the proposed

development, (including restoration). Upon completion of extraction activities, the site will be subject to a Restoration Plan, which has been submitted as part of this application.

2.5. The application is accompanied by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).

3.0 Planning Authority Decision

3.1. Decision

The planning authority decided to grant permission subject to 35 conditions. These were generally of a standard type apart from the following:

Cond. 2 Duration of permission 01/01/46

Cond. 3 Financial contribution €120,000

Cond. 4 (a) Special Contribution condition €25,343.00 towards the next scheduled maintenance of L7434 and all associated junctions including both access to the development site and the junction of the L7434 and the N24, having regard to the HGV traffic loading, project duration and projected cost of resurfacing/maintaining this section of the local road. (b) a maintenance condition report to be submitted every 3 years and a contribution to the cost of maintenance and (c) applicant to put in place a regular road cleaning regime and maintenance of the wheel-wash

Cond. 5 Details of Restoration Plan to be submitted within 12 months

Cond. 8 Max. excavation level -45mOD

Cond. 9 Max. traffic/max. excavation – 1,000,000 tonnes and daily trips not to exceed PP 16/700

Cond. 11 Rock crushing – sourced solely from site

Cond. 13 Road surface reinstatement at entrance and in vicinity of mini roundabout – depth and extent to be agreed

Cond. 19 WWTS – assessment of existing WWTS to determine whether it is in adequate operational order prior to commencement of development

Cond. 35 Hours of operation – 0700-2000 Mon-Fri and 0700-1300 Saturdays and no works at weekends or public holidays.

3.2. Planning Authority Reports

3.2.1. Planning Reports

The Area Planner's initial report (25/04/24) highlighted several issues that required clarification and/or additional details. These matters formed the basis of an FI request, which are summarised below.

A **Further Information** Request was issued on the **25th April 2024** regarding the matters outlined below. The Response to the FI Request was received on the 10th of October 2024. The response to each item is also set out below.

1. **Dust emissions** - dust mitigation measures and monitoring proposals including additional monitoring points and the results of monitoring over last 2 years together with details of 'corrective action'.

   Response*:* Further information on existing dust mitigation and proposed additional measures are identified including use of water cannon during crushing, installation of a sprinkling system and placement of screening and crushing machinery on the quarry floor. Additional monitoring points also proposed. It was noted that the compliance rate for 2017, 2018 and 2019 ranged from 67% (D2) to 94.1% (D3).

   These measures together with the mitigation measures outlined in the EIAR were deemed to be generally satisfactory.

2. **Noise emissions** – noise monitoring and mitigation measures including monitoring at a specific property (Eircode X91 N74P).

   Response: Additional noise monitoring including at X91 N74P proposed. It was considered that the predicted cumulative sound level at all NSRs would be below noise nuisance criteria and would comply with official guidance and with the previous planning permission noise limits.

These measures together with the mitigation measures outlined in the EIAR were deemed to be generally satisfactory.

3. **Blasting** - Vibration mitigation measures and protocol for blasting to keep within limits.

   ***Response**:* Two additional monitoring locations included. Stated that all blasting has been within limits set out in permission P16/700 and will continue to do so and are well within limits in guidelines. If requested by an owner, a property can be included in the monitoring.

4. **Groundwater** - Details of current groundwater monitoring programme and any wells in vicinity.

   ***Response**:* Current GW monitoring is comprehensive and utilises data from an extensive network of internal and external monitoring wells (details provided). Internal wells have been constructed specifically for this purpose and the external wells are private domestic/farm wells. It is stated that a good continuous dataset available from at least 2009.

5. **Sedimentation ponds** – procedures for monitoring/maintenance of ponds.

   ***Response*:** Details provided in RFI 4-5 10-1. Long-term data suggests that the cone of influence/drawdown towards the current quarry floor is localised to the quarry void on the northern, western, eastern and southern boundaries.

6. **Wastewater treatment system** – detailed assessment of existing WWTS regarding adequacy to cater for development.

   Response: There are two WWTS on site which are outside the application site area but within the landholding as follows:

   (1) Offices effluent treatment system with sand polishing filter and percolation area.

   (2) Garage area effluent treatment system with sand polishing filter and percolation area.

It is stated that the proposed development will not result in an increase in employment and as the current systems are suitable for current staff, these systems do not form part of the current application.

7. **Wheel wash** – details of ongoing performance and any future enhancements.

   Response: the existing wheel wash will be replaced by a new system which will be surface mounted and will require minimal installation works.

8. **Junction N24 and L7434** – details of resurfacing proposals, replacement of damaged bollards, improvements to roadside verge and roadside drainage, address structural defects at quarry exit and reinstate driver feedback sign.

   Response: The applicant will resurface L7434, will replace damaged/missing bollards, reduce verge height and provide appropriate roadside drainage, all as requested (Drawing 811). It is also proposed to reinstate the driver feedback signage (Drawing 814). It is proposed to address structural defects on the L7434 at the exit in proximity to the mini-roundabout (Drawing 815).

9. **Consultation with agencies re adjoining infrastructure** – confirm no objections from ESB Networks or Iarnrod Eireann.

   Response: ESB Networks have contributed to the process. The Scoping Document had clearly outlined presence of powerlines within the quarry area and the proposal to maintain a 25m setback from same. ESB's response to scoping document did not relate to the scope or extent of the proposed environmental assessment, but did not raise any objections. It is assumed that there is no objection.

   Iarnrod Eireann were not identified as a stakeholder in the scoping process as the nearest railway line is c.540m to the north and the quarry extension is proposed in an easterly direction. It is stated that there will be no direct effects on the Waterford-Limerick railway line. No objection submitted by Iarnrod Eireann.

10. **Dewatering plan** – including pre-connection agreement with Uisce Eireann and confirmation of feasibility.

    Response: The current dewatering plan for the quarry will remain largely unchanged (RFI 4-5 10-11). It is stated that the proposal will not alter water usage as it involves expansion into new reserves rather than intensification of activities. There is an existing agreement with Uisce Eireann which will remain unchanged, and the supply is adequate. It is submitted that there is no requirement for a pre-connection agreement as significant assessments in relation to hydrology and hydrogeology support these views (RFI 4-5 10-11).

11. **Water supply** – clarification of existing water supply to adjacent dwellings within 300m radius.

    Response: Stated that all residential properties in vicinity are on public supply, but one property also has a private well.

12. **Clohessy dwelling** – in the interests of safety and public health, confirmation that the dwelling will be vacated prior to first blasting.

    Response: Confirmation provided and signed letter to this effect.

13. **Hours of operation** – revised hours requested for Saturdays – 0700-1300.

    Response: Revised hours of operation agreed.

14. **Revised Restoration Plan** – including costs, length of time for revegetation.

    Response: There is currently a bond in place (€434,351.79) which will be extended to cover proposed extension and will be adequate for both restoration works. Additional information provided regarding length of time to establish vegetative screening.

15. **Ecological monitoring** – enhanced level of supervision during construction.

    Response: the monitoring measures set out in Section 6.10 if the EIAR are re-iterated. It was confirmed that there would be an Ecological Clerk of works appointed who will inspect the site in advance of ground stripping

works and who will monitor the works to ensure that they are in accordance with the measures set out in the EIAR, the NIS and the CEMP.

3.2.2. **Other Technical Reports**

- **Environment (24/04/24)** – FI requested including –
  - A detailed assessment of existing WWTS and its adequacy to cater for development
  - Dust mitigation and monitoring with additional monitoring points to the north and east of proposed extension
  - Additional noise monitoring locations and mitigation measures
  - Details demonstrating compliance with vibration limits of 16/700 for 2 dwellings (X91 DTW1 and X91 N7P4) and a Protocol for blasting
  - Groundwater monitoring programme and details of wells in vicinity
  - Review of existing wheel wash
- **Environment (08/01/25)** – No objections subject to conditions re detailed assessment of WWTS prior to commencement of construction, conditions relating to monitoring and mitigation of groundwater, noise, dust, vibration and blasting, discharge of trade effluent, management of demolition waste and revised hours of operation.
- **Roads (22/04/24)** – the L7434 is in good condition but there are areas requiring remedial works to cater for proposed development. FI requested including
  - Resurfacing of carriageway at exit from L7434 onto N24, replacement of bollards and reduction of verge height together with appropriate roadside drainage.
  - Reinstate driver feedback sign.
  - Address structural defect on L7434 at quarry exit near mini roundabout
  - Enhancement of wheelwash.
- **Roads (08/01/25)** – the applicant's proposal to carry out resurfacing and drainage works on N24 were noted. However, it is stated that the L.A intends to carry out such works on the N24 in 2025 from Rathkieran to

Aglish (including said junction). In order to minimise disruption to road users and to ensure continuity of road surfacing, it is stated that these works will be carried out by the L.A. and that the developer should pay a special contribution to the value of €25,343.00 in lieu of carrying out these works. A condition was recommended in respect of the proposed reinstatement works on the L7434 between the quarry entrance near mini roundabout and the N24 and the driver feedback signage (details to be agreed) and a road sweeping regime.

- **N24 Office – Waterford-Cahir Road** – 25/03/24 and 15/11/24 – The proposed development relates to an existing site which is a significant constraint to the development of the Preferred Transport Solution Corridor currently being considered as part of the N24 Waterford to Cahir project. The project team therefore sees no direct conflict. It was observed, however, that the Preferred Transport Solution Corridor at this location seeks to reuse/ upgrade the existing N24 which could include upgrades to the existing junctions and accesses onto the N24. As such, it is stated that there may be revised access arrangements to the national primary road.

3.3. Prescribed Bodies

DHLGH – Nature conservation (03/04/24) - no objection subject to conditions including removal of trees/vegetation outside of bird nesting season and implementation of landscaping plan in compliance with the All-Ireland Pollinator Plan.

DHLGH - Archaeology (03/04/24) – Noted submission of desk-based AIA as part of EIAR and stated that DHLGH is largely in agreement with same. However, given the nature and scale of development on a greenfield site, and the presence of a cluster of Recorded Monuments within 0.5-1km of the site to the south, it was advised that advance archaeological test excavation should be carried out prior to any development. No objection subject to conditions including implementation of all mitigation measures in Chapter 13 of EIAR and in advance of any site preparation or groundworks, the undertaking of pre-development test excavation

by a suitably qualified archaeologist and the submission of AIA report for the written agreement of P.A. following consultation with National Monuments Service.

Uisce Eireann – (24/04/24 and 12/12/24) It was noted that the site is currently connected to public water, but the capacity of water services to serve the development must be determined. FI requested regarding dewatering plans and a pre-connection agreement. In addition, a Confirmation of Feasibility from Uisce Eireann is required. In response to FI, it was considered that the proposed development is unlikely to have any additional impacts on the public water supply subject to mitigation measures set out in EIAR. However, it was reiterated that the applicant will be required to enter into a connection agreement with Uisce Eireann.
TII – (02/04/24 and 29/10/24) - No observations to make.

3.4. Third Party Observations

3.4.1. Two third party submissions were made in response to the application and a further submission was made in response to the receipt of Further Information. The main issues raised are summarised in the Area Planner's Report and related to the following matters:

- Blasting and Vibrations – concerns regarding the proximity of blasting to the Suffin property (Newtown Road, Ballinearla). Dates and distances provided for period between 26/07/23 and 16/02/24. It was pointed out that seven blasts were within 300m of their home and that one blast at 877m distorts the average, which if excluded would be 298m. Requested continual monitoring and for results to be sent to the P.A. to ensure within guidelines. Concern regarding damage to their property with cracks already visible, which should be monitored going forward.
- Proximity to dwelling – concern re proximity of activity to Williamson/Buckley property due to direction of extension and prevailing wind direction. Distance would reduce to 280-310m from dwelling with consequent impacts on residential amenity and property values, due to increased levels of noise, dust and vibration.

- Dust – concern regarding increased dust from extraction, blasting and crushing and requested suppression systems and monitoring with notification of results.
- Noise – requested change to hours of operation with finish time on Saturdays of 1400 hours.
- Planting – requested mix of fast-growing and evergreen trees.
- Flawed EIAR – chapter 5 (Human Beings) does not mention Williamson/Buckley property.
- Inadequate NIS – fails to adequately address the potential effects on the conservation objectives of the Qualifying Interests of the Lower River Suir SAC. It does not meet the Kelly threshold (CJEU 258/11, Para 44) as it contains lacunae. It is submitted that the NIS fails to provide complete, precise, definitive findings and conclusions which meet the test of beyond all reasonable scientific doubt.

Having regard to the planning history of the site, the details submitted with the application including the EIAR and NIS, and the further information submitted, it was recommended that planning permission be granted subject to 35 no. conditions.

4.0 Planning History

16/830 – Permission granted for continuation of use of structures related to quarrying activities:

(i) Garage and Service Building (775m2),

(ii) Site Laboratory (141m2),

(iii) Concrete Plant (377m2),

(iv) Bitumen Coating/Asphalt Plant (474m2) and development of three additional structures,

(v) Garage and Service Building (775m2),

(vi) RAP (reclaimed asphalt pavement) System to Bitumen Coating/Asphalt Plant (201m2) and

(vii) RAP and Sand Storage Shed (1986m2),

All within an area of c.4.9 hectares.

An Environmental Report and Natura Impact Statement (NIS) were submitted.

16/700 – Permission granted for continuation of quarrying activities (within the area of 62.04ha) to include the extension of the existing excavation by an additional 2 x 15m high benches from the current floor level of c.-15m AOD to -45 m AOD within the permitted extraction footprint area of 27.06ha (Permitted under 1/1/5611 and ABP.PL.5.36501). The development involves the continuation of stripping of overburden and its storage for use in site restoration, the extraction of rock by means of blasting, the crushing of blasted rock on the quarry floor, and subsequent processing of crushed rock in the existing aggregate plant to produce a range of aggregates. The development also includes the continuation of use of the existing wheel-wash and associated hardstanding area, bunded fuel tank and associated refuelling area. An Environmental Impact Statement (EIS) and Natura Impact Statement (NIS) were submitted. Permission granted on 02/05/17 for 15 years (expiry 01/05/32)

15/31- Permission granted for development comprising establishment and operation of an inert construction and demolition (C & D) waste recovery facility. The development provides for the importation, processing and recovery of inert construction and demolition waste (principally mixed concrete, blacktop, bricks, tiles, and ceramics) on a 1.1 hectare site within the existing quarry landholding. It includes provision for a hardstanding area for stockpiling and crushing of waste materials and a waste inspection/quarantine shed, at Aglish North and Granny, Kilmacow, Co. Kilkenny.

QY19 – Section 261 quarry registration for Roadstone Provinces Ltd. at New Aglish, Kilmacow, Co. Kilkenny in townlands of Granny and Aglish North received 26/04/2005.

PL10.206788 (PA Ref. 03/487) - Permission granted by ABP to AMEND conditions numbers 4, 5(b) and 19 following a grant of permission by P.A. (**03/487)**

to Roadstone Provinces Ltd for a 5.06 hectare (12.5 acre) southward extension to existing quarry, in three benches, to a finished floor level of 15 metres below Ordnance Datum (Malin Head), a 2 hectare (5.02 acre) overburden mound (to a height of approx. 4.5 metres), associated landscaping works, and construction of a 110 sq.m (gross floor area) single storey dispatch office. The overall planning application site is 11.04 hectares (27.28 acres) in the townlands of Grannagh & Kilmacow at Kilmacow Quarry. The application was accompanied by an Environmental Impact Statement. The permission expired in 2021.

PL10.108741 (PA Ref.97/863) – Permission granted by ABP to Roadstone Provinces Ltd following a third party appeal to extend existing limestone quarry up to a total area of 25.8 hectares, retention of site office, garage, site laboratory, bitumen, coating plant, 2 no overburden mounds, settling ponds and access road, erection and operation of concrete batching plant and concrete block manufacturing plant with garage and service building, provision for a septic tank, and landscaping works including formation of two overburden mounds and berms, reduction of gross area and regarding of existing mounds, planting and associated site works etc. An EIS was submitted with this application. This permission was granted by ABP on 09/06/1999 subject to modified conditions for a period of 25 years (expiry June 2024).

PL 10/5/36501 (PA Ref. 1/1/5611) - Permission granted by Bord Pleanala in August 1977 to Roadstone Ltd for a limestone quarry subject to 10 no conditions.

P.A. Ref. P.1/1/1754 – Outline planning permission granted for a quarry in 1971.

5.0 Policy Context

5.1. Revised National Planning Framework (2025)

5.1.1. The Revised National Planning Framework (RNPF) was adopted in April 2025. The RNPF, in a similar manner to the NPF (2018), recognises the importance of the extractive industry for the supply of aggregates and construction materials and minerals to a variety of sectors, for both domestic requirements and for export. The role of the planning process is recognised as being critical in realising the

potential of the extractive industry by identifying and protecting important reserves of aggregates and minerals from development that might prejudice their utilisation.

5.1.2. Aggregates and minerals extraction will continue to be enabled where this is compatible with the protection of the environment in terms of air and water quality, natural and cultural heritage, the quality of life of residents in the vicinity, and provides for appropriate site rehabilitation, particularly with respect to opportunities that may be provided for enhancement or restoration of nature in line with EU policies, such as the Nature Restoration Law, the EU Green Deal and EU Biodiversity Strategy 2020, and legislative instruments.

5.1.3. The RNPF notes the importance of maintaining the supply chain of Critical Raw Materials. It is stated that the Critical Raw Materials Act, one of the three key legislative initiatives of the EU Green Deal, provides for a set of Actions to ensure the EU's access to a secure, diversified, affordable and sustainable supply of critical raw materials. NPO 23 (NPF 2018) is similar to NPO30 of the RNPF, which also incorporates the need to be consistent with the national climate change objective and to protect biodiversity. It also embraces the concepts of the need to transition to a circular economy by minimising waste and increasing recycling.

National Policy Objective 30 - Facilitate the development of the rural economy, in a manner consistent with the national climate objective through supporting a sustainable and economically efficient agricultural and food sector, together with forestry, fishing and aquaculture, energy and extractive industries, the bioeconomy and diversification into alternative on-farm and off-farm activities, while at the same time noting the importance of maintaining and protecting biodiversity and the natural landscape and built heritage which are vital to rural tourism.

National Policy Objective 76 – Sustainably manage waste generation including construction and demolition waste, invest in different types of waste treatment and support circular economy principles, prioritising prevention, reuse, recycling and recovery, to support a healthy environment, economy and society.

5.2. Climate Action and Low Carbon Development Act 2015 (as amended)

5.2.1. Section 15 requires a relevant body to have regard to the approved national mitigation plan, the adaptation framework and sectoral adaptation plans, national

transition objectives and the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the state.

5.3. Climate Action Plan 2024 and Climate Action Plan 2025

5.3.1. The Climate Action Plan which is updated every year sets out the roadmap to deliver Ireland's climate ambitions aligns with the legally binding economy-wide carbon budgets and sectoral emission ceilings agreed by government. The CAP requires Ireland to achieve a 51% reduction in emissions by 2030 (relative to 2018 levels) and net-zero emissions no later than 2050. The extractive industry is not considered in any of the specific sectors, but specific industries are relevant to the assessment under this policy framework, such as transport and electricity.

5.4. Whole of Government Circular Economy Strategy (2021)

5.4.1. The strategy sets out the national policy framework for a transition to a circular economy and to reduce Ireland's circularity gap in comparison with other EU Member States. The overall approach to waste management is to embrace the circular economy more comprehensively and to support the principles of the circular economy in terms of reducing waste generation, minimising waste going to landfill and maximising waste as a resource. Thus, the overarching aims are prevention, preparation for reuse, recycling and recovery which are prioritised in that order, over the disposal of waste.

5.4.2. The Circular Economy Strategy highlights that increasing extraction of natural resources and disposal of waste is a major contributor to habitat and biodiversity loss and contributes to global warming. Thus, achieving a circular economy will help to reduce global carbon impact and protect natural resources, environment and health. It is stated that within the C&D sector, greater resource efficiency and resource re-use could avoid the need for millions of tonnes of virgin raw materials per annum, as well as reducing the carbon intensity of our built environment.

5.5. National Waste Management Plan for a Circular Economy 2024-2030

5.5.1. This plan is presented in five volumes and recognises Climate Change as a key driver for both behavioural change and improved waste management practices. It

contains targets, policies, actions and key deliverables required to accelerate the transition to a circular economy with reduced climate impact. The Plan ambition is to achieve 0% total waste growth per person over the life of the plan and to increase recycling rates. National Target 1B in relation to construction materials requires a 12% reduction in C&D waste by 2030.

5.6. National Biodiversity Action Plan (NBAP) 2023-2030

Ireland's fourth NBAP sets the biodiversity agenda for the period 2023 – 2030. The NBAP has a list of Objectives which promotes biodiversity as follows:

Objective 1 Adopt a whole of government, whole of society approach to biodiversity

Objective 2 Meet urgent conservation and restoration needs

Objective 3 Secure nature's contribution to people

Objective 4 Enhance the evidence base for action on biodiversity

Objective 5 Strengthen Irelands contribution to international biodiversity initiatives

5.7. Regional Spatial and Economic Strategy for the Southern Region

5.7.1. The RSES provides the framework through which the NPF's vision and the related Government policies and objectives will be delivered for the Region. The main aim is to implement the NPF policies at the regional level in achieving balanced regional development. It sets out the strategic planning and investment framework for the Southern Region in order to shape future growth and manage planning and economic development. In addition, it sets out a broad range of policies to support landscape, heritage, circular economy and climate change.

RPO 107 – It is an objective to support innovative initiatives that develop the circular economy through implementation of the Regional Waste Management Plan for the Southern Region 2015-2021 and its successor.

RPO 108 - It is an objective to support the work of local authorities, the Regional Waste Management Office and all state bodies in the Region to implement the EU

Action Plan for the Circular Economy- Closing the Loop to ensure sustainable patterns of consumption and production in the areas of:

• Product Design

• Production processes

• Consumption

• Waste management

• From waste to resources: boosting the market for secondary raw materials and water reuse in line with the EU Raw Material Initiative

5.8. Quarries and Ancillary Activities Guidelines (2004)

5.8.1. These guidelines, which provide guidance on the extractive industry, emphasise the economic importance of quarries. Reference is made to environmental implications and the potential for environmental effects across a wide range of topics, which need to be taken into account in the assessment of applications for proposed quarries and/or expansion of existing quarries. The potential impacts identified include noise, vibration, dust impacts, traffic volumes, safety and effects on the capacity of road networks, waste management, impacts on water quality and supply as well as groundwater levels, effects on natural heritage, cultural heritage and landscape and visual amenities.

5.9. Kilkenny County Development Plan 2021-2027

Chapter 7 – Rural Development – sets out planning policy in relation to inter alia agriculture, forestry, diversification and the extractive industry.

7.5 Extractive Industries - The Council recognises the importance of extractive industries to the local and national economy as valuable sources of raw material for industry in general and the construction industry in particular and as an important source of employment. However, it also recognises that the industry can have serious detrimental impacts on the landscape and amenities generally, including traffic generation, vibration, dust, noise, water pollution and visual intrusion.

7.5.1 Aggregate Potential Mapping (APM) – it is noted that APM has been carried out for the county and that this has identified both the Granular Aggregate Potential and the Crushed Rock Aggregate Potential. It is stated that because the extraction industry is a very significant industry serving the construction, industrial and energy sectors, it is important to facilitate development with due regard to mineral reserves so that inappropriate development does not impinge on the viable exploitation of the resource. The Council will have regard to the APM in assessing applications for non-extractive industry related in areas in close proximity to existing sites or significant resource potential where such development would limit future exploitation.

7.5.2 Development Management Requirements – Regard will be had to the various guidelines, policies and standards relating to the extractive industry. It is a requirement that development would adhere to the ***EPA Guidelines - Environmental Management in the Extractive Industry.***

Development proposals will also be required to comply with the following –

- The rehabilitation of all workings which may require phasing such that one phase is rehabilitated before commencing another. A restoration plan will be required to be submitted with each application together with the manner and timing of restoration.
- The Council will seek to minimise environmental and other impacts of mineral extraction through rigorous application of licensing, development control and enforcement requirements for quarry and other associated developments including, but not limited to, consideration of visual impacts, methods of extraction, noise levels, dust prevention, protection of ground and surface waters, impacts on residential and other amenities, impacts on the road network (particularly with regard to making good any damage to roads), road safety, phasing, re-instatement and landscaping of worked sites.
- The Council will ensure that any extractive development does not significantly impact on existing public rights of way, walking routes, or tourist or recreational activities.

- The Council will consider the current land/quarry resource of the applicant and may seek that current quarries are restored before new sites are developed.

5.10. Natural Heritage Designations

Lower River Suir SAC (002137) c.1.5km to SE

River Barrow and River Nore SAC (002162) c.12km to East

pNHA Grannyferry (000833) c. 2.3km to the East

pNHA Lough Cullin (000406) c.5.5km to NE

pNHA Lower River Suir (Coolfinn, Portlaw) (000399) c.6km to West

pNHA Fiddown Island (000402) c.9km to NW

pNHA Barrow River Estuary (000698) c. 12km to East

5.11. EIA Screening

5.11.1. Legislative requirements:

Schedule 5, Part 1 of the P&D Regulations 2001 (as amended) requires EIA for the following developments:

Class 19 - Quarries and open-cast mining where the surface of the site exceeds 25 hectares.

Class 22 – any change or extension of projects listed in this Annex where such a change or extension in itself meets the thresholds, if any, set out in this Annex.

Schedule 5, Part 2 of the P&D Regulations 2001 (as amended) requires EIA for the following developments:

Class 2(b) - Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares

Class 13(a) - Any change or extension of development already authorised, executed or in the process of being executed (not being a change or extension referred to in Part 1) which would:-

(i) result in the development being of a class listed in Part 1 or paragraphs 1 to 12 of Part 2 of this Schedule, and

(ii) (ii) result in an increase in size greater than –

- 25 per cent, or

- an amount equal to 50 per cent of the appropriate threshold,

whichever is the greater.

5.11.2. The existing quarry landholding covers an area of c. 62.07ha and has a permitted extractive surface area of 27ha. The EIAR (1.9.2) states that the Quarry Site contains a proposed extraction area of c.6ha which can be further divided into 3.4ha of the permitted extraction area and 2.6ha of additional lands. It is further stated that as the extension of the quarry to the east will result in a total extraction area / exposed quarry surface of ca.29.6ha, the proposed extension, considered by itself, would not constitute an activity that would require a mandatory EIAR under Part 1 of Schedule 5.

5.11.3. It is considered that the proposed development represents an extension of an authorised development, whereby the size of the extension is less than the threshold specified in Class 2(b) of Part 2 of Schedule 5, i.e. 5ha. However, the extension would increase the extraction area by c.52% of the threshold (2.6ha), and as such the proposed development is considered to be subject to EIA by virtue of Class 13(a) part (ii) of Part 2, Schedule 5.

6.0 The Appeal

6.1. One third party appeal has been submitted from David Williamson and Claire Buckley on the 5th February 2025.

6.2. Grounds of Appeal

The grounds of appeal may be summaries as follows:

- **Proximity of Proposed Quarry Extension to appellant's dwelling** – the proposal to extend the quarry will bring extraction activity to within 280m of their dwelling and 310m of the estate of the Late Denis Buckley. The existing quarry gives rise to unacceptable injury to residential amenities in terms of regular blasting, vibration and noise and dust emissions. The proposed extension would result in further loss of amenity and devaluation

of their properties. This is contrary to the policies of the Kilkenny County Development Plan 2021-2027 which seeks to minimise environmental and other impacts, including impacts on residential amenities.

- **Direction of extension and prevailing wind direction** – the vein of rock which is to be extracted would extend in the direction of their dwellings and a 20-year permission is being sought. Concern is expressed regarding the quarry workings moving progressively closer to their dwellings with a consequential increase in noise, dust and vibration levels. In addition, in 20 years' time, the applicant may wish to continue workings in this direction, which would bring the workings even closer to their dwellings. The prevailing wind is predominantly from the south-west which exacerbates to impacts on their properties. No amount of mitigation can alter this fact or provide adequate mitigation.
- **Inadequacy of EIAR** – the Impacts on Human Beings, as set out in Chapter 5 – Population and Human Health – makes no reference to the location of the appellants' properties or to the potential impacts on their residential amenity and human health. This means that the EIAR is technically flawed.
- **Inadequacy of Natura Impact Statement** – the NIS submitted with the application is flawed and fails to address the potential effects on the conservation values of the qualifying interests of the Lower River Suir SAC. It does not meet the Kelly threshold (paragraph 44 of CJEU Case 258/11) which states

  > "So far as concerns the assessment carried out under Article 6(3) of the Habitats Directive, it should be pointed out that it cannot have lacunae and must contain complete, precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned."

  The applicant has submitted a vast AA Screening Report which concluded that the development could not be screened out, but the NIS is only 3.5 pages in length. The NIS only assesses the impacts on water quality and not on the qualifying interests of the SAC.

It is submitted that there is considerable scientific doubt remaining as to the potential effects upon the qualifying interests of the SAC, since no assessment has been made on the conservation objectives of these following the proposed mitigation measures.

- **Devaluation of property** – the appellants' have engaged an auctioneer to value both of their properties in the current situation and following the implementation of the proposed development. This valuation clearly demonstrates a significant devaluation of their property values and the proposed development would therefore have a significant effect on the material assets in the area and on residential amenity.

6.3. Applicant Response

1. **Proximity of proposed quarry extension to residential dwellings** – this issue was addressed under several headings relating to potential impacts on residential amenity as follows

    - **Dust** – the main potential impacts are identified as airborne particulate matter (PM_{10}) and nuisance dust deposition (disamenity dust).

      Disamenity dust – the risk assessment, which was completed in accordance with Air Quality Management Guidance, sought to determine the risk of impact from dust soiling on receptors in the vicinity, within 400m from the site boundary. This included to two dwellings owned by the appellants. It followed the source-pathway-receptor model. The assessment quantified the likely emissions from the source (i.e. dust generating activities), identified the pathway effectiveness (frequency of wind greater than 5.5 m/s) and determined the distance / orientation of receptors to the source.

      The analysis found that at seven of the eight properties assessed, there was a low risk of dust soiling occurring in the absence of mitigation. The potential dust soiling at these receptors had the potential to have a slight adverse effect and therefore, a number of site-specific mitigation measures were identified in the EIAR. Mitigation measures included installation of sprinklers, the use of water cannon during crushing, and

a new wheel wash. It is considered that these measures will ensure that existing and future emissions of disamenity dust from the proposed development will be suitably controlled and will reduce the impacts at these receptors from low to negligible.

Particulate Matter (PM_{10}) – The IQAM states that if the long-term background PM_{10} concentration is less than 17µg/m3, there is little risk that the process contribution would lead to an exceedance of the annual mean objective. The most recent two-year average of background PM_{10} concentration for Zone C is 13.2µg/m3. The predicted environmental concentration of PM_{10} from the proposed development is 28.2µg/m3 which is below the annual mean objective of 32µg/m3. As such there is little risk of the annual AQS limit being exceeded and no further consideration of the risk posed by ambient PM_{10} concentrations is warranted.

- **Noise** – the noise assessment was completed in Chapter 11 of EIAR in accordance with acoustics standards and guidance documents and sought to determine the likely change in the acoustic environment as audible at sensitive receptors. It also sought to identify the likely site-specific noise emissions audible at Noise Sensitive Receptors (NSR) against standard limits for noise nuisance from quarries. All residential dwellings in close proximity to the extraction area, including the appellants' dwellings were listed as NSR's.

  The predicted worst case construction noise levels at 59dB $L_{Aeq\ 1hr}$, was noted as being below the typical construction noise nuisance limit of 65dB $L_{Aeq\ 1hr}$ in the British Standard BS5228-1[2]. The operational noise assessment found that 5 NSRs had a slight local effect with a predicted change on ambient backgrounds of +3 to +3 dB. The proposed development will therefore be potentially audible at these NSRs. However, the character of the noise would be similar to that of the existing noise presented locally as the same machinery and plant will be used. As the works progress for each bench, the noise would be reduced at NSRs due to the increasing relative height of noise sources to the berms, cliff face and NSRs. It is predicted that the operational

noise level will be below the noise nuisance limit of 55 dBA $L_{Aeq\ 1hr}$ at sensitive receptors as set out in the EPA Guidance and in Condition 9 of planning permission 16/700. Noise during restoration works was not predicted to be significant.

Noise mitigation is presented in the EIAR. Following implementation of these measures, the effects of noise from construction, operational and restoration noise were all determined to be not significant. The applicant will facilitate monitoring directly from an NSR, if requested by the owner.

- **Vibration** – A vibration assessment was completed in Chapter 11 of the EIAR in accordance with acoustic standards and guidance documents, which sought to determine if the proposed development would be compliant with the blast limits at sensitive receptors as issued by the EPA and ICF and presented in Condition 11 of planning permission 16/700. All residential dwellings in proximity to the extraction area were considered to be sensitive receptors including those of the appellants.

  The construction vibration assessment determined that vibration during the construction phase would be negligible. Operational stage vibration will arise during quarry phase blast events. However, the operational vibration assessment determined that the potential risk zone extends approximately 150m from the extraction area. There are no occupied residential dwellings within this buffer zone. In addition, design methods to reduce ground-borne vibration will be implemented and blast monitoring (air over pressure and vibration monitoring) will continue as the closest NSRs to the proposed blast event. Following implementation of these mitigation measures, the effects from operational vibration were determined to be not significant. No vibration impacts on NSRs were likely during the restoration phase.

  The applicant has included two additional monitoring locations which would provide sufficient evidence that blasting limits will not exceed limits set out in Condition 11 of planning permission 16/700 during the operational phase of the proposed development. If any sensitive

receptors, including the appellants, request monitoring at their property the applicant will facilitate this.

- **Landscape and visual** – An LVIA was completed in Chapter 12 of the EIAR. Viewshed Reference Points (VPRs) were used to study the visual impacts of the proposed development at selected locations. VPR2 is located along the local road to the east of the site in Granny and is outside/in close proximity to the appellants' properties. The description and magnitude of the visual impact at VPR2 was stated as follows:

  > *A portion of the proposed screening berm along the easternmost part of the perimeter of the site will be identifiable to the left of the existing agricultural buildings. It will marginally alter the contour of the landform, but this is unlikely to be noticeable to a casual observer. The berm will be vegetated, and once established, it will be challenging to differentiate from the adjoining agricultural fields. Thus, it is not anticipated that this will detract from the visual amenity at this location. Therefore, the magnitude of the effect is deemed to be negligible.*

  The view shown in Photo 2 of the third-party appeal depicts existing infrastructure within Kilmacow Quarry, which is permitted under planning permission 16/700. The views of the proposed extension area (marked by a red line in Photo 2) appear to be obscured by vegetation. The screening berm and associated planting presented in the EIAR and described above are considered suitable mitigation measures to protect the visual amenity at this location.

- **Human health** – it is submitted that Chapter 5 of the EIAR - Population and Human Health - has been completed in accordance with the EPA guidelines, which require assessment of impacts under this topic to refer to those factors under which human health effects might occur. Potential effects on Population and Human Health, quality of life, impacts on residential amenity, have been considered in various chapters of the EIAR.

2. Direction of Extension and Prevailing Wind Direction

The direction of extension is based on the findings of the GSI Aggregate Potential Mapping, which identified the presence of 'very high potential' crushed rock aggregate within the site boundary. In addition, the proximity to a well-established quarry with suitable infrastructure, makes these lands an important strategic reserve capable of serving the county's development goals. The EIAR has taken full cognisance of the potential effects of the eastward extension of quarry activities on sensitive receptors and there are no proposals to extend beyond the red line boundary.

The influence of wind direction has been considered throughout the disamenity dust and suspended dust risk assessments. A windrose diagram was constructed to determine the potential influence of wind direction and speed on airborne dust particles and the meteorological data consisted of five years of data (2018-2022 inclusive). It is submitted that the influence of wind direction on dust effects on sensitive receptors has been assessed in the EIAR (Chapter 9).

3. Adequacy of the Natura Impact Statement

AA Screening Assessment (Stage 1) – this assessment sought to determine the Zone of Influence (ZoI) of the proposed development for each environmental aspect (e.g. Air, Water, Noise) and the presence/absence of a source-pathway-receptor link from the site to European sites. The following findings were made:

- Habitat loss- There will be no direct habitat loss as a result of the proposed development as the site is not located within any European sites.
- Hydrological connection - There is a hydrological connection between the site and two European sites: Lower River Suir SAC and River Barrow and River Nore SAC. These European sites are located c. 1.3km and c. 13.8km from the site.
- Potential water quality effects – the ZoI was determined to be the receiving waterbodies adjacent to and downstream of the site within 5km. This was on a precautionary basis and the true ZoI is likely to be smaller due to the dilution effects of the waterbody. The Lower River Suir SAC is within the 5km ZoI, and as such it was screened in.

- Potential effects from construction and mineral dust – no European sites were located within the ZoI (50m and 400m, respectively), and were screened out.
- Potential effects of noise disturbance – ZoI was determined to be within a 300m buffer. There are no European sites within the ZoI. The potential for designated species, such as otter, to commute into this ZoI from the SAC was ruled out as the Flemingstown Stream is not considered suitable for this species. No other species were identified and noise disturbance effects were dismissed.
- Lower River Suir SAC – screened in for further assessment with a specific focus on water quality impacts and the existing hydrological connection.

Natura Impact Statement – an assessment was undertaken of the potential risks of water quality impairment and the likely significant effects on each of the Qualifying Interests of the Lower River Suir SAC. Four habitats and six species were identified as potential receptors as follows:

Atlantic salt meadows

Mediterranean salt meadows

Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho Batrachion vegetation

Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

Otter

Salmon

Sea lamprey

River lamprey

Twaite shad

White-clawed crayfish

Mitigation measures were proposed which included measures to ensure the prevention of the release of suspended sediments and hydrocarbons during the construction and operational phases. It was concluded that following implementation of these mitigation measures, the proposed development would not have any adverse effects on the water quality of the Middle Suir Estuary and as such, there would be no significant likely effects on the qualifying interests within the Lower River Suir SAC.

The findings of the NIS were that the proposed development would not, either alone or in combination with other plans or projects, adversely affect the integrity or conservation status of any of the qualifying interests of the Lower River Suir SAC or any other European site in light of best scientific knowledge. It was further stated that no reasonable scientific doubt exists in relation to this conclusion and therefore the NIS is compliant with the Kelly threshold set out in paragraph 44 of CJEU Case 258/11

4. **Devaluation of properties**

The valuations provided by the appellants differ markedly from the 'Property Valuation Guide' provided by Revenue. The assessment of "a significant loss of value or even worse could result in the property being deemed unsaleable in the future" makes no differentiation between the two properties, suggesting that regardless of the distance or orientation, the same effect would be felt at both properties. It is submitted that these claims are completely baseless with no regard for the significant amount of evidence presented as part of the planning application and subsequent response to the RFI.

The submitted valuations appear to have no regard for the long history of quarrying in the area. Extraction at Kilmacow Quarry dates back to at least 1971, which is over 20 years prior to the construction of one of the dwellings. Since 1971, several quarry extensions have been granted with the latest permission granted in 2017 under planning reference 16/700. No evidence of property devaluation as a result of previous extensions to the quarry has been supplied as part of the third-party appeal. It is also noteworthy that the 'Property Valuation Guide' is unchanged in the Small Area where the quarry is currently situated. Given the conclusions of the valuation submitted by the applicant, however, one would expect a sharp decline in the valuation guide.

6.4. Planning Authority Response

A response to the grounds of appeal was submitted by the P.A. on the 28th February 2025. The main points may be summarised as follows:

- **Impacts on residential amenity** – it is pointed out that the P.A. undertook assessments of air, dust, noise, vibration and blasting as part of the overall assessment, including that contained in the EIAR, and considered such acceptable. In addition, such matters are subject to conditions of the previous permission 16/700 which will be continued as part of the current proposal.
- **Precedent** – any future applications will be considered on their own merits.
- **Omission of appellants' properties** – this is disputed as both dwellings have been included in the assessment of effects throughout the EIAR.
- **Population and Human Health** – the alleged failure to include the appellants' properties is refuted. Nearby residential properties, including the appellants, are acknowledged in sections 5.3.4, 5.3.6 and 5.3.6.1. The overall sensitivity of the population to resulting impacts was deemed to be low (Table 5-8). Human health impacts are assessed in 5.4.2 and health and safety in Chapter 5. It was concluded that residual effects in terms of human health would be imperceptible to not significant.
- **Water (Hydrogeology and hydrology)** – EIAR Chapter 8 provides a description and assessment of the potential likely effects of the proposed development on the receiving water environment. It is pointed out that the sampling results from the Flemingstown Stream indicated that the suspended solids were well below the required standards and that concentrations of nitrate, phosphorous and orthophosphate were all below the laboratory detection limits. It was further noted that discharges from the quarry will continue to be passed through adequately sized settlement ponds and a hydrocarbon interceptor. Discharge quality and volumes are and will continue to be monitored at the discharge points and it is considered that there is no current requirement to review the existing discharge licence.

  It was noted that there would be no change in the quantitative (volume) or qualitative (chemical) status of any groundwater body or surface water body. As the Flemingstown Stream and the Middle Suir Estuary transitional waterbody are of 'poor' and 'moderate' status respectively, it was

considered that the proposed development would not prevent this waterbody from achieving 'Good' status in the future, as demonstrated by the quarry discharge water quality monitoring.

- **Air quality** – It is noted that Fig. 9.3 and subsection 9.3.5 of Chapter 9 of the EIAR shows current dust monitoring locations which includes D3, which is proximate to the appellants' properties. In addition, the appellants' properties are included in Section 9.3.6 (Table 9-5) which identifies sensitive receptors. It was considered that existing tree and hedgerow cover to field boundaries as well as proposed screen planting will provide some degree of screening from fugitive dust emissions. It is considered that the air quality impacts have been identified, described and assessed for the construction and operational phases and following the implementation of the proposed mitigation measures, are not likely to give rise to significant effects on the environment.
- **Acoustics (Noise, Vibration and associated disturbances)** – noise impacts are considered in Chapter 11 of the EIAR. It is stated that operational noise impacts are already controlled by Condition 9 of 16/700, with the above limits inclusive of necessary adjustments to account for tonal or impulsive character in the noise. It is noted that the construction and operational noise levels are currently within the limits set by the condition and are predicted to be within these limits at the NSRs, including the appellants' properties. It was pointed out that only the initial bench (i.e. working pit floor of 15mOD) has been modelled, whereas the works will progress downwards with a corresponding reduction in noise levels emitted from the site, due to the increasing relative height of noise sources to the berms, cliff face and NSRs.

  It was noted that air over pressure and vibration are emitted from the source blast in predominantly low frequencies, therefore both are predominantly sensory rather than audible. It was pointed out that monitoring of vibrations includes a location close to the appellants' properties. Construction vibration was not considered likely to extend over distance to the nearest receptors due to the agricultural characteristics of the land. There are established procedures for operational blasting and

based on blasting during previous operations, it was considered that this was a good representation of future predicted blast events, as the site setting and procedures remain the same, and the same limits will apply. The proposed 150m buffer was considered to be appropriate.

- **Landscape and visual impacts** – in reference to the LVIA in Chapter 12 of EIAR, it is considered that the proposed development would be largely underground and hence would not significantly affect views from either appeal property. Viewpoint 2 demonstrates that the impact would be 'imperceptible' and it is noted that the sensitivity of the receptor is Medium-Low. It is further noted that the quarry berm will be vegetated and once established, it will not be easily differentiated from the adjoining agricultural fields. Thus, it will not detract from the visual amenity at this location.
- **Traffic and Transport** - Chapter 13 addresses the additional traffic impacts on the L7434, which serves both the quarry and the appeal properties. It is not proposed to increase current extraction rates and quarry traffic, including HGVs, would not travel close to the appeal properties, as they would turn off much earlier. Hence, there would be no significant impacts as there would be a very slight increase in other traffic to this section of the local road. To reflect this scenario, the traffic modelling assessment undertaken is based on the quarry facilitating 250 loads per day, which is an additional 125 loads above the average rate, the highest possible rate of extraction that is likely to be experienced. Traffic and transport assessment is included in the EIAR appendices.
- **Restoration** - it is noted that following cessation of quarrying activities, the site will be decommissioned within a three-month period with boundary fencing erected to prevent unauthorized access.
- **Wind direction** – this matter was considered in the assessment. It is acknowledged that the prevailing wind is in the direction of the appellants' properties, but this is not considered to be so substantial as to significantly worsen residential amenity impacts over and above the existing operations.
- **Inadequacy of NIS** – it was considered that the qualifying interests of the Lower River Suir SAC were identified as the sensitive receptors, and that

any significant impacts on these QIs are likely to be in terms of water quality only. It was considered that with mitigation, it is unlikely that there would be significant effects on the Qualifying Interests of the SAC.

- **Depreciation of property values** - as a substantial quarry is already in operation at this location, an additional impact on property value arising from the extension alone is unlikely to be material. With regard to residential amenity impacts it is noted that material considerations have been addressed as part of the response outlined above in respect of blasting, vibration, noise, dust emissions, landscape and traffic.

6.5. Observations

No observations have been received on the grounds of appeal.

7.0 Assessment

I consider that the issues can be addressed under the following headings:

- Principle of development
- Residential amenity
- Adequacy of EIAR
- Adequacy of NIS
- Other issues

7.1. Principle of Development

Policy context

7.1.1. The national and regional policy framework emphasises the economic importance of the country's mineral resource and of the development of quarries in appropriate circumstances, particularly in respect of supporting the construction industry. The ***Revised NPF*** (RNPF) highlights the importance of the supply of aggregates and construction materials to a variety of sectors and states that extraction will continue to be enabled where it is compatible with the protection of the environment and community amenities. ***NPO30*** embodies this commitment in

seeking to facilitate the development of the rural economy through supporting sustainable and economically efficient agricultural and food sectors, together with forestry, fishing and aquaculture, energy and extractive industries in a manner consistent with national climate objectives …. while at the same time noting the importance of maintaining and protecting biodiversity and the natural landscape and built heritage which are vital to rural tourism.

7.1.2. The RNPF encourages facilitation of continued extraction of aggregates and minerals where this is compatible with the protection of the environment, and where appropriate rehabilitation is provided for. It also notes the importance of maintaining a supply chain of Critical Raw Materials as well as the need to transition to a circular economy by minimising waste, maximising waste as a resource and increasing recycling.

7.1.3. The ***Kilkenny County Development Plan 2021-2027*** recognises that aggregate resources contribute significantly to the economic development of the county and seeks to facilitate its further development. However, it is acknowledged that the exploitation of such resources is required to be carried out in a manner that does not adversely impact on the environment, existing infrastructure and the amenity value of neighbouring lands. The P.A. states that it will have regard to Aggregate Potential Mapping and seeks to protect the natural mineral resources. In addition, it will seek to minimise environmental impacts from extraction in terms of impacts on the landscape, residential amenities, traffic generation, vibration, dust, noise, water quality and visual intrusion.

7.1.4. Although the relevant statutory development plan is the current Kilkenny County Development Plan 2021-2027, the site also falls within the ***Waterford Metropolitan Area Strategic Plan*** as it is located within 5.5km of Waterford City. In this respect, it is noted that both the RSES and the current Waterford City Development Plan (2022-2028) seek to deliver a future for the city recognising its role as a Regional City and to be a dynamic, concentric, modern European city of scale and significance. Objective ECON 13 of WCCDP seeks to facilitate farm or rural resource related enterprises including mineral and aggregate extractive industry.

7.1.5. The need for the development is set out in Chapter 2 of the EIAR. It is noted that the fulfilment of local, regional and national policy will require substantial quantities of raw materials including aggregates. Reference is made to the Irish Concrete Federation's report entitled "Essential Aggregates: Providing for Ireland's Needs to 2040", which emphasises the importance of identifying and protecting Ireland's strategic reserves of aggregates and aggregate based products and ensuring that their use is enabled in a sustainable manner.

7.1.6. In terms of the proposed expansion of the Kilmacow Quarry, it is noted that an important limestone resource of a very high quality has been identified at this location in the GSI Aggregate Potential Mapping, which would be considered an important raw material source. It is further noted that the established quarry at Kilmacow includes the use of existing infrastructure for extraction, crushing and screening of aggregate and existing plant for the processing and re-use of C&D waste and the recycling of asphalt and other materials within the overall quarry.

Nature and extent of proposed development

7.1.7. The Kilmacow limestone quarry was established in 1971 and was granted permission for extensions and alterations at various points in time between 1977 and 2016, including the installation of ancillary infrastructure. The quarry was subject to a S261 Registration in 2005. Permission is sought for an extension of the existing extraction area within a larger landholding of c.62.07ha, which includes a long-established quarry. The existing permitted working area is c.27ha and extends down to -45mOD (which is c79m below the existing ground level of +34mOD). The site of the proposed development covers an area of 10.3ha, extending from the established quarry into the greenfield lands owned by Mr. Clohessy. However, the site area includes part of the existing extraction area (3.4ha), in order to provide for a seamless extension. It is proposed to extend the footprint of the current extraction area laterally by c.2.6ha in an easterly/north-easterly direction resulting in a new quarry floor area of c.6ha. It is proposed to complete 5 benches (each 15m high) to reach the already established level of -45mOD.

7.1.8. The proposed extension into the adjoining agricultural lands would include a small section (0.95ha) of a farmyard in Mr. Clohessy's ownership and would necessitate

the demolition of some small outbuildings, but the farmyard would remain intact and would be vacated and fenced off. It will operate within the permitted output rates established by the previous permissions of 700,000 – 1,000,000 tonnes per annum pending market conditions. The estimated reserve is 2,920,000m³ or 7,592,000 tonnes of aggregates within the proposed extraction area of approx. 6ha. The proposed activities would involve blasting, extraction and processing of rock using the established quarry infrastructure including the entrance, haul routes, office, welfare facilities, weighbridge and associated secondary processing plant and machinery. Blasting is likely to take place once a week. Extraction will take place above and below the groundwater table, as is presently the case in the established quarry. Permission is being sought for 20 years, and a restoration plan would be put in place following completion of extraction.

Previous decisions

7.1.9. Roadstone was granted planning permission in the 1970s and has secured several planning permissions in the meantime for extensions and alterations, as summarised at 4.0 above. The permitted extraction area in the most recent permission relating to extractive activities (16/700) was c.27ha with a depth of -45mOD, achieved in 5 benches of 15m height each. Permission was also granted (16/700) for continuation of all of the quarrying activities including stripping of overburden, stockpiling, blasting, crushing and processing of material etc. for a further period of 15 years, which would extend activities until the 1st May 2032. A subsequent permission (16/830) granted permission for a concrete plant, asphalt plant and associated recycling plants within the quarry also with an expiry date of 1/5/32. Prior to this, permission was granted (15/31) for an inert C&D waste recovery facility within the quarry area. It is noted that the current proposed development will utilise the infrastructure and facilities permitted under 16/700 and the method of extraction and drainage arrangements will essentially remain unchanged. In addition, most of the noise/dust/vibration emission limits, max. daily HGV/LGV trip rates, employee numbers permitted under this permission will also apply to the current proposal. The restoration plan is essentially the same but has been updated to include the site.

7.1.10. *In conclusion*, the principle of quarrying, including blasting, crushing, screening and processing of aggregates, at this location is well established by the previous

permissions granted by the P.A. and the Board. The quarry produces a variety of products including a range of aggregates, readymix concrete, concrete blocks and blacktop. It will utilise existing infrastructure, will keep within the annual output rate and will use the same quarry entrances from the south (L7434) and north (L7434 and L7433) and the same methodology of extraction, crushing and processing will be involved. There will be no additional facilities provided on site and no additional staff will be employed, with no additional traffic generation.

7.1.11. It is considered that quarrying activity is, therefore, a well-established land-use in the overall area and can be carried out without unduly interfering with the rural character of the area, provided that the environmental impacts are adequately controlled. The site is not located within a High Value Landscape. Given the nature of the undulating agricultural landscape and the relatively flat topography in the vicinity of the site, and as it is set back a considerable distance from the public roads, the existing quarry is not readily visible from the surrounding countryside. The mineral resource within the site has been identified in the GSI mapping as being of a very high quality and is a valued limestone resource.

7.1.12. The proposed lateral extension of the quarry would be within the immediate surroundings of the existing extraction area. Having regard to the nature and character of the surrounding area, and in light of the planning history associated with the site and the policy framework for the extractive industry, it is considered that the proposed development would be acceptable in principle. However, in addition, regard must be had to other policy considerations, notably those pertaining to landscape, biodiversity and protection of the community and of the environment. Site specific issues relating to these matters will be considered in the following sections.

7.2. **Residential amenity**

7.2.1. The appellants raised concerns regarding the impact on their residential amenities due to the proximity of the proposed quarry extension to their properties, the direction of the extension and the prevailing wind direction. It was contended that the proposed development would have a significant and detrimental impact on

their property values. The main impacts on residential amenity were considered to arise from noise, vibration, dust and visual intrusion.

7.2.2. The first party, in its response, summarised the assessments carried out as part of the EIAR on each of these impacts and the findings. It was pointed out that the assessments were carried out in accordance with the relevant guidance. In the case of each of these impacts, it was noted that the current baseline was within the limits set out in the relevant guidelines and in accordance with the limits set out in planning permission 16/700. Furthermore, it was stated that following the implementation of mitigation measures as proposed, the residual impacts on the surrounding environment would not be significant. The planning authority, in its response, made similar points and concluded that there would be no significant impacts arising from the proposed development following the implementation mitigation and the conditions of the permission as set out in its decision.

7.2.3. Both the planning authority and the first party pointed out that the appellants' properties were included in the analysis and assessment of impacts. I would agree that this is the case, as the nearest sensitive receptors, viewpoints and monitoring points all included points in close proximity to the appellants' properties and could therefore be considered as representative of the impacts from these locations.

7.2.4. Dust, noise and vibration - The activities that will take place during the construction, operation and restoration of the extension to the quarry will result in the generation of dust, noise and vibration impacts. The surrounding land use is predominantly agricultural with a mixture of arable farming and grazing, which also generates noise and dust from the use of machinery associated with agricultural practices. Thus, the baseline environment is a working landscape which has been the subject of manmade intervention over the years.

7.2.5. The Board should note, however, that the existing quarry, which has been established at this location since the early 1970s, is a very substantial operation extending over a considerable footprint and to a depth of -45m OD. It also contains a significant amount of established infrastructure including primary and secondary screening plant, a concrete batching plant and an asphalt plant. Thus, the level of activity existing at the site at present is considerable. Notwithstanding this, the quarry seems to operate in an efficient manner with a very high degree of

compliance with the emission limits for dust, noise and vibration levels set by the various permissions granted over the years, as demonstrated by continuous monitoring of properties in the vicinity. The quarry is not particularly visible in the landscape as it is set well back from the public roads and is screened by tall, mature and dense landscaped berms. These berms provide not only visual screening but help to mitigate the effects of dust, noise and vibration.

7.2.6. The background concentrations of suspended dust (PM_{10}) are below the relevant thresholds, and the proposed development is not predicted to result in any breaches of the annual mean objective for Zone C (AQS). The assessment of disamenity dust found that seven of the eight properties assessed were at a low risk of nuisance dust, and with mitigation as proposed, this reduced to 'not significant'. The noise and vibration levels are currently below the recommended thresholds in the guidance and the limits set by the permission 16/700. It is not anticipated that the noise and vibration emission limits will be exceeded at the nearest sensitive receptors, once mitigation is implemented as proposed. It is further noted that at present, the fact that the large stationary screening plant is located within the quarry pit, means that the noise, vibration and dust emissions are substantially contained within the void and therefore, as the quarrying operation progresses, the effects of these emissions on the surrounding environment will reduce accordingly.

7.2.7. It is considered, therefore, that although the extraction area will move physically closer to the receptors, the nuisance levels from noise, dust and vibration will not necessarily be increased at these locations. This is because the quarry operators will be required to comply with the same dust, noise and emission limits as at present, the rate of extraction will remain the same and as such, these impacts will remain largely unchanged. These limits were mainly set by Permission No. 16/700, (which also established much of the monitoring regimes that are currently in place), and compliance is specifically required with the same emission limits. The methodology, equipment used and nature of the activities will also remain the same and there will be no additional traffic generated, with the same access point being used. The impacts arising from the proposed development will also be subject to continuous monitoring and reporting, with corrective action being required in the event of any breaches of the limits. The established berms will also

be largely retained and enhanced/supplemented by new berms. Thus, the impact of the proposed development on residential amenities of the surrounding area by reason of noise, dust and vibration is not considered to be significant.

7.2.8. Direction of extraction - The direction of quarry extension is justified on the basis of the presence of the aggregate at this location. The applicant has relied on the GSI mapping of potential aggregate, which is the recommended approach in the Development Plan and in national policy. However, once the reserves associated with the current application have been exhausted, the applicant would have to make a further application to continue any extraction in this direction. Any such planning application would have to be considered on its merits and in accordance with planning policy that would be in place at that time. It is not accepted, therefore, that a grant of permission for the current proposal would create a precedent in this respect.

7.2.9. Prevailing wind - The prevailing wind direction is from the southwest towards the northeast, which is in the direction of the appellants' properties. It is noted that the wind direction has, however, been taken into account in the modelling of dust impacts. A windrose diagram was constructed to determine the potential influence of wind direction and speed on airborne dust particles and the meteorological data consisted of five years of data (2018-2022 inclusive).

7.2.10. Given that the existing background concentration of dust particles is low and not expected to exceed the recommended limits and that the risk of disamenity dust was also found to be low, it is considered that notwithstanding the wind direction and the fact that the activities would move closer to the appellants' properties, it is unlikely that these receptors would experience increased impacts. As stated previously, this is primarily due to the fact that there will be no increase in the rate of extraction or number of HGV trips, the operators of the quarry will be required to adhere to the same emission levels as currently in place and the mitigation measures and monitoring regime are to be intensified and expanded. The impacts from the proposed development, notwithstanding the prevailing wind direction, would not therefore be significant.

7.2.11. Proximity and visual amenity - The appellants have included a photograph (Photo 2) which is stated to be from one of their properties (X91 X3N8) looking west

towards the site of the proposed quarry extension. The photo gives the impression of being from ground level. However, on my site inspection, I noted that this property is enclosed by a masonry wall and gates and by mature tree and hedgerows. The screening of the house was so effective that I was unable to obtain a view of the façade from the public road. It is acknowledged that the views from the house towards the quarry itself may be less affected by the screening effect of the on-site landscaping. Nevertheless, the site of the proposed extension is located c.280m to the southwest, with intervening hedgerows and farmland, which is likely to mitigate the visual impacts from the appellants' property.

7.2.12. The existing Kilmacow Quarry is currently screened from this location by the intervening Clohessy farm with its established mature hedgerows along the roadside. The only views available from the public road towards the site of the proposed extension were through a farm gate, with the existing fields in the foreground. Parts of the quarry infrastructure are visible in the distance but the existing electricity pylons which traverse the farm and quarry area are also dominant features in the landscape.

7.2.13. The existing landform is gently undulating and comprises large fields separated by hedgerows. The proposed development is likely to change the landform beyond the immediate fields but the effect of this would be to remove the hedgerows and replace them with landscape berms. I would agree with the first party that it would be quite difficult to differentiate between the hedgerow and berms at this distance and given the intervening vegetative screening provided by the hedgerows and tree lines. The other property further to the south (X91 TR99) is located c.310m from proposed development and although closer to the public road, is also screened to some extent by the vegetation on the Clohessy farm. The hedgerows along the roadside opposite these houses and another house further south again, (X91 N7P4) are mature, tall and dense, thereby providing very effective visual screening. I would not accept, therefore, that there would be any significant adverse impact on views from the appellants' properties.

7.2.14. Depreciation of property values - it is noted that the applicant had stated that the values quoted by the Estate Agent were markedly higher than the values cited on the Revenue's Valuation Guide. I note that the Valuation Band 2 cites values of between €200,000 and €262,000 for an average house in that area. The values

assigned by the estate agent for X91 X3N8 and X91 TR99 seem to be considerably higher by many factors at €1.5 million and €700,000, respectively. It is acknowledged that the Revenue guide is for an average house and not an individual valuation. Notwithstanding this, the quarry has been established at this location since the 1970s and has been a sizeable operation for several decades. The presence of the quarry is likely to have been a factor in any valuation with or without the proposed extension and it is difficult to accept that the proposed extension would result in a material devaluation of these properties.

7.2.15. *In conclusion*, it is considered that having regard to the nature and scale of the current operation of the quarry which is largely complaint with established emission limits, to the nature of the surrounding landscape and land uses and to the nature and limited scale of the proposed quarry extension, together with the proposed mitigation and monitoring measures to be put in place, the proposed development will not result in significant impacts on the residential amenities of properties in the vicinity of the site.

7.3. **Adequacy of EIAR**

7.3.1. The appellants consider that the EIAR is inadequate and technically flawed in terms of how it addressed the issue of impacts on human beings and in particular, on human health. Specifically, it is alleged that Chapter 5 of the EIAR (Population and Human Health) has not sufficiently described the impacts on human beings and no reference has been made to the location of their properties and the potential impacts on their residential amenity and human health. It is claimed that "instead, there is an attempt to refer to other chapters of the EIAR whilst skirting over this issue".

7.3.2. In the first instance, the first party and the planning authority have stated that the appellants' properties were included in the assessment. I would agree with these views as both properties are referenced in the EIAR throughout the assessment of the various environmental factors and the proposed monitoring stations are in close proximity to the appellants' properties.

7.3.3. The first party has responded to the claims regarding the inadequacy of the EIAR by quoting the EPA 'Guidelines on the Information to be Contained in Environmental Impact Reports' on this matter as follows:

> *In an EIAR, the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors for air, water, soil etc. and*
>
> *Some topics could be placed under more than one heading…The requirement for the EIAR to consider 'Interactions' addresses this issue by ensuring that effects are cross-referenced between topics thus avoiding the need to duplicate coverage of such topics.*

7.3.4. The EPA Guidelines provide guidance on preparing and assessing an EIAR in accordance with the requirements of the EIA Directive 2014/52/EU. Section 3.3.6 addresses the selection of headings under which to arrange issues, and Population and Human Health is one of the factors of the environment which must be addressed. However, the topics which may be relevant to each environmental factor will be specific to the nature of the development. It is stated that some topics may be placed under more than one heading… For example… *amenity* may be relevant under 'Population and Human Health' and 'Landscape' and the cross-referencing between topics in 'Interactions' is intended to ensure that the relationship between topics is identified and the need to duplicate coverage of topics is avoided. The Guidelines suggest that health should be considered through an assessment of environmental pathways through which it could be affected such as air, water, soil etc. It is stated that the assessment of impacts on population and human health in an EIAR should refer to assessment of those factors under which human health might occur e.g. air, water, soil etc., as addressed elsewhere in the EIAR.

7.3.5. The first party has advised that potential effects on human health/quality of life, particularly on residents in the immediate vicinity, are addressed in detail in eight separate chapters of the EIAR, namely - Land, Soils and Geology (Ch. 7), Water (Ch. 8), Air Quality (Ch. 9), Climate (Ch. 10), Acoustics – Noise and Vibration (Ch. 11), Landscape and Visual (Ch. 12), Cultural Heritage (Ch. 13) and Material

Assets -Traffic and Transport (Ch. 14). I would agree that the potential environmental impacts on population and human health were addressed in these chapters. However, many of these potential impacts, including in terms of the risk of vulnerability to potential accidents and disasters, were also addressed in Chapter 5.

7.3.6. In light of the above, it is considered that the EIAR has adequately addressed the issue of potential impacts on population and human health.

7.4. Adequacy of NIS

7.4.1. The third-party appellant considers that the applicant has not adequately addressed the potential effects of the proposed development on the conservation objectives of the Qualifying Interests of the Lower River Suir SAC. More specifically it is claimed that:

- The NIS fails to provide a complete, precise and definitive findings and conclusions which meet the test of 'beyond all reasonable scientific doubt'.
- The NIS only addresses water quality impacts and not impacts on the Qualifying Interests of the SAC.
- Considerable doubt remains as to the potential effects on the QIs since no assessment has been made on the Conservation Objectives following mitigation measures.
- As such, the Appropriate Assessment carried out does not meet the requirements of the Kelly CJEU Judgement as there are lacunae.

7.4.2. At the outset, I would refer the Board to Section 10 of my report and in particular, to Appendix I, where in I have carried out an Appropriate Assessment Screening Determination and an Appropriate Assessment Determination. The Board will note that I have concurred with the applicant's conclusions on appropriate assessment. In this regard, it is accepted that based on the source-pathway-receptor model used, the site is not within or immediately adjoining a European site and that whilst a hydrological connection exists to several European sites, only one of these, namely the Lower River Suir SAC, is close enough to warrant it being included in the Appropriate Assessment (Stage 2). Furthermore, on the basis of the evidence

presented including an examination of the conservation objectives and the use of the source-pathway-receptor model, it is accepted that the only potential impact on the QIs of this European site that are likely to be affected by the proposed development is water quality impairment.

7.4.3. It is noted that the appellant does not specify what 'lacunae' it is believed are present and does not provide any information to justify the above statements. Furthermore, it is not true to state that the NIS does not address the potential impacts on the Qualifying Interests, as it is clear from the submitted documents that the NIS has identified the relevant attributes and targets (which are set out in the NPWS Conservation Objectives) of each of the Qualifying Interests and has assessed the potential impacts on these habitats and species, having regard to the stated conservation objectives. I would accept that some of the Qualifying Interests were not brought forward into the assessment in the NIS on the basis of evidence that they were absent from the study area and that no functional pathway existed connecting the site to them.

7.4.4. In conclusion, it is considered that following an Appropriate Assessment, ascertained that subject to the proposed mitigation measures, the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of the Lower River Suir SAC or any other European site in view of the sites' conservation objectives. It is further considered that a complete assessment of the proposed project has been carried out and that no reasonable scientific doubt remains as to the absence of adverse effects.

7.5. Other matters

Road safety and maintenance

7.5.1. It is noted that the planning authority's decision includes several conditions relating to road resurfacing, reinstatement, maintenance and cleaning regimes for the section of local road between the N24 and the quarry entrance (L7434). Conditions 13, 15 and 16, as well as a special contribution (Condition 4) seek to address these matters, but there is much overlap and some inherent contraditions.

7.5.2. These issues were initially raised in the observations from the Local Authority Roads Department (dated 22/04/24), which had identified parts of the L7434

which were in need of remedial works. The FI request incorporated these concerns and sought the submission of the following information:

- Resurfacing of carriageway at exit from L7434 onto N24, replacement of bollards and reduction of verge height together with appropriate roadside drainage.
- Reinstate driver feedback sign.
- Address structural defect on L7434 at quarry exit near mini roundabout
- Enhancement of wheelwash.

7.5.3. The applicant's response (10/10/24) agreed to these requests as follows:-

- The applicant will resurface L7434, will replace damaged/missing bollards, reduce verge height and provide appropriate roadside drainage, all as requested (Drawing 811).
- The driver feedback signage will be reinstated (Drawing 814).
- The structural defects on the L7434 at the exit in proximity to the mini-roundabout will be addressed by the applicant (Drawing 815)

7.5.4. However, the Roads Department stated in a subsequent observation, (dated 08/01/25), that -

> Kilkenny County Council intends to carry out such works on the N24 in 2025 from Rathkieran to Aglish (including said junction). In order to minimise disruption to road users and to ensure continuity of road surfacing, it is stated that these works will be carried out by the Local Authority and that the developer should pay a special contribution to the value of €25,343.00 in lieu of carrying out these works. A condition was recommended in respect of the proposed reinstatement works on the L7434 between the quarry entrance near mini roundabout and the N24 and the driver feedback signage (details to be agreed) and a road sweeping regime.

7.5.5. The P.A. Condition No. 4 reads as follows:

> **Special contribution condition**
>
> a) The applicant shall pay a specific financial contribution of €25,343.00 towards the next scheduled maintenance of the local road L7434 and all associated junctions including both access to the application/development

site, and the junction of the L7434 and the N24, having regard to the HGV traffic loading, project duration for the development and projected cost of resurfacing/ maintaining this section of Local Road.

b) The applicant shall provide a maintenance condition report every 3 years by an agreed independent and competent third party with suitable experience of road maintenance. This pavement maintenance report shall be submitted to the planning authority and shall include an assessment of the road drainage, structural condition, surface condition and a detailed traffic count. The report shall use mechanical means of testing the road. A visual inspection and photographic record of the route shall be undertaken with the Municipal District Office as part of the assessment report. The applicant shall contribute to the cost of the maintenance, based on a proportional calculation based on the volume of Quarry HGV traffic compared with the volume of the total HGV traffic on the Local Road.

c) The applicant shall put in place and provide a regular road cleaning regime to ensure that dust/debris on the local road attributable to the quarrying operation and material haulage is kept to a minimum. Frequent maintenance of the wheel-wash is also warranted to ensure it effectiveness.

Reason: In the interests of general and road safety and to provide for the protection of the public road network serving the site.

7.5.6. It is considered that Part (a) of this condition is effectively a special contribution condition under the terms of Section 48(2)(c) of the P&D Act 2000 (as amended), as it relates specifically to the roadworks on the L7434 between the quarry entrance and the N24, including the junctions and the mini-roundabout. It is considered that these works constitute public infrastructure works that would be incurred by the L.A. arising from the proposed development and would benefit the development. As such, these resurfacing and reinstatement works can be considered as specific exceptional costs not covered by the Development Contribution Scheme, which have been costed at €25,343. It is noted that the applicant has not appealed this condition and given that it was initially proposed that the applicant would carry out these works, this seems reasonable. It is considered, therefore, that should the Board be minded to grant permission, a

condition for a *Specified Special Contribution* under Section 48(2)(c) should be attached to address this matter.

7.5.7. There is a further requirement, however, contained in Part (b) of the P.A.'s Condition 4 which requires the applicant to contribute to the cost of the reinstatement and repair works to the L7434 between the N24 and the quarry entrance and the maintenance of this section of road *on an ongoing basis* following the submission and agreement of a 'Maintenance Condition Report', (by an independent third-party with expertise in this area and following a visual and photographic inspection), which is required to be carried out every 3 years. It is intended that the cost of these works would be based on 'a proportional calculation based on the volume of Quarry HGV traffic compared with the volume of the total HGV traffic on the Local Road'.

7.5.8. I consider that it would be a reasonable requirement to require a further unspecified special contribution in respect of these works given that the duration of the permission is for 20 years, and these specific exceptional costs are likely to reoccur on a regular basis. Thus, the proposal to have the matter reviewed every three years by an independent third-party expert, and for any costs arising to be paid by the applicant during the lifetime of the permission also seems reasonable. However, it is considered that a separate bespoke condition requiring these matters to be addressed and incorporating a requirement to pay an *Unspecified Special Contribution* condition (under S48(2)(c)) for the ongoing, recurring works on this basis would be the most appropriate way to address this issue, should the Board be minded to grant permission.

7.5.9. The remainder of the matters addressed in Condition 4 of the PA decision relate to a requirement to establish a regular road cleaning regime and frequent maintenance of the wheelwash. These matters could be addressed by means of standard conditions, which would also obviate the need for Conditions 13, 15 and 16 of the PA decision, where these requirements are reiterated.

Wastewater Treatment systems

7.5.10. There are two wastewater treatment systems within the overall quarry landholding. These serve firstly, the office and staff canteen and secondly, the garage area. The Environment Officer (24/04/24) sought a detailed assessment of these

existing WWTS's in terms of their adequacy to cater for the proposed development. In response, the applicant (10/10/24) stated that the proposed development will not result in an increase in the number of staff within the overall quarry and that the systems, which include sand polishing filters and percolation areas, all of which are outside of the site of the proposed development, are considered appropriate for their current use. As the WWTS are outside of the site boundary, the request for a detailed assessment was not considered necessary.

7.5.11. The second report from the Environment Officer, (08/01/25), stated that there were no objections on this matter subject to a condition requiring the submission of a detailed assessment of the existing wastewater treatment systems. I note that the wastewater treatment systems were permitted under previous planning permissions on the overall quarry site and are therefore required to comply with the relevant conditions of those permissions. In addition, the WWTPs are outside the site boundary, do not form part of the current application and there are no proposals to change the quarry staffing arrangements to cater for the proposed development. As such, there will be no increase in the loading of the WWTPs. In these circumstances, it seems unreasonable to require an assessment of the existing WWTPs on the landholding at this juncture.

Other conditions of note

7.5.12. The P.A. decision included conditions relating to the following matters which are not considered necessary:

Post Restoration Monitoring (Cond 17) – this could be incorporated into a requirement to submit a comprehensive restoration plan for the agreement.

Discharge Licence (Cond 22) – the applicant is required under the terms of the Discharge Licence to comply with the terms of this licence.

Invasive species (Cond 30) – No invasive species were identified in the ecological and habitat surveys carried out and it is not proposed to import soil into the site.

Fuel storage and refuelling (Cond 33) – this matter has been addressed in the EIAR and NIS where specific mitigation measures have been included and will be addressed in respect of other conditions.

8.0 Environmental Impact Assessment

8.1. Introduction

8.1.1. This section of the report comprises an environmental impact assessment of the proposed development. A number of the matters to be considered have already been addressed in the Planning Assessment above. This section of the report should therefore be read, where necessary, in conjunction with the relevant sections of the said assessment. **In the sections below (8.0) the Board should note that all references to the EIAR relate to the revisions to the EIAR and associated appendices which were submitted with the FI on the 10th October 2024 specifically noted otherwise.**

8.1.2. Both the 2014 amended EIA Directive (Directive 2014/52/EU) and the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 are applicable. In terms of the classes of development in Schedule 5, Part 2 of the Planning and Development Regulations 2001, as amended, for which an EIAR is required, the additional extraction area, at approx. 2.6 hectares, is below the 5-hectare threshold for extraction of stone, gravel, sand or clay set by class 2(b).

8.1.3. It is considered, therefore, that the proposed development represents an extension of an authorised development, whereby the size of the extension is less than the threshold specified in Class 2(b) of Part 2 of Schedule 5, i.e. 5ha. However, given that the extension would increase the extraction area by c.52% of the 5ha threshold (2.6ha), as such, the proposed development is considered to be subject to EIA by virtue of Class 13(a) part (ii) of Part 2, Schedule 5.

8.1.4. An EIAR was submitted with the application which was amended in response to a request for FI on the 10th October 2024.

Compliance with Legislation

8.1.5. The EIAR consists of 3 volumes, grouped as follows:

Volume 1 – Non-Technical Summary

Volume 2 – Main Report and

Volume 3 Appendices.

A Stage 2 NIS Report also accompanies the application.

8.1.6. In accordance with Article 5 and Annex IV of the EU Directive, the EIAR provides a description of the project comprising information on the site, design, size and other relevant features of the project. It identifies, describes and assesses in an appropriate manner the direct and indirect significant effects of the project on the following environmental factors: (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape and it considers the interaction between the factors referred to in points (a) to (d).

8.1.7. It provides a description of forecasting methods and evidence used to identify and assess the significant effects on the environment. It also provides a description of measures envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects. The mitigation measures are presented in each chapter and are summaries in Chapter 17 of the EIAR. Where proposed, monitoring arrangements are also outlined. Any difficulties which were encountered in compiling the required information are set out under the respective environmental topics.

8.1.8. I am satisfied that the information provided is reasonable and sufficient to allow The Board to reach a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment. I am also satisfied that the information contained in the EIAR complies with the provisions of Articles 3, 5 and Annex (IV) of the EU Directive 2014/52/EU, amending Directive 2011/92/EU and Article 94 of the Planning and Development Regulations 2001, as amended.

8.1.9. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality. I note the qualifications and expertise demonstrated by the experts involved in the preparation of the EIAR which are set out at the start of each section. I am satisfied that the information provided in the EAIR is sufficiently up to date and is adequate for the purposes of the environmental impact assessment to be undertaken.

8.1.10. I have carried out an examination of the information presented by the applicant, including the EIAR and revisions to the EIAR as submitted to the planning authority on the 10th of October 2024, and of the submissions made during the course of the application and appeal. A summary of the submissions made by the third parties, the first party, the planning authority and the prescribed bodies have been set out at sections 3.0 and 6.0 above.

8.1.11. The main issues raised specific to EIA can be summarised as follows:

- Impacts on population and human health arising from noise, vibration, dust and traffic.
- Landscape and visual impacts.
- Impact on water quality and supply.
- Impact on biodiversity arising from activities on the site.
- Impacts on material assets from vehicular movements and visual amenity.

These issues are addressed below under the relevant headings and as appropriate, in the reasoned conclusions and recommendations including conditions.

8.2. **Consultations**

8.2.1. Details of the consultations entered into by the applicant as part of the preparation of the project are set out in section 1.11 of the EIAR. The prescribed bodies the applicant engaged with include Transport Infrastructure Ireland, Uisce Eireann, Iarnrod Eireann and ESB Networks. The list of consultees and a summary of responses received are set out in Table 1-8. In accordance with the requirements to submit the relevant information to an EIA portal, the applicant confirmed that it had submitted an application form, a copy of the public notice and a site location plan to the Department of Housing Planning and Local Government

8.2.2. Submissions received during the course of the planning authority's assessment of the application including submissions from prescribed bodies are summarised in sections 3.0 above with the third party appeals and observations received by the Board summarised in section 6.0 above.

8.3. Vulnerability to Risk of Major Accidents and/or Disaster

8.3.1. The requirements of Article 3(2) of the Directive include the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disaster. The EIAR addresses this issue in section 1.12 and in all relevant chapters of the EIAR. It is stated that a risk-based approach was employed for these assessments, as recommended in the EPA guidance.

8.3.2. In the Population and Human Health (Chapter 5), it is noted that the Health and Safety Authority views the quarrying industry as a high-risk sector (5.4.2.1). It is stated that the use of onsite explosives to break the quarry faces for processing will be carried out in a carefully controlled manner by the suitably qualified and competent Roadstone Blasting Engineer. No explosives will be stored onsite. Before and after blast events, the area around the blast will be cleared of personnel. In addition, extraction activities will continue to take cognisance of the guidance document “Guidance on the Safe Use of Explosives in Quarries” (2001) published by the Safety and Health Commission for Mining and or other Extractive Industries.

8.3.3. The potential for natural disasters or ‘unplanned events’ that may occur are considered to be limited to explosion (as discussed above), vehicular accidents, flooding and fire. However, the risk of such events occurring affecting the proposed development and causing the works to have significant environmental effects is limited. Staff cars are not permitted beyond the car-park area and mobile plant will only be moved by trained personnel. There are very few combustible materials or sources of ignition present and the distances between the various pieces of infrastructure is such that the risk of fire is low. In terms of flood risk, as extractive work reaches and passes the water-table, water will be collected in an onsite sump and pumped to the settlement ponds prior to discharge offsite. The proposed development is flood compatible, with the deeper void spaces capable of holding flood waters, while key plant and equipment is moved onto the higher elevation by the main processing plant and site entrance.

8.3.4. The proposed development is not regulated or connected to or close to any site regulated under the Control of Major Accident Hazards Involving Dangerous Substances Regulations (Seveso sites).

8.4. **Alternatives**

8.4.1. Article 5 (1) (d) of the 2014 EIA Directive requires: “(d) a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment;”

8.4.2. Annex (iv) (Information for the EIAR) provides more detail on ‘reasonable alternatives’:

> “A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for electing the chosen option, including a comparison of the environmental effects.”

8.4.3. Examination of Alternatives was considered in Chapter 4 of the EIAR. Alternatives considered included location and design, including alternative means of access and processing. In respect of alternative locations, the EIAR notes that the primary determinant is the location of the aggregates. As noted previously, the presence of high-quality limestone has been identified on the site in the GSI mapping. It is stated that the presence of this oolithic limestone was also identified to the north and west, but the potential to extend the quarry in these directions was considered non-viable due to constraints such as the Waterford-Limerick railway line etc. Other locational factors considered include the depth below the surface, the presence of groundwater, contamination with other rock or soils, access to haulage routes and markets. It is stated that the location of this mineral resource immediately adjacent to an established quarry with suitable infrastructure makes it the most viable option.

8.4.4. In addition, alternatives in respect of site layout and project design as well as a do-nothing alternative were considered. As the proposed development relates to the lateral extension of an existing, long-established quarry, I consider that the ability to consider alternative locations is somewhat constrained. Such scenarios are acknowledged in the Guidelines for Planning Authorities on EIA which notes that some projects may be so site-specific that the consideration of alternative sites may not be relevant. Alternative access routes were also explored in the EIAR but

ruled out as it would result in more HGV traffic on local roads to the north and the provision of an additional wheelwash if the northern entrance was to be used instead. It was stated that alternative processes available for extraction and screening of aggregate are limited for extraction of this scale.

8.4.5. The do-nothing scenario would restrict the applicant to the current permitted extraction and would result in a shorter life span for the quarry. However, the developer considered that this would not be a viable option as it would be likely to exacerbate the existing scarcities in quality aggregate materials and result in a 'lost opportunity' to protect important aggregate reserves.

8.4.6. 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. I also accept that the need to identify, protect and manage such resources in a sustainable manner is supported by national, regional and local policy. I am therefore satisfied that the EIAR has satisfactorily addressed the issue of alternatives.

8.4.7. Having regard to the Guidelines for Carrying out Environmental Impact Assessment (2022) which states that the type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment, I consider that the requirements of the Directive in terms of consideration of reasonable alternatives have been discharged.

8.5. Likely significant Effects on the Environment

8.5.1. The likely significant direct and indirect effects of the development are considered under the following headings, as set out in Article 3 of the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU:

(a) Population and human health.

(b) Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EC and Directive 2009/147/EC.

(c) Land, soil, water, air and climate.

(d) Material assets, cultural heritage and the landscape.

(e) the interaction between the factors referred to in points (a) to (d).

My assessment is based on the information provided by the applicant, including the EIAR, (as revised) in addition to the submissions made in the course of the application and the appeal, as well as my site visit.

8.5.2. In total the main EIAR (Volume 2) includes 17 chapters. Chapters 1-4 provide an introduction to the project, description of and need for the proposed development, alternatives considered, and consultations undertaken. Chapter 5 addresses Population and Human Health, Chapter 6 addresses Biodiversity, Chapter 7 and 8 address Land, Soils, Geology and Water, Chapters 9, 10 and 11 address Air, Climate (including microclimate), Noise and Vibration, Chapter 12 addresses Landscape and Visual impact, Chapter 13 addresses Cultural Heritage, Chapters 14 and 15 address Material Assets, Transportation (14) and Waste (15), Chapter 16 addresses Interactions and Residual Impacts and contains a summary of Mitigation Measures and Monitoring. Cumulative Impacts are addressed in each individual chapter. Chapter 17 contains a bibliography. Volume 3 contains a series of appendices relating to various chapters.

8.5.3. Each of the chapters is discussed below with respect to the relevant headings apart from chapters 1-4, which were discussed above.

8.6. Population and Human Health

8.6.1. Chapter 5 of the EIAR addresses Population and Human Health. However, the likely effects of the proposed development on human beings and health are also addressed under several of the headings of this environmental impact assessment and, as such, should be considered as a whole. Chapter 5 addresses socio-economic considerations, land use, health and safety, and human health. Chapter 9 addresses air quality and Chapter 11 addresses noise and vibration. Other impacts that have the potential to impact on humans include potential effects on water, traffic and landscape. These are discussed in the respective chapters of the EIAR

8.6.2. I consider that there is an overlap with section 7.2 of the planning assessment above and I recommend that the sections be read in tandem.

Receiving Environment

8.6.3. I refer the Board to section 1.0 above which provides a description of the site and its location. The site is located in a rural area with a low population density. The surrounding land use is predominantly agricultural with some agricultural businesses and scattered individual dwellings. There is a more concentrated population in urban areas such as Kilmacow Village (2km to north), Mooncoin (4km to west) and Waterford City and suburbs (5km to Southeast). The 2011 Census introduced 'Small Areas' for such rural areas. The site is located principally in Small Area A097002004, with the entrance located in SA A097002003. Table 5-5 sets out the occupation of the population and it is noted that there is a high percentage of skilled trades persons in both of these Small Areas compared with the national average. The EIAR states that this reflects the importance of the construction and extraction industries to this area.

8.6.4. The baseline environment is primarily dominated by agricultural activities and the existing quarry, which has been operating since the 1970s. There are 21 dwellings located with 300m of the boundary of the proposed development (Fig. G FI received 10/10/24). All dwellings are connected to the public water mains. Quarrying activities at present are controlled by mitigation measures approved as part of permission 16/700 which set limits for emissions including dust, noise and vibration. The quarry has been subject to monitoring over recent years in terms of dust (nuisance and particulate matter), noise and vibration and groundwater. Information provided in the relevant chapters of the EIAR, together with the FI responses submitted to the P.A. on 10th of October 2024, and in response to the grounds of appeal, indicate that the quarry is currently operating in accordance with the limits set out in 16/700.

8.6.5. In a 'Do Nothing' scenario, the site would remain as agricultural land, and the valuable mineral resource would remain in place which would represent a missed opportunity to sustainably develop the resource.

Predicted effects

8.6.6. Positive impacts on the local economy in terms of employment would continue with the continued operation of the quarry. The contribution of the mineral resource to the construction industry would positively impact the national and regional economy.

8.6.7. The construction phase involves the removal of topsoil and overburden, the construction and landscaping of berms, the preparation of haul routes and demolition of 2 no. agricultural sheds and a pumphouse. These activities will give rise to short-term negative impacts on human health and on the amenities of existing residents during the construction phase. The potential impacts principally include air quality, noise and vibration impacts, as well as dust contact with contaminated soil, potential groundwater contamination and landscape and visual impacts. The impacts arising from these activities will be discussed under the relevant headings below.

8.6.8. The operational phase is expected to last up to 20 years, including 6 months for restoration. This phase will present the greatest potential for negative impacts on human health and residential amenities in terms of air quality, noise and vibration. The main activities during the operational phase include drilling and blasting of the rock face, the primary crushing/screening of blast rock through a mobile primary crusher/screener, the placement of rock into stockpiles and on-site transportation of rock to existing infrastructure within the quarry. Machinery and equipment will include a hydraulic breaker, primary crusher/screener, front loader, excavator and 2 no. articulated dump trucks.

8.6.9. The activities will give rise to release of dust (disamenity and particulate dust) as well as NO_2 from emissions from machinery and equipment (including HGVs), which will impact air quality. The activities will also give rise to noise and vibration emissions. However, it is noted that the rate of extraction will remain the same at c. 700,000-1,000,000 tonnes per annum, and that the activities will operate within current permitted traffic levels and emission limits for dust, noise and vibration. There would also be a risk of contamination of groundwater and soils from the storage/use of fuels/hydrocarbons on site and from contact with contaminated soils. The loss of hedgerows/treelines and construction of berms could also have landscape and visual impacts on the local area. These potential impacts could adversely affect human health and/or residential amenities. The assessment of these impacts is set out in Chapters 9 and 11 of the EIAR and will be discussed in more detail below.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.6.10. As noted above, the rate of extraction will not be altered and many of the features of the existing quarry, including emission limits imposed by the previous permission 16/700 will continue to apply. The mobile plant will be used in association with the quarrying of the rock face for primary screening and processing, but the material will be moved to the existing quarry floor for processing at the stationary plant, where the majority of screening and processing will be concentrated. Best practice controls will be in place to prevent any contamination of soil or groundwater and the volume of hydrocarbons and fuels stored on site are very small. Thus, it is unlikely that there would be any significant impacts on human health.

8.6.11. Existing berms are to be retained, and new berms will be constructed along the boundaries of the quarry. The impacts on landscape and visual amenity would be mitigated by the proposed berms which are to be landscaped and planted with native plants and trees. The berms will also help to mitigate noise and dust emissions.

8.6.12. The background concentrations of suspended dust have been identified as being relatively low, and there is little risk of the AQS being exceeded from the process contribution, with a negligible risk to human health. Implementation of best practice methods in terms of operations and machinery will limit noise and dust and continuous monitoring will be in place.

8.6.13. The existing noise and vibration emissions do not exceed the recommended limits of 55dB for daytime activities and based on the information provided by the developer and having regard to the mitigation measures proposed, are unlikely to exceed the limits established by 16/700. Vibration and overpressure will be required to meet the requirements of the EPA Guidelines and the Quarry and Ancillary Activities Guidelines, will be subject to ongoing monitoring with a warning of each blast provided to the occupants of all receptors in the vicinity.

8.6.14. It was also pointed out that the quarry is not open to the public and as such, any impacts would be indirect and experienced at a distance. In addition, dust, noise and vibration levels will be continuously monitored, and any breaches will require corrective action to be taken. Additional dust, noise and vibration monitoring location points were also proposed by the developer in response to the FI request

and are detailed in the FI response (10/10/24). The developer has also stated that should any additional individual property owner/occupier wish to have their property monitored, this can be arranged.

Residual Impacts

8.6.15. The implementation of the proposed mitigation measures will avoid, prevent or reduce impacts on human beings during the construction and operational phases of the development. The residual effect in terms of human health within the local population would therefore be 'imperceptible' to 'not significant' and long-term.

8.6.16. The effect of the proposed development on the population and local economy in terms of direct employment can be considered as long-term and neutral. The effects on the local and regional aggregate supply can be considered as long-term, positive and moderate.

Cumulative impacts

8.6.17. The EIAR notes that as the proposed development will not lead to any increase in the annual volume extracted from the quarry beyond the historical maximum rate of between 700,000 to 1,000,000 tonnes p.a., nor will it lead to any increase in traffic levels related to the quarry previously experienced, no cumulative impacts are anticipated. I would generally agree with this and further note that the limits placed by permission 16/700 on emissions in terms of noise, dust and vibrations are to apply equally to the proposed extension, with no new infrastructure, equipment or changes to access or to trip generation. Thus, there is no likelihood of any significant cumulative impacts arising.

Population and Human Health Conclusion

8.6.18. The third-party appellants have raised the issues of proximity of the site and prevailing wind direction, which they believe will result in intensification of impacts on their properties, which are located c. 280m and 310m respectively from the north-eastern boundary of the site. Although the extraction area will move physically closer to these receptors, the quarry operators will be required to comply with the same dust, noise and emission limits as at present, and as such, these impacts will remain largely unchanged. The methodology, equipment used, and nature of the activities will also remain the same and there will be no

additional traffic generated with the same access point being used. The impacts will be subject to continuous monitoring and reporting, with corrective action being required in the event of any breaches of the limits.

8.6.19. In light of these factors, it is considered that the proposed development is unlikely to result in any significant increase in impacts which would adversely affect human health or the amenities.

8.6.20. I have considered all of the written submissions made in relation to population and human health. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on population and human health.

8.7. **Biodiversity**

8.7.1. Chapter 6 (unchanged) of the EIAR addresses biodiversity. In addition, an AA Screening Report accompanies the application. There is also an overlap with land, soil and water, which are addressed below. I recommend that the relevant sections be read in conjunction with each other.

Receiving environment

8.7.2. The EIAR includes a desk top study and site surveys. The study area (which included the site, the quarry void and Mr. Clohessy's lands) was assessed for the presence of protected species and for suitable habitats for such species of flora, amphibians, badgers, bats, birds, invasive species and any other species of biodiversity value. The surveys were caried out by professional ecologists and included species-specific surveys including potential bat roost sites, bat dusk emergence and re-entry surveys, potential bird nesting/breeding habitats, and targeted Peregrine Falcon surveys. The surveys were carried out at various dates over the period 2021-2023.

8.7.3. The EIAR notes that the site is not within or adjacent to a European site, but five European sites were identified within a 15km radius (Table 6-1). On the basis of distance and a lack of a source-pathway connectivity between the European sites and the project site, all but one were screened out, namely the Lower River Suir

SAC (002137). As the quarry has a Discharge Licence to discharge water from the quarry pit via attenuation ponds to Flemingstown Stream, which has a hydrological connection to the Lower River Suir SAC, and the distance is c.1.4km, this site was screened in for further consideration in the NIS submitted with the application.

8.7.4. The habitats recorded are reflective of those found within arable farmland and a working quarry area, including Improved Agricultural Grassland, Treelines and Hedgerows, Scrub, Buildings and Artificial Surfaces and Active Quarry and Mines (Fig. 6-5). They are certified as being of local importance and low ecological value apart from hedgerows and treelines which are considered of high local value and building and artificial surfaces which have the potential to support breeding birds.

8.7.5. No protected flora species were found. No records of amphibians or badger were identified although some suitable habitat may be present. No roosting bats or suitable roosting habitats were identified in the trees or buildings, but some foraging and commuting habitats were identified, which were classified as of low-moderate value. As such, a precautionary approach has been taken in respect of bats and badgers including trees and buildings with the potential to support bats in the future.

8.7.6. Fourteen of the bird species recorded were classified as ‘possibly breeding’ and four species as ‘confirmed breeding’. Barn swallows, starlings and Peregrine Falcon were also classified as ‘confirmed breeding’ but no nests or evidence of breeding activity were recorded. Sand martins were also classified as ‘confirmed breeding’ within the quarry.

8.7.7. No evidence of otter was identified and the section of the Flemingstown Stream within the study area was deemed unsuitable for otter. However, as the stream discharges to the Middel Suir Estuary, which supports otter, a hydrological impact pathway was identified.

8.7.8. No invasive species were recorded. No evidence of hedgehogs was identified but suitable habitat exists in areas of scrub, grassland, hedgerows and treelines. European rabbits were observed on multiple occasions, and it was noted that suitable habitat exists in the improved agricultural grasslands, hedgerows and treelines for commuting, foraging and sheltering. Records of common porpoise exist within 2km of the site, but no suitable habitats are present within the study

area. However, there is a hydrological pathway to the Middle Suir Estuary via the attenuation ponds and Flemingstown Stream.

8.7.9. In a 'Do-Nothing Scenario' extraction will continue within the existing and permitted pit with no change to the habitats and species thereon, but the improved grassland areas, treelines and hedgerows would remain undisturbed. Agricultural activities would continue. On cessation of operation of the quarry, a restoration programme is to be carried out.

Predicted effects

8.7.10. The proposal involves the lateral extension of the quarry pit into the adjoining agricultural lands. The majority of the hedgerows and treelines within the site will be removed to facilitate the proposed development. It is proposed to removed c.479 linear metres of hedgerows and treelines and c.0.27ha of scrub. Mature trees will also be removed. The existing hedgerows/treelines are stated to be 2-3m wide. It is also proposed to demolish two agricultural buildings and a pumphouse. These habitats are of importance to commuting and foraging bats, badgers and nesting birds. This will result in the loss of habitats of high local value and result in potential disturbance and displacement of species. The loss of trees, hedgerows and scrub could also affect nesting birds. A precautionary approach has therefore been taken in respect of these receptors in terms of the removal of such structures/features and in the timing of works.

8.7.11. The quarry habitats have the potential to support breeding peregrine falcon and active nests were recorded in 2021 and 2022 along the western quarry face. Although no evidence was found of breeding activity in 2023, a precautionary approach has been taken in respect of this receptor, which is an Annex I species. Similarly, although sand martins and barn swallows were not recorded during the recent surveys, sand martins are known to frequent quarries and barn swallows were recorded breeding in an adjacent farmyard. A precautionary approach was also taken in respect of these species.

8.7.12. Potential impacts on otter have been identified due to the hydrological link between the site and the Middle Suir Estuary and mitigation measures will be required. Standard protection measures will also be incorporated to address potential impacts on the habitats of rabbits, foxes and other terrestrial mammals,

including measures to prevent water quality impairment. Standard measure will also be introduced to prevent the introduction of invasive species.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.7.13. The EIAR states that the developer is committed to achieving objectives of minimising any adverse effects on biodiversity, enhancing the ecological value of the site and intends to implement a range of measures such as a site restoration plan, management of vegetation to avoid the nesting bird season, the re-use of stripped topsoil within the site and the implementation of dust control measures. An Ecological Clerk of works will also be employed, who will stop the works should any protected/notable species be identified during the course of the works.

8.7.14. Planting – The removal of scrub, treelines and hedgerows will have a negative medium-long term effect. Berms will be planted with native species to replace lost vegetation. The berms will be c.140m long and c.250m long, respectively, and 12m wide and 2.75m high. This will provide a wide area for planting and replacement of lost hedgerows by double/triple rows of vegetation at the top of the berms. The planting will take place within the first available season (November to March) and any trees that fail to become established within 5 years of planting will be replaced by trees of a similar size / species within the next planting season. This landscape planting will ensure that the vegetation clearance will not be significant.

8.7.15. Bats – specific mitigation measures are set out at 6.5.2. In brief, these include

- the provision of linear habitats (soil embankments) to replace loss of habitat for foraging/commuting bats.
- An updated tree inspection of the 7no. mature trees identified as potential roost features to confirm no change in conditions prior to the removal of trees and updated emergence/re-entry surveys will be carried out in the event that any changes are identified.
- Removal of Potential Roost Features during October-November or February-March.

8.7.16. Birds – standard procedures for vegetation clearance including the avoidance of the bird nesting season (1st March-31st August). Berms will be planted with a mix of native trees and shrubs to compensate for the loss of potential habitats. Disturbance is not considered to be significant as birds are highly mobile and as the quarry has been long-established at this location. Monitoring of the previous peregrine falcon nesting areas will continue and if peregrine falcons or sand martins are observed colonising any areas, the works will stop, and an appropriate buffer zone will be established for the duration of the breeding season. This will ensure no undue disturbance of these receptors. The demolition of buildings which could potentially be used as nesting sites for barn swallows will be carried out outside of the bird nesting season.

8.7.17. Otters and aquatic species – The Middle Suir Estuary is known to support otters and aquatic species such as Atlantic Salmon, Twaite Shad and Lamprey species. Potential impacts on water quality from matters such as sediments, silts, hydrocarbons and fuels entering the waterbody as a result of quarrying activities would be detrimental to otters and such aquatic species. It is noted that it is highly unlikely that potential impacts would be significant due to the intervening downstream distance, the large body of water associated with the Middle Suir Estuary. As such, it is considered that any potential pollutants arising from the proposed development would be dispersed, diluted or would settle out of the river network before any adverse effects on aquatic species occurs. However, as a precautionary approach, standard mitigation measures are proposed to be implemented during the construction and operational phases of the development.

8.7.18. Terrestrial mammals – standard construction procedures and mitigation measures as recommended in the NRA guidance for badgers will be implemented to avoid potential impacts on the commuting and foraging of terrestrial mammals.

8.7.19. Invasive species – Measures will be implemented to mitigate against the introduction of invasive species. These include the washing and cleaning of vehicles, machinery and other equipment and inspection of these items before being allowed onto the site.

8.7.20. Restoration phase - Following cessation of the quarry activities at the site, a Restoration Plan for the site will be implemented (Appendix 6-1). This provides for

the accumulation of water within the quarry pit after operations have ceased. Bare ground 'scrapes' will be left in areas of the quarry for invertebrate species that specialise in bare ground habitats. In addition, emergent and marginal vegetation will be planted on the ramps entering the waterbody onsite with the aim of creating a self-sustaining plant community in the shallow areas of water.

Residual impacts

8.7.21. No significant residual impacts anticipated.

Cumulative impacts

8.7.22. No significant impacts are anticipated and as such, there will be no significant cumulative impacts.

Biodiversity – Conclusion

8.7.23. Overall, the majority of the site is considered to be of low ecological value. Taking into account the mitigation measures and proposed planting, it is considered that the impacts on ecology from the construction and operational phases is not likely to be significant. The longer-term impacts on biodiversity are unlikely to be significant and the implementation of the restoration plan will be a positive impact.

8.7.24. I have considered all of the written submissions made in relation to biodiversity. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on biodiversity.

8.8. Land/Soils/Geology

8.8.1. Chapter 7 of the EIAR addresses Land, Soils and Geology. There is also an overlap with Biodiversity and Water, and I recommend that the relevant sections are read in conjunction with each other.

Receiving environment

8.8.2. The area of the proposed extension to the extraction area is currently in agricultural grassland and the soil is described as shallow, well-drained mainly

basic soil (BminSW) with the lands in the surrounding area described as Acid Brown Earths/Brown Podzolics (AminDW) as well as some surface water Gleys/Acidic (AminPD). These are represented in Fig. 7-1 of the EIAR.

8.8.3. The site is underlain by Bullockpark Bay Member of the Hook Head Limestone formation, which is denoted by its oolithic limestones. A small section of the landholding to the south is underlain by the Ballysteen Formation, denoted by its dark muddy limestone and shale with thicknesses ranging from 100m to 200m.The Ballysteen Formation consists of well bedded relatively clean calcarenitic (sand grade) limestones, and it passes up into finer grained and more muddy limestones. The Bullockpark Bay Member does not appear to be karstified, although there is some karstification recorded to the east of the site.

8.8.4. The resistivity of the proposed extension site is R1 and R2, with R3 occurring to the north of the site. It is stated that the depth of overburden for R1 and R2 is generally 2-5m, but that the overburden depth increases significantly to the east, suggesting the presence of a fault line. Information gained from blast hole drilling, from geophysical surveys and groundwater monitoring, indicates that a series of fault lines is present in the vicinity of the quarry pit and the proposed extension whereby the depth of overburden varies significantly from c.2-3m up to c.30m.

8.8.5. There are no geological heritage sites within or adjacent to the site. There are no known areas of soil contamination on the site or landholding and there are no licensed waste facilities on or within the immediate environs of the site. There are no historic mines in the vicinity.

8.8.6. The limestone bedrock at the site could be classified as having “High” importance with a rating of 7/10 for the APM Overall Lithology Score (www.gsi.ie). The bedrock is a proven economically extractable mineral resource for construction purposes. The bedrock in the Quarry has been used in the past for this purpose.

Predicted effects

8.8.7. The proposed development will remove c.2.7ha of agricultural grassland.

8.8.8. The extraction will result in local topographical changes with the removal of overburden and bedrock from the site. Over the lifespan of the project, it is

proposed to remove 7,592,000 tonnes of rock and c.8.500m of overburden (topsoil and subsoil), which will be stored as berms.

8.8.9. The potential impacts will arise from the removal of topsoil and subsoils and the excavation of limestone bedrock, which will give rise to on-site transport requirements and potential on-site sediment management issues. Potential dust generation and sedimentation of surface and groundwater due to the erosion of exposed topsoil and subsoil are likely to arise. Accidental spillages or leakages of fuel and lubrication oils from machinery are also likely to arise.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.8.10. The long-term impacts on the land and soil are likely to be slight to negligible, but the extraction of rock is a permanent and irreversible impact. The loss of agricultural land resulting from the proposed development on a local or regional scale is minimal and therefore the effects of actual agricultural land loss is imperceptible. The loss of land and change in land use is an acceptable and unavoidable part of the proposed development which will result in the extraction of high-quality limestone rock which will allow this resource to be economically developed.

8.8.11. The stripped topsoil will be stockpiled permanently and used in the final restoration of the quarry. The stripped subsoils will also be utilised by means of forming edge protection berms around the extraction area as well as screening berms. The temporary or short-term impacts which may arise during construction and operational phases of the development could give rise to environmental impacts which would require mitigation.

8.8.12. Mitigation measures are set out at 7.5 of the EIAR. It is noted that many of the mitigation measures are similar to those that would have been employed in the quarry site to date and would include best practice measures for the use and storage of machinery and fuel/oils. Best practice methods are to be incorporated, and the highest standards of site management will be continued in order to prevent accidental contamination or unnecessary disturbance to the site and environment during the operation of the proposed development.

Residual impacts

8.8.13. The extraction of the materials is a permanent and irreversible impact. However, the soils and subsoils will generally be reused in the landscaping and rehabilitation of the site and although the soils and limestone rock material are of a good quality, they are plentiful in the area. The mitigation measures described above will reduce the potential for environmental impacts occurring during the construction and operational phases of the development.

8.8.14. A suitable landscape restoration plan which will be implemented when extraction is complete. The residual effect will be negative, direct, slight to moderate, and is likely to have a permanent effect on soils, subsoils, and bedrock. The significance of the effect will be 'not significant'.

8.8.15. The implementation of proven and effective measures to mitigate the risks of spills and leaks associated with the use and storage of hydrocarbons and small volumes of chemicals will give rise to a negative but imperceptible residual impact which is likely to have a temporary effect on soils, subsoils and bedrock. The significance of the effect will be 'not significant'.

8.8.16. Potential health effects in relation to land, soils and geology associated with direct and indirect dust contact with contaminated soil and the use and storage of hydrocarbons and fuels on site will be managed by proven and effective measures to mitigate the risk of any sources of contamination. The potential residual effects associated with land, soils and geology contamination and subsequent health effects are imperceptible.

Cumulative impacts

8.8.17. The extraction of limestone materials is a permanent and irreversible effect. The extraction to date of materials at the established quarry together with the proposed extension will give rise to potential cumulative impacts. However, the proposed development is not likely to result in any significant residual effects on land, soils and geology in the surrounding environment due to the relatively small scale of the extension and the mitigation measures proposed which are designed to ensure that any potential sources of contamination are managed appropriately. As such, it is considered that the cumulative effects on land, soils and geology will be localised and not significant.

Land/Soils/Geology - Conclusion

8.8.18. I have considered all the written submissions made in respected land, soils and geology. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the proposed mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of land, soils and geology.

8.9. **Water**

8.9.1. Chapter 8 addresses water which is supplemented by detail provided in the further information response. The Board is advised that there is an overlap with respect to land, soil and geology in section 8.8 above and the Water Framework Directive and the Appropriate Assessment in sections 9.0 and 10.0, respectively, below. I recommend that the sections be read in tandem.

Receiving environment

8.9.2. The site is located within the River Suir Water Catchment (Hydrometric Area 16) of the South-Eastern River Basin District. The existing quarry pit and the proposed extension are located within sub-catchment Pil_SC_010 and within the River Waterbody Sub-Basin of Flemingstown (Kilkenny)_010 Sub-Basin.

8.9.3. *Existing drainage and water management* - There are no natural drainage features within the quarry or site. The closest surface water feature to the site is the Flemingstown Stream that flows in a southerly direction to the east of the site. This is the receiving water for the existing licenced quarry discharge. Groundwater and surface water entering the quarry void are pumped out into the Flemingstown Stream via 2 no. settlement ponds. There are 2 no. sump pumps on the -28mOD level and one on the -45mOD level. The pumped water travels through an oil interceptor prior to discharging to the watercourse, in accordance with Discharge Licence ENV/W82.

8.9.4. There are two main visible groundwater flows from the quarry walls which flow towards the sump locations. Surface water from the concrete batching yard drains to a sump/lagoon located to the south of the office block with a smaller sump located at the wheel wash area, which holds water and silt from the washing area.

8.9.5. The discharge licence limits the daily discharge from the quarry to 13,000m³/day. Monitoring data of discharge volumes for the years 2021, 2022 and 2023 indicate a maximum peak daily discharge rate of 8,190m³. Average daily discharge rates were 3,230m³/day and the discharge rate was largely between 7,000 and 8,000m³/day. The discharge rate is heavily influenced by surface water input (e.g. heavy rainfall events) rather than groundwater increases.

8.9.6. *Flood risk* – The OPW indicative river and coastal flood mapping has not recorded any recurring flood incidents within the site or neighbouring lands and there are no areas adjacent to the landholding or downstream which are mapped as 'Benefitting Lands' or 'Liable to flooding'. CFRAM flood maps indicate that no part of the site is located within a fluvial or coastal flood zone (Flood Zones A or B). In addition, the quarry discharge volumes (as discussed above) are compliant with the discharge licence and there have been no observed or reported flooding issues in the Flemingstown Stream due to quarry discharges.

8.9.7. *Surface water quality* – In the absence of any publicly available EPA Biological Q-rating data for Flemingstown Stream downstream of the site, water sampling was carried out on behalf of the developer downstream of the discharge point on the 10th January 2024. The results are set out in Table 8-6 of the EIAR, with the laboratory analysis in Appendix 8-2. The findings may be summarised as follows:

- Total suspended solids were <7mg/L (below 25mg/L EQ standard).
- Ammonia, orthophosphate and BOD were below the High-Status threshold.
- Nitrate was reported at 28.7mg/L which would suggest some agricultural influence on water quality.
- Chloride was present at 24mg/L which is within normal range for a near coastal setting.

8.9.8. The quality of quarry discharge water is monitored on a quarterly basis. The results indicate that it is generally compliant with the standards apart from single exceedances for ammonia and orthophosphate and three for nitrate. However, the nitrate exceedances are likely to be as a result of surrounding agricultural activities and the orthophosphate and ammonia exceedances are likely to be related to groundwater quality rather than from quarry discharges. The quarry discharge was

also sampled by HES in November 2022. The results were generally compliant with the thresholds apart from nitrate, which is unlikely to be from quarry operations, as discussed above.

8.9.9. *Groundwater* – the site is underlain by Bullock Park Bay Member which is a Dinantian Pure Bedded Limestone. The Bullock Park Bay Member is classified as a Locally Important Aquifer – bedrock which is generally moderately productive. The classification indicates localised groundwater flow-paths due to a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth.

8.9.10. The main inflow into the quarry is stated to be from the northwestern corner of the void, which is thought to be related to a syncline on the eastern quarry wall, which occurs at 5mOD and cascades down to the quarry floor at -45mOD. The other main inflow is from the southwest with no significant inflows from the eastern quarry face, where the extension is proposed. The results of quarry drilling indicates that there are no significant inflows between -14mOD and -45mOD, which is largely due to the massive nature of the rock at these depths which is largely devoid of fractures. It is assumed that the same rock type/quality will extend easterly into the proposed extension area.

8.9.11. The site is not within any groundwater source protection zones in respect of public/group water supplies. The groundwater levels in the existing quarry are monitored at 6 no. wells, with results provided from September 2015-September 2023 (Figs. 8-8 and 8-9). The long-term data suggests that the quarry has not had any significant effects on groundwater levels to date. Overall, the available groundwater level data for the internal monitoring wells suggests that that cone of drawdown towards the sump appears to be localised to the quarry on the northern, western, southern and eastern boundaries. There is also a network of private wells in the area which are subject to monitoring (location shown Fig. 8-12). These wells are being actively pumped, and as such, the levels are not static. The wells display typical seasonal variations but show no obvious effect on groundwater levels due to quarry dewatering/pumping.

8.9.12. Groundwater quality monitoring was carried out in Nov. 2023 (results in appendix 8-3 of EIAR). There was no detection of hydrocarbons. There were some

exceedances of chloride values, which is considered normal for a coastal setting, given the likelihood of saline intrusion due to the proximity of the site to the Middle Suir Estuary. In relation to ammonia, nitrate and nitrogen, which are potential residues of quarry explosives, no elevated levels were noted. Ammonia was below the laboratory detection limit in all samples while nitrate (NO_3) was significantly below the groundwater regulation threshold value of 37.5mg/L. Total nitrogen was typically below 5mg/L.

8.9.13. *Water Framework Directive* – it is required that all waters achieve good status by 2027. The site is situated within the Clonmel GWB (IE_SE_G_040) which is assigned good status in respect of both quantitative status and chemical status. The majority of the site is located upstream of the transitory zone of the River Suir, i.e. the Middle Suir Estuary, and within the Flemingstown (Kilkenny) _010 WFD river sub basin. This watercourse, to which the quarry discharges, is assigned a 'poor' WFD status and is deemed to be 'At Risk' of missing the WFD's 2027 objectives. There are two further river sub-basins in the vicinity, one to the west of the site (Ullid_010) and one to the north (Blackwater (Kilmacow)_040), both of which have a 'Moderate' status and are 'Under review' and 'At risk', respectively, but there are no discharges from the quarry to these river basins.

8.9.14. *Sensitive receptors* - The EIAR identified the Locally Important Aquifer as being sensitive to impact with the primary risk to groundwater being from hydrocarbon spillage and leakage. In terms of surface waters, the Flemingstown Stream and the Middle Suir Estuary, as well as the Lower River Suir SAC were considered to be very sensitive receptors, particularly due to quarry discharges which provide a pathway to these downstream waterbodies.

Predicted Effects

8.9.15. The primary potential sources of impact from the further extraction and extension of the quarry are identified (8.2.7 EIAR). In addition, impacts could arise from suspended solids/rock fines in quarry discharge water, oil/fuel leakages and spillages, and accidental discharges of potential pollutants to the local groundwater and surface water causing a deterioration in water quality. Quarry dewatering is also a potential source of impacts on both groundwater levels and groundwater quality.

8.9.16. *Construction stage* - Surface water quality impacts during the construction stage are likely to arise from stripping and storing overburden from the proposed extension area. The overburden will be retained and stored as berms along the site boundaries during periods of suitable weather. The preparation works also include upgrading the haul routes within the quarry and demolition of two (2No.) agricultural sheds and a pump house at the proposed extension area. These works have the potential to result in the release of suspended sediments to downstream watercourses including Flemingstown Stream and the Middle Suir Estuary, which forms part of the Lower River Suir SAC.

8.9.17. The *Operational stage* will include some small increases in groundwater seepage as the surface area of the extraction are below the groundwater table increases. However, the quarry is already operating below the water table at its maximum permitted level of -45mOD and monitoring of internal and external wells has not indicated any significant water level effects. Monitoring of ground water levels at the existing quarry operations indicate that the average daily discharge volumes are currently well below the thresholds set in the Discharge Licence. It is not anticipated that the proposed extension will give rise to any significant additional groundwater inflows, as the groundwater gradient towards the existing quarry is not likely to increase significantly, which indicates that the rock in the proposed extension area is already being dewatered to some extent. There is no evidence that existing quarrying activity is having a significant effect on local private wells either. Similarly, given that the quarry is already operating at -45mOD, no significant increase in the groundwater cone of drawdown is anticipated.

8.9.18. The lateral extension will increase the surface water catchment (due to direct rainfall and runoff) by c.3.2ha, which is predicted to give a daily volume of c.2,105m³. Taking the maximum recorded daily discharge volume between 2021 – 2023 (8,190m³ /day) as baseline, it is predicted that even with the additional potential rainfall/runoff volumes, the current discharge limit of 13,000m³ /day will still provide a freeboard of over 2,700m³ /day. This will be adequate to allow for any potential additional groundwater inflows during the operational phase. Therefore, the small increased pumping rate will not have the potential to significantly affect the surface water quality in the Flemingstown Stream or Middle Suir Estuary

8.9.19. The quarterly monitoring of discharge water quality shows that the quality is generally compliant with the threshold values in the Discharge Licence, and any exceedances are likely to be related to background groundwater quality in the GWB itself, which arises from sources other than the quarry. In addition, the hydrocarbons in the discharge water are consistently below laboratory detection limits. Thus, there are likely to be no significant negative effects on downstream water quality and the proposed development is likely to improve the WFD status of the Flemingstown Stream, which is currently rated as Poor.

8.9.20. On completion of the extraction works, the quarry restoration plan will be put in place. This will involve the removal of the sump-pump and the groundwater levels will return to its natural level, which is estimated to be approx. 16mOD. There will be no drainage/discharge from the site post closure.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.9.21. Mitigation measures are set out at 8.5 of the EIAR. It is noted that many of the mitigation measures are similar to those that would have been employed in the quarry site to date and would include best practice measures for the use and storage of machinery and fuel/oils. Best practice methods are to be incorporated, and the highest standards of site management will be continued in order to prevent accidental contamination or unnecessary disturbance to the site and environment during the operation of the proposed development.

8.9.22. Mitigation measures during the construction stage include capture of surface water during soil stripping and pumping it to the settlement ponds for treatment, erection of silt fencing down-slope of the extraction area and the entire soil stripping and landscaping works will be enclosed by a perimeter of double silt fencing. Daily monitoring of overburden stripping/landscaping earthworks will be carried out to ensure that no deleterious material will enter downstream watercourses. These works will be scheduled for periods of low rainfall and the landscaped areas will be planted with trees and grasses as soon as possible to reduce erosion. Good construction practices such as wheel wash and dust suppression techniques will be employed. All water discharged will be subject to monitoring and discharge requirements of the Discharge Licence.

8.9.23. As the groundwater level effects are localised and not expected to be significant, no additional mitigation measures are proposed other than on-going groundwater level monitoring of the internal and external wells. Should any significant effects occur, proposed mitigation measures include the provision of a new deeper well and an alternative water supply at any affected location.

8.9.24. Water quality is currently managed at the quarry by means of existing management for the control of hydrocarbons and chemicals, which already minimise as far as possible the risk of spillage that could lead to surface and groundwater contamination. These mitigation measures, which are set out in the EIAR (8.5.2.3) will continue to be implemented.

8.9.25. No additional mitigation is proposed for surface water quality from the increased quarry discharge volumes, as the current discharge limit will not be exceeded. The discharge quality is also recorded as being largely compliant with the discharge licence and will not affect WFD status of receiving waters. Discharge from the quarry will continue to be passed through adequately sized settlement ponds and a hydrocarbon interceptor. The quality of the discharge is monitored on a quarterly basis and discharge volumes are continuously monitored at the discharge point location. This monitoring will continue with the proposed extension.

8.9.26. No additional mitigation measures are proposed in respect of effects on downstream designated sites as it is not anticipated that the current discharge limit would be exceeded, as the discharge quality is largely complaint with the discharge licence and in light of the proposed mitigation measures outlined above in relation to the prevention of suspended sediments and hydrocarbons entering the receiving waters. It is predicted that there will be no significant effects on surface water quality or on groundwater quality. As such, it is not anticipated that the WFD status of the receiving waters will be affected, and no additional mitigation is considered necessary in this regard.

Residual impacts

8.9.27. Following implementation of the proposed mitigation measures, no significant residual impacts are anticipated due to the lack of effects associated with current water levels and to the proven quality of quarry discharges, the low potential for

increased groundwater flows and the fact that the proposed extension will not exceed the current permitted depth of extraction of -45mOD and.

Cumulative impacts

8.9.28. No significant impacts are anticipated and as such, there will be no significant cumulative impacts.

Water – Conclusion

8.9.29. There are no surface water features within the site. The existing quarry pit discharges to the Flemingstown Stream via the existing settlement ponds and hydrocarbon interceptors. Monitoring over recent years has established that the water quality of discharged waters is generally compliant with the requirements of the discharge licence and that water levels and water quality in wells located both within the site and externally do not appear to have been affected by quarrying activities to date. It is not proposed to extract material below the currently permitted depth of -45m OD and there is low potential for increased groundwater flows arising from the proposed development.

8.9.30. Thus, there will be no significant impact on the local hydrological regime and no significant impacts are anticipated in respect of the WFD status or on designated sites downstream of the proposed development. It is proposed to implement best practice mitigation measures to minimise the potential for any environmental effects and to limit the risk to surface and groundwater features. Furthermore, regular monitoring of surface water quality and groundwater levels and quality will continue to be undertaken.

8.9.31. I have considered all of the written submissions made in relation to water. I am satisfied that any potential impacts would be avoided, managed and mitigated by the measures which form part of the proposed development, the proposed mitigation measures and through suitable conditions including monitoring conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects in terms of water.

8.10. **Air Quality**

8.10.1. Chapter 9 of the EIAR addresses Air Quality with further details provided in the Dust Management Plan (1/3/24) and with the Further Information Response (10/10/24). I consider that there is an overlap with section 7.2 of the planning assessment above and I recommend that the sections be read in tandem.

Receiving environment

8.10.2. The proposed development relates to the expansion of an existing quarry operation. The lands in the vicinity of the overall site are generally in agricultural use with the nearest sensitive receptors to the north and north-east.

8.10.3. In accordance with the UK Institute of Air Quality Management (IAQM) "Guidance on the Assessment of Dust from Demolition and Construction" (2014) both the receptor sensitivity and proximity to the proposed works are considered in determining the sensitivity of the area in terms of dust soiling. The annual mean PM_{10} concentration, receptor sensitivity and the number of receptors affected within various distances from the construction works are used in determining sensitivity in terms of human health impacts.

8.10.4. Air Quality Standards (AQS) are the relevant standards for air quality in Ireland, which are based on the effects of the relevant pollutants on human health as well as receptors such as vegetation. It is pointed out in the EIAR (9.3.1) that suspended dust associated with quarries will be coarse in the sub-fraction $PM_{2.5-10}$ rather than in the fine fraction $PM_{2.5}$. As such, $PM_{2.5}$ has not been considered further in the assessment. It is stated that EU and Irish Air Quality Standards Limit Values for Particulate Matter (PM_{10}) are 40µg/m³ (daily) and 50µg/m³(annually), with 35 exceedances in a year (Table 9-1 EIAR). Air quality monitoring programs have been undertaken by the EPA. Given the proximity of the site to Waterford City, the site was deemed to fall within Zone C (large cities and towns). The mean concentrations of PM_{10} for Zone C between 2021 and 2022 were stated as 13.2µg/m³, which provides a guide for the background air quality.

8.10.5. It is noted that there are currently no Irish standards for dust disamenity due to dust deposition. However, the standard that is typically applied as a limit along all site boundaries associated with quarries is the Bergerhoff Method specified in the

German TA Luft Air Quality Standards as the Dust Deposition Limit value of 350mg/m^2 /day (when averaged over a 30-day period).

8.10.6. Bergerhoff dust deposition monitoring has been carried out at the existing quarry, routinely, over a number of years at five monitoring locations, D1-D5. It was initially proposed to add one additional monitoring point (D6) as part of the current application, but in the Further Information Response, 2 no. further monitoring points were added (D7 and D8). The EIAR noted (9.3.5) that the annual mean values recorded over the three years (2017-2019 inclusive), collected during site clearance works) were below the TA Luft limit value of 350mg/m²/day but that individual exceedances were recorded, with corrective action being taken in response. The P.A. sought further information on these individual elevated dust concentrations and the corrective action taken.

8.10.7. The FI (10/10/24, Items 1(b) and (c)) provided details of the Bergerhoff monitoring of dust particles at the 5 no. monitoring locations over 6 years, 2017-2023, (Table 2 of FI). The compliance rate ranged from 67% to 94.1%, with the highest instances of elevated concentrations at the northern boundary (D2), which is adjacent to agricultural fields, with no residential receptors in the immediate vicinity. The lowest incidences were to the southwest (D1) and to the east (D3), which is closest to the third-party appellants.

8.10.8. It was stated that although elevated concentrations of dust were recorded at all monitoring stations, the elevated levels were not always as a result of quarrying activities, as other sources of particulates included agricultural activities, foliage and bird droppings etc. Where incidences of elevated levels were found, corrective action was taken. These included the use of water bowsers, a barrier added to the wheelwash to remove dirt from vehicles leaving the quarry and weekly road sweeping.

Predicted effects

8.10.9. Dust generating activities are identified (9.3.6) as site preparation, materials handling, blasting and crushing/screening of rock material, onsite transportation and off-site truck movements. A 400m buffer from the site boundary was used rather than from the quarry void, in order to provide a conservative estimation of dust generating activities. Within this buffer zone, 7 no. Sensitive Receptors were

identified (SR01- SR07, Table 9.5, Fig. 9.4). Landscape features are identified in Table 9.5 which could potentially screen the dust deposition. SR01 and SR02 relate to the third-party appellants (to North-East), SR03 is located to the North and the remainder are located to the south/west/southwest of the quarry void.

8.10.10. Ecological receptors were identified as the Lower River Suir SAC, located c.1.4km to the southwest and the Granny ferry pNHA, located c.2.4km to the east. As these receptors are outside of the 400m buffer zone, they were not considered aby further, in accordance with IAQM guidance. A windrose diagram was constructed, based on five years of meteorological data at Johnstown Castle, to determine the potential influence of wind direction and speed on air-borne dust particles.

8.10.11. The main potential effects were considered to be disamenity arising from dust deposition on surfaces and human health effects arising from increased concentration of dust particles (PM_{10}) suspended in the air. These effects would arise from each phase of the development, i.e. construction, operation and restoration. In addition, effects would arise from HGV vehicles transporting aggregates from the site and from the processing of materials. In addition to dust impacts, the operations of on-site plant, which are powered by diesel engines, will omit nitrogen oxides, particulate matter and carbon monoxide, all of which have the potential to impact air quality.

8.10.12. Construction works are expected to last for c. 6 months and the activities which have the potential to generate dust include erection of fencing/signing, removal of topsoil and overburden and construction of berms, covering the berms with topsoil, landscaping and planting of berms, preparation of haul routes and demolition of pumphouse and 2 no agricultural sheds. The operational phase is likely to last c.19 years with restoration taking c.6 months. The dust generating activities include drilling and blasting of the rockface, primary crushing, screening of blast rock (mobile plant), placement of rock into stockpiles and transportation of rock to existing infrastructure on site. It is proposed to extract c.700,000-1,000,000 tonnes p.a. this will require the use of equipment including a hydraulic breaker, primary crusher/screener, front loader, excavator and 2 no. articulated dump trucks.

8.10.13. There is no change in HGV movements associated with the proposed development, as it will operate within current traffic limits. Exhaust emissions from plant and onsite traffic are unlikely to make a significant impact on local air quality, according to the IAQM Guidance on Demolition and construction. As such, the potential effects on air quality as a result of both plant and traffic movements (onsite and off-site) have been screened out.

8.10.14. In terms of the impact of suspended dust, the Predicted Environmental Concentrations of ambient PM_{10} are set out in Table 9-7 of EIAR. As noted previously above, the Annual AQS Limit is 40µg/m³ and it is stated that the annual mean objective is 32µg/m³. The predicted environmental concentration of PM_{10} is 28.2µg/m³, which is well below both the annual mean objective and the Annual AQS. As such, the risk posed by ambient PM_{10} was considered to be low and no further assessment of this was considered necessary.

8.10.15. A source-pathway-receptor model was applied to determine the disamenity dust risk for the different activities (sources) which incorporated frequency of wind speeds (pathways) and the distances from each of the receptors. The site-specific factors considered to determine the Pathway Effectiveness of the dust emissions, (i.e. how the dust will be transported), are the distance and direction of the receptors, relative to the prevailing wind directions. The pathway effectiveness was found to be ineffective for all seven sensitive human receptors. The potential risk was then derived by applying the residual source emission, (which was assumed to be 'large' for each activity), to the pathway effectiveness. The risk was determined to be low for each of the receptors without mitigation. The magnitude of dust effect was assessed as 'Slight Adverse Effect' on six of the receptors, i.e. all except SR06, which was classified as of 'low' sensitivity and a Negligible effect, in the absence of mitigation.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.10.16. Mitigation measures are set out at 9.5 of the EIAR. They include both general measures for the entire site, such as site management and maintenance, and measures which are more specific to the construction, operation and restoration phases of the development. The site management measures comprise of

measures that are largely already in place such as optimised timing of activities, use of water bowsers, siting of stockpiles, plant maintenance, use and maintenance of wheelwash including a sprinkler system, cleaning regimes for roads and a monitoring programme for dust deposition.

8.10.17. Specific design measures include the following:

- Completion of majority of works within the quarry void, providing an enclosed environment, below the level of sensitive receptors.
- Location of haul routes, tips and stockpiles away from sensitive receptors.
- Peripheries of quarry void are covered with well-established scrub/treeline, providing additional screening.
- Site preparation will include creation of berms which will be covered with vegetation to provide additional screening.

8.10.18. Industry best practice measures are to be employed such as the avoidance of site stripping during dry/windy conditions, use of covered vehicles for the transport of fine materials, dampening material and haul roads and the recording and investigation of all complaints with appropriate measures taken in a timely manner whilst maintaining good communication with surrounding communities.

8.10.19. The FI received on the 10th October 2024 also proposed the following measures specifically in relation to crushing and screening activities:

- Use of water cannon during crushing/screening
- Dampening if materials prior to crushing
- Use of a sprinkler system
- Use the crushing and screening plant within its design standards
- Position the crushing/screening in an enclosed area (floor of quarry) where practicable

8.10.20. The FI also indicated the location of the additional dust monitoring points (Fig. 1). The total number of dust monitoring sites (existing and proposed) is now eight. It is further noted that a new wheelwash is to be installed at the site which will be more

efficient and that the applicant has agreed to reduce the hours of operation on Saturdays to finish at 13.00 hours.

Residual impacts

8.10.21. It is considered that having regard to the nature of the receiving environment and to the type and intensity of the activities, particularly in terms of the utilisation of existing machinery/plant and access/haul routes, adhering to the permitted depth of extraction, rate of extraction and number of HGV trips, together with the proposed mitigation measures, the residual effects on human health and on dust disamenity are not likely to be significant.

Cumulative impacts

8.10.22. Cumulative impacts are likely to arise from activities such as agricultural activities in the vicinity. The background concentrations of PM_{10} are relatively low and these include emissions from all sources including agriculture. The potential concentrations of PM_{10} associated with the project were not considered to give rise to a risk of the annual AQS being exceeded. As such, the potential for cumulative and in-combination effects to arise from ambient dust is not significant.

8.10.23. In terms of dust disamenity, it is considered that as there will be no increase in the rate of extraction or number of HGV trips, and the mitigation measures and monitoring regime is to be intensified and expanded, the cumulative impacts from the existing quarrying activities would not be significant.

Air Quality - Conclusion

8.10.24. Parties to the appeal consider that their amenities will be adversely impacted from dust arising from the proposed extension to the existing quarry. Sufficient detail has been provided to support the conclusion that the proposed development with mitigation would not result in excessive dust emissions with the preparation of a Dust Minimisation Plan proposed. A condition requiring its preparation within a specified time period is recommended should permission be granted.

8.10.25. The mitigation measures proposed are generally typical industry good practice measures, similar to those set out in the previously referenced Planning Guidelines and EPA Guidelines. They include minimising exposed surface areas, water sprays to moisten handled material/haul routes, processing of material on

the quarry floor, compacting of haul routes and control of vehicle speed, seeding of soil mounds etc.

8.10.26. I have considered all of the written submissions made in relation to air quality. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on air quality.

8.11. Climate change

8.11.1. The potential impacts on climate are addressed in chapter 10 of the EIAR. The potential impacts on climate are assessed in the context of national commitments under EU and UN climate change agreements and the Government's commitments to reductions in levels of certain atmospheric pollutants - greenhouse gas emissions. These commitments are noted in the EIAR to be further supported through Climate Action legislation, the National Adaptation Framework, Planning for a Resilient Ireland (Dept. of Communications Climate Action and Environment, 2018) and the Climate Action Plan (2023), as well as Kilkenny County Development Plan 2021-2017and Kilkenny County Council Climate Change Adaptation Strategy 2019-2024 and a range of other documents (10.2 EIAR).

8.11.2. The Board should note however that since the appeal was lodged the Government's Climate Action Plan has been updated by CAP 2024 and most recently, by CAP 2025. In addition, Kilkenny County Council Climate Change Adaptation Strategy has been replaced by a new Climate Action Plan.

8.11.3. Kilkenny County Council adopted its inaugural Climate Action Plan 2024-2029 in Feb. 2024. The 5-year plan outlines the measures that the local authority will take to reduce energy use and carbon emissions and adapt to the changing climate across its governance, services and operations. This Climate Action Plan sets out how it is consistent with the National Climate Action Plan, the National Adaptation Framework and sectoral adaptation plans. It incorporates 95 actions to be undertaken which align with the national targets and are designed to reduce

Kilkenny County Council's greenhouse gas emissions by 51% and to improve its energy efficiency by 50% by 2030. In addition, the local authority will endeavour, by working in partnership with business, communities and organisations, to influence, co- ordinate, facilitate and advocate for all other sectors to reduce their emissions and meet their respective targets.

8.11.4. The Climate Action and Low Carbon Development (Amendment) Act 2021 and the Climate Action Plan 2024 require Ireland to achieve a 51% reduction in emissions by 2030 (relative to 2018 levels) and net-zero emissions no later than 2050.

8.11.5. The National Climate Change Adaptation Framework (2018) seeks to support climate action by setting out policy and striving to become more resource-efficient and by contributing to the low carbon economy. However, the extractive industry is not currently defined under the NCCAF. The EIAR used Transport and Electricity sectors in terms of the GHG assessment. The Climate Action Plan which is updated every year sets out the roadmap to deliver Ireland's climate ambitions aligns with the legally binding economy-wide carbon budgets and sectoral emission ceilings agreed by government. The extractive industry is not considered in any of the specific sectors, but specific industries are relevant to the assessment under this policy framework.

8.11.6. The Kilkenny CDP contains a number of strategic aims and objectives and the Climate Change Adaptation Strategy and sets out a range of actions across the sectors of Energy and buildings, Flood Resilience, Transport, Resource Management and Nature Based solutions.

8.11.7. It is stated that there are no set methodologies at present to evaluate the significance criteria or a defined threshold for Green House Gases (GHG). The main sources of GHG emissions associated with the proposed development are from the use of vehicles onsite as well as the operation of plant and equipment. The proposed development will not result in any new/additional plant or machinery or in the number of HGV trips. Calculations for HGV emissions were performed using the TII Carbon Tool, taking into account the known number of HGVs and LGVs that will be used on a typical day and an estimation of their typical travel distances (10.2.2 of EIAR). The Emission Factors (kg of CO_{2e} per km) for HGVs and LGVs were calculated at 0.3 and 0.2, respectively.

Receiving environment

8.11.8. The Climate Action and Low Carbon Development Act sets sectoral emission ceilings to outline the maximum amount of GHG emissions that are permitted in different sectors of the economy. Ireland is committed to achieving carbon neutrality by 2050. The carbon budget has three 5-year successive national emission ceilings, within which sectoral emission ceilings have been created. The sectoral emission ceiling for the transport sector is 54,000,000 tCO_{2e} for 2021-2025 and 37,000,000 tCO_{2e} for 2026-2030.

Predicted effects

8.11.9. GHG emissions may arise from movement of HGVs (associated with transport of aggregates to market) and the use of machinery on site.

8.11.10. Construction phase – this phase will span c. 6 months. The stripping of topsoil and overburden has the potential to result in a net loss of CO_{2e} by the removal of vegetation that would have sequestered carbon. However, the construction phase will utilise existing plant and machinery and infrastructure, removing the need for additional equipment that would emit GHG.

8.11.11. Operational phase – this phase will span over c.19 years. The activities will involve activities such as blasting, mineral processing and the haulage of materials to market. As discussed previously, no additional HGVs or plant are anticipated to be used compared to the established quarrying activities and therefore the boundary in which GHG are assessed will be related to both the existing quarry and the proposed development.

8.11.12. Restoration phase – the site will be made safe, and groundwater will be allowed to recharge, forming a lake habitat.

8.11.13. Climate hazards - According to the IPCC's Sixth Assessment Report, climate impacts are becoming more severe and are manifesting at an accelerated pace. The climate hazards identified as relevant to the proposed development include wildfires, heatwaves/droughts, cold snaps, extreme rainfall, flooding and landslides.

8.11.14. Temperature-related hazards could lead to contraction or expansion of metals, make materials more fragile or susceptible to rapid degradation, increased dust

deposition and special considerations for fuel storage. Wildfires could cause extensive damage to quarry infrastructure, suspension of activities and damage to access roads. Flooding could increase groundwater levels causing quarries to become brackish and affecting material extraction, surface areas and bunded areas could get flooded and increased rainfall could result in washing of suspended solids causing blocked drainage and off-site pollution. Landslides and erosion could lead to depletion of valuable resources, damage infrastructure, endanger the safety of employees and block access roads.

8.11.15. The frequency of climate hazards was found to be low and the risk of occurring was also low. An assessment was undertaken of the frequency of these hazards combined with the likely future climatic conditions. However, it was concluded that the effects of climate change on the proposed development were not likely or significant.

8.11.16. GHG assessment – the quarry was estimated to produce c.6,623 tonnes of CO_{2e} which relate to transport-related emissions associated with onsite and offsite movements of materials, as well as those associated with process related fuel combustion. Calculations, based on assumptions about the total distance covered by all HGVs over a typical year (Table 10-1 EIAR), suggested that HGV emissions would yield 4,681.5 tonnes of CO_{2e}. Thus, for the purpose of comparing emissions against the National Carbon Budget, 1,941.5 tonnes of CO_{2e} was considered representative for a typical year of quarry activities (i.e. total emissions minus HGV emissions). The estimated GHG emissions in the context of the National Carbon budgets are set out in Tables 10-10 and 10-11 of the EIAR.

8.11.17. In terms of HGV emissions, it was calculated that the proposed development would contribute 0.001% GHG of the First National Carbon Budget, NCB, (2024-2025) and 0.005% of the Second NCB (2026-2030). In terms of HGVs and LGVs (transportation and employee's vehicles), the proposed development would contribute 0.02% GHG emissions relative to the Transport Sector in the First NCB and 0.1% in the second NCB.

8.11.18. The contributions of the proposed development of GHG emissions to both the relevant sectoral emission ceiling and to the national carbon budgets are very low.

The effects of the proposed development on GHG emissions are, therefore, not significant.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.11.19. The developer is part of CRH PLC which has a comprehensive sustainability policy in place which seeks to optimise use of energy and all resources. CRH aim to achieve carbon neutrality by 2050 and aim to continue to reduce emissions from the activities and processes. It is stated that progress has already been made in this respect as reported in the company's sustainability report (Scope 1 emissions decreased by ca.7% in 2022 compared to 2021, with Scope 2 decreasing by 8%).

8.11.20. Additional mitigation measures in respect of the Kilmacow Quarry include the following:

- Reduce the idle times by providing an efficient material handling plan that minimises the waiting time for loads and unloads
- Turning off vehicle engines when not in use for more than 5-minutes
- HVO as an alternate fuel to diesel fuel during the lifetime of the project
- Ensure regular maintenance of plant and equipment and
- Use low energy equipment as far as practicable

Residual impacts

8.11.21. As discussed above, the effects of GHG emissions as a result of the proposed development will be 'not significant' based on the size and type of development, including the existing quarrying activities. No residual impacts are therefore anticipated.

Cumulative impacts

8.11.22. The assessment of impacts incorporated existing emissions arising from the quarry. As stated previously, there will be no change in the number of vehicles or HGV trips or in the quantity of electricity used and the existing plant and machinery will be utilised. Thus, it is considered that the predicted emissions associated with the proposed development represents a cumulative assessment. It is not anticipated that there will be any significant cumulative impacts.

Climate change - Conclusion

8.11.23. I have considered all of the written submissions made in relation to climate change. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on climate change.

8.12. Acoustics (Noise and Vibration)

8.12.1. The assessment of noise and vibration impacts is addressed in Chapter 11 of the EIAR.

8.12.2. The Noise Assessment describes the receiving ambient noise climate and assesses the potential noise impact on Nearest Sensitive Receptors (NSRs) during the construction, operational and restoration phases of the development. The methodology included the preparation of a noise model. The potential noise effects are assessed through two distinct methods. Firstly, an assessment is made of the likely change in the acoustic environment as audible at sensitive receptors (IOA/IEMA Guidelines) and secondly, the likely site-specific noise emissions audible and vibration at sensitive receptors are rated against standard limits for nose nuisance and vibration from quarries.

8.12.3. Construction phase noise was assessed using British Standard BS5228-1 (Construction and Open sites) which uses the ABC method for assigning limits at NSRs based on existing ambient levels. This method requires an understanding of the receiving environment at the NSRs to allocate suitable construction noise limits. Operational noise was assessed using the EPA Environmental Management in the Extractive Industry Guidelines (2006) which recommend noise limits of:

Daytime (0800-2000) $L_{Aeq,1hr}$55dB(A)

Night-time (2000-0800) $L_{Aeq,1hr}$45dB(A)

8.12.4. It was noted that operational noise is currently controlled at the quarry by Condition 9, of Planning Permission 16/700 which sets limits as follows:

Activities on site shall not give rise to noise levels off site, at noise sensitive locations, which exceed the following sound pressure limits:

Daytime (08:00 – 22:00) 55dBA $L_{Aeq,60min}$

Night-time (22:00 – 08:00) 45dBA $L_{Aeq,15min}$

The above limits are inclusive of any necessary adjustments to account for tonal or impulsive character in the noise.

Noise monitoring shall be carried out quarterly as per the current environmental monitoring plan (described in the Environmental Impact Statement) with results being submitted to the Planning Authority within 2 weeks of such monitoring

8.12.5. In addition, the noise assessment also utilised the IOA/IEMA 2014 Guidance to assess the significance of the effect based on the magnitude/nature of the impact and a description of the effect on specific receptors.

8.12.6. The assessment of vibration from blasting involves the measurement of two distinct aspects as follows:

Air overpressure – the sound pressure wave transmitted through the air, which is at a low frequency, but is accompanied by a higher audible frequency, which ensures that the sound pressure is audible.

Vibration – the acoustic pressure wave transmitted through the ground from the blast, which can result in reverberation within surface structures, including building components (glass), which can result in an audible emission.

8.12.7. The existing blasting operations are controlled under Condition 11 of planning permission 16/700 which states:

a) Blasting shall be designed and undertaken in such a manner such that ground-borne vibration levels shall not exceed a peak particle velocity of 8mm/sec measured at nearest inhabited dwellings and air overpressure values shall not exceed 125dB($L_{in,max}$).

b) Results of monitoring undertaken for each blast shall be submitted to the Planning Authority on a quarterly basis along with the noise and dust monitoring results.

8.12.8. It is noted that these limits are more restrictive in respect of the ground-borne vibration limit than those specified in the EPA guidelines (extractive industries) at sensitive receptors. The recommended ground-borne limit is 12mm/sec which should be measured in three orthogonal directions, which is stated as being well below the levels at which structural damage occurs. The condition (11) limit is similar to the air overpressure limit of 125dB($L_{in,max}$), but includes a requirement for a 95% confidence limit to allow for wind fluctuations and weather conditions, with no individual value exceeding the limit value by more than 5dB(Lin).

Receiving environment

8.12.9. The area is in agricultural use with several single houses in the vicinity and the village of Kilmacow approx. 2km to the north. The Waterford-Limerick Junction railway line lies between the site and Kilmacow. The site is also close to the N24 national road which qualified for strategic noise mapping. The quarry is currently served by the N24 and the L7434 and will continue to be served by the same access arrangements. In addition, it has been established that the traffic from the site will be in line with the existing permitted traffic levels and movements in/out of the site. As such, vehicular traffic within the site has been incorporated into the noise model but it is not anticipated that there will be any additional significant impacts arising from road traffic noise.

8.12.10. The EIAR identified six noise sensitive receptor (NSR) locations, NSR01-NSR06. Fig. 11.3 and Table 11.3 show the location of the NSRs and the distance from the extraction area. The three closest receptors are NSR01 (310m), NSR02 (280m) and NSR03 (310m), which are located to the north-east and north of the site, respectively. It should be noted that NRS01 and NSR02 relate to the third-party appellants' properties. The remaining NSRs are located to the west (NSR04 – 728m and NSR05 - 658m) and to the south (NSR06 – 539m).

8.12.11. The existing quarry is subject to monitoring of both noise and vibration effects and a review of the existing noise monitoring compliance is set out at 11.3.2. Noise monitoring points are shown on Fig. 11-5, which are located to the north of the site (N1), to the north-east (N2) and to the southwest (N3). The current vibration monitoring points are also shown on Fig. 11-4, which are to the north, north-east and south-east of the site. The results of the noise monitoring compliance in terms

of day-time and night-time are presented in Tables 11-4 and 11-5, which were stated to be complaint with the limits set by Condition 9 (16/700). The closest monitoring points to the appellants' properties are N2 and V2.

8.12.12. In addition to the review of historic monitoring, a noise survey was undertaken on 25th October 2023 to develop an understanding of the receiving environment. The locations of NM1-4 are shown in Fig. 11-6 and the types of noise recorded in Table 11-8. The noise monitoring point for the survey that is closest to the appellants' properties is NM01. The highest levels of ambient sound were found at NM04, (53-65dB $L_{Aeq.1hr}$ and background levels of 48dB$L_{A90.1hr}$), which is closest to the quarry plant and activities. The noise levels at the remaining points were dominated by bird song and local traffic (42dB – 59dB $L_{Aeq.1hr}$ and 36dB – 53dB $L_{A90.1hr}$). It was concluded that the ambient baseline sound levels are low to moderate with significant influence at NSRs arising from road traffic.

Predicted effects

8.12.13. Construction phase noise – the main noise generating activities will be topsoil and overburden removal and construction of soil banks as well as the demolition of the two agricultural sheds and pumphouse. The equipment used will mainly comprise of a bulldozer and an excavator. The likelihood of vibration extending over distance to the nearest receptors was very low. The predicted noise levels at each NSR are presented in Table 11-10. All NSRs identified (NSR 01 to NSR 06) will experience less than an $L_{Aeq,1hr}$ of 59dB, due to the distances between NSRs and the proposed construction works. These values represent the worst-case scenario when plant will be operational on the closest boundary to each of the properties for a constant duration of 1 hour. These values are below the typical construction noise nuisance limit (Daytime) of 65dB $L_{Aeq,1hr.}$ In the event that works are required outside daytime hours, the following noise limits would apply to construction works

- Evening & Weekends – $L_{Aeq,1hour}$ 55dB; and,
- Night-time (11pm to 7am) – $L_{Aeq,1hour}$ 45dB

8.12.14. Operational phase noise – the main noise generating activities will be blast preparation, blasting, rock breaking (2-3 days post blast), crushing, screening and aggregate transport, and will be similar to the ongoing activities at the quarry. The equipment for blasting involves the use of a drilling rig on top of the bench. The

remainder of the activities relate to preparation and the equipment used include a tracked excavator, wheeled loader, tracked mobile plant, articulated dump truck, and HGVs. The noise modelling to predict emissions assumed a height of 1.5m and a working floor pit of c.15m OD, which would represent the worst-case scenario. As work progresses for each bench, the noise will be reduced at NSRs due to the increasing relative height of noise sources to the berms and cliff face to the NSRs.

8.12.15. The predicted cumulative noise levels (45-52dB L_{Aeq}) are below noise nuisance criteria recommended in the EPA guidance (55dBA L_{Aeq}) for daytime noise and will also be below the operational noise limits set by Condition 9 of Permission 16/700. Predicted changes at five NSRs were deemed to have an effect, with a predicted change of +3 to +6dB at NSR01 to NSR03 and +2dB at NSR04 and NSR05, and no change at NSR06. The proposed quarry extension will, therefore, be potentially audible at these NSRs. However, the character of the noise will not change as the activities are similar, and the same machinery and equipment will be used. The impact is therefore considered to be Slight local effect.

8.12.16. Blasting currently occurs approx. 3-4 times a month, but the frequency varies with demand. The EPA and DoEHLG Guidelines indicate that if blasting occurs more than once a week, the ppv values must be reduced to less than 8mm/s at sensitive locations. A review of the blast records at the quarry indicate that blasts were below the industry standard compliance limits and were complaint with condition 11 of permission 16/700. Rock will continue to be extracted by blasting and in compliance with current vibration limits and a 150-metre buffer will be used to offset the effects. Having regard to the standard control measures at the site, the known experience of blast management on site with no exceedances of the limits to date, it is considered that the blast event is likely to have a temporary local moderate effect on the environment.

8.12.17. Restoration phase noise – the main noise generating activities will be related to the grading of the lower sections of the haul ramps, which will be planted with vegetation. This activity will require minimal plant, consisting of a tractor to spread seeds and will take place within the pit floor. The peak site-specific emissions at the closest NSRs are predicted to be 42dBA, which is below the recommended limits of 65dBA $L_{Aeq,1hr}$. No new sound characteristics will be introduced. The

sound qualities associated with restoration will not have any tonal or clearly impulsive/impact sounds, and as such, are unlikely to be objectionable. Thus, the impact is predicted to be not significant, short-terms and on a local basis.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.12.18. Best practice noise and vibration control measures will be employed during each phase of the development in order to avoid significant impacts on the nearest sensitive receptors. Details are set out at 11.5 of the EIAR.

8.12.19. Construction phase - Prior to the commencement of development, the CEMP will be revised and agreed with the P.A. and will identify common noise control measures to be in place during the construction phase. Mitigation measures will include restriction of construction hours, nomination of a responsible person to accept and respond to complaints and an agreed response procedure, appropriate maintenance of all plant and equipment, minimisation of drop heights from equipment and a noise monitoring programme. No mitigation is required in respect of vibration during the construction phase. This phase is unlikely to give rise to any significant effects.

8.12.20. Operational phase – Mitigation measures include restriction on operation hours. It is noted that the proposed hours of operation (0700 to 2000 Mon-Fri and 0700 to 1800 on Saturdays, with no activity on Sundays or public holidays) was amended following the receipt of further information in respect of Saturdays. The hours were amended to finishing at 1300 hours instead of 1800 hours. It is stated that working close to the quarry face and the creation of berms will also significantly reduce noise emissions from the site. Similar mitigation measures to those for the construction phase will be implemented such as maintenance of machinery, minimising drop heights and switching equipment off when not in use. In addition, it is proposed to enclose or clad machinery when possible and to reduce the gradients of internal haul routes to minimise noise emissions.

8.12.21. Vibration and overpressure will be required to meet the limits set out in condition 11 of the planning permission 16/700, in that vibration levels shall not exceed a peak particle velocity of 8mm/sec and overpressure values shall not exceed 125 dB (Lin) max peak, when measured at any noise sensitive house, which is stricter

than the EPA standards (ppv of 12mm/sec). Additional specific measures to reduce ground-borne vibration are set out at 11.5.2.2 of the EIAR. The effects on operational noise and vibration following mitigation are not considered to be significant.

8.12.22. The restoration phase will be temporary and periodic. mitigation measures include maintenance of plant and machinery to a high standard and throttling it down or switching it off when not in use. The effects on restoration noise, following mitigation is Not Significant and there will be no significant effects in terms of vibration.

Residual impacts

8.12.23. No residual impacts were identified in the EIAR. However, the P.A. sought additional noise monitoring and mitigation measures in the FI request. In response, the developer proposed to carry out additional noise and vibration monitoring and stated that if requested by an owner, a specific property can be included in the monitoring in the monitoring. It is considered that residual noise impacts would not be significant.

Cumulative impacts

8.12.24. The proposed development has been assessed in terms of the potential variation in ambient noise levels and no significant impacts were identified. It is further noted that existing noise emissions from the established quarry and other activities in the vicinity, were incorporated into the ambient noise values used in the assessment. In addition, worst-case scenarios were used as part of the assessment. It is considered, therefore, that no significant cumulative impacts are likely to arise.

Noise and Vibration - Conclusion

8.12.25. I have considered all of the written submissions made in relation to noise and vibration. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on noise and vibration on sensitive receptors in the vicinity

8.13. Landscape and visual impact

8.13.1. Chapter 12 of the EIAR addresses landscape and visual impact. This effects of the proposed development on this factor of the environment are examined by means of a Landscape Impact Assessment and a Visual Impact Assessment.

8.13.2. The Landscape Impact Assessment considered the following criteria:

- Landscape character, value and sensitivity
- Magnitude of likely impacts
- Significance of landscape effects

The sensitivity of the landscape to change is defined as the degree to which a particular landscape receptor can accommodate changes or new elements without unacceptable detrimental effects to tis essential characteristics. The magnitude of a predicted landscape impact is a product of the scale, extent or degree of change that is likely to be experienced as a result of the proposed development.

8.13.3. The Visual Impact Assessment was assessed as a function of sensitivity of the visual receptor against the magnitude of the visual effect. The assessment considered factors such as the perceived quality and values associated with the view, the landscape context of the viewer, the likely activity they are engaged in and whether this heightens their awareness of the surrounding landscape. For instance, residents at home and visitors to heritage assets where a view is of importance to the experience are considered to be more susceptible than people using an area for sport, recreation or work, where the activity does not depend on an appreciation of the landscape or view. In addition, factors such as scenic views or highly sensitive landscapes which are designated in the development plan would have a higher value than views/landscapes which are not designated. A list of the factors considered is set out at 12.2.2.1 of the EIAR.

8.13.4. These factors were then used to estimate the level of sensitivity for a particular visual receptor in order to establish the visual receptor sensitivity at each Representative View Point (VPR). The magnitude of the visual effect is then determined on the basis of firstly, the visual presence of the proposal (i.e. its relative visual dominance) and secondly, the effect of this on visual amenity.

Receiving environment

8.13.5. The site is in agricultural use and immediately adjoins an existing quarry operation. The lands within the site and around the existing quarry site are in agricultural use with one-off housing along the local road network, with the nearest dwellings to the northeast. The landform is described as gently rolling landscape interspersed with watercourses. The site is contained within a localised plateau and the closest watercourse is the Flemingstown Stream to the east of the site.

8.13.6. The site is located within the *'G-South Kilkenny Lowlands'* Landscape Character Area, which is set within a broader *'Lowland'* Landscape Character Type. The *'J-Suir Valley'* LCA is located to the south, which falls with a *'River Valley'* Landscape Character Type. The *South Kilkenny Lowlands LCA* is described as follows:

> "This expansive lowland area to the south-west of the County has extensive views of the River Suir valley and the South Kilkenny Uplands, Tory Hill and Carrigatubbrid Hill. Distant views include the Comeragh Mountains. This area has open lands with regular (medium sized) field patterns. Medium sized hedgerows act as field boundaries where few trees can also be found. Rock outcroppings are a feature of this area. The unit is perceived as being special in landscape terms, particularly around Piltown, Mooncoin and Kilmacow. The area is perceived as being generally suitable for tourism development, and other type of projects can be acceptable in the environs of Waterford City"

8.13.7. Kilkenny CDP identifies *Landscape areas of highly scenic and significant visual amenity value*. The closest of these designations to the site are

- the River Suir watercourse, c. 1.4km to the south
- the Blackwater River Valley, c. 1.5km to the east
- Inland marsh where the R. Blackwater and R. Suir meet

8.13.8. There are two designated scenic views within the study area, but these are outside of the Zone of Theoretical visibility. The scenic views are:

V20 Views over King's River Valley on Road no. LS5067 between Kells and the R713, Waterford Road.

V21 Views southwest over the River Suir at Granagh Castle

8.13.9. The Zone of Theoretical Visibility (ZTV) is shown at Fig. 12-4. It extends for a radius of 3km and is based on the worst-case scenario, as it ignores features such as trees, hedges or buildings, which may screen views of the site. There is little or no potential for views from the low-lying areas to the west with the highest theoretical visibility being from the north, east and south. It is stated (12.3.5) that notwithstanding the zones from which the proposed development would be theoretically visible, it will not rise more than the existing level of the terrain and will be considerably screened by vegetation such as hedges and trees and well as the proposed landscaping berms.

8.13.10. Four VPRs have been identified (Table 12-5 and Fig. 12-5) as follows:

VP01 Local road north of the site at Granny, View to South

VP02 Local road to East of site at Granny, View to SW

VP03 N24 national road in Ballygriffin, View to NW

VP04 Local road in Portnahully, View to NE

It is noted that VP02 is the closest point to the third-party appellants' properties.

8.13.11. In a 'do-nothing scenario' the extraction of the existing pit would continue within the parameters of the existing permission and the remainder of the site would continue in agricultural use.

Predicted effects

8.13.12. Topsoil and subsoil will be extracted from within the extension area and reused to construct landscaped berms along the northeast and southeast of the extension area, which will have a screening effect. The proposed development will involve the stripping of existing overburden to access the underlying rock within the proposed extraction area and will continue to excavate developing a series of benches in the process. Following removal of the aggregate reserve, the site will undergo rehabilitation in accordance with the Restoration Plan.

8.13.13. The landscape is described as typical rolling rural landscape with relatively well-maintained field boundaries, comprising a mix of mature tree-lined hedgerows, which has been highly modified but is not degraded. The landscape value does

not include any rare or particularly scenic qualities within the vicinity of the site. Scenic, ecological conservation and recreational value is associated with the River Suir, which is located further to the south. There are no notable strong local landscape associations. I would agree that the quarry and the N24 corridor dominate the site and that the more sensitive features of the Blackwater and Suir river valleys are at more of a visual remove and are separated by working rural landscapes. As such, the landscape sensitivity is classified as Medium-Low, which seems reasonable.

8.13.14. The magnitude of effects on the landscape was deemed in the EIAR to be 'Medium' on the basis of the proposals to create a void within the site and to construct peripheral screening berms along the southeast and northeast boundaries of the proposed extension. These physical landscape effects were assessed as 'negative' and 'permanent' as the berm would detract from the natural slope of the landscape, but it would be preferable to unscreened views of the excavated, near-vertical faces within the quarry. I would agree with this assessment and note that in time, the vegetated berm will appear more natural in the landscape. Furthermore, the existing landscape is a working rural landscape, where the lands in the vicinity of the site area dominated by the presence of the quarry and the associate activities such as the movement of HGVs. The proposed development will extend the area of the quarry laterally and the duration of activities, but at a similar rate and intensity of activities. Thus, the magnitude of change would not be considerable to be significant in this context.

8.13.15. Given the Medium-Low landscape sensitivity, and the Medium magnitude of landscape impact, it is considered that the EIAR assessment of an overall significance of no greater than 'Moderate-slight' and 'Permanent' within the immediate vicinity of the site and reducing to 'slight' and 'imperceptible' at greater distances is reasonable.

8.13.16. The sensitivity of visual receptors is influenced to a large extent by undulating topography and the agricultural context, where the network of field patterns, hedgerows and vegetation provide a sense of naturalness, which has had a longstanding presence of human intervention. However, it does not contain any particularly noteworthy scenic view designations within the vicinity of the site and views are generally contained agricultural views rather than expansive or

exceptional scenic ones. The key factors, however, relate to the occupation of the visual receptor. Static residential receptors are more susceptible to change than visitors travelling through the landscape and receptors close to the site will be more susceptible to change than those who experience the change from a distance.

8.13.17. The photomontages for each VPR are contained in Appendix 12-1 and the assessment of the magnitude and significance of the effects is set out in Table 12-6. The existing quarry is not readily visible as views are screened by the existing pit being below ground level and by natural screening and the landscaping berms that have been erected.

8.13.18. The above ground visual impacts of the lateral extension of the quarry are largely confined to the creation of the initial landscaping berms. These berms will slightly alter the contour of the natural landform. However, given the nature of the existing landform and vegetation cover, it would be difficult to discern the berms from the adjoining agricultural fields and hedgerows, once the vegetation becomes established. In the longer term, it is considered that the proposed development will be contained within the extensive landscape screening proposed and will subsequently be rehabilitated, albeit with a permanent landscape change. Thus, for each of the four VPRs, the magnitude of change is negligible, and the significance is deemed as imperceptible, negative and permanent.

8.13.19. The landscape character in the vicinity of the site has been subject to incremental change over the years with the removal of field boundaries and the introduction of quarrying activities. The quarry will be rehabilitated and reintegrated into the landscape once completed. Thus, it is considered that the proposed development, which would be rehabilitated on an ongoing basis, will be consistent with the pattern of the evolving landscape in the general area.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.13.20. The primary mitigation measure consists of the integration of landscaping and rehabilitation measures into the project design. Extensive earth berms will be planted with native species of trees and shrubs along the northern and north-eastern edges of the extension to assist in screening the extraction area. The

existing treelines and hedgerows on the lands adjoining the berms will be retained.

Residual impacts

8.13.21. The proposed planting berms will provide good visual screening of the proposed extraction area, the visibility of which will reduce as the depth of extraction progresses. It is considered that the berms would have a positive impact in terms of providing for additional screening of both the existing and proposed extraction areas and the program of rehabilitation will help to integrate the development into the local landscape. The long-term landscape and visual impacts would be permanent but would not be significant as the rehabilitated site would be consistent with the evolving landscape in the area.

Cumulative impacts

8.13.22. The main cumulative impacts are the existing quarry combined with the proposed extension. The in-combination effects of the quarry and the proposed extension to it has been the focus of the landscape and visual impact assessment undertaken in the EIAR. It is not anticipated that any further cumulative impacts will arise in respect of landscape and visual impacts.

Landscape and Visual Impact - Conclusion

8.13.23. I have considered all of the written submissions made in relation to landscape and visual impact. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on landscape or visual amenity.

8.14. Cultural Heritage

8.14.1. Chapter 13 addresses the impacts on the archaeological, architectural and cultural heritage of the site and surrounding area.

Receiving environment

8.14.2. The site comprises three agricultural fields immediately adjoining an existing extraction area, which is to be extended into the site. The baseline research was

undertaken by means of a desk study and a field assessment (8th December 2023). There are no Recorded Monuments within the site, but there are several to the south/southeast of the existing quarry pit. There are no SMR sites within the site or in the study area. The Ordnance Survey 6-inch Maps indicate the presence of three SMRs but not on the 25-inch maps and they appear to have been levelled at some point in the past. There are no Protected Structres on the site, but there are three NIAH sites in the vicinity of the site, to the east.

8.14.3. Part of the site (the existing quarry access road) extends through the Zone of Notification for 2 no. Recorded Monuments, each of which is a Fulacht Fiadh site, (KK043-02301 and KK043-02302), located at Aglish North. However, the access road has already been developed and will not have any impact on the Fulacht Fiadh sites. A third fulacht Fiadh site (KK043-024) is located c.225m south of the already developed quarry access road and is not likely to be affected by the proposed development. The remaining Recorded Monuments in the area are located further away and are all considered to be too distant to be affected by the proposed development.

8.14.4. The field inspection identified three upstanding structures in the vicinity of the site, including a farm complex, which were deemed not to be examples of significant architectural heritage. Details are provided in Tables 13-2, 13-3 and 13-4 and the associated plates. Structures 1 and 3 comprise individual houses (one of which is in ruins) and the other is occupied. Structure 2 comprises a farm complex consisting of a farmhouse and 11 outbuildings, two of which are proposed for demolition as part of the proposed development.

8.14.5. Archaeological investigations have been carried out within the study area in the past, two of which involved monitoring of topsoil stripping within the extracted area of the existing quarry. The only feature uncovered by the monitoring was a charcoal spread measuring 0.6m x 0.4m (99E0466).

Predicted effects

8.14.6. The EIAR concluded that there will be no direct or indirect effects on any known items of archaeology, buildings of architectural heritage significance, or cultural heritage in the site or the vicinity during the construction and operational phase of the proposed development. However, in terms of previously unknown

archaeology, it was stated that in a worst-case scenario, soil stripping has the potential to have permanent significant, irreversible, total, negative/adverse impacts on such deposits or artefacts without preservation by record taking place.

8.14.7. In the case of a 'do-nothing scenario', if the proposed development were not to proceed, the proposed extension area would remain in agricultural use and any potential unidentified subsurface archaeological remains would remain intact. There would be no negative effect on archaeology, buildings of architectural heritage significance, or cultural heritage.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.14.8. All soil-stripping in Areas 2,3,4 and 5 identified during the field inspection (Fig. 13-4) will be monitored by a qualified archaeologist under licence from the National Monuments Service due to the potential survival of previously unknown sub-surface archaeological deposits or finds. Any archaeological material identified during monitoring will be required to be preserved by record under licence from the National Monuments Service in advance of development.

Residual impacts

8.14.9. Following the implementation of the proposed mitigation measures, no residual impacts are anticipated.

Cumulative impacts

8.14.10. No projects in the vicinity of the site were identified that have the potential to lead to cumulative effects with the proposed development on any known items of archaeology, buildings of architectural heritage significance, or cultural heritage. As such, no cumulative effects are likely to arise.

Cultural Heritage - Conclusion

8.14.11. I have considered all of the written submissions made in relation to cultural heritage. I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on cultural heritage.

8.15. Material Assets (Traffic and Transport)

8.15.1. Traffic and transportation are addressed in Chapter 14 of the EIAR, which is supplemented by amended drawings and additional details submitted by way of further information (10/10/24). I refer the Board to my assessment in Section 7.4 of the planning assessment above. I recommend that the sections be read in tandem.

Receiving environment

8.15.2. The quarry is accessed by means of the L7434, to the north of its junction with the N24, Waterford-Limerick Road. This junction is located approx. 2.5km to the west of the Grannagh roundabout where the M9 terminates. The proposed development will be accessed by means of the existing entrance to the south of the quarry pit, via a mini-roundabout which forms a junction between the quarry access and the local road. The L7434 is 8 metres wide at the location of the quarry access. The local road turns west at the access point and narrows in cross section and then continues in a north-easterly direction.

8.15.3. The access to the quarry is located on a 90-degree bend in the horizontal alignment, and the mini-roundabout on the local road facilitates the access. There is currently a footpath on the eastern side of the carriageway which extends as far as the junction with the N24. The N24 is a two-way single carriageway road which is approx. 10 metres wide (including hard shoulders) and has a 3-metre-wide right turn lane at tis junction with the L7434.

8.15.4. A future strategic scheme, the ‘N24 Waterford to Cahir Project’, is currently being developed on the N24 National Road, which is being led by Kilkenny County Council in partnership with Tipperary County Council, Transport Infrastructure Ireland (TII), and the Department of Transport. This project is currently at Phase 2, the Options selection phase. The preferred route was part of a public consultation process which closed in February 2024. Feasible alternatives include a yellow route option through the site of the proposed quarry extension. However, the preferred route option presented as part of Phase 2 public consultation was based on the existing line of the N24 to the south of the quarry site.

8.15.5. Traffic surveys in respect of the proposed development were conducted in November 2023 at the following locations:

- The mini-roundabout junction of the Quarry Access and the L7434 (*'The Mini-roundabout Junction'*)
- The 3-arm junction of the L7434 and N24 ('*The N24 Junction'*)
- The L7433 crossroads junction (4-arm) with the secondary site access ('*The Quarry Crossroads'*)
- The L7434/L7433 crossroads junction (4-arm) ('*The L7434 Crossroads'*).

8.15.6. Hourly traffic flows were calculated and the estimated AADTs for each junction is set out in Tables 14-1 to 14-4, inclusive.

Predicted effects

8.15.7. The quarry currently extracts between 700,000 – 1,000,000 tonnes of limestone, which is processed and removed from the quarry annually, and it is not proposed to increase these current extraction rates. The quarry also produces a variety of products including a range of aggregates, readymix concrete, concrete blocks, and black top. The average figure for all existing operations at the quarry is 125 loads (125 inbound trips and 125 outbound trips) per day (includes ancillary, manufacturing activities and waste recovery facility). The Proposed Development will maintain existing production levels over the life of the Quarry, with no increase in traffic levels anticipated.

8.15.8. It was considered prudent to account for possible variations in the average operating figures cited above. A worst-case scenario was therefore considered to accommodate periods where demand for materials/products/waste occurs in concentrated peaks. A traffic modelling scenario was undertaken based on 250 loads per day into and out of the quarry (i.e. double the current no. trips, equating to 500 trips in total per day). However, the staff numbers were not expected to increase beyond the 30 peak hour trips and 20 additional miscellaneous trips were added, giving a total number of trips for the worst-case scenario of 550 trips. These were assigned on the basis of existing traffic flows.

8.15.9. The assessment found that there would be an increase in traffic volumes at junctions within the surrounding road network. In accordance with the TII Traffic

and Transport Assessment Guidelines, and given that the additional traffic combined with the background traffic exceeded the 5% threshold, a link capacity assessment was undertaken for the L7434 and a junction capacity assessment was undertaken for the following junctions:

- L7434/Quarry mini-roundabout junction
- L7434/N24 Junction.

8.15.10. The link capacity assessment found that the L7434 would operate well within capacity for each of the assessment years (2024, 2029 and 2039). The Junction capacity assessment found that the junction of the L7434 with the N24 would operate well within capacity for each of the assessment years. In addition, the assessment of the mini-roundabout junction found that it too would operate well within capacity for each of the assessment years. The assessment concluded that the proposed development would have an imperceptible impact on traffic flows on the existing road network due to the relatively low volumes of traffic being generated by the proposed development.

8.15.11. *Sightlines* - The existing quarry entrance forms the northern arm of a three-arm mini-roundabout junction, with the L7434 forming the southern and western arms. It is stated (14.4.10) that visibility to the mini-roundabout is acceptable from each of three (3No.) approaching arms, with on-going vegetation removal/cutback provided to maintain sightlines. It is proposed to continue to use this entrance and to refresh the road markings and stop sign.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.15.12. Given that the link and junction capacity assessments found that the trips associated with the proposed development, in a 'worst-case scenario', would have an imperceptible effect on the link capacity of the L7434 and the junction capacity of the quarry mini-roundabout and the N24 junction, no mitigation was considered necessary.

8.15.13. In terms of road safety, it was considered that the existing road infrastructure was adequate with imperceptible impacts anticipated and that visibility to the mini-roundabout would remain unchanged. Notwithstanding this, it was proposed to

refresh the road markings at the mini-roundabout and to reinstate signage, in terms of the stop sign at the entrance. In addition, it was proposed to continue the practice of removal of vegetation to maintain sightlines at the mini-roundabout junction

Residual impacts

8.15.14. The residual impacts were deemed to be imperceptible. However, the P.A. Roads Section was not satisfied with road safety matters on the public roads in the vicinity of the site. Item 8 of the FI request and the developer's response as follows:

> *8A. There is significant chip loss and opening of the joint to the main carriageway on the HRA at the exit from the L7434 onto the N24. The applicant is requested to resurface this section of the L7434*.
>
> Response: the applicant agreed to resurface the L7434 as requested (Drg 811).
>
> *8B. There are a number of damaged missing bollards on the east side of the junction. The applicant is requested to submit proposals to replace damaged/ missing bollards.*
>
> Response: the applicant will install/
>
> replace damaged/missing bollards on the east side of the junction (Drg. 811)
>
> *8C. There is excessive buildup of the roadside verge on the N24 to the east of its junction with the L7434. The applicant is requested to submit proposals to reduce the verge height and provide appropriate drainage grips and provide adequate surface water drainage along the N24 along the extents of the applicant's roadside boundary to the N24.*
>
> Response: the applicant proposes to reduce the Burge height and provide it appropriate drainage grips/adequate water drainage along the roadside boundary adjacent to the N24 (Drg. 813)
>
> *8D. The applicant is requested to submit proposals to reinstate the driver feedback sign on the approach to the N24/L7434 junction from the West.*

Response: the applicant proposes to reinstate the driver feedback sign on the approach to the junction from the West (Drg. 814).

8E. The applicant is requested to submit proposals to address the structural defect on the L7434 located at the exit from the quarry in proximity to the mini roundabout.

Response: the applicant proposes to address structural defects on the L7434 at the exit from the quarry in proximity to the mini roundabout (Drg. 815).

Cumulative impacts

8.15.15. The developer undertook a search of planned future development which might have an impact on future traffic flows in the vicinity of the site. It was found that the cumulative effects of these developments would have an imperceptible impact on the local road network.

Material Assets (Traffic and Transportation) - Conclusion

8.15.16. I have considered all of the written submissions made in relation to material assets (traffic and transport). I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on material assets (traffic and transport).

8.16. Material Assets (Natural Resources and Waste)

8.16.1. Natural resources and waste are addressed in Chapter 15 of the EIAR. The study areas identified for the assessment included the site in terms of materials and waste within the site boundary, the national supply of key construction resources and the waste infrastructure in the Southern Waste Region.

8.16.2. It is noted that the EIAR scoped out any effects during the construction phase. The potential effects included changes in the demand for materials and in wastes arising as well as changes in available landfill capacity and changes to an allocated mineral site. This was on the basis that minimal waste and materials would be generated which would result in imperceptible impacts on material availability and landfill capacity. This seems reasonable.

8.16.3. With regard to the operational phase, the EIAR scoped out changes in waste arising, in landfill capacity and in soil and stone capacity. However, the effect of changes in the availability of materials was scoped in. This was on the basis that the proposed development will maintain ongoing operations at the site with minimal material requirements and waste generation, which would be primarily limited to fuel for plant and equipment. However, the proposed development is expected to enhance material availability.

Receiving environment

8.16.4. Reference is made to the National Planning Framework and Project Ireland 2040 in respect of the national plan for investment in infrastructure and the subsequent publication of the Irish Concrete Federation's report "Essential Aggregates: Providing for Ireland's Needs to 2040". These documents emphasise the importance of aggregates and aggregate-based products to Ireland's future and the need to identify and protect the strategic reserves to facilitate their use in a sustainable manner

8.16.5. The proposed development relates to the expansion of an existing quarry where high-quality aggregate reserves have been identified. It is acknowledged that these aggregates will contribute to the maintenance of supply of aggregates in the south-east region.

Predicted effects

8.16.6. Construction phase – no additional plant, equipment or materials will be required for the construction phase. The existing equipment will be used for stripping the soils and overburden and for stockpiling the berms. No additional soils will be required for the project and no soils will be removed, as all excavated soils will be stockpiled and reused on site for the creation of the berms. A small quantity of C&D waste will be produced which will be sent to a licensed C&D waste recycling facility. Thus, the construction phase is likely to have a negligible impact on material availability and waste generation.

8.16.7. Operational phase – it is expected that approx. 7,590,000 tonnes of aggregates will be generated over the lifespan of the project. This will be in line with the objectives of Project Ireland 2040, which aims to address the demand for c. 1.5 billion tonnes of aggregates by 2040.

8.16.8. The EIAR notes that the proposed development would contribute 0.008% of the required volume for Project Ireland 2040. The overall impact of the operational phase on material availability is therefore deemed to be neutral positive, which seems reasonable.

Features and measures to avoid, prevent, reduce or offset likely significant adverse effects on the environment

8.16.9. The existing welfare amenities at the site will continue to be used which would help to mitigate potential impacts during the construction phase. The volume of C&D waste would be quite limited and will be sent to a licensed C&D recycling waste facility and comprehensive records of waste transfer dockets will be maintained. An Environmental Management System will also be in place for the operational phase of the project.

Residual impacts

8.16.10. No residual effects are anticipated.

Cumulative impacts

8.16.11. No additional cumulative or in-combination effects are anticipated.

Material Assets – Waste and Natural Resources - Conclusion

8.16.12. I have considered all of the written submissions made in relation to material assets (natural resources and waste). I am satisfied that potential effects would be avoided, managed and mitigated by the measures which form part of the proposed scheme, the mitigation measures and through suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable direct, indirect or cumulative effects on material assets including natural resources and waste.

8.17. Interactions of the above and cumulative impacts

8.17.1. I have considered the interrelationship between factors and whether these may, as a whole, affect the environment, even though the effects may be acceptable when considered on an individual basis. The details of all interrelationships are set out in Chapter 16. In my assessment of each environmental topic, I have considered the likelihood of significant effects arising as a consequence of

interrelationship between factors. Most interactions e.g. the impact of noise and air quality on population and human health, the impact of water, land and soil on biodiversity, are addressed under individual topic headings above.

8.17.2. I am satisfied that effects arising as a result of interactions can be avoided, managed and or mitigated by the measures which form part of the proposed development, mitigation measures and suitable conditions. There is therefore nothing to prevent the approval for the development on the grounds of significant effects as a result of interactions between the environmental factors.

8.17.3. Cumulative impacts were assessed in each chapter of the EIAR and under the environmental topic headings above. The total effect of the overall quarry operation of which the proposed development forms part, has also been considered as well as other developments in the area. I am satisfied that the cumulative impacts of the current proposal in the context of other developments and projects have been adequately considered.

8.18. Reasoned Conclusion on the Significant Effects

8.18.1. Having regard to the examination of the environmental information contained above, and in particular to the EIAR and supplementary information provided by the applicant by way of further information, submissions made by the planning authority and by prescribed bodies to the application and the third party appeals, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows: (where appropriate, the main measures are cited)

Population and human health – emissions of dust, noise and vibration during construction and operation with potential for nuisance to sensitive residential receptors proximate to the site. Such impacts are proposed to be mitigated by measures to reduce and control the emissions in the first instance and thereafter by the adoption of specific measures including those forming part of the operation of the development including monitoring proposals. The design of the project which involves no increase in the rate of extraction or HGV trips, the use of existing machinery and infrastructure, the retention of existing berms in addition to new berms and adherence to existing emission limits will reduce emissions from

the outset. Proposed mitigation measures include restriction of certain operations to exclude hours between 0700 and 0800 and notification of residents within 500 metres prior to blasting. Visual impacts will be mitigated by the use of berms and landscape screening and by the retention of as much existing vegetation as possible. As works progress and the void becomes deeper, the rock face of the pit will further mitigate noise, vibration and dust impacts.

Biodiversity - there will be minimal loss of habitats and the reinstatement and reinforcement of vegetation, as well as the restoration plan, will have a positive impact on biodiversity. Impacts arising from construction activities include removal of scrub, existing vegetation such as tree lines and hedgerows and two agricultural buildings and a pumphouse, which could cause disturbance/displacement to species. Impacts arising from extraction activities include noise and disturbance as well as vibration from blasting. Such impacts are proposed to be mitigated by measures to avoid habitat loss, disturbance/displacement, controls in terms of timing and location of blasting and removal of scrub and vegetation. Berms will be planted with native species. Standard procedures will be employed such as avoidance of the bird nesting season for clearance of vegetation, and species-specific measures will be employed to minimise disturbance to species. An Ecological Clerk of Works will be employed to supervise works and monitoring is also proposed throughout the project.

Land, soils and water – the design and layout of the project seeks to minimise the extraction area with the focus on the best quality rock and all the topsoil and overburden will be re-used within the site. No soils will be removed from the site, but the extraction of rock will result in a permanent negative impact. Extraction will continue to take place below the water table but there have been no significant effects identified through external and internal monitoring and there will be no significant increase in ground water flows. Groundwater and surface waters entering the quarry void are pumped out into the Flemingstown Stream, via two settlement ponds and a hydrocarbon interceptor. The stream is assigned ‘poor’ status and is ‘at risk’ of not meeting the WFD 2027 objectives. However, the discharge of treated waters is likely to improve the WFD status of the waterbody.

The Flemingstown Stream is hydrologically linked to the Middle Suir Estuary and the Lower River Suir SAC. The discharge is subject to a Discharge Licence which is monitored and subject to daily limits and water quality standards. No significant effects are anticipated to the designated site due to the distance and dilution factor of the waterbodies. Specific mitigation measures will control the risk of pollutants entering surface waters and groundwater including a water management system. Surface water and groundwater monitoring of the discharged waters will continue to be undertaken.

Landscape - The landscape sensitivity is assessed as Medium-Low, and the magnitude of landscape impact as Medium, which gives rise to an overall significance of 'Moderate-slight' and 'Permanent' in close proximity to the site, reducing to 'slight' and 'imperceptible' at greater distances. The sensitivity of the visual receptors is also assessed as low apart from residential receptors in close proximity to the site. However, the above ground visual impacts of the proposed quarry extension will be largely confined to the creation of the initial landscaping berms, as the existing quarry is not readily visible due to the fact that the existing pit is below ground level and by natural screening by the existing landscaping berms. Alterations to the contours of natural landform due to the creation of the berms would, however, be difficult to discern from the adjoining agricultural fields and hedgerows, once the vegetation becomes established. Increased landscaping, screen planting and earthen berms will also enhance biodiversity, improve visual amenity and help to mitigate noise and air quality impacts. Thus, it will interact with ecology and human beings in a positive way.

8.18.2. In conclusion, having regard to the above identified significant effects, I am satisfied that the proposed development would not have any unacceptable direct or indirect impacts on the environment, subject to the implementation of the mitigation measures and monitoring programmes and any conditions recommended in section 13 of this report.

9.0 Water Framework Directive

9.1.1. The Water Framework Directive requires that the water quality in all surface and ground water bodies is protected and improved with the aim of achieving 'good

status' by 2027 at the latest, and that new development does not compromise this requirement. This issue was addressed in the EIAR (Chapter 8 Water), the NIS and in the Water Framework Directive Assessment Report prepared by Hydro Environmental Services on behalf of the applicant. I have carried out a Stage I Screening Assessment of the proposed development in terms of whether it is likely to compromise WFD objectives or cause a deterioration in the status of any waterbodies.

9.1.2. Refer to Appendix 2. I conclude that on the basis of objective information, that the proposed development, subject to mitigation measures set out in the EIAR, the Water Framework Directive Assessment Report and the NIS, submitted by the applicant, will not result in a risk of deterioration on any water body (rivers, lakes, groundwaters, transitional and coastal) either qualitatively or quantitatively or on a temporary or permanent basis or otherwise jeopardise any water body in reaching its WFD objectives and consequently can be excluded from further assessment.

10.0 **Appropriate Assessment**

Refer to Appendix 1.

10.1. Appropriate Assessment Screening

10.1.1. I have completed a screening for Appropriate Assessment (Stage 1). In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information provided by the applicant, I conclude that the proposed development could result in significant effects on the Lower River Suir SAC in view of the conservation objectives of a number of qualifying interest features of those sites. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] of the proposed development is required.

10.2. Appropriate Assessment

10.2.1. In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the Lower River Suir SAC (Site code 002137) in view of the conservation objectives of that site and that Appropriate Assessment under the provisions of Section 177U was required.

10.2.2. Following an examination, analysis and evaluation of the NIS and all associated material, including the further information submitted with the application and appeal, and taking into account the observations of the Department of Housing, Local Government and Heritage, I consider that adverse effects on site integrity of the Lower River Suir SAC, can be excluded in view of the conservation objectives of the site and that no reasonable scientific doubt remains as to the absence of such effects.

10.2.3. This conclusion is based on the following:

- Detailed assessment of construction and operational impacts.
- The intervening distance between the site and the Lower River Suir SAC which comprises a large body of water which is likely to result in the dilution dispersion and settling of any pollutants prior to reaching the SAC.
- Effectiveness of proposed mitigation measures Including supervision, monitoring and adoption of CEMP.
- Application of planning conditions to ensure implementation of these measures.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower River Suir SAC (Site Code 002137).

11.0 **Recommendation**

I recommend that permission be granted in accordance with the submitted plans and particulars and as amended by further information received on the 10th October 2024 and based on the following reasons and considerations and subject to the conditions set out below.

12.0 **Reasons and Considerations**

12.1. In coming to its decision, the board had regard to:

(a) The Revised National Planning Framework 2025

(b) The National Biodiversity Plan 2023-2030

(c) The Regional Spatial and Economic Strategy for the Southern Region

(d) Whole of Government Circular Economy Strategy 2021

(e) National Waste Management Plan for a Circular Economy 2024-2030

(f) Quarries and Ancillary Activities Guidelines for Planning Authorities 2004

(g) The Kilkenny County Development Plan 2021-2027

(h) The character of the landscape in the area of the site,

(i) The pattern of existing and permitted development in the area including the established quarry adjoining the site,

(j) The separation distances of the extraction area to the nearest dwellings,

(k) The planning history of the site,

(l) The Environmental Impact Assessment Report and supporting documents submitted,

(m)The Appropriate assessment Screening Report and the Natural Impact Statement submitted,

(n) The submissions and observations made in connection with the planning application and the appeal, and

(o) The report and recommendation of the Planning Inspector.

It is considered that, subject to compliance with the conditions set out below, the proposed development would be in accordance with the proper planning and sustainable development of the area.

The Board performed its functions in relation to the making of its decision, in a manner consistent with Section 15(1) of the Climate and Low Carbon Development Act 2015, as amended by Section 17 of the Climate Action and Low Carbon Development (Amendment) Act 2021, (consistent with the Climate Action Plan 2024 and the Climate Action Plan 2025 and the relevant provisions of the national long term climate action strategy, national adaptation framework and approved sectoral adaptation plans set out in those Plans and in furtherance of the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State).

Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development taking into account:

(a) the nature, scale and extent of the proposed development,

(b) the environmental impact assessment report, as amended, and associated documentation submitted in support of the planning application,

(c) The submissions from the planning authority, prescribed bodies, the appellants and the observers in the course of the application, and

(d) the Planning Inspector's report and recommendation.

The Board considered that the Environmental Impact Assessment Report, as amended and supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development and identifies and describes adequately the direct, indirect, secondary and cumulative effects of the proposed development on the environment.

The Board agreed with the examination, set out in the Inspector's Report, of the information contained in the Environmental Impact Assessment Report (as amended) and associated documentation submitted by the applicant and the submissions made in the course of the application.

Reasoned Conclusions on the Significant Effects

The Board considered and agreed with the Inspector's reasoned conclusions that the main significant direct and indirect effects of the proposed development on the environment are as follows:

Population and Human Health: Potential negative impacts on sensitive residential receptors proximate to the site include emissions of dust, noise and vibration during construction and operation. Potential impacts will be mitigated by measures to reduce and control emissions in the first instance and thereafter by the adoption of specific measures including those forming part of the operation of the development including monitoring proposals. The design of the project which involves no increase in the rate of extraction or HGV trips, the use of existing machinery and infrastructure within the quarry, the retention of existing berms in addition to new berms and adherence to existing emission limits will reduce

emissions from the outset. Proposed mitigation measures include restriction of certain operations to exclude hours between 0700 and 0800 and notification of residents within 500m prior to blasting. Visual impacts will be mitigated by the use of berms and landscape screening and by the retention of as much vegetation as possible. As works progress and the void becomes deeper, the rock face of the pit will further mitigate noise, vibration and dust impacts.

Biodiversity: The reinstatement and reinforcement of vegetation, as well as the restoration plan, will have a positive impact on biodiversity. There will be minimal loss of habitats. Potential impacts arising from construction include removal of scrub, existing vegetation, including tree lines and hedgerows, and two agricultural buildings and a pumphouse, which could cause disturbance or displacement to species. Potential impacts from extraction activities include noise and disturbance as well as vibration from blasting. Such impacts would be mitigated by measures to avoid habitat loss, disturbance/displacement, controls in terms of timing and location of blasting and removal of scrub and vegetation. Berms will be planted with native species. Standard procedures will be employed such as avoidance of bird nesting season for clearance of vegetation, and species-specific measures will be employed to minimise disturbance to species. An Ecological Clerk of Works will be employed to supervise works and monitoring is also proposed throughout the project.

Land, soils and water: No soils will be removed from the site but the extraction of rock will result in a permanent negative impact. The design and layout of the project seeks to minimise the extraction area with the focus on the best quality rock and all the topsoil and overburden will be re-used within the site. Extraction will continue below the water table, but no significant effects have been identified to date through internal and external monitoring and there will be no significant increase in groundwater flows. Mitigation includes the pumping of ground water and surface water from the quarry void out into the Flemingstown Stream via two attenuation ponds and a hydrocarbon interceptor. Other standard mitigation measures including silt fencing will also be used. The stream is assigned a ‘poor’ status and is at risk of not achieving the WFD 2027 objectives. However, the discharge of treated waters is likely to improve the WFD status of the waterbody.

The Flemingstown Stream is hydrologically linked to the Middle Suir Estuary and the Lower River Suir SAC. The discharge is subject to a Discharge Licence which is monitored and subject to daily limits and water quality standards. No significant effects are anticipated to the designated site due to the distance and dilution factor of the waterbodies. Specific mitigation measures will control the risk of pollutants entering surface waters and groundwater including a water management system. Surface water and groundwater monitoring of the discharged waters will continue to be undertaken.

Landscape: The landscape sensitivity is assessed as 'Medium-Low', and the magnitude of landscape impact as 'Medium', which gives rise to an overall significance of 'Moderate-slight' and 'Permanent' in close proximity to the site, reducing to 'slight' and 'imperceptible' at greater distances. The sensitivity of the visual receptors is also assessed as 'Low' apart from residential receptors in close proximity to the site. However, the above ground visual impacts of the proposed quarry extension will be largely confined to the creation of the initial landscaping berms, as the existing quarry is not readily visible due to the fact that the existing pit is below ground level and by natural screening by the existing landscaping berms. Alterations to the contours of natural landform due to the creation of the berms would, however, be difficult to discern from the adjoining agricultural fields and hedgerows, once the vegetation becomes established. Additional landscaping, screen planting and earthen berms will also enhance biodiversity, improve visual amenity and help to mitigate noise and air quality impacts. Thus, it will interact with ecology and human beings in a positive way.

Notwithstanding the conclusions reached in respect of the negative impacts on sensitive residential and environmental receptors in the vicinity, it is considered that the environmental effects would not justify a refusal of planning permission having regard to the overall benefits of the proposed development.

The Board completed an Environmental Impact Assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures set out in the Environmental Impact Assessment Report, and subject to compliance with the conditions set out below, the effects on the environment of the proposed development, by itself and in combination with other development in the vicinity, would be acceptable. In doing so the Board adopted

the report and conclusions of the Inspector. The Board is satisfied that this reasoned conclusion is up to date at the time of taking this decision.

Appropriate Assessment (AA)

The Board completed an Appropriate Assessment screening exercise in relation to the potential effects of the proposed development on European sites, taking into account the nature and scale of the development, the nature of the receiving environment which comprises agricultural lands adjoining a substantial, established limestone quarry, the distances to the nearest European sites, and the hydrological pathway considerations, submissions on the file, the information submitted as part of the applicant's Appropriate Assessment Screening Report documentation and the Inspector's Report.

Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on the Lower River Suir SAC (site code 002137). Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying interests of the site in light of its conservation objectives.

Following an Appropriate Assessment, it was ascertained that the proposed development, individually or in combination with other plans or projects, would not adversely affect the integrity of the Lower River Suir SAC (site code 002137) subject to the implementation in full of appropriate mitigation measures.

This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to Conservation Objectives of the Lower River Suir SAC (Site code 002137).
- Detailed assessment of in combination effects with other plans and projects including historical projects, plans and current proposals.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower River Suir SAC (site code 002137).

Conclusions on Proper Planning and Sustainable Development

Having regard to the nature and extent of the proposed development and to the acceptability of the environmental impacts as set out above, the Board considered that, subject to compliance with the conditions set out below, the proposed lateral extension of the existing extraction area would be in accordance with the provisions of the current Kilkenny County Development Plan 2021-2027, would not seriously injure the visual or residential amenities of the area, would not be prejudicial to public health and would be acceptable in terms of traffic safety and convenience of road users. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

13.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application, as amended by the further plans and particulars received by the planning authority on the 10th day of October 2024, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars.

   Reason: In the interest of clarity.

2. The period during which the development hereby permitted may be carried out shall be 20 years from the date of this order.

   Reason: Having regard to the nature of the development the Board considers it appropriate to specify a period of validity of this permission in excess of five years.

3. The mitigation measures contained in the submitted Environmental Impact Assessment Report (EIAR), shall be implemented.

   Reason: To protect the environment.

4. The mitigation measures contained in the submitted Natura Impact Statement (NIS), shall be implemented.
   Reason: To protect the integrity of European Sites.

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

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

6. The quarry shall be operated in accordance with the following restrictions:

   (a) No extraction shall take place below a level of -45 metres OD.

   (b) The maximum rate of extraction within the entire quarry shall not exceed 1,000,000 tonnes of material per annum.

   (c) The maximum rate of daily trips to and from the entire quarry (including the extension hereby permitted) shall not exceed that permitted under Planning Permission Reg. Ref. 16/700.

   (d) Rock to be crushed on site shall be sourced solely from within the overall quarry site.

   Reason: To clarify details of this permission and in the interests of residential amenity, road safety and protection of the environment.

7. The developer shall manage drainage in accordance with a drainage management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall incorporate a monitoring programme relating to control and management of water on the site. The plan shall provide for the monitoring of ground and surface water quality, levels and discharges on the site and for ongoing sampling of the Flemingstown Stream upstream and downstream of any licensed discharge and ongoing monitoring of the capacity of the settlement lagoons.

   Reason: In order to protect water quality.

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

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

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

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

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

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

10. The developer shall manage drainage in accordance with a drainage management plan, which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. This plan shall incorporate a monitoring programme relating to control and management of water on the site. The plan shall provide for the monitoring of ground and surface water quality, levels and discharges on the site and for ongoing sampling of the Flemingstown Stream upstream and downstream of any licensed discharge and ongoing monitoring of the capacity of the settlement lagoons.

Reason: In order to protect water quality.

11. Prior to the commencement of development, the developer shall enter into a Connection Agreement with Uisce Éireann (Irish Water) to provide for a service connection(s) to the public water supply collection network.

Reason: In the interest of public health and to ensure adequate water supply

12. The developer shall implement measures to reduce environmental risks associated with re-fuelling, greasing, and other activities within the site. Such measures may include, but are not restricted to, the use of spillage mats and catch trays. Such measures shall be subject to the written agreement of the planning authority prior to commencement of works.

    Reason: To prevent water pollution.

13. The quarry, and all activities occurring therein, shall only operate between 0700 hours and 2000 hours, Monday to Friday and between 0700 hours and 1300 hours on Saturdays. No activity shall take place outside these hours or on Sundays or public holidays. No rock-breaking activity shall be undertaken within any part of the site before 0800 hours on any day. Deviation from these times shall only be allowed in exceptional circumstances where prior written agreement has been received from the Planning Authority.

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

14. (a) Vehicles transporting material to and from the site, and accessing the site, shall use the L7434 running south from the quarry entrance to the N24 only.
    (b) Prior to the commencement of development, the applicant shall submit a road sweeping programme for this section of the L7434 and the junction with the N24 for the agreement of the planning authority.

    Reason: In the interest of traffic safety and in order to mitigate the extent of maintenance and upgrading works to the local road network necessitated by vehicular traffic accessing the site.

15. Details of road signage, warning the public of the entrance and of proposals for traffic management at the site entrance, including a new ‘Driver Feedback Sign’, shall be submitted to and agreed in writing with the planning authority prior to commencement of development.

    Reason: In the interest of traffic safety.

16. (a) The wheels and undersides of all vehicles transporting aggregate from the site onto the public road shall, prior to the exit of such vehicles onto the public road, be washed in a wheel washing facility, which shall be located a minimum distance of 30 metres from the public road and shall be constructed to the written satisfaction of the planning authority.

    (b) The entrance/access road shall be surfaced using bitumen macadam material or other materials acceptable to the planning authority, between the public road and the wheelwash.

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

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

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

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

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

    Reason: To protect the amenities of the area.

19. A plan containing details for the management of waste (and, in particular, recyclable materials) within the development, including the provision of

facilities for the storage, separation and collection of the waste and, in particular, recyclable materials shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Thereafter, the agreed waste facilities shall be maintained and waste shall be managed in accordance with the agreed plan.

Reason: To provide for the appropriate management of waste and, in particular recyclable materials, in the interest of protecting the environment and the amenities of properties in the vicinity.

20. The developer shall engage a suitably qualified archaeologist to monitor (licensed under the National Monuments Acts) all site clearance works, topsoil stripping, groundworks, within greenfield sections of the proposed development. Prior to the commencement of such works the archaeologist shall consult with and forward to the Local Authority archaeologist or the NMS as appropriate a method statement for written agreement.

    The use of appropriate tools and/or machinery to ensure the preservation and recording of any surviving archaeological remains shall be necessary. Should archaeological remains be identified during the course of archaeological monitoring, all works shall cease in the area of archaeological interest pending a decision of the planning authority, in consultation with the National Monuments Service, regarding appropriate mitigation which may include preservation in-situ or full archaeological excavation.

    The developer shall facilitate the archaeologist in recording any remains identified. Any further archaeological mitigation requirements specified by the planning authority, following consultation with the National Monuments Service, shall be complied with by the developer.

    Following the completion of all archaeological work on site and any necessary post-excavation specialist analysis, the planning authority and the National Monuments Service shall be furnished with a final archaeological report describing the results of the monitoring and any subsequent required archaeological investigative work/excavation required. All resulting and associated archaeological costs shall be borne by the developer.

    Reason: To ensure the continued preservation either in situ or by record of places, caves, sites, features or other objects of archaeological interest"

21. All topsoil shall be stripped and stored separately from overburden and shall remain onsite unless otherwise agreed with the PA. Details of proposals in this regard shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development.

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

22. (a) Dust levels at the site boundary shall not exceed 350 milligrams per square metre per day averaged over a continuous period of 30 days (Bergerhoff Gauge). Details of a monitoring programme for dust shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Details to be submitted shall include monitoring locations, commencement date and the frequency of monitoring results, and details of all dust suppression measures.

(b) A monthly survey and monitoring programme of dust and particulate emissions shall be undertaken to provide for compliance with these limits. Details of this programme, including the location of dust monitoring stations, and details of dust suppression measures to be carried out within the entire quarry complex, shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall include an annual review of all dust monitoring data, to be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

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

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

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

24. During temporary site set up works such as the construction of perimeter berms and stripping of soil, the noise level measured at noise sensitive locations in the vicinity shall not exceed a limit of 70dB(A) LAeq 1 hour up to a maximum period of 8 weeks in any year. Details of the noise monitoring locations and methodology for recording noise levels and

demonstrating compliance with the above limit values shall be agreed in writing with the planning authority prior to the commencement of development.

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

25. The noise levels generated during the operation of the development shall not exceed 55 dB(A) Leq,1hr when measured at the nearest occupied house during permitted operating hours and shall not exceed 45 dB(A) Leq, 15 mins at any other time. When measuring the specific noise, the time shall be any one-hour period during which the sound emission from the quarry is at its maximum level.

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

26. (a) Vibration levels from blasting shall not exceed a peak particle velocity of 12 millimetres/second, when measured in any three mutually orthogonal directions at any sensitive location. The peak particle velocity relates to low frequency vibration of less than 40 hertz where blasting occurs no more than once in seven continuous days. Where blasting operations are more frequent, the peak particle velocity limit is reduced to eight millimetres per second. Blasting shall not give rise to air overpressure values at sensitive locations which are in excess of 125 dB (Lin)max peak with a 95% confidence limit. No individual air overpressure value shall exceed the limit value by more than 5 dB (Lin).

(b) A monitoring programme, which shall include reviews to be undertaken at annual intervals, shall be developed to assess the impact of quarry blasts. Details of this programme shall be submitted to, and agreed in writing with, the planning authority prior to commencement of any quarrying works on the site. This programme shall be undertaken by a suitably qualified person acceptable to the planning authority. The results of the reviews shall be submitted to the planning authority within two weeks of completion. The developer shall carry out any amendments to the programme required by the planning authority following this annual review.

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

27. The developer shall provide all landowners within 500 metres of the site with appropriate contact details which may be used in the event that any

such landowner wishes to inform the developer of any incident, or otherwise to make a complaint in respect of an aspect of quarry operation.

Reason: In the interest of the protection of residential amenity and planning control.

28. (a) The developer shall monitor and record groundwater, surface water flow, noise, ground vibration, and dust deposition levels at monitoring and recording stations, the location of which shall be submitted to and agreed in writing with the planning authority prior to commencement of development. Monitoring results shall be submitted to the planning authority at quarterly intervals for groundwater, surface water, noise and ground vibration.

(b) On an annual basis, for the lifetime of the facility (within two months of each year end), the developer shall submit to the planning authority five copies of an environmental audit. Independent environmental auditors approved in writing by the planning authority shall carry out this audit. This audit shall be carried out at the expense of the developer and shall be made available for public inspection at the offices of the planning authority and at such other locations as may be agreed in writing with the authority. This report shall contain:

(i) A written record derived from the on-site weighbridge of the quantity of material leaving the site. This quantity shall be specified in tonnes.
(ii) An annual topographical survey carried out by an independent qualified surveyor approved in writing by the planning authority. This survey shall show all areas excavated and restored. On the basis of this, a full materials balance shall be provided to the planning authority.
(iii) A record of groundwater levels measured at monthly intervals.
(iv) A written record of all complaints, including actions taken in response to each complaint.

(c) In addition to this annual audit, the developer shall submit quarterly reports with full records of dust monitoring, noise monitoring, surface water quality monitoring, and groundwater monitoring. Details of such information shall be agreed in writing with the planning authority. Notwithstanding this requirement, all incidents where levels of noise or dust exceed specified levels shall be notified to the planning authority within two working days. Incidents of surface or groundwater pollution or incidents that may result in groundwater pollution, shall be notified to the planning authority without delay.

(d) Following submission of the audit or of such reports, or where such incidents occur, the developer shall comply with any requirements that the planning authority may impose in writing in order to bring the development in compliance with the conditions of this permission.

Reason: In the interest of protecting residential amenities and ensuring a sustainable use of non-renewable resources.

29. Prior to commencement of development, the developer shall lodge with the planning authority a cash deposit, a bond of an insurance company, or such other security as may be acceptable to the planning authority, to secure the satisfactory reinstatement of the site, coupled with an agreement empowering the planning authority to apply such security or part thereof to such reinstatement. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Coimisiún Pleanála for determination.

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

30. The developer shall pay a financial contribution of €235,343.00 (Two hundred and thirty five thousand, three hundred and forty three euro) to the planning authority as a special contribution under Section 48(2)(c) of the Planning and Development Act 2000, as amended, in respect of the next scheduled maintenance of the local road L7434 and all associated junctions including both access to the quarry complex and the junction of the N24 with the L7434, having regard to the HGV traffic loading, duration of the project and the projected costs of resurfacing/maintaining this section of the local road, which benefits the proposed development. The contribution shall be paid prior to commencement of development or in such phased payments as may be agreed prior to the commencement of the development and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the terms of payment of this financial contribution shall be agreed in writing between the planning authority and the developer.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority in respect of public services, which are not covered in the Development Contribution Scheme or the Supplementary Development Contribution Scheme and which will benefit the proposed development.

31. (a) The developer shall pay a financial contribution to the planning authority as a special contribution under Section 48(2)(c) of the Planning and Development Act 2000, as amended, in respect of the cost of ongoing maintenance of the section of the L7434 between the quarry entrance and the N24, including all associated junctions, which shall be based on a proportional calculation based on the volume of quarry HGV traffic compared with the volume of the total HGV traffic on the Local road, which benefits the proposed development.

(b) The amount of the contribution shall be informed by a 'Maintenance Condition Report' which shall be prepared by an agreed independent third-party with suitable experience of road maintenance, reviewed every three years, and submitted for written agreement of the planning authority. This report shall include an assessment of the road drainage, structural condition, surface condition and a detailed traffic count. A visual inspection and photographic record of the route shall be undertaken, and a mechanical means of road testing shall be employed as part of the assessment.

(c) The amount of the contribution shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála for determination. The contribution shall be paid prior to commencement of development or in such phased payments as may be agreed prior to the commencement of the development and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the terms of payment of this financial contribution shall be agreed in writing between the planning authority and the developer.

Reason: It is considered reasonable that the developer should contribute towards the specific exceptional costs which are incurred by the planning authority in respect of public services, which are not covered in the Development Contribution Scheme or the Supplementary Development Contribution Scheme and which will benefit the proposed development.

32. The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable

indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Coimisiún Pleanála to determine the proper application of the terms of the Scheme.

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

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Mary Kennelly
Senior Planning Inspector

1st August 2025

Appendix 1: Appropriate Assessment Screening

Screening for Appropriate Assessment Test for likely significant effects	
Step 1: Description of the project and local site characteristics **Case file:** ABP321806-25	
Brief description of project	Extension to existing limestone quarry (c27ha) into adjoining agricultural lands to a depth of -45mOD – see Section 2.0 of Inspector's Report for full description. Third party appeal
Brief description of development site characteristics and potential impact mechanisms	The site comprises agricultural lands immediately adjoining the existing quarry to the north-east. The site area is given as 10.3ha, which includes lands in separate ownership (Clohessy farm). The permitted extraction area is c.27ha at a depth of -45mOD, permitted under 16/700, which is below the water table. The site area includes 3.4ha of the existing extraction area to ensure seamless integration of the proposed extension. The footprint of the current extraction area would be increased by 2.6ha and the remainder of the site area would be utilised for boundary treatments, including fencing, landscaped berms, access and buffers between sensitive features. The site of the proposed extension primarily comprises agricultural lands in the form of hedgerows/treelines and improved grassland, together with a farmhouse and several outbuildings (Clohessy farm). It is proposed to demolish two farm sheds and one pumphouse within the Clohessy lands, but the

	farmhouse would be retained, although vacated in the event of a grant of planning permission. The existing quarry, which was first established in the 1970s, incorporates existing infrastructure such as haul routes, a site office, weighbridges, wheelwash, aggregate processing plant, crushing and screening plant, 2 no. settlement ponds. It also accommodates a permitted concrete batching plant and an Asphalt plant. It is proposed to utilise the existing plant, equipment and infrastructure and the current site entrance to the south, but a new wheelwash will be installed. This will reduce the potential effects associated with the development. The construction phase of the proposed development will involve the stripping of topsoil and overburden to access the underlying rock. The overburden will be re-used to construct peripheral screening berms around the perimeter of the extraction area. The stripped topsoil and subsoil (c.8,500m³) will be used to create two soil embankments along the eastern boundary. The subsoils will be deposited first and gradually built up until the desired height is reached with the topsoil placed on top at a thickness of 0.2m to allow for planting and seeding. The berms will be 140m and 250m long respectively and they will be c.12m wide and 2.75m high. The planting mix comprises native species (Table 3-1 of the AA Screening Report. In addition to the demolition of two farm buildings and a pump house, security fencing and signage will be installed along the eastern boundary. Existing water pipes, which carry water from the quarry floor to the settlement ponds, will be relocated further to the

	southeast away from the extraction activities. These pipes are not buried or fixed in place. The quarrying activities in the operational phase comprise a continuation of the existing activities in place at the quarry, which will include blasting, crushing, screening and stockpiling of materials. The face will be developed in a phased manner, using industry standard drilling and blasting techniques. Blasting will take place once a week. A front-end loader will load the blast rock into a mobile crusher and screening plant at the quarry face and will be stockpiled temporarily. The rock crushed by primary screening will be hauled by articulated dump trucks to the fixed secondary crushing and screening plant situated on the quarry floor or transported off-site. The aggregate will be transported off-site by HGVs. There will be no increase in the number of HGV movements, which will continue to operate within the permitted limits of 250 arrivals/departures per day. The estimated reserves are c.2,920,000m³ or 7,592,000 tonnes of aggregates. The rate of extraction is proposed to remain as permitted (700,000-1,000,000 tonnes p.a.). It is proposed to extract to a depth of -45mOD from an existing level of +34mOD, in 5 no. 15m high benches. Following the completion of extraction, it is proposed to rehabilitate the site in accordance with a submitted Restoration Plan, primarily by allowing the natural groundwater levels to re-establish. The Restoration Plan is designed to align with the Restoration Plan permitted as part of 16/700. The duration of permission being sought is 20 years,

	which includes 6 months construction and 6 months restoration. The existing quarry extracts below the water table and the proposed extraction will continue to be below the water table. Surface water within the land holding will continue to percolate to ground. Surface water and ground water seepage are currently pumped up the east face of the void to the settlement ponds. The existing drainage system will continue unchanged apart from the re-routing of the pipes from the quarry floor to the settlement ponds in order to facilitate the proposed extraction area. The quarry is connected to a public water supply and there are two private wastewater treatment plants on the site of the main quarry which serves the welfare facility/staff canteen. It is not proposed to increase the number of employees (15) at the quarry and hence the existing WWTP will continue to be utilised. A wheelwash will continue to operate on site. There will be no fuel stored on site as they will continue to be stored in bunded areas within the quarry. Re-fuelling will continue to take place on a hard-standing area adjoining the bunded area. There is no watercourse within the site. The nearest watercourse is the Flemingstown Stream located c.90m to the east of the site. This stream drains to the Middle Suir Estuary, c.1.3km to the southeast, which forms part of the Lower River Suir SAC (002137). The discharge-water from the quarry is pumped to 2 no. settlement ponds which then discharge to the stream via a hydrocarbon interceptor and the discharge is subject to a Discharge Licence ENV/W82. This

	practice will continue. Thus, there is a hydrological connection between the site and the SAC. The site is within the Suir WFD Catchment and the Pil_SC_010 subcatchment. The water quality within the Flemingstown Stream _010 is assigned (WFD 2016-2021) a 'Poor' status and the risk of not achieving a 'high' water quality status by 2027 is stated as 'Under Review'. The proposed development will utilise the existing access and internal haul routes within the quarry. It should be noted that the annual rate of extraction will not change, the number of employees will not increase, and the daily trip generation will remain the same as that permitted under 16/700. The existing activities at the quarry will be continued and will be operated within the permitted thresholds authorized under planning permission 16/700.
Screening report	The submitted AA Screening Report/NIS prepared by Malone O'Regan Environmental (MOR) provides a detailed description of the proposed development and of the study area. A source-pathway-receptor model was used to establish the zone of influence and to identify the European sites within the ZoI, as well as the likely zone of impact determination. The MOR AA Screening Report includes details of walkover surveys undertaken on 12/07/22 and 29/09/23 by qualified Ecologists. Habitats and species identified were recorded (Fig. 5-1). In addition, the potential for the habitats to support other features of nature conservation interests (such as species afforded legal protection under Irish and European legislation) was assessed. The study area was also

	assessed for the presence of any invasive species. The findings are set out at 5.2 of the submitted AA Screening Report and may be summarised as follows: • The main habitats recorded on site are classified as Improved Agricultural Grassland (GA1), Hedgerows (WL1) and Treelines (WL1/WL2), Scrub (WS1), Buildings and Artificial Surfaces (BL3), Spoil and Bare Ground (ED2) and Active Quarries and Mines (ED4). • The Study Area encompassed both active quarry habitats and greenfield lands. The habitats recorded include all of the above in addition to Amenity Grassland (GA2), Flemingstown Stream, Other artificial lakes and ponds (FL8) and Recolonising bare ground (ED3). • No species designated under the Lower River Suir SAC were identified onsite or within the wider Study Area, and the section of the Flemingstown Stream within the Study Area was not considered suitable for otter, crayfish, freshwater pearl mussel or fish species. However, there is a hydrological connection between the site and the SAC via the Flemingstown Stream which represents a hydrological pathway. • The breeding bird survey (June 2023) recorded just one lesser black-backed gull flying over the study area. It did not interact with the study area and falls within the protection of the Tramore Back Strand SPA.

	• No high impact invasive species or plant species were identified within the study area. Site investigations were carried out by Hydro Environmental Services (HES) on behalf of the developer in order to characterize the baseline geological, hydrogeological and hydrological environment and a Water Framework Directive Assessment was also carried out by HES. It was noted that the quality of the discharge water is monitored on a quarterly basis in accordance with the discharge licence. The results indicate that the discharge waters are generally compliant with the terms of the licence. A summary of the monitoring data is set out in Table 5-1. In addition, HES samples discharge waters in November 2022, and the results showed that the quarry discharge satisfies 'good' to 'high' water quality status. The site is not located within or directly adjacent to any European site. However, five European sites were identified within 15km were considered as part of the initial screening. The identified sites were as follows • Lower River Suir SAC (002137) 1.4km to south • River Barrow & River Nore SAC (002162) 11.5km SE • Hugginstown Fen SAC (000404) 14.5km to NW • Tramore Dunes & Backstrand SAC (000671) 13km • Tramore Back Strand SPA (004027) 13.1km to SE The potential impacts on the conservation objectives of these sites were then examined in terms of habitat

	loss/degradation, water quality impairment, air quality impairment and noise and disturbance. However, based on the intervening distance and a lack of impact pathways between the development site and the River Barrow and River Nore SAC, the Hugginstown Fen SAC, the Tramore Dunes Back Strand SAC and the Tramore Dunes Back Strand SPA, respectively, it was considered that the proposed development would not result in any adverse effects to these European sites. Therefore, these sites were screened out from further consideration. The report finds that there is a potential pathway for indirect effects on the Lower River Suir SAC (002137) via a hydrological connection by means of the Flemingstown Stream and that in the absence of mitigation, there is potential for the proposed development to result in likely significant effects on the European site. On this basis, the report concludes that Appropriate Assessment is required.
Natura Impact Statement	Yes
Relevant submissions	**DHLGH – Nature conservation (03/04/24)** - no objection subject to conditions including removal of trees/vegetation outside of bird nesting season and implementation of landscaping plan in compliance with the All-Ireland Pollinator Plan. **Uisce Eireann** – (24/04/24 and 12/12/24) It was noted that the site is currently connected to public water, but the capacity of water services to serve the development must be determined. FI requested regarding dewatering plans and a pre-connection agreement. In addition, a Confirmation of Feasibility from Uisce Eireann is required. In response to FI, it

	was considered that the proposed development is unlikely to have any additional impacts on the public water supply subject to mitigation measures set out in EIAR. However, it was reiterated that the applicant will be required to enter into a connection agreement with Uisce Eireann. **Third party appellant** – The developer fails to adequately address the potential effects on the conservation objectives of the Qualifying Interests of the Lower River Suir SAC. It does not meet the Kelly threshold (CJEU 258/11, Para 44) as it contains lacunae. It is submitted that the NIS fails to provide complete, precise, definitive findings and conclusions which meet the test of beyond all reasonable scientific doubt. It is submitted that the NIS only assesses the impacts on water quality and not on the qualifying interests of the SAC. It is submitted that there is considerable scientific doubt remaining as to the potential effects upon the qualifying interests of the SAC, since no assessment has been made on the conservation objectives of these following the proposed mitigation measures. The first party has responded by means of rebuttal and the response is summarised above at paragraph 6.3.3 above. The matter is also addressed in the planning assessment of my report at 7.4 above. In brief, it was established that the site is not located within or immediately adjacent to a European site but that there is a hydrological connection to one European site which is c.1.3km downstream, the Lower River Suir SAC. This site was therefore screened in, but the only potential impacts related to water quality impairment.

	The potential risks of water quality impairment to the qualifying interests of the site were assessed in view of their conservation objectives in the NIS and where relevant, appropriate mitigation measures were proposed. It was concluded that the proposed development, either alone or in combination with other plans or projects, would not adversely affect the integrity or conservation status of any of the qualifying interests of the Lower River Suir SAC or any other European site in light of best scientific knowledge. The first party further stated that it was considered that no reasonable scientific doubt exists in relation to this conclusion and that the NIS is therefore compliant with the Kelly threshold as set out in para. 44 of the CJEU 258/11 judgement.

Step 2. Identification of relevant European sites using the Source-pathway-receptor model

European Site (code)	**Qualifying interests[1] Link to conservation objectives (NPWS, date)**	**Distance from proposed development (km)**	**Ecological connections[2]**	**Consider further in screening[3] Y/N**
Lower River Suir SAC (002137)	Atlantic Salt Meadows Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	1.4km	No direct impacts Indirect impacts due to hydrological connection with site via Flemingstown Stream – ground water and surface	Yes

	Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) – *Priority Habitat* Taxus baccata woods of the British Isles – *Priority Habitat* Freshwater Pearl Mussel White-clawed Crayfish Sea Lamprey Brook Lamprey River Lamprey Twaite Shad Atlantic Salmon Otter **Conservation Objectives – NPWS SI No. 650 of 2024** https://www.irishstatutebook.ie/eli/2024/si/650/made/en/pdf **Note Mediterranean Salt Meadows included in 2017 Conservation Objectives*		water from quarry floor pumped to 2 no. settlement ponds and water is discharged via a hydrocarbon interceptor to the Flemingstown Stream. Discharge subject to Licence	

	but not in SI No. 650 of 2024			
River Barrow and River Nore SAC (002162)	Estuaries Mudflats and sandflats not covered by seawater at low tide Reefs Salicornia and other annuals colonizing mud and sand Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation European dry heaths Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Petrifying springs with tufa formation (Cratoneurion) – *Priority Habitat*	11.5 km	No direct impacts Indirect hydrological connection to River Barrow and River Nore SAC via Flemingstown Stream and Middle Suir Estuary via discharges from quarry via settlement ponds and hydrocarbon interceptor. However, this SAC is located 13.8km downstream and is outside of the 5km ZoI for water quality impacts. The distance downstream together with	No

	Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) – *Priority Habitat*. Desmoulin's Whorl Snail Freshwater Pearl Mussel White-clawed Crayfish Sea Lamprey Brook Lamprey River Lamprey Twaite Shad Salmon Otter Killarney Fern **Conservation Objectives SI no. 648 of 2024** https://www.irishstatutebook.ie/eli/2024/si/650/made/en/pdf		the large volumes of water would ensure dilution or settling out of any contaminants before reaching the SAC.	
Hugginstown Fen (000404)	Alkaline Fens **Conservation Objections SI 190 of 2016 and** **NPWS July 2019**	14.5 km	No direct or indirect impacts by reason of distance and	No

	https://www.irishstatutebook.ie/eli/2016/si/190/made/enhttps://www.irishstatutebook.ie/eli/2016/si/190/made/en		absence of any pathway.	
Tramore Dunes Back Strand SAC (000671)	Mudflats and sandflats not covered by seawater at low tide Annual vegetation of drift lines Perennial vegetation of stony banks Salicornia and other annuals colonizing mud and sand Atlantic Salt Meadows (Glauco-Puccinellieralia maritimae) Mediterranean salt meadows (Juncetalia maritimi) Embryonic shifting dunes Shifting dunes along the shoreline with Ammophila arenaria (white dunes) Fixed coastal dunes with herbaceous vegetation (grey dunes) **Conservation objectives** **SI No. 546 of 2018**	13km	No direct or indirect impacts by reason of distance and absence of any pathway.	No

	https://www.irishstatutebook.ie/eli/2018/si/546/made/en			
Tramore Dunes Back Strand SPA (004027)	Light-bellied Brent Goose Golden Plover Grey Plover Lapwing Dunlin Black-tailed Godwit Bar-tailed Godwit Curlew Wetland and Waterbirds **Conservation Objectives SI No. 286 of 2011 and NPWS 03/10/13** https://www.irishstatutebook.ie/2011/en/si/0286.html https://www.irishstatutebook.ie/2011/en/si/0286.html	13.1 km	No direct or indirect impacts by reason of distance and absence of any pathway.	No

Step 3. Describe the likely effects of the project (if any, alone or in combination) on European Sites

AA Screening matrix

Site name **Qualifying interests**	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
	Impacts	**Effects**
Site 1: Lower River Suir SAC (002137)	Direct:	A decline in water quality would undermine the conservation

Qualifying interests Atlantic Salt Meadows Watercourses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels Old sessile oak woods with Ilex and Blechnum in the British Isles Alluvial forests with alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) – *Priority Habitat* Taxus baccata woods of the British Isles – *Priority Habitat* Freshwater Pearl Mussel White-clawed Crayfish Sea Lamprey Brook Lamprey River Lamprey Twaite Shad Atlantic Salmon Otter	No risk of habitat loss, fragmentation or other direct impact as the site is outside of the European site and none of these habitats are present within the study area. There are no suitable habitats within the study area for any of the species for which the site is designated. <u>Indirect</u>: Risk to water quality of the Lower River Suir SAC from silt, sediments or pollutants entering the Flemingstown Stream which would have an indirect impact on these habitats downstream. Disturbance during construction/operation (e.g. noise disturbance) could affect Otter. However, the site is not considered to be suitable for otter and no evidence of this species was identified within the study area.	objectives for the habitats and species that the European site is designated for. Due to the hydrological connection to the SAC via the Flemingstown Stream, further consideration needs to be given to the potential impacts of water quality impairment on these habitats and species. Disturbance during construction for otters is unlikely due to lack of evidence of species presence or suitable habitat on site for this species. There are three habitats - Old Sessile oak woods with Ilex and Blechnum in the British Isles, Alluvial forests with alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) and Taxus baccata woods of the British Isles - which are not present within the study area and where there is no impact pathway connecting the site to these habitats. The AA Screening Report therefore screened these 3 habitats out.

	Likelihood of significant effects from proposed development (alone): **Yes**
	Possibility of significant effects (alone) in view of the conservation objectives of the site* ***A Restore Objective applies to the following 11 no. QIs**:-* Atlantic Salt Meadows, Old Sessile oak woods with Ilex and Blechnum in the British Isles, Alluvial Forests with Alnus glutinosa and Fraxinus excelsior, Taxus Baccata woods of the British Isles, Freshwater Pearl Mussel, Sea Lamprey, Brook Lamprey, River Lamprey, Twaite Shad and Salmon *In light of the Restore Conservation Objective for these QI's it is necessary to consider whether the project might compromise the objective of restoration or make restoration more difficult: -* **Atlantic Salt Meadows** – This habitat is absent from the study area. The closest confirmed presence is c.9.5km downstream of the attenuation ponds and the nearest potential Atlantic salt meadows habitat is c.3.5km downstream of the study area. In addition, it is considered that should silt, sediments or pollutants enter the Flemingstown Stream, the pollutants would be dispersed and diluted by the large expanse of waters within the Middle Suir Estuary before reaching the habitat. As a result, it is considered unlikely that the works involved in the project will have any significant direct or indirect effects on this habitat. Notwithstanding this, the habitat should be brought forward for further consideration as a precaution. **Old sessile oak woods, Alluvial forests, Taxus Baccata woods** - These three habitats are not present within the study area and there is no impact pathway connecting the site to these habitats. No direct or indirect impacts are likely. **Freshwater Pearl Mussel (FWPM)** – within the Lower River Suir SAC, this species is confined to the Clodiagh River, which is

	c.6.5km to the west of the site and there is no functional pathway between the site and this tributary. The species is also a freshwater species and there is no potential for it to be present at the point of discharge of the Flemingstown Stream to the Middle Suir Estuary, which is estuarine. Thus, there are no impact pathways by which the species could be directly impacted by the project works. However, it is noted that this species is reliant on migratory fish such as Atlantic salmon, which have the potential to be impacted by the proposed development. Therefore, further consideration of potential impacts on this species will be necessary. **Atlantic Salmon, Twaite Shad, Sea Lamprey, River Lamprey** – these fish species are known to occur in the River Suir catchment although there are no records of occurrence in the Flemingstown Stream or within 2km of the site. Notwithstanding the absence of suitable habitat, there is a hydrological connection from the site to the Lower River Suir SAC via the Flemingstown Stream. As these species are known to be present within the catchment, further consideration of potential impacts on these species will be necessary. **Brook Lamprey** – there is no record of the species (NBDC) within 2km of the site and as this species is a freshwater species, there is no potential for it to be in the Middle Suir Estuary where the Flemingstown Stream discharges. The remainder of the qualifying interests have a maintain conservation conditions objective, namely - Watercourses of plain to montane, Hydrophilous tall herb fringe communities, Otter and white-clawed Crayfish
Step 4 Conclude if the proposed development could result in likely significant effects on a European site	
Based on the information provided in the screening report, my site inspection and the information on the file, and having reviewed the conservation objectives it is not possible to exclude the	

possibility that the proposed development alone would result in significant effects on the Lower River Suir SAC from effects associated with silt, sedimentation of pollutants entering the Flemingstown Stream which is hydrologically connected with the European site.

An appropriate assessment is required on the basis of the possible effects of the project 'alone'. Further assessment of in-combination with other plans and projects is not required at screening stage.

Screening Determination

Significant effects cannot be excluded

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that it is not possible to exclude that the proposed development alone or in combination with other plans and projects will give rise to significant effects on the Lower River Suir SAC in view of the sites conservation objectives.

It is therefore determined that Appropriate Assessment (Stage 2) of the proposed development under Section 177V of the Planning and Development Act 2000 as amended is required.

This determination is based on:

- Scientific information provided in the Screening Report and in the EIAR
- The presence of a hydrological connection between the site and the Lower River Suir SAC via Flemingstown Stream
- The distance and weak, indirect links to other European sites
- The Conservation Objectives for the Qualifying Interests of the Lower River Suir SAC

Appendix 1: Appropriate Assessment Determination

NAME OF SAC/ SPA (SITE CODE): Lower River Suir SAC (Site code 002137) **Summary of Key issues that could give rise to adverse effects (from screening stage):** Water quality degradation (construction and operation) See Table 6-1 and Section 7.1 of submitted NIS			
Qualifying Interest features likely to be affected	**Conservation Objectives**	**Potential adverse effects**	**Mitigation measures (summary)**
Atlantic Salt Meadows [1330]	Restore favourable conservation condition Habitat area stable or increasing subject to natural processes including erosion/succession. No decline in habitat distribution, subject to natural processes	Water quality degradation and/or alteration of habitat would undermine conservation objectives Pollution could arise from release of suspended sediments during the construction process or from the potential release of hydrocarbons or chemicals during the operational phase	<u>Construction phase</u> Implementation of a Construction and Environmental Management Plan, including best practice pollution control measures, application of industry standard controls and supervision by ECOW. The proposed measures are listed 7.1.1.1 of NIS <u>Operational phase</u> The current discharge of waters from the quarry has a 'good' to 'high' water quality status and the highest levels of site management will continue to be maintained and the utmost care and vigilance will be followed to
Watercourses of plain to montane levels with the Ranunculion	Maintain favourable conservation condition	Water quality degradation and/or alteration of habitat would undermine	

fluitantis and Callitricho-Batrachion vegetation [3260]	Habitat area stable or increasing and no decline in habitat distribution subject to natural processes Maintain appropriate hydrological regimes in respect of river flow and groundwater discharge Maintain appropriate water quality to support the natural structure and functioning of the habitat	conservation objectives	prevent accidental contamination or unnecessary disturbance to the site and surrounding environment. Proposed measures are listed at 7.1.1.2 NIS.
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	Maintain favourable conservation condition Habitat area stable or increasing, and no decline in habitat distribution subject to natural processes Maintain appropriate hydrological regime	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above
Freshwater pearl mussel [1029]	Restore favourable conservation condition The conservation objective applies to	Water quality degradation and/or alteration of habitat would undermine the	As above

	the Clodiagh tributary FWPM population only. There is no functional pathway between the site and this tributary. It is a freshwater species which has no potential to be present at the point of discharge of the Flemingstown Stream within the Middle Suir Estuary, which is estuarine. However, as it is dependent on the migratory species, salmon, it is included as a precaution.	conservation objectives	
Otter [1355]	Maintain favourable conservation condition No significant decline in distribution or extent of terrestrial, marine or freshwater habitats No significant decline in couching sites and holts No significant decline in biomass available	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above

Salmon [1106]	Restore favourable conservation condition Maintain or exceed salmon fry abundance with no significant decline in smolt abundance and no decline in number and distribution of spawning redds Water quality – at least Q4 at all sites sampled by EPA	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above
Sea Lamprey [1095]	Restore favourable conservation condition No decline in extent or distribution of spawning nursery beds	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above
River Lamprey [1099]	Restore favourable conservation condition No decline in extent or distribution of spawning nursery beds	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above
Twaite Shad [1103]	Restore favourable conservation condition	Water quality degradation and/or alteration of habitat	As above

	No decline in extent or distribution of spawning nursery habitats Water quality – oxygen levels no lower than 5mg/l Maintain spawning habitat quality - stable gravel substrate with very little fine material, free of filamentous algal growth and macrophyte growth	would undermine conservation objectives	
White-clawed Crayfish [1092]	Maintain favourable conservation condition No reduction in distribution from baseline Water quality – at least Q3-4 at all sites sampled by EPA No reduction in habitat heterogeneity or habitat quality	Water quality degradation and/or alteration of habitat would undermine conservation objectives	As above
The above table is based on the documentation and information provided on the file and I am satisfied that the submitted NIS has identified the relevant attributes and targets of the Qualifying Interests. In particular, I note those relating to the habitat Atlantic salt meadows and the species			

Freshwater Pearl Mussel, which are absent from the study area, were included as a precautionary measure, due to the hydrological connection between the Atlantic salt meadows via the Flemingstown stream with the site and the dependence of the FWPM on the migratory Atlantic salmon. Thus, good water quality is necessary for these QIs. In addition, the species Brook Lamprey and three other habitats (Old sessile Oak woods, Alluvial forests and Taxus Baccata woods) were all screened out on the basis of being absent from the study area with no functional pathway to the site.

Finally, Mediterranean salt meadows is included in the COs dated March 2017 but is not listed in the SI of 2024 for this SAC and was not therefore included in the AA.

Assessment of issues that could give rise to adverse effects view of conservation objectives

(i) Water quality degradation

Good water quality is necessary to maintain area, distribution and function of the Annex I and Annex II habitats and the populations of Annex II species listed. Potential pollutants include suspended solids, silt and hydrocarbons.

Water quality degradation is the main risk from unmanaged site works where silt and sediment laden surface water reaches the Lower River Suir SAC via Flemingstown Stream. Sediment and silt have the potential to clog fish gills, degrade spawning habitats and cover/smother aquatic vegetation. Thus, these pollutants could directly affect aquatic species or indirectly affect riparian species such as otter by affecting the populations of their food supplies. During construction, works such as the clearing of vegetation and stripping of overburden and the demolition of buildings have the potential to result in the release of suspended sediments to downstream watercourses.

In addition, pollutants such as hydrocarbons and chemicals released as a result of accidental spillage during use and refuelling of machinery on site or as leaks from stored fuels, oils and chemicals present a risk to water quality degradation during the operational phase. Hydrocarbons are a nutrient supply for adapted micro-organisms which can rapidly deplete dissolved oxygen in waters, resulting in the death of aquatic organisms.

Contaminated waters from the quarry floor are pumped to the settlement ponds and released to Flemingstown Stream via a hydrocarbon interceptor. However, it should be noted that the habitats and species of the Lower River Suir SAC are at a considerable distance downstream from the site

and are separated by a large body of water which is likely to result in the dispersion, dilution and settling of any pollutants prior to reaching the SAC. As a precaution, mitigation measures are proposed to prevent the release of sediments and silt to the Flemingstown Stream and in addition to the passing of discharged waters through a hydrocarbon interceptor, additional mitigation measures are proposed to minimise as far as possible the risk of accidental release of these pollutants to surface water.

Mitigation measures and conditions

Construction Phase:

- Capture of surface water during soil stripping and pumping to settlement ponds
- Silt fencing installed prior to overburden stripping
- Surface water collected at low points
- Use of temporary settlement ponds, silt bags and double silt fencing to filter any remaining sediment from pumped water
- Daily monitoring of stripping and landscaping
- Low rainfall periods scheduled for stripping and landscaping
- Berms planted asap to reduce run-off
- Dust suppression, wheel wash and other good construction practices
- All water discharged during the construction phase will be subject to the monitoring and discharge requirements of the Discharge Licence (ENV/W82)

Operational Phase:

- Continued operation and maintenance of the existing bunds and hydrocarbon interceptor
- Monitoring of discharge quality on a quarterly basis and adherence to volume limit of 13,000m³/day (as per current licence requirements)
- Regular maintenance of hydrocarbon interceptor and of all machinery
- Refuelling to continue to be completed in a controlled manner using drip trays and only by designated trained operators

- Storage of fuel and oil containers within a secondary containment system (bunds for static tanks and drip trays for mobile stores) which will be regularly inspected for leaks and signs of damage
- Emergency procedures and contingency plans will be set up and an emergency spill kit with oil boom absorbers will be used on site
- All water discharged during the operational phase will be subject to the monitoring and discharge requirements of the Discharge Licence (ENV/W82)

(ii) Disturbance of mobile species

No disturbance of species anticipated – no mitigation measures required

(iii) Spread of invasive species

No invasive species recorded on site – no mitigation measures required

I am satisfied that the preventative measures which are aimed at interrupting the source-pathway-receptor are targeted at the key threats to protected aquatic habitats and species and riparian species and by arresting these pathways, or reducing possible effects to a non-significant level, adverse effects can be prevented. Mitigation measures related to water quality are captured in Condition 4 of the recommendation of the Inspector's Report.

In-combination effects

Section 6.2 of the AA Screening Report and Section 7.2 of the NIS (both submitted by the applicant) address the 'in-combination effects'. Table 6-3 outlines six recent planning permissions granted for developments within 2km of the site, which mainly relate to residential dwellings, farm buildings and small-scale projects. It was noted that each of these developments were subject to either a Stage I Appropriate Assessment Screening Report or a Stage 2 NIS, and in each case, it was concluded that the development in question would not have a significant effect on any habitats or species designated as conservation interests for any European sites. It was therefore concluded that there would be no in-combination effects from these development with the proposed development.

In addition, three larger projects were examined for potential in-combination effects. These were

- Wexford Solar Farm – permission granted (16/193) for solar farm on a site c.250m to south of site entrance, on other side of N24. Permission was amended under 18/61 and extended under 20/893. An AA Screening Report was submitted which had concluded that no significant effects were likely on any European sites. This permission has been implemented. It is not anticipated that the operation of the solar farm will lead to significant in-combination effects with the proposed development.
- N24 Waterford to Cahir Road Improvement Scheme – The preferred option corridor was presented to the public in January 2024 which indicated that the preferred option is to upgrade the N24 to the south of the quarry. This option does not pass through or immediately border the site. No in-combination effects are anticipated.
- Granagh Business Complex – located c. 1.3km to the south-east of the site. The complex includes Queally Pig Slaughtering and Dawn Meats. And is accessed via a junction off the N24. Both of these facilities operate under Integrated Pollution Control Licences, Ref. No. P0175-02 and P0179-01, respectively). As such emissions to the environment are monitored and controlled and given the distance from the project site, are unlikely to give rise to any in-combination effects of European site in the vicinity.

Since the In-combination Assessment was carried out, several permissions have been granted in the vicinity of the site as follows:

PA Ref. 2360036 – Permission granted for a single house at Newtown to NW of quarry in August 2023.

PA Ref. 2360603 – Permission granted for new domestic WWTS on a site to the south of the N24, adjacent to solar farm in February 2024

PA Ref. 24/84 – Permission granted for a domestic septic tank on a site to the north of the N24 near the roundabout at the termination of the M9.

PA Ref. 25/18 – Permission granted for a single dwelling house, new entrance and new wastewater treatment plant at a site in Newtown to the northwest of the site.

These proposed developments were subject to AA screening, and it was concluded that no significant effects on any European site are likely to arise in respect of these developments and no in-combination effects with the proposed project are therefore likely to arise.

I am satisfied that in-combination effects have been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

Appendix 2: Water Framework Directive Assessment

WFD IMPACT ASSESSMENT STAGE 1: SCREENING			
Step 1: Nature of the Project, the Site and Locality			
An Bord Pleanála ref. no.	321806	Townland, address	Kilmacow, Granny, Aglish North, Co. Kilkenny
Description of project		Lateral extension of established quarry with connections to Uisce Eireann water infrastructure and a private Wastewater Treatment Plant. The estimated reserve is 7,592,000 tonnes (2,920,000m³). The site comprises c.2.6ha of greenfield lands to be extracted which will be reduced from 28-32mOD to -45mOD over 5 x 15m high benches. Existing quarry facilities and infrastructure will be utilised including access, welfare, aggregate processing and water treatment, including dewatering pumps and water treatment facilities. At present, surface water and groundwater from the quarry void is pumped to the Flemingstown Stream via two settlement ponds and a hydrocarbon interceptor. The discharge to the stream is subject to a Discharge Licence and regular monitoring. The quarry operates below the water table with dewatering to facilitate this. The proposed quarry extension will continue to dewater and to discharge waters in the same manner.	
Brief site description, relevant to WFD Screening,		Site is located on a site with well-draining soils, currently in agricultural use in a rural area, c 5km from Waterford city. There are no surface water features within the site, the closest watercourse being the Flemingstown Stream, c. 90 to the east. The site	

	lies immediately adjacent to a substantial limestone quarry established in the 1970s, (permitted and current depth of -45mOD).
Proposed surface water details	Overland flow is not in the direction of surface water bodies but towards the lowest ground within the quarry void. Surface water and groundwater seepages will be pumped to the settlement ponds (with hydrocarbon interceptor) and discharged to the Flemingstown _010 Stream.
Proposed water supply source & available capacity	Uisce Eireann mains water connection
Proposed wastewater treatment system & available capacity, other issues	Wastewater treatment plant on site which serves the existing staff welfare building. This does not form part of the current application and there are no plans to alter the number of staff on site.
Others?	

Step 2: Identification of relevant water bodies and Step 3: S-P-R connection						
Identified water body	**Distance to (m)**	**Water body name(s) (code)**	**WFD Status**	**Risk of not achieving WFD Objective e.g.at risk, review, not at risk**	**Identified pressures on that water body**	**Pathway linkage to water feature (e.g. surface run-off, drainage, groundwater)**
River Waterbody	90m	Flemingstown (Kilkenny)_010 IE_SE_16F170700	Poor	Under Review	No pressures	Yes – surface water and ground water from quarry void pumped and discharged to watercourse via settlement ponds and hydrocarbon interceptor. Screened in
River waterbody	650m	Blackwater (Kilmacow)_040 IE_SE_16B020450	Moderate	At risk	Nutrients, organic from Agriculture	No hydrological link but included as a precaution due to proximity to site

						Screened in
River waterbody	740m	Ullid_010 IE_SE_16U010850	Moderate	Under Review	No pressures	No hydrological link but included as a precaution due to proximity to site Screened in
Transitional		Upper Suir Estuary IE_SE_100_0600	Bad	At risk	Nutrients, Agriculture	No hydrological link Screened out
Transitional	1.3km	Middle Suir Estuary IE_SE_100_0550	Moderate	At Risk	Nutrients, Organic, from Agriculture	Yes - via Flemingstown Stream - Screened in
Transitional		Lower Suir Estuary IE_SE_100_0500	Moderate	At Risk	Nutrients, Organic, Agriculture	Yes – via Middle Suir Estuary but excluded due to dilution factor of large volume of saline water and large

						tidal movements - Screened out
Transitional		Barrow Nore Suir Estuary IE_SE_100_0100	Moderate	At risk		Yes – via Middle Suir Estuary but excluded due to dilution factor of large volume of saline water and large tidal movements - Screened out
Coastal Waters		Waterford Harbour Coastal WB IE_SE_100_0000	Moderate	At risk	Agriculture, Urban runoff	Yes – via Middle Suir Estuary but excluded due to dilution factor of large volume of saline water and large tidal movements – Screened out
Coastal waters		Eastern Celtic Sea (HAs 13;17)	High	Not at risk		Yes – via Middle Suir Estuary but excluded due to dilution factor of large volume of saline water and large

						tidal movements – Screened out
Groundwater body	Underlying site	Clonmel IE_SE_G-040	Good	Not at risk	Nutrients, Agriculture	Yes – underlies the site and quarrying below the water table – Screened **in**

Step 4: Detailed description of any component of the development or activity that may cause a risk of not achieving the WFD Objectives having regard to the S-P-R linkage.							
CONSTRUCTION PHASE							
No.	Component	Waterbody receptor (EPA Code)	Pathway (existing and new)	Potential for impact/ what is the possible impact	Screening Stage Mitigation Measure*	Residual Risk (yes/no) Detail	**Determination** to proceed to Stage 2. Is there a risk to the water environment? (if 'screened' in or 'uncertain' proceed to Stage 2.**
1.	Surface	Flemingstown Stream_010 IE_SE_16F17 0700	Surface water and ground water from quarry void pumped and discharged to watercourse via settlement ponds and hydrocarbon interceptors	Sedimentation, Siltation due to earthworks, vegetation stripping, soil/subsoil stripping and stockpiling. Hydrocarbon spillages/leaks	Standard construction practice CEMP & Section 4.3 WFDAR	No – monitoring of discharge waters show generally compliant and will not affect water quality. Mitigation measures will protect water quality.	Screened out

				from machinery, plant		Monitoring of discharge waters will continue.	
2.	Surface	Ullid_010 IE_SE_16UO10850	No direct hydraulic connection between the site and the watercourse	Sedimentation, Siltation due to earthworks, vegetation stripping, soil/subsoil stripping and stockpiling. Hydrocarbon spillages/leaks from machinery, plant	N/A	No - no pathway from site to watercourse	Screened out
3.	Surface	Blackwater Kilmacow_040 IE_SE_16B020450	No direct hydraulic connection between the site and the watercourse	Sedimentation, Siltation due to earthworks, vegetation stripping, soil/subsoil stripping and	N/A	No - no pathway from site to watercourse	Screened out

				stockpiling. Hydrocarbon spillages/leaks from machinery, plant			
4.	Surface	Middle Suir Estuary IE_SE_15N01 2200	Hydraulic connection via Flemingstown Stream	Sedimentation, Siltation due to earthworks, vegetation stripping, soil/subsoil stripping and stockpiling. Hydrocarbon spillage/leaks from machinery, plant	Standard Construction practices CEMP & Section 4.3 of WFDAR	No – mitigation measures will protect water quality and due to the dilution factor of large saline waters and large tidal movements combined with the distance from site.	Screened out
5.	Ground	Clonmel IE_SE_G-040	Pathway exists as it underlies the site and quarrying below the water table	Hydrocarbon spillages/leaks from machinery, plant	Standard Construction Practices CEMP &	No – combination of existing management for the control of hydrocarbons and	Screened out

					Section 4.3 of WFDAR	chemicals together with the proposed mitigation measures will ensure that accidental contamination will be prevented.	
6.	Protected Area	Lower River Suir SAC	Connection via Flemingstown Stream	Sedimentation, hydrocarbon spillages/leaks	Standard construction Practices, CEMP and Mitigation Measures set out in section 4.3 of WFDAR	No- there is no potential for deterioration of Lower River Suir SAC due to the large volume of saline water in the River Suir and strong tidal currents within the estuary, which result in very high dilution factors. Any	Screened out

						possible contaminants that flow downstream will be diluted in the estuary.	
OPERATIONAL PHASE							
1.	Surface	Flemingstown_010	Surface water and ground water from quarry void pumped and discharged to watercourse via settlement ponds and hydrocarbon interceptors	Small increase in pumping rates due to slightly larger surface area and additional groundwater seepage but volumes will not result in exceedance of discharge licence limit. Small increase in pumping will not affect water	Discharges to watercourse will continue to be via settlement ponds and hydrocarbon interceptor. Discharge quality is largely compliant with the licence. The increase in volumes will not exceed the licence limits or affect water quality. Existing good management practices &	No – Slight increase in volume of discharge waters will not exceed licence limits or affect water quality – mitigation not required. Monitoring of discharge waters show generally compliant. Proposed mitigation	Screened out

				quality. Greatest risk is from spillage/leaks of oils and fuels. The discharge waters are generally of good quality and the discharge is likely to improve the WFD status of the watercourse which is poor.	monitoring of discharges to stream will continue. Mitigation measures set out in Section 4.3 of the WFDAR will ensure that water quality is protected.	measures will protect water quality.	
2.	Surface	Ullid _010	No direct hydraulic connection between the site and the watercourse	No pathway from site to watercourse.	N/A	No mitigation required.	Screened out
3.	Surface	Blackwater Kilmacow _040	No direct hydraulic connection between the site	No pathway from site to watercourse.	N/A	No mitigation required.	Screened out

			and the watercourse				
4.	Surface	Middle Suir Estuary	Via Flemingstown Stream	Small increase in discharge volume will not exceed discharge limits or affect water quality. Greatest risk is from spillage/leaks of oils and fuels.	Discharges will continue to be passed through settlement ponds and hydrocarbon interceptors and volumes will not exceed licence limits. Water quality will be protected by standard mitigation measures.		Screened out
5.	Ground	Clonmel _040	Removal of protective layer of soil and subsoil will increase the vulnerability of the underlying bedrock to contamination.	Spillages/leaks of oils and fuels on quarry floor which could get into discharge waters	Due to the non-significant, localised groundwater level effects which are contained within the quarry landholding, no additional mitigation regarding	No – combination of existing management for the control of hydrocarbons and chemicals together with the proposed	Screened out

			Vulnerability in extraction areas will be Extreme with exposed bedrock at surface. Once quarrying extends below water table, risk is reduced as groundwater drains into void acting as a hydraulic trap.		GW quantity or levels other than continuation of GW level monitoring of internal and external wells. In terms of GW quality, continuation of the existing management practices for the control of hydrocarbon together with additional mitigation measures in WFDAR and continuation of monitoring will ensure the protection of water quality.	mitigation measures will ensure that accidental contamination will be prevented.	

6.	Protection Area	Lower River Suir SAC	Connection via Flemingstown Stream	Slight increase in volume of discharges and potential contamination of water quality from sedimentation and hydrocarbon spillages/leaks	No additional mitigation required as current discharge limits will not be exceeded and proposed mitigation measures will protect the water quality.	No	Screened out