



An
Bord
Pleanála

Inspector's Report

ABP-314374-22

Development

Application for substitute consent for previous development at the site to regularise the planning status of a quarry.

Location

Ballinabarny North and Bolagh Lower, Redcross, Co. Wicklow.

Planning Authority

Wicklow County Council.

Applicant(s)

ECT and Gravel Limited.

Type of Application

Substitute Consent.

Date of Site Inspection

15th January 2025.

Inspector

Susan McHugh.

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Appendix 1: Water resources, hydrology and aquatic environment report –
Inspectorate Scientist.

Appendix 2: Screening for Appropriate Assessment - Screening Determination

1.0 Introduction

- 1.1. The subject application is an application for Substitute Consent (SC) for retrospective works and use of a quarry for sand, gravel and rock extraction.
- 1.2. The applicant has indicated their intention to apply to further develop the quarry in accordance with Section 37L of the Planning and Development Act as amended. At the time of writing an application to further develop the quarry has not been lodged with the Board. As the second application should have been lodged 6 weeks from this application, I am satisfied that the Board can proceed to determine this.
- 1.3. The Boards attention is also drawn to the Wicklow County Development Plan 2016-2022 which was in place at the time the application was lodged with the Board. This plan has now been superseded by the Wicklow County Development Plan 2022-2028 which is now the operative County Development Plan (CDP).
- 1.4. I will assess the subject development under the current Wicklow County Development Plan 2022-2028. The Board may wish to consult the applicant on the new development plan, however, given the limited material change in policy, I am satisfied in this instance that the recirculation of the application is not warranted.

2.0 Site Location and Description

- 2.1. The existing quarry is located in the townland of Ballinabarny North and Bolagh Lower, County Wicklow, in a rural area between Rathdrum village approx. 4km to the west and the M11 approx. 4km to the east.
- 2.2. Access to the site is provided from two access routes, one to the south (access route 1) and one to the east (access route 2) both of which connect to the L5155 which joins the L1152 to the north. This is a local road linking Rathdrum and the R772 and M11 to the east of the site.
- 2.3. The site is bounded by the Newbawn stream to the north and east and dry field drains within hedgerows to the south and west. The site is within the catchment of the Avonmore River which is about 3kms to the west of the site, the Avonmore flows north to south and enters the Irish Sea at Arklow southeast of the site.

- 2.4. The lands adjacent to the site are used for agricultural purposes (including pasture and tillage) with plantations of trees located along the western, and eastern edges of the site. An area of heath and scrub occurs immediately adjacent to the south of the site. Farmyards and one-off residential properties also occur in the vicinity of the site.
- 2.5. The current quarry void is centrally located within the site and is roughly square in shape. The existing administration, maintenance, storage and welfare facilities are located at the southern edge of the site, with the aggregate processing plant area located towards the centre of the site. Existing buildings on site have a stated area of 376sqm.
- 2.6. Other quarries in the vicinity of the site include Balleese Wood Quarry (ca. 2.5km west), Ballinclare Quarry (ca. 4km northeast) and the historical Tigroney West ('Avoca') mine (ca. 2.8km southwest).
- 2.7. A C&D waste recycling facility is located approx. 250m to the southeast. This C&D waste recycling facility is operated by Bolagh Sand & Gravel Ltd T/A East Coast Transport (ECT) Sand & Gravel Ltd, and is in the ownership of the applicant in the SC application.
- 2.8. Activities at the site include the extraction of sand and gravel, together with processing and temporary stockpiling areas where materials are stored prior to being sold to market.
- 2.9. The reserve at the existing Redcross quarry is both a sand and gravel pit and a rock extraction. The sands are glaciofluvial sands and gravels derived from sandstone and shales. The rock is shale and siltstone. The sand and gravel deposits are currently worked on to an average depth of 114mAOD. The reserve is excavated by mechanical means and processed on site. Excavated material is transported to an existing processing plant area in the central area of the site, where washing, screening and grading for market takes place.
- 2.10. The area of the site to which the SC application extends is stated as c. 23.7 hectares.

3.0 Proposed Development

- 3.1. Permission is sought for substitute consent for an active quarry. The proposed development is for the retention and continuation of extraction. The annual tonnage rate of extraction from the sand and gravel pit during the period of the development was on average 50,000 tons per annum. While I note no separate figures were given for rock extraction, I am satisfied that it is contained in the overall figures.
- 3.2. It is stated in the application that extraction has taken place below the water table during quarrying activities in the northwest corner of the quarry and were predominantly pre-2008.
- 3.3. The development consists of a sand/gravel extraction pit including
- extraction areas,
 - processing areas,
 - stockpiling areas and
 - ancillary works.
- 3.4. The development also includes
- a sand/gravel washing/screening plant and
 - buildings comprising
 - workshop/machinery shed,
 - tools storage container,
 - pump house,
 - 2 no. portable office buildings,
 - 1 no. portable office/canteen/W.C.
 - sand processing plant electrical room,
 - 3 No. Storage containers,
 - sand processing plant control cabin,
 - bunded oil storage tanks,
 - diesel generator container and

- Electrical substation

3.5. The application is accompanied by the following;

- Planning Report
- Remedial Environmental Impact Assessment (rEIAR)
- Remedial Natura Impact Statement (rNIS)

4.0 Planning History

Subject Site

PA Reg. Ref. 06/4577: Permission **granted** 06/12/2006 for new entrance and driveway to an existing sand and gravel pit and farm to East Coast Transport (ECT) Sand and Gravel Ltd.

Condition no 4 states '*The proposed development of an entrance shall only serve authorised quarrying activities on lands outlined in blue on the site location map submitted to the Planning Authority on the 20th January 2006.*

QY39: Application **lodged** 27/07/2005 for registration of the quarry. There was some confusion in relation to the submission of information by the applicant and the quarry was not properly registered.

ABP PL27.233638 PA Reg. Ref. 08/1153: Permission for retention was granted by the PA. Decision was overturned on appeal to the Board and **refused** 31/08/2009 for

(1) retention/continuation of use of a sand and gravel quarry at Ballinabarny North and Bolagh Lower, Redcross, County Wicklow. The overall area of the application site was stated as 25.9617 hectares. The stated area for the existing sand/gravel extraction pit including extraction areas, processing areas, stockpiling areas was 21.0711 hectares. Processing of 150,000 tonnes per annum was proposed. The application was accompanied by an Environmental Impact Statement, ECT Sand and Gravel Ltd.

(2) retention of various buildings and plant including workshop/machinery shed (159.30 square metres), seven number storage containers (124.75 square metres), tools storage container (27.57 square metres), two number portable office buildings

(total 34.36 square metres), one number portable office/canteen/W.C. (27.73 square metres), pumphouse (14.16 square metres), timber shed (3.24 square metres), two number electrical control rooms (26.04 square metres), diesel generator container (13.89 square metres), electrical sub-station (3.7 square metres), bunded oil storage tanks and sand/gravel washing/screening plant together with

(3) installation of proposed weighbridge, truck wheel wash bay, septic tank and upgraded percolation area,'

The reason for refusal had regard to:-

(a) the planning history of the site and in particular to the failure to register the quarry in accordance with the requirements of Section 261 of the Planning and Development Act, 2000,

(b) Section 261(10)(a) of the said Act, and

(c) the judgement of the European Court of Justice in Case C-215/06, Commission v. Ireland, delivered on 3rd day of July 2008, in which it was held that the retention permission system, as it applies in Irish law to projects that are required to be subject to Environmental Impact Assessment under the EIA Directives, does not comply with the Directives,

it is considered that as the proposed development for which permission is sought is of a class that requires Environmental Impact Assessment in accordance with the requirements of EU Directive 85/337/EEC (as amended) and that it includes a significant element of retention permission. The Board is, therefore, precluded from considering a grant of planning permission in this case.

Substitute Consent Application

Under QV0251: The Board determined on 28/03/2014 that development was carried out after the 1st day of February 1990, which development would have required an environmental impact assessment. The Inspector's report notes that the available aerial photographs indicate site extraction areas of 2.9 hectares in (1995), 7.4 hectares in (2000) and 16 hectares in (2005) The Inspector's report also describes a series of applications for waste permits related to the spreading of soil. The applicant was advised by a note on the **Board Direction** that the remedial EIS to be submitted in support of the **application for substitute consent** would need to

be comprehensive and up to date and that the re-submission of the 2008 EIS would not be acceptable.

PA Ref. QY39 ABP Ref. SU27.SU0121: Application **lodged** 23/09/2014 to An Bord Pleanála for substitute consent for

(1) Sand and Gravel extraction pit including extraction areas, processing areas, stockpiling areas and ancillary works (20.1584 hectares) and

(2) various buildings and plant including workshop/machinery shed, 4 No Storage containers, tools storage container, 2 No. portable office buildings, 1 no portable office/canteen/WC, pumphouse, 2 No electrical control rooms, diesel generator container, electrical substation (Total 376sqm), bunded oil storage tanks and sand/gravel washing/screening plant. The application included a Remedial Environmental Impact Statement, by East Coast Transport Ltd. (Note this application was not accompanied by a rNIS).

Board decision 02/02/2016 was to **refuse** permission for Substitute Consent, as the Board considered that the information submitted in support of the application for substitute consent was deficient. The Environmental Impact Statement was deficient in its failure to consider cumulative effects and alternatives and to provide sufficient historic and contemporary information in relation to key impacts, and, in particular, the effects on the water resources, hydrology and aquatic environment of the area. The Board was not satisfied that the development which has taken place has not resulted in significant and adverse effects on the environment.

Judicial Review

The applicant sought to quash the Boards decision to refuse the application for substitute consent. A High Court judgement dated 11th December 2019 decided that the relief claimed by ECT Sand and Gravel Ltd in the Judicial Review proceedings should be refused.

It was determined however during the course of the proceedings that a further application could be made for SC and accordingly an application was subsequently made to ABP for leave to apply for SC under Section 177C(2)(b) of the Planning and Development Act 2000 (as amended).

Leave to Apply for Substitute Consent

ABP 307472-20: Application **granted** 09/07/2021 for Leave to Apply for Substitute Consent for Quarry at Ballyinabarny, Redcross, Co. Wicklow by ECT Sand and Gravel Ltd.

Substitute Consent – Extension of Time

ABP 311088-21: Application **granted** 01/09/2021 for request for an extension of time for application of Substitute Consent for a Quarry to ECT Sand and Gravel LTD for extension till 24/12/2021.

Subsequent applications under ABP 311898-21, ABP-312694-22 and ABP 313762-22 were lodged, with further extensions granted till 24/03/2022, 17/06/2022 and 12/08/2022 respectively.

Waste Recycling Facility to the South

PA Reg. Ref. 22/278: Permission **granted** 13/05/2022 for the continuation of use of an existing Waste Recycling Facility (previously approved under planning reg ref 12/6015 and 16/1434) to include acceptance, recovery and recycling of construction and demolition waste by crushing and screening of soils, stone, concrete and tarmacadam materials with a maximum annual throughput of 25,000 tonnes per annum. Permission is also sought for the continued use of mobile crushing and screening plant, stockpile areas, skip storage area, portable office and chemical toilet, and wheel wash and all ancillary activities necessary for the continuation of use of the development. The continued use of development will be subject to a waste facility permit to Bolagh Sand & Gravel Ltd T/A ECT Sand & Gravel Ltd. I note from my site visit that the facility is active.

PA Reg. Ref. 16/1434: Permission **granted** 23/06/2017 for continuation of use of an existing Waste Recycling Facility (previously approved under planning permission ref 12/6015) to include recovery & recycling of construction & demolition wastes by crushing and screening of soils, stone, concrete & tarmacadam materials at a maximum rate of 25,000 tonnes per annum including mobile crushing / screening plant, portable office / chemical toilet & ancillary site development works including stockpiling area, site drainage, fencing & landscaping. The development is / will be

subject of a Waste Facility Permit to Bolagh Sand and Gravel Ltd. T/A ECT Sand & Gravel.

PA Reg. Ref. 12/6015: Permission **granted** 29/06/2012 for waste recycling facility to include recovery and recycling of construction and demolition waste by crushing & screening of soils, stone, concrete & tarmacadam materials at a maximum rate of 25,000 tonnes per annum including mobile crushing/screening plant, portable office / chemical toilet & ancillary site development works including stockpiling area, site drainage, fencing & landscaping, at Ballinabarny North, Redcross, Co. Wicklow to East Coast Transport Ltd. T/A ECT Sand & Gravel.

Lands to Southeast of Quarry

PA Reg. Ref. 21/250: Permission **refused** 29/04/2021 for deposition of soil and stone over an area of c.2.0 ha for the purposes of land improvement with an agricultural end use.

PA Reg. Ref. 23/561: Incomplete application for extension of duration of permission for land improvement works including the re-contouring of land by infilling with inert material and the installation of land drainage granted under PPR Ref. no. 18/39.

5.0 Policy Context

5.1. Wicklow County Development Plan 2022-2028

- 5.1.1. The Wicklow County Development Plan (CDP), 2022-2028 is the operative plan for the purposes of this appeal determination. The Substitute Consent site is located within a rural area (Level 10: open countryside) of the county. The policy notes that the rural area in Wicklow is an active and vibrant area that plays host to a range of activities including, for example, rural housing, rural recreational activities, agricultural, horticulture, forestry, aquaculture, fishing, rural tourism, rural enterprises, quarrying and extraction, landfill, renewable energy etc.
- 5.1.2. Section 9.4 (Economic Development Hierarchy) of the current Plan acknowledges that the key areas within Wicklow's rural economy that present these opportunities fall within the agriculture, food and forestry sectors and to a lesser extent within the maritime / fishing and extractive industry.

5.1.3. The Strategic Objective contained within Section 9.6 (Objectives for Wicklow's Rural Economy) is 'To preserve the amenity, character and scenic value of rural areas, and to generally require employment-generating development to locate on zoned / designated land within existing settlements. Notwithstanding this, it is the objective of the Council to enhance the competitiveness of rural areas by supporting innovation in rural economic development and enterprise through the diversification of the rural economy into new sectors and services including those addressing climate change and sustainability and through the development of appropriate rural based enterprises, which are not detrimental to the character, amenity, scenic value, heritage value and environmental quality of a rural area.

5.1.4. The Strategic Objective for the 'Extractive Industry' is 'To support and facilitate the exploitation of County Wicklow's natural aggregate resources in a manner, which does not unduly impinge on the environmental quality, and the visual and residential amenity of an area (see Map 09.05, Crushed Rock Aggregate Potential). The following objectives are noted:

- **CPO 9.52** To facilitate and encourage the exploration and exploitation of minerals in the County in a manner, which is consistent with the principle of sustainability and protection of residential, environmental and tourism amenities.
- **CPO 9.53** To encourage the use, development and diversification of the County's indigenous natural dimensional rock industry, particularly where it can be shown to benefit processing, craft or other related industries.
- **CPO 9.54** To support and facilitate the development of related and spin-off industries of the extractive industry such as craft and monumental stone industries and the development of the mining and industrial tourism heritage. Consideration will be given to the development of such related industries within or in association with existing operations of worked out mines or quarries, at locations such as the disused granite quarries at Ballyknockan, where this does not conflict with other objectives and objectives of the plan.
- **CPO 9.55** To have regard to the following guidance documents (as may be amended, replaced or supplemented) in the assessment of planning applications for quarries and ancillary facilities:

- 'Quarries and Ancillary Activities: Guidelines for Planning Authorities' (2004, DoEHLG); 'Environmental Management Guidelines – Environmental Management in the Extractive Industry (Non-Scheduled Minerals)', EPA 2006;
- 'Archaeological Code of Practice between the DoEHLG and the Irish Concrete Federation' 2009;
- 'Geological Heritage Guidelines for the Extractive Industry', 2008; and
- 'Wildlife, Habitats and the Extractive Industry – Guidelines for the protection of biodiversity within the extractive industry', NPWS 2009.

5.1.5. In terms of Natural Heritage & Biodiversity, Section 17.4 of the current Plan contains the following relevant objectives:

- **CPO 17.1** To protect, sustainably manage and enhance the natural heritage, biodiversity, geological heritage, landscape and environment of County Wicklow in recognition of its importance for nature conservation and biodiversity and as a non-renewable resource.
- **CPO 17.2** Ensure the protection of ecosystems and ecosystem services by integrating full consideration of these into all decision making.
- **CPO 17.5** Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan.

5.1.6. As per Chapter 17 of the CDP (Map No. 17.09A), the site is identified as being located within the 'The South East Mountain Lowlands' **Area of High Amenity**. The South East Mountain Lowlands comprises transitional undulating lands bordering the Area of Outstanding Natural Beauty and surrounding the distinctive features of the Vale of Avoca, lands surrounding the village of Avoca and the Aughrim River Valley. The area includes a number of designated views and prospects and significant cultural heritage in the form of the Avoca Mines County Geological Site and Avondale House.

5.1.7. In terms of Landscape, Views & Prospects, the following objectives are noted:

- **CPO 17.37** To resist development that would significantly or unnecessarily alter the natural landscape and topography, including land infilling / reclamation projects or projects involving significant landscape remodelling, unless it can be demonstrated that the development would enhance the landscape and / or not give rise to adverse impacts.
- **CPO 17.38** To protect listed views and prospects from development that would either obstruct the view / prospect from the identified vantage point or form an obtrusive or incongruous feature in that view / prospect. Due regard will be paid in assessing development applications to the span and scope of the view / prospect and the location of the development within that view / prospect.

5.1.8. As per Map No. 17.10B of the current CDP there are two no. Views of Special Amenity Value or Special Interest. These include:

- **View No.19.** L6154 and Mottee Stone Connery Avoca - View of Surrounding Mottee Stone to North East and South
- **View No. 20.** L2167 Kilmacoo, Parnell Drive - View of valley and towards Kilmacrea Pass

5.1.9. As per Map No. 17.11 of the current CDP, there is a prospect (**No. 37** i.e. Prospect towards Avonmore River valley) which runs along the L5155 Connary, Parnell Drive to the south of the appeal site.

Relevant Appendices

- **Appendix 1:** Development and Design Standards.

5.1.10. **Section 4.3.6** (Extractive Industry) notes that the Planning Authority will facilitate the development of the extractive industry and permit such workings where it has been shown that the following criteria can be met; having taken into account the reduced demand for aggregates that will come about through improved recycling of construction and demolition waste:

- The environment and the landscape will be safeguarded to the greatest possible extent during all life cycle stages of the process;

- Such operations have good access to, or are within reasonable distance of, the national or regional road network and do not adversely affect the residential or tourism amenity of the area;
- Satisfactory provision will be made for a beneficial after use of the land that does not conflict with other planning objectives for the area;
- The working, landscaping, restoration and after care of the site will be carried out to the highest standards in accordance with the approved scheme.

5.1.11. The policy also provides details of the application requirements for extractive developments which include:

- Land and mineral interest,
- Nature of development,
- Nature of deposit,
- Proposed method of extraction,
- Additional information relating to underground operations,
- Processing of materials,
- Ancillary operations and development,
- Access and Transport,
- Environmental effects of the proposal, and,
- Restoration, after care and after use.

5.2. **National Policy and Guidance**

5.2.1. **Climate Action Plan 2024**

The Government of Ireland's Climate Action Plan was first published in June 2019 by the Department of Communications, Climate Action and Environment. The Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan 2019. This plan is prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and following the introduction, in 2022, of economy-wide carbon budgets and sectoral emissions ceilings.

5.2.2. Climate Action and Low Carbon Development (Amendment) Act 2021

This Act amends the Climate Action and Low Carbon Development Act 2015. It sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050. The Act commits us, in law, to a move to a climate resilient and climate neutral economy by 2050.

An Bord Pleanála is a relevant body for the purposes of the Climate Act. As a result, the obligation of the Board is to make all decisions in a manner that is consistent with the Climate Act.

5.2.3. Ireland's 4th National Biodiversity Action Plan 2023–2030

Ireland's 4th National Biodiversity Action Plan (NBAP) sets the national biodiversity agenda for the period 2023-2030 and aims to deliver the transformative changes required to the ways in which we value and protect nature. The NBAP will continue to implement actions within the framework of five strategic objectives, while addressing new and emerging issues:

- 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 Ireland's Contribution to International Biodiversity Initiatives.

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

These joint documents set out a vision for the future development of the country and in particular, to support the sustainable development of rural areas by encouraging growth.

Section 5.4 Planning and Investment to Support Rural Job Creation

Aggregates and Minerals Extractive industries are important for the supply of aggregates and construction materials and minerals to a variety of sectors, for both domestic requirements and for export. The planning process will play a key role in

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

National Policy Objective 23 seeks to facilitate the development of the rural economy through supporting, amongst other sectors, a sustainable and economically efficient extractive industry sector, whilst at the same time noting the importance of maintaining and protecting the natural landscape and built heritage, which are recognised as being vital to rural tourism.

Draft First Revision to the National Planning Framework July 2024

The updated Draft Revised NPF published 5th November 2024, references the Circular Economy and Miscellaneous Provisions Act 2022 and the National Circular Economy Strategy 2022, and that the Circular Economy as playing a much more significant role. The updated Draft Revised NPF published in November also sets out new upward targets for housing.

National Policy Objective 42 seeks to target the delivery of housing to accommodate approximately 50,000 additional homes per annum to 2040.

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

5.2.5. Regional Spatial and Economic Strategy

This strategy came into effect on 28th June 2019 and builds on the foundations of Government policy in Project Ireland 2040. It seeks to determine at a regional scale how best to achieve the shared goals set out in the National Strategic Outcomes of the NPF and sets out 16 Regional Strategic Outcomes (RSO's) which set the framework for city and county development plans. The RSO's are underpinned by

the Regional Policy Objectives, (RPO's). It supports the circular economy to make better use of resources and become more resource efficient.

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

5.2.6. **European Union Water Framework Directive**

The European Union Water Framework Directive 2000/60/EC (WFD) was adopted in 2000 as a single piece of legislation covering rivers, lakes, groundwater and transitional (estuarine) and coastal waters and includes heavily modified and artificial waterbodies. The overarching aim of the WFD is to prevent further deterioration of and to protect, enhance and restore the status of all bodies of water with the aim of achieving at least 'good' ecological status by 2015 (or where certain derogations have been justified to 2021 or 2027).

5.2.7. **Quarries and Ancillary Activities Guidelines for Planning Authorities (2004), DOEHLG**

These Guidelines were issued to offer guidance to planning authorities and An Bord Pleanála for the quarrying industry through the Development Plan and determining planning applications for planning permission for quarrying and ancillary activities and for the implementation of Section 261 of the Planning and Development Act, 2000.

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

Section 3.2 notes that extractive industries are associated with many noise-generating activities including the removal of topsoil and overburden, excavation with

machinery, drilling and blasting of rock, crushing and screening of aggregates, transport of raw materials and finished products within the site and on public roads.

The Guidelines set out a recommended standard of 55dB(A) L_{Aeq} (1 h) for daytime noise and 45 dBA L_{Aeq} (1 h) for night-time at the nearest sensitive receptor. The guidelines also note that it may be appropriate to permit higher noise Environmental Limit Values (ELVs) for short-term temporary activities such as construction of screening bunds, etc, where these activities will result in a considerable environmental benefit.

Section 3.3 sets out a number of best practice mitigation measures to prevent dust creation at source, one such measure includes paving road surfaces. As the predicted dust levels in all scenarios, at sensitive locations, are within the criteria set out in national guidelines, I am satisfied that the impact would not be significant and there is no requirement for the paving of roads within the quarry site.

Section 3.6 notes the development plan will indicate areas of high landscape quality, together with proposed geological Natural Heritage Areas, where quarrying will not normally be permitted. While Quaternary landscape features such as eskers and moraines comprise valuable sediments, they also represent non-renewable records of past climate and environmental change and should be afforded some protection.

Section 3.7 notes in relation to traffic impact best practice/possible mitigation measures: Some related mitigation measures (e.g. in relation to noise and dust) have been outlined above. Specific traffic-related measures may include:

- The improvement of sightlines at the site entrance;
- The strengthening/widening of local roads;
- Limiting HGV traffic to specified routes to and from the site;
- Queuing of vehicles with engines running at quarry sites in the early morning can impact on residential amenity, and must be avoided;
- Provision of footpaths/pedestrian refuges as well as passing bays for vehicles on rural roads in the vicinity of the site.

Section 4.9 states that when considering whether a further permission should be granted, the planning authority should have regard (inter alia) to the extent of the remaining mineral resources and the extent of existing capital investment in infrastructure, equipment, etc.

5.2.8. **Supplementary Guidelines for Planning Authorities July 2012 DOEHLG**

These guidelines support and clarify the legislative arrangements relating to the control of quarries through the planning system following the enactment of Section 261A of the Planning and Development Act. 2000 and related provisions.

5.2.9. **Environmental Management in the Extractive Industry, Environmental Protection Agency, 2006**

These guidelines provide a summary of environmental management practices for quarries and ancillary facilities. Key environmental management issues have been identified and addressed.

Section 3.5 notes that noise and vibration are present in many normal everyday activities. In relation to quarry developments and ancillary activities, it is recommended that noise from the activities on site shall not exceed the following noise ELVs at the nearest noise-sensitive receptor: Daytime: 08:00–20:00 h LAeq (1 h) = 55 dBA Night-time: 20:00–08:00 h LAeq (1 h) = 45 dBA.

In relation to blasting activities within quarry development, it is recommended that the following vibration and air overpressure ELVs are adopted and applied at the nearest vibration and air overpressure sensitive location (e.g. a residential property): Ground-borne vibration: Peak particle velocity = 12 mm/s, measured in any of the three mutually orthogonal directions at the receiving location (for vibration with a frequency of less than 40 Hz). Air overpressure: 125 dB (linear maximum peak value), with a 95% confidence limit.

5.3. **Natural Heritage Designations**

- 5.3.1. The site is not located within any designated site. The closest Natura 2000 site is the Deputy's Pass Nature Reserve SAC (Site Code 000717) which is located c.3.6km to the northeast of the appeal site. The next closest is the Vale of Clara (Rathdrum Wood) SAC (Site Code 000733) located c.3.8km to the northwest.
- 5.3.2. Other European sites within a 15km radius of the quarry site include The Murrough Wetlands SAC (Site Code 002249) located c.11.8km to the northeast. Wicklow Mountains SAC (Site Code 002122) and Wicklow Mountains SPA (Site Code 004040) are both located c.12.2km to the northwest.

- 5.3.3. The site is also located c.3.6km to the northeast of the Glenealy Woods proposed Natural Heritage Area (pNHA) (Site Code 001756).

5.4. **EIA Screening**

- 5.4.1. Schedule 5, Part 2, 2(b) of the Planning and Development Regulations 2001, as amended and Section 172(1)(a) of the Planning and Development Act 2000, as amended provides that an Environmental Impact Assessment (EIA) required for: -
- 2. Extractive Industry (b) Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares.*
- 5.4.2. The application for Substitute Consent comprises the retrospective extraction of sand/gravel with an extraction area of 23.7 hectares. Given the area of extraction exceeds the 5ha. threshold, a mandatory EIA is required in this instance.
- 5.4.3. An rEIA was submitted with the application. Article 102 of the Planning and Development Regulations, 2001 (as amended) requires that *'where a planning application for sub-threshold development is accompanied by an EIAR, the application shall be dealt with as if the EIAR had been submitted in accordance with section 172(1) of the Act'*.

6.0 **Legislative Context**

- 6.1.1. The basis for substitute consent is set out in Part XA (Section 177A – Q) of the Planning and Development Act, 2000, as amended.
- 6.1.2. Of particular importance is the need for the applicant to demonstrate that exceptional circumstances apply. This is set out in Section 30 of the Planning and Development, Maritime and Valuation (Amendment) Act 2022 Act, which amends Section 177K of the 2000 Act.
- 6.1.3. The Planning and Development, Maritime and Valuation (Amendment) Act 2022 (Commencement of Certain Provisions) (No.2) Order 2023 (S.I. 645 of 2023) came into effect on the 16th day of December 2023.

Section 30 of the 2022 Act amends Section 177K of the 2000 Act as follows:

- (a) by the insertion of the following subsection after subsection (1) (i):

“(1J) In considering whether exceptional circumstances exist under subsection (1A)

(a) the Board shall have regard to the following matters:

(a) whether regularisation of the development concerned would circumvent the purpose and objectives of the Environmental Impact Assessment Directive or the Habitats Directive.

(b) whether the applicant had or could reasonably have had a belief that the development was not unauthorised.

(c) whether the ability to carry out an assessment of the environmental impacts of the development for the purpose of an environmental impact assessment or an appropriate assessment and to provide for public participation in such an assessment has been substantially impaired.

(d) the actual or likely significant effects on the environment or adverse effects on the integrity of a European site resulting from the carrying out or continuation of the development.

(e) the extent to which significant effects on the environment or adverse effects on the integrity of a European site can be remediated.

(f) whether the applicant has complied with previous planning permissions granted or has previously carried out an unauthorised development.

(g) such other matters as the Board considers relevant.”

7.0 Exceptional Circumstances

7.1. Section 177K(1)(J) of the Planning and Development Act 2000 as amended, provides that the Board may grant leave to apply for substitute consent where exceptional circumstances apply, as set out in section 6 of this report.

7.1.1. I would note at the outset that the Board have previously considered that exceptional circumstances exist, such that it would be appropriate to allow regularisation of the development by granting leave to apply for substitute consent under ABP Ref.307472-20 on 9th July 2021. The life of the leave to apply for substitute consent was extended under three subsequent applications for extension of duration extending to 12th August 2022. The current application for SC was lodged on 10th August 2022 prior to the expiration of the third extension of duration permission.

- 7.1.2. I note also that the leave to apply application stage was not open to public consultation. In this application, Exceptional Circumstances were subject to a specific round of public consultations. No observations were received save from the Irish Aviation Authority.
- 7.1.3. This section of my report will test how the development for SC is assessed against the criteria as set out within this part of the Act as follows:
- (a) whether regularisation of the development concerned would circumvent the purpose and objectives of the Environmental Impact Assessment Directive or the Habitats Directive.*
- 7.2. The EIA Directive seeks to provide for an assessment of the likely significant effects of a development on the environment prior to decision making, and to take account of these effects in the decision-making process. The Habitats Directive seeks to ensure the conservation of a wide range of rare, threatened or endemic animal and plant species and the conservation of rare and characteristic habitat types.
- 7.2.1. An application to register the quarry under Section 261 of the Planning and Development Act 2000, as amended, was made to the Planning Authority in 2005, however the site was not properly registered.
- 7.2.2. An application for retention permission was granted by the PA and subsequently overturned on appeal in 2009, planning reference PA Reg. Ref. 08/1153 and ABP PL27.233638 refer.
- 7.2.3. The stated area for the existing sand/gravel extraction pit including extraction areas, processing areas, stockpiling areas was 21.0711 hectares. Processing of 150,000 tonnes per annum was proposed. The application was accompanied by an Environmental Impact Statement.
- 7.2.4. The reason for refusal had regard to the failure to register the quarry in accordance with the requirements of Section 261 of the Planning and Development Act, 2000, and Section 261(10)(a) of the said Act. It also referred to the judgement of the European Court of Justice in Case C-215/06, Commission v. Ireland, delivered on 3rd day of July 2008, in which it was held that the retention permission system, as it applies in Irish law to projects that are required to be subject to Environmental Impact Assessment under the EIA Directives, does not comply with the Directives,

- 7.2.5. The Board determined that the proposal for which permission was sought is of a class that requires Environmental Impact Assessment in accordance with the requirements of EU Directive 85/337/EEC (as amended) and that it includes a significant element of retention permission. The Board was, therefore, precluded from considering a grant of planning permission in this case.
- 7.2.6. The Board will note a Board Determination issued in 2014 that as development was carried out after 01/02/1990 and required an EIA, planning reference QV0251 refers. The Board Direction advised that a remedial EIA be submitted in support of an application for SC.
- 7.2.7. An application for SC which was accompanied by a rEIA was subsequently refused by the Board in 2016, planning reference PA Ref. QY39 ABP Ref. SU27.SU0121 refers. The Board considered the rEIA deficient.
- 7.2.8. Any decision by the Board to grant or refuse permission for substitute consent for development carried outside the previously permitted areas of the site would be made on the basis of an assessment of the likely effects of the development on the environment and the likelihood of any significant effects on European sites, as a result of past works. Hence, the applicants have submitted a remedial Environmental Impact Assessment Report (rEIAR) and a remedial Natura Impact Statement (rNIS) as part of their planning documentation in the current application.
- 7.2.9. It is evident from the planning history that the applicant has attempted to comply with this section of the directive.
- 7.2.10. As such, I am satisfied that the regularisation of the development concerned would not circumvent the purposes and objectives of the EIA Directive or of the Habitats Directive as it would allow for the provision of information and an analysis of the likely significant effects of the development.

(b) *whether the applicant had or could reasonably have had a belief that the development was not unauthorised.*

- 7.3. The quarry owners state that they had a reasonable belief that the SC area was accepted by the Planning Authority under planning reference 06/457 which was for a new entrance and driveway to an existing sand and gravel pit and farm. The application for registration of the quarry was lodged on 27th July 2005, but it is stated

that there was some confusion in relation to the submission of information by the applicant and the quarry was not registered.

7.3.1. Therefore, I am satisfied that the current quarry owners had a reasonable basis to believe that there was a valid registration of the site under Section 261 of the Act.

7.3.2. I am, therefore, of the opinion that the applicant could reasonably have had a belief that the development was not unauthorised.

(c) *whether the ability to carry out an assessment of the environmental impacts of the development for the purpose of an environmental impact assessment or an appropriate assessment and to provide for public participation in such an assessment has been substantially impaired.*

7.4. In the context of the substitute consent site, I note that planning applications were made to Wicklow County Council for the retention and continuation of use of sand and gravel extraction areas and associated works in 2008. An application for SC was subsequently lodged with the Board in 2012. These applications involved statutory public participation and resulted in the submission of observations from third parties. I note that the 2008 planning application included the submission of a mandatory Environmental Impact Statement as part of the planning documentation. I further note that the S261A process in 2012 also provided an opportunity for public participation.

7.4.1. I am satisfied that there is a record of environmental information, to allow for the assessment of quarrying over time and the relevant environmental impacts.

7.4.2. Under the current process, where the applicant is seeking substitute consent and includes the submission of both an rEIAR and rNIS as part of the planning documentation, there is provision for prescribed bodies and interested third parties to make submissions and to become formally involved in the process. The assessment of same would not be substantially impaired in such an event.

(d) *the actual or likely significant effects on the environment or adverse effects on the integrity of a European site resulting from the carrying out or continuation of the development.*

7.5. It is acknowledged that quarrying at the site has occurred, and that significant removal of material took place as the quarry grew from 0.75 to 23.7 ha. The

quarrying did result in significant visual and environmental impacts including dewatering, however changes to the landscape happened gradually over time and does not appear to have had a serious impact on groundwater or the water table.

- 7.5.1. The site is not located within or immediately adjacent to any designated European site or any designated site. The closest Natura 2000 site is the Deputy's Pass Nature Reserve SAC (Site Code 000717) which is located c. 3.6km to the northeast of the quarry site. Vale of Clara (Rathdrum Wood) SAC (Site Code 000733) lies c..3.8km to the northwest.
- 7.5.2. I am satisfied that the quarrying which has occurred in this area has been managed and subject to certain control/mitigation measures to protect the water environment including groundwater monitoring, which will be addressed in detail later within this assessment. The applicant has submitted a rNIS and I will refer to this matter later in my report.
- 7.5.3. I am satisfied that there were no adverse effects on the integrity of a European site as set out in Section 177K(1)(J)(d) of the Planning and Development Act 2000 as amended, and as confirmed by the Boards environmental scientist.
- 7.5.4. In the event of a decision to grant substitute consent in this instance, such a decision would be made having regard to the information contained within the rNIS, in addition to data from the websites of the National Parks and Wildlife Service (NPWS), the Geological Survey of Ireland (GSI) and the Environmental Protection Agency (EPA). All of this information will assist in informing the Board of any potential for adverse impacts to arise upon protected habitats, species and/or water quality.
 - (e) *the extent to which significant effects on the environment or adverse effects on the integrity of a European site can be remediated.*
- 7.6. I am satisfied that while a significant portion of the landform/hill has been removed resulting in a permanent change to the landscape, this does not seem to have been an adverse significant effect on the environment and the visual impacts can be remediated.
- 7.6.1. I note the applicants' commitment in allowing the site to continue to revegetate and rewild, and that as the site is not located within a Natura 2000 site, no remediation of a European Site is required. In the event of a decision to grant substitute consent in

this instance, any mitigation measures could be included as part of the planning conditions of the decision, if the Board deem appropriate.

(f) *whether the applicant has complied with previous planning permissions granted or has previously carried out an unauthorised development.*

7.7. I am satisfied that the applicant has sought to regularise their position and have sought later permissions. I note that the adjoining waste recycling facility is operated by the same owners. This facility which includes recovery and recycling of construction and demolition waste was granted planning permission in 2012, planning reference PA Reg.Ref.12/6015 refers. This development is subject to a Waste Facility Permit and subsequent applications for continuance of use have been permitted by the PA under Reg.Ref.16/1434 and Reg. Ref. 22/278.

(g) *such other matters as the Board considers relevant.*

7.8. I note that there is significant demand for sand, gravel and rock for the construction industry to provide for 50,000 additional households per annum to 2040 as per NPO 42 in the revised NPF.

8.0 Submissions

8.1. Planning Authority Submission

The Planning Authority submitted a S1771 report to the Board 14/10/2022. The report outlines the planning history if the site and planning policy context as it related to the CDP 2016-2022, and draft CDP 2022-2028. The report states that;

- The Planning Authority is not aware of any current, anticipated (other than those possible impacts identified in the remedial NIS for which mitigation measures have been put forward), or previous significant effects on the environment, or on a European site, associated with the proposed development.
- The Planning Authority is not aware of any remedial measures recommended or undertaken.

The Chief Executive recommends that SC should be granted, as the proposed development would not result in significant effects on the environment, or a

European Site, would not result in adverse impacts on the amenities of the area and adjoining properties, and would therefore be in accordance with the proper planning and sustainable development of the area.

The PA also include a number of conditions that should be attached to any grant of substitute consent. These conditions relate to the following;

- Condition 1: Plans and documents lodged.
- Condition 2: Development Contributions to be paid within 6 months of permission.
- Condition 3: Payment of cash security for the satisfactory restoration of the quarry.
- Condition 4: Mitigation and monitoring measures outlined in rEIAR and rNIS to be implemented and Environmental Management System to be agreed.
- Condition 5: Hours of operation.
- Condition 6: Noise requirements.
- Condition 7: Dust requirements.
- Condition 8: Wheel washing and road maintenance requirements.
- Condition 9: Bunding of chemical storage tanks.
- Condition 10: Restoration Plan to be submitted within 6 months, and levels of refilling of extracted lands.
- Condition 11: No extraction within 5m of the underlying groundwater level, and recording of groundwater levels in the boreholes requirements

8.2. Prescribed Bodies

- Irish Aviation Authority (IAA): Report dated 10/10/2022 recommends no observations.

8.2.1. The file was circulated by the Board to An Chomhairle Ealaíon, An Taisce, Department of Housing, Local Government and Heritage (Development Applications Unit), Failte Ireland, The Heritage Council, Environmental Protection Agency (Environmental Licencing Programme), Inland Fisheries Dublin, Transport

Infrastructure Ireland, Department of Communications, Climate Action and Environment, Commission for Regulation of Utilities, Irish Water, Department of Agriculture, Food and Marine, Railway Safety Commission, Health Service Executive (Kildare), and no observations were received.

8.3. Further Responses

8.3.1. In response to the PA response, the applicant's agents made a further submission dated 5/12/2022, which can be summarised as follows;

- Welcome opinion of PA and hope the Board are minded granting permission for SC.
- Submit it has been demonstrated in the rNIS and rEIAR that the proposal would not result in significant effects on the environment, a European site or the amenities of the area.
- Note conditions recommended by PA to be attached to pre-existing quarry.
- Note applicants intention to apply to further develop the quarry in accordance with Section 37L of the Planning and Development Act as amended.
- Refer to the Maritime and Valuation Act (Amendment) Act 2022, and amendment to S37L along with the issuing of Supplementary Ministerial Regulations by the Department of Housing Local Government.

9.0 Assessment

9.1. Introduction

9.1.1. The basis for substitute consent is set out in Part XA (Section 177K (1J)) of the Planning and Development Act 2000 (as amended). This section of the Act states that when making its decision in relation to an application for substitute consent, the Board shall consider the proper planning and sustainable development of the area having regard to a number of matters, listed as (a) to (g), within Section 177K(1J), regarding exceptional circumstances. I have dealt with this under section 7 of my report. The assessment will concentrate on the relevant planning and environmental issues.

- 9.1.2. In the current application documentation, it is stated that the quarry commenced operations in 1990 with the working pit most active within the period 2005 - 2012, The Board's determination of this case can only be made in respect of the development that has already been carried out. i.e., the determination must be confined solely to the works undertaken on site, and for which substitute consent is being sought. The Board is required to restrict its deliberations to the works undertaken and whether or not it is appropriate to grant substitute consent for the past works, which in the current case has been ongoing for 32 years.
- 9.1.3. I would note that works at the quarry are ongoing and that at the time of writing this report an application for further extension of/continuation of use and works at the quarry has not been lodged. Any future application for development at the quarry site will be assessed on its own merits.
- 9.1.4. The current application seeks to address the previous Board decision to refuse permission for SC on 2nd February 2016. The reason for refusal refers to the content of the EIS which was considered deficient
- 9.1.5. I have proceeded with my assessment of the application as lodged taking into consideration all of the information available to me, including the information submitted as part of the planning documentation. This assessment is set out in three parts, under the following headings:
- Section 9.0 - Planning Assessment
 - Section 10.0 - Environmental Impact Assessment
 - Section 11.0 - Appropriate Assessment
- 9.1.6. Section 10 of this report includes the environmental impact assessment of the proposed development. There is inevitable overlap between the assessments, for example, with matters raised falling within both the planning assessment and the environmental impact assessment. In the interest of brevity, matters are not repeated but such overlaps are indicated in subsequent sections of the report.

10.0 Planning Assessment

- 10.1. Having examined the application details and all other documentation on file, including the reports of the Local Authority, the submissions on file and having

inspected the site, and having regard to the relevant local/regional/national policies and guidance, I consider that the substantive issues in this SC application to be considered are as follows:

- Land use, and planning policies

10.2. Land use, planning policies

- 10.2.1. Within the National Planning Framework (NPF), National Policy Objective 23 seeks to facilitate the development of the rural economy through supporting, amongst other sectors, a sustainable and economically efficient extractive industry sector, whilst at the same time noting the importance of maintaining and protecting the natural landscape and built heritage, which are recognised as being vital to rural tourism.
- 10.2.2. The Regional Spatial & Economic Strategy for the Eastern and Midland region, supports the implementation of the NPF, for the future physical, economic and social developments for the Eastern and Midland regions.
- 10.2.3. The NPF and the *Wicklow County Development Plan 2022-2028* recognise quarries as a national resource that are of key importance in their provision of aggregates to the construction sector and in their provision of employment within the rural economy. They also recognise that aggregates are a finite resource, which needs to be safeguarded.
- 10.2.4. Guidelines for Planning Authorities on Quarries and Ancillary Activities (DoEHLG, 2004) acknowledge that extractive industries make an important contribution to economic development in Ireland and the guidelines emphasise the continued need for aggregates. The guidelines note that such operations can give rise to land use and environmental issues which require mitigation and control through the planning system.
- 10.2.5. The Guidelines recognise, too, the land use reality that “aggregates can only be worked where they occur” and the economic reality that in order to limit transportation costs quarries need to be excavated throughout the country.
- 10.2.6. Corresponding policies of the *Wicklow County Development Plan 2022-2028* support, in principle, the exploitation of aggregate resources in the county, where it can be demonstrated that the development would not result in a reduction of the visual amenity of a designated scenic area, to residential amenities or give rise to

potential damage to areas of scientific, geological, botanical, zoological and other natural significance including all designated European Sites.

- 10.2.7. The submission of the Planning Authority sets out that the Authority considers the principle of the development in the context of the CDP 2016-2022 and draft CDP 2022-2028. It recommends that SC be granted and are satisfied that the proposed development would not result in significant effects on the environment, or a European Site, would not result in adverse impacts on the amenities of the area and adjoining properties, and would therefore be in accordance with the proper planning and sustainable development of the area.
- 10.2.8. Having regard to the above, the previous quarrying development is clearly supported within the current planning policy context.
- 10.2.9. As noted, the SC site is located within 'The South East Mountain Lowlands' Area of High Amenity. As such, regard must be given to the current Plan policy for the extractive industry. Notably, Section 4.3.6 of Appendix 1 of the Plan sets out criteria for quarry applications. Whilst it is evident that there is policy support for a development of this nature in rural areas, the bar is higher in this instance given the particular sensitivities of the SC site. The site is not only located within an AHA, but it is hydrologically connected to a proposed Natural Heritage Area.
- 10.2.10. Section 2 (Project Description) of the Applicant's rEIAR provides some information on the sand and gravel which are extracted on site together with processing and temporary stockpiling areas where materials are stored prior to being sold to market. Having examined Map No. 09.05 (Crushed Rock Aggregate Potential) of the current plan it is evident that the site is located within an area of 'moderate potential'. Whilst it is evident that there is demand in the country for this particular resource, there is a clear obligation to evaluate the need to conserve the environment, character and amenity of AHA and the extent to which the proposed development would materially damage these qualities. Whilst I am satisfied that there is policy support for the proposed development and its principle is generally acceptable, I note that these issues are addressed in further detail in my assessment below and in my assessment of Chapters 4 (Biodiversity) and 10 (Landscape and Visual) of the Applicant's rEIAR.

Conclusion

10.2.11. The acceptability of the quarry is contingent on ensuring that the effects on the environment of the development which took place, by itself and in combination with other development in the vicinity, was, and is acceptable, and that the integrity of European Site(s) were not adversely affected, in view of the relevant sites' conservation objectives. I have set out my considerations of these and other relevant matters in the following sections of my assessment, under the headings of Environmental Impact Assessment and Appropriate Assessment respectively.

11.0 Environmental Impact Assessment

11.1. Proposed Development

- 11.1.1. This application was submitted to the Board on the 10th day of August 2022.
- 11.1.2. The proposed development comprises an application for substitute consent for retrospective works and use of a quarry.
- 11.1.3. The lands the subject of this rEIAR extend to c.23.7 ha. and reflects historical operational site area including the extractable area of 4 ha declared under S.261 quarry registration application in 2005. At baseline in 1990 the quarried area has been determined to extend to c. 0.75 ha and in 2022 to have expanded laterally to c. 20.16 ha. The average working depth in 1990 was c. 124mAOD and c. 114mOD in worked out areas of sand and gravel in 2022.
- 11.1.4. The annual tonnage rate of extraction from the sand and gravel pit during the period of the development was on average 50,000 tonnes per annum. An estimation of the historic progression of tonnage extracted between 1990 and 2021 is stated as c 1.48m tonnes.
- 11.1.5. The quarry site is accessed from the L5155 that joins the L1152 to the north, which is a local road linking Rathdrum and the R772 and M11 to the east of the site.

11.2. Statutory Provisions

- 11.2.1. Schedule 5, Part 2, Class 2(b), requires EIA for Extraction of stone, gravel, sand or clay, where the area of extraction would be greater than 5 hectares. The proposed

development comprises the retrospective extraction of a sand and gravel quarry with an extraction area of c. 23.7ha. Therefore, an EIA is required.

11.3. EIA Structure

11.3.1. This section of the report comprises the environmental impact assessment of the proposed development in accordance with Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

- a. consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and
- b. includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

11.3.2. Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

11.3.3. This EIA section of the report is, therefore, divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- alternatives,
- population and human health,
- biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,

- land, soil, water, air and climate,
- material assets, cultural heritage and the landscape,
- the interaction between the above factors, and
- the vulnerability of the proposed development to risks of major accidents and/or disasters.

11.3.4. The assessment provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Boards decision, should they agree with the recommendation made.

11.4. **Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001**

11.4.1. Compliance with the requirements of Article 94 and Schedule 6 of the Regulations is assessed below.

Table 11.4.1

Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)	
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b)).	The proposed development is comprehensively described in Chapter 2 of the rEIAR and depicted in the associated drawings. Information is included on the site, design, size and features of the development. The rEIAR also details the history of the quarry and describes the operation and restoration phases of the development. I am satisfied that adequate historic and contemporary detail has been provided to enable decision making.
A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b)).	A description of the likely significant effects on the environment are included in each of the technical chapters of the rEIAR.

	The adjoining C&D Waste Recycling Facility has been considered in the rEIAR, Therefore, I am satisfied that the rEIAR has provided adequate information on the likely direct, indirect, and cumulative effects of the proposed development on the receiving environment.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b)).	These are included in each of the technical chapters of the rEIAR and the associated appendices of the rEIAR. I am satisfied that adequate historic and contemporary detail has been provided to enable decision making.
A description of the reasonable alternatives studied by the person or persons who prepared the rEIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b))	Chapter 1 Section 1.7 refers to alternative locations, designs considered, mitigation measures and a 'do nothing' alternative, and concludes that an alternative location is not applicable. I consider, therefore, that the description of alternatives is reasonable, and in the context of the application for substitute consent for development already carried out, is satisfactory.
Section 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2)	
A description of the baseline environment and likely evolution in the absence of the development	A detailed description of the baseline environment and progression of extraction is included in each of the technical chapters of the rEIAR, and I am satisfied, is sufficient to

	enable the assessment of likely effects and to enable decision making.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.	A description of difficulties encountered in compiling specified information is identified in each technical chapter. I am satisfied that there are no significant deficiencies that prevent decision making.
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.	Likely significant effects of the development on the environment, arising from its vulnerability to risks of major accidents and/or disasters are addressed in section 2.4 of the rEIAR.
A summary of the information in non-technical language.	A non-technical summary of the rEIAR is provided by the applicant and satisfactorily describes the likely environmental effects of the development.
Sources used for the description and the assessments used in the report.	Sources used for the description and assessment of environmental effects are included in each technical chapter of the rEIAR. A number of appendices are included to the rear of the main volume of the rEIAR. The appendices include the following details: walkover survey report (March 2022), dust assessment, cultural heritage gazetteer, concept restoration plan, detailed results of traffic survey, percentage of development traffic at each junction and detailed junction capacity analysis.

A list of the experts who contributed to the preparation of the report.	Experts and relevant qualifications are identified in section 1.4 of the rEIAR. Further details are provided in each Chapter of the rEIAR on the experts who prepared the technical assessment.
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11.5. Compliance

- 11.5.1. I am satisfied that the information provided in the rEIAR is sufficiently complete and up to date and that the rEIAR has been prepared by competent experts to ensure its completeness and quality. I am therefore, satisfied that the information contained in the rEIAR adequately describes the direct, indirect and cumulative effects of the proposed development on the environment.
- 11.5.2. I am satisfied that the information contained in the rEIAR, and supplementary information provided by the developer is sufficient to comply with Article 94 of the Planning and Development Regulations 2001 (as amended).

11.6. Alternatives

- 11.6.1. The issue of alternatives is addressed in Chapter 1 of the rEIAR. I note that 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;”

- 11.6.2. Annex IV of the Directive (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 selecting the chosen option, including a comparison of the environmental effects.”

11.6.3. Section 1.7. of the rEIAR outlines the need for the development and consideration of alternatives. These are considered below:

- Site selection and alternative locations
- Alternative designs considered
- Alternative mitigation measures
- Do Nothing Scenario

11.6.4. The rEIAR states that the existing quarry is already fully permitted, and the applicant has provided significant capital investment. An alternative location is not considered to be viable or make the best use of existing reserves in the local area. The location of existing plant, machinery and buildings on the site are already established and the locations were considered to be in the best possible locations to operate, which were away from the quarry void yet close to the entry/exit point, whilst ensuring minimal impact on the receiving environment and residents in the quarry's vicinity.

11.6.5. The mitigation measures outlined in the rEIAR have been implemented by the operator based on industry best practice and relevant industry guidance.

11.6.6. The rEIAR considers the 'do nothing' alternative which would result in the cessation of the operation of the existing quarry at its existing footprint and depth. The 'do nothing' alternative would require alternative sources of sand and gravel to be established to supply the construction sector.

11.6.7. I accept that the environmental impacts of closing the quarry may be significantly more environmentally impactful. In my opinion, there are only two reasonable alternatives, either to close the quarry or continue at this location. In the prevailing circumstances the overall approach of the applicant is considered reasonable.

11.6.8. The consideration of alternatives is an information requirement of Annex IV of the EIA Directive, and the single most effective means of avoiding significant environmental effects. Having regard to this requirement and its purpose (i.e. avoidance of significant environmental effects) and noting the existing permitted quarry on the site, I am satisfied that the consideration of alternatives that were studied by the applicant is adequate.

11.6.9. I am satisfied that the consideration of alternatives cited in the Boards previous reason for refusal under ABP Ref. SU0121 has been adequately addressed in the submitted rEIAR.

11.7. **Assessment of Likely Significant Effects**

11.7.1. In accordance with section 171A of the Act, this assessment includes an examination, analysis and evaluation of the application documents, including the rEIAR, the associated drawings, documents/appendices and the submissions received, and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the development on the environmental parameters set out in the Regulations and the interaction of these. Each topic section is therefore structured under the following headings:

- Issues raised.
- Examination of the rEIAR.
- Mitigation, Residual Effects and Cumulative Impacts
- Evaluation and Assessment: Direct and Indirect effects.
- Conclusion.

11.8. **Population and Human Health**

Issues Raised

11.8.1. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.8.2. Chapter 3 of the rEIAR considers the retrospective potential effects of the development on population and human health. Other environmental issues with the potential to impact on population and human health, such as air and climate, noise and vibration, landscape and visual impacts, water and traffic are addressed separately in the relevant chapters of the rEIAR and the relevant sections of this

report. The chapter outlines the methodology used, sources of information and the assessment criteria.

Baseline

- 11.8.3. The site is located in the east of County Wicklow, southeast of the town of Rathdrum and within the administrative area of Wicklow County Council. The site is located within the townland of Ballinabarny North and Bolagh Lower and is located 4.4km west of the M11 Dublin to Wexford Road, ca. 3.2km of the southwest of Rathdrum. The site is well positioned to serve the greater Dublin area and its location in a regional context has continued influence on the economic activity of the area.
- 11.8.4. The baseline for this rEIAR has been set to 1st February 1990, and the rEIAR process has assessed environmental impacts from that date to the present. This date also coincides with the date the original EIA Directive (85/337/EEC) was transposed into Irish Law through the Planning and Development Act, 2000 as amended (P&D Act), and the appointed day at which the requirement for same arose.
- 11.8.5. The lands subject of this rEIAR extend to approx. 23.7ha, that reflects the historic operational site information including the extractable area declared under S.261 quarry registration in 2005. At baseline, in 1990, the quarried area has been determined to have extended to approx. 0.75 ha and to have expanded laterally to approx. 20.16 ha in 2022.
- 11.8.6. The assessment period equates to 32 years and is identified in the EPA's 2022 Guidelines on the information to be contained in EIAR as 'long term' duration.
- 11.8.7. The application site is located in the Electoral Division (ED) of Cronebane with a population of 469 persons (CSO, 2016). Populations that had potential to be impacted upon by the quarry development are identified as including persons residing and engaging in recreational/tourism, economic and cultural activities in close proximity to the site.
- 11.8.8. At baseline, in 1990, there were 14 no. third party residential dwellings found within 500m of the site boundary. An additional dwelling appears to have been built between 2000 and 2009. The site currently supports approx. 8 employees directly and 25 indirectly. However, I am satisfied that employees would most likely have

resided locally and as such no increase in population as a result of the quarry development would have resulted.

- 11.8.9. Given the nature and scale of the quarry, the fact that it is largely a sand and gravel operation with relatively low levels of extraction, an agricultural baseline environment dominates the surroundings of the site.

Potential Effects

Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.8.1: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	It is stated under Section 3.5.2.(Employment) that in 1990 there were approx. 8 no. people employed directly or indirectly at the quarry.
Operation	- The number of employees which the site has directly employed over the assessment period has varied due to increases and decreases of demand for aggregate products from the construction industry. - The site has provided consistent employment for approx. 8 no. direct staff, with hauliers and other contractors and service employees generating secondary employment for a further 25 No. fulltime equivalents.
Decommissioning/ Restoration	- Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. - A Concept Restoration Plan is included in Appendix 10-1. This includes. - Quarry area to be reinstated to agricultural grazing pasture - Enhancement of tree line to the east - Hedgerows to be enhanced with native trees to the SE & SW

	- Retention of existing surface water lagoons
Cumulative	• There are no similar extractive industries within the study area (i.e. 500m from the application site) which may contribute to cumulative impacts. The closest quarry is Balleese Wood Quarry, located 2.5km northwest of the site. • The site provides an insignificant contribution of effects to the environs, therefore, the potential cumulative air, noise and water effects on human health surrounding the site are not significant. • There is a permitted C&D recycling facility located approx. 400m to the southeast of the quarry that accepts low volumes of C&D wastes (c.5,000t per annum) such as waste concrete and soil and stone for recovery and recycling. This facility carries out independent dust monitoring for the facility in accordance with the conditions of the Waste Facility permit.

Mitigation

11.8.10. The initial assessment of the significance of potential effects resulting from the development takes into consideration any embedded design and implemented site management practices undertaken during the assessment period of 1990 to 2022. The elements of development design and good working practices that reduce the potential impacts to the surrounding human environment are listed under section 3.4.1 of the rEIAR. These include:

- Management of site operations in accordance with relevant health and safety legislation.
- Active management of fencing at the site, and entrance gate is locked and controlled.
- Exposed edges in the quarry are fenced or protected with safety berms.
- Implementation of site management practices to mitigate the impact to air quality identified in Chapter 7, to noise identified in Chapter 8 and to the water environment identified in Chapter 6 of the rEIAR.

- Removal of soils was conducted in phases and remain on site as formed berms over the period of 1990 to 2022 to reduce the overall potential impact on the land use and underlying groundwater.

11.8.11. No remedial mitigation measures other than those detailed in specific chapters of the rEIAR are required.

Residual Effects

11.8.12. The assessment concludes that the existing development did not and does not give rise to significant adverse effects on human environment surrounding the site during the assessment period of 1990-2022. In all cases the residual effect is no greater than slight and therefore overall, not significant.

11.8.13. In terms of cumulative effects, it is stated in the rEIAR that as there were no relevant plans or projects within 500m of the site during the assessment period of 1990 to present it is considered that in-combination effects as a result of historical works with regard to other plans or projects is not significant.

11.8.14. The cumulative impacts arising from the permitted C&D recycling facility particularly in relation to dust are noted however so too has the fact that no exceedances of the dust threshold limit to date at this facility. Therefore, there have been no opportunities for significant cumulative impacts to arise as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.8.15. I have examined, analysed and evaluated Chapter 3 of the rEIAR and all of the associated documentation and submissions on file in respect of population and human health. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts and provides suitably comprehensive range of mitigation and monitoring measures to reduce any potential impacts.

11.8.16. I would agree with the assertion as submitted that the development would have resulted in '*negligible*' impact on local businesses and low impact on amenity leading to an overall impact of '*imperceptible/slight*' significance in the area, having regard to the proximity of just one commercial premises (Oakwood Stables Equestrian Facility) within 500m of the site boundary. Given the distance of the site, the nature of the

local business, and amenity areas, no further mitigation measures would have been required to address any impacts on population. No specific instances of adverse impact on the wider community are known to have arisen from the development of the substitute consent area itself.

11.8.17. I note also the location of the Waste Recycling Facility to the South of the SC site which is also within 500m of the subject site. Permission was granted 13/05/2022 under PA Reg. Ref. 22/278 for the continuation of use of an existing Waste Recycling Facility (previously approved under planning reg ref 12/6015 and 16/1434) to include acceptance, recovery and recycling of construction and demolition waste by crushing and screening of soils, stone, concrete and tarmacadam materials with a maximum annual throughput of 25,000 tonnes per annum. The cumulative impacts relating to the operation of this facility are considered later in the rEIAR.

11.8.18. Air and noise emissions, emissions to water and from traffic associated with day to day activities will be addressed later within this assessment, Given the scientific information provided in Chapter 6 (Water quality), Chapter 7 (Air quality and Climate) and Chapter 8 (Noise and Vibration), together with that contained in Chapter 3 (Human Health and Population), I am satisfied with the conclusion reached that the significance of effects on human health which would have arisen from negative impacts to water quality and as a result of air and noise emissions would have been no greater than 'low'.

11.8.19. In relation to traffic, it is stated that there were approximately 8 Heavy Good Vehicles (HGV) movements (in and out of the quarry site) per day between 1990 and 2002, increasing to between 26 to 28 HGV movements per day between 2003 and 2009 at the height of quarrying activities on site. The number of HGV movements per day dropped between 2010 and 2021 to between 18 and 12.

11.8.20. The upgraded N11/M11 has been in place since approx. 2015 and is described in Chapter 11 (Traffic). This section of road is currently used by approx. 80% of the HGV development traffic entering the site.

11.8.21. It is concluded that this level of traffic would have had a '*negligible*' impact on the local road network. While not concluded in the rEIAR, with this relatively low level of traffic and noting that dust levels were predominantly below the compliance threshold limit of 350 mg (m² *day), no impact on human health above '*negligible*'

would likely have arisen as a result of traffic generated by the quarrying activities. No remedial measures are stated to be required outside of those specified in their respective chapters.

11.8.22. In my opinion, the quarrying has not adversely impacted on human health or population subject to compliance with certain planning conditions of the consent. Overall, the development has had a positive impact in terms of supporting the local community and benefited local employment and aided the economic recovery of the Eastern and Midland region and the wider national economy.

11.8.23. Having regard to the above, I would agree with the conclusion reached in Chapter 3 of the rEIAR that the previous quarrying operations did not give rise to direct nor indirect adverse impacts on any tourism and amenity sites. I would also agree that the previous operations would have assisted in boosting local employment at a time of record unemployment (2008-2012, due to the weak state of the national economy at that time) and that significant adverse impacts on population or human health can be ruled out.

Conclusion: Direct and Indirect Effects

11.8.24. Having regard to the examination of environmental information provided in respect of population and human health, in particular in Chapter 3 of the rEIAR it is considered that there was no potential for significant environmental effects on population and human health.

11.9. Biodiversity

Issues Raised

11.9.1. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.9.2. Chapter 4 of the rEIAR considers the retrospective potential effects of the development on biodiversity.

- 11.9.3. Table 4.2 details the NRA evaluation criteria (2009) that were used to assist in highlighting key ecological receptors. Ecological receptors and justification for their respective survey area extents are presented in Section 4.3.3. A rNIS was prepared as a standalone document. To avoid repetition the potential impact on the designated sites is addressed in Section 13 below.
- 11.9.4. The applicant's retrospective assessment included a collection of baseline and current ecological data, habitat and vegetation surveys, bird and bat surveys, mammal, amphibian and reptile surveys as well as site walkovers. These surveys and walkovers occurred between the years 2021 and 2022, and include;
- An ecological walkover surveys on the 9th and 10th February 2022
 - A habitat and botanical survey 9th and 10th February 2022
 - A mammal survey, bird survey and assessment of the taxa and setting up of remote cameras and bat detectors from 25th January to 23rd February 2022.
- 11.9.5. Ecological features which existed pre-quarrying activities are evaluated based on a geographical reference of importance including international, national, county, local (higher value) and local (lower value) importance. The zone of influence included all designated sites for national and EU nature conservation located within a 15-kilometre radius of the site.
- 11.9.6. The rEIAR states that the retrospective assessment is based upon secondary data which provides some limitations in terms of characterising a baseline that was likely to have been present during the 1990s.
- 11.9.7. In this regard I note that the rEIAR does not provide a comparison between the data presented in the previous rEIAR prepared in 2014 and as such represents a missed opportunity.

Current Conditions

- 11.9.8. The existing quarry lies in a rural area, with lands adjacent to the site are in use for agricultural purposes (including pasture and tillage) with plantations of trees located along the western, and eastern edges of the site.
- 11.9.9. A habitat map outlines the habitat classes and their extent within the site. A number of habitats, seven in total, are stated to be present within the quarry site. These habitats are classified by reference to the Fossit Code and comprise ED4 (active

quarries and mines), WS1 (scrub), GS2 (dry meadows and grassy verges), ED3 (recolonising bare ground), FL8 (artificial lakes and ponds), FS1 (reed and large sedge swamps), and BL3 (building and artificial surfaces).

11.9.10. No ditches or streams cross the site. A network of streams bounds the site on all sides draining to the northwest. The largest stream is the Newbawn which runs along the eastern and northern boundary of the site. The habitats and vegetation which occur within the site are generally considered to be of 'low' botanical value.

11.9.11. Evidence of Sika Deer, Irish Hare, European Rabbit, Red Fox and Badger were all recorded within the site boundaries during the walkover surveys and the study site provides foraging opportunities for these species.

11.9.12. NBDC recorded bat presence within 10km of the SC site. Bat Conservation Ireland conducted a search of their records within a 1km radius, and no bat roosts were recorded with or close to the subject site.

11.9.13. The appeal site does not support any protected species under Annex 1 of the Birds Directive. A number of common bird species were recorded within the site boundaries during the ecological walkover surveys and included: The Robin, Blackbird, Magpie, Wren, Grey Wagtail, Red Kite, Starling, Jackdaw, Common Buzzard, Pheasant, Blue Tit, Woodpigeon, Raven, Mallard, Song Thrush, Rook and Hooded Crow. Birds which were recorded were generally all common countryside species.

Potential Effects

11.9.14. Likely significant effects of the development as identified in the rEIAR are summarised in the table below. A retrospective assessment based upon secondary data provides some limitations in terms of characterising a baseline that was likely to have been present during the 1990's.

11.9.15. Potential effects have regard to the species /habitat surveys carried out. I note that the assessments carried out identify that the Phase 1 habitat survey was undertaken outside the optimum survey period for botanical and habitat surveys. However, due to the nature of the habitats recorded within the site the timing of the survey is not deemed to be a significant limitation. The survey also occurred outside the breeding bird season and bat activity season.

Table 11.9.1: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	<u>Habitat</u>: Loss of grassland habitat with some hedgerow, scrub and tree loss.
Operation	<u>Habitat</u>: Loss of grassland habitat with some hedgerow, scrub and tree loss. <u>Bats</u>: Loss of bat roosting and foraging habitat. <u>Birds</u>: Loss of scrub, hedgerow and tree nesting habitat. <u>Mammals</u>: Loss of hedgerow, scrub, grassland and tree habitat. - Disturbance due to noise.
Decommissioning/ Restoration	- Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. - A Concept Restoration Plan is included in Appendix 10-1. This includes. - Quarry area to be reinstated to agricultural grazing pasture - Enhancement of tree line to the east - Hedgerows to be enhanced with native trees to the SE & SW - Retention of existing surface water lagoons
Cumulative	There are no extractive or sizeable industries in the surrounds of the site which may contribute to cumulative effects in a retrospective context.

Mitigation

11.9.16. Section 4.10 of the rEIAR considers remedial mitigation, compensation and enhancement measures to reduce negative effects of the project in a retrospective context. These include.

- Ensure that any site water discharges meet the quality standards required for salmonoid waterbodies
- Soil / overburden stockpiles to be covered (i.e. vegetated) to minimise risk of rain/wind erosion.
- Restoration of topsoil and overburden on a phased basis to speed up restoration biodiversity value.
- Regular servicing of plant and machinery on site.
- Mobile bowers, tanks and drums to be stored in secure, impermeable storage areas away from open water.
- Containers and bunding for storage of hydrocarbons and chemicals will have a holding capacity of 110% of the volume to be stored.
- Fuel and oil stores including tanks and drums to be regularly inspected for leaks and signs of damage.
- Drip-trays will be used for fixed mobile plant such as pumps and generators
- Only designed trained operators will be authorised to refuel mobile plant on site
- Procedures and contingency plans will be set up to deal with emergency accidents and spills and
- An emergency spill kit (including absorbers) will be available for use in the event of an accidental spill on the quarry floor and key personnel trained in their use.

Residual Effects

11.9.17. The applicant considers that the residual impact on birds, mammals and other fauna would be '*not significant*' to '*minor*' afforded to species of site and Local (higher and lower) importance in the period 1990 to 2022.

11.9.18. The on-going operation of the quarry committed delivery of mitigation measures and eventual restoration of the quarry is likely to result in all effects being considered to be not significant, and that no significant cumulative impacts have occurred.

Evaluation and Assessment: Direct and Indirect Effects

- 11.9.19. I have examined, analysed and evaluated the information provided in Chapter 4 and all the associated documents and submissions on file in respect of Biodiversity.
- 11.9.20. There has been significant habitat loss due to the removal of the overburden and pasture with the extension of the quarry over time. This would have had a significant local impact. However, it would not appear that protected habitats were affected, to any significant extent and the quarry would have created a different type of habitat and a diverse environmental condition which would support different species.
- 11.9.21. *Habitat:* The habitats and vegetation which occur within the site are generally considered to be of 'low' botanical value. The site walkover survey confirms that the site represents a highly disturbed environment with disturbances associated with active quarries and related processes taking place regularly within the site environs. It predominantly comprises bare ground, with a flooded quarry floor area to the northwest and northeast of the application area. No rare or protected plant or flora was recorded during the site visit, but areas of scrub have developed to the northeast, north and north-west of the site. No invasive plant species were recorded within the quarry site.
- 11.9.22. The restoration phase would result in the establishment and maintenance of existing native tree lines and hedgerows and retention of the existing surface water lagoons. Areas of open pooled water are noted on the quarry floor and much of this aquatic habitat has become semi-natural and supports waterfowl such as mallard.
- 11.9.23. Having regard to the present condition of the quarry site, with no special concentrations of flora or fauna, I am satisfied that the potential retrospective effects on existing habitats would not be significant.
- 11.9.24. *Mammals:* Mammals likely to use the site would include badger's, foxes, rabbits, stoats, pygmy shrew and hedgehogs. The mammal survey in 2022 indicated the presence of rabbit, fox and badger including a potential badger sett. Small mammals such as stoat are protected under the Wildlife Acts (1976-2010).
- 11.9.25. The loss of habitat has resulted in some reduced foraging opportunities for mammals. It is submitted that given the site's limited ecological value, potential for impacts on disturbance or displacement of mammals arising from historical quarrying activities would have been no greater than minor in the long-term. I note similar

habitats are widely available in the surrounding rural landscape. In the long term the restoration phase is likely to create replacement habitats. The loss of habitat may have affected some common mammalian species however ongoing inspections are recommended in the rEIAR.

- 11.9.26. Given the nature and characteristics of the appeal site I am satisfied that the impact on terrestrial mammals would not be significant.
- 11.9.27. *Bats*: Habitats within the site area are stated to have been of limited ecological value to bats. Accordingly, potential for impacts from disturbance / displacement as a result of the operations are rated as having been '*negligible*' in the long-term, due to the existence of sub-optimal habitat for the bat species within the SC quarry site area.
- 11.9.28. Bat species would have potentially used the hedgerows and treelines along the boundaries of the site as foraging and commuting habitat. A search of Bat Conservation Ireland (BCI) records database was conducted to include a 1km radius from the application boundary. However, no roost data exists within or in close proximity to the subject site. Structures and trees present on site were considered to be of '*negligible*' suitability for roosting bats with two '*low*' suitability trees noted on an alternative access route to the site.
- 11.9.29. *Birds*: Potential losses of available nesting habitat as a result of the quarry operation would be discrete and dependent on habitat type. All birds and their nesting places are protected under the Irish Wildlife Act 1976, and the Irish Wildlife Amendment Act 2012. It is submitted that the expansion of the quarry may have had a positive effect on species such as Sand Martin as the increase in quarry footprint will have resulted in an increase in nesting opportunities (sand stockpiles) within the site via quarry expansion between 1990 and 2022.
- 11.9.30. The site surveys carried out in February 2022 indicate that a pair of Red Kite were observed flying over the large artificial pond possible hunting small birds. Sand Martins are a migratory species which breed in burrows dug into riverbanks or quarries. Exposed faces of sand were found to have numerous burrows from the previous nesting season. It is stated in the rEIAR that a total of approx. 100 burrows were present on at least four exposed quarry faces. I can confirm from my site visit evidence of multiple burrows in exposed quarry faces located away from current site operations.

- 11.9.31. Overall, I am satisfied that the species recorded in the vicinity of the site were common species and that quarrying activities would not have had a significant impact on the local conservation status of any of the bird species associated with the site.
- 11.9.32. *Aquatic Ecology*: The rEIA considers the potential for hydrological connectivity between the site and surface water features and what effects could be afforded to aquatic fauna and habitat receptors. It is submitted that water quality could have been adversely affected via site discharges. Monitoring data presented in Chapter 6 of the rEIAR indicates that no exceedance of the Surface Water and Salmonid Water Regulations has occurred.
- 11.9.33. Dissolved mercury was found to be less than the limit of detection in all samples, as were orthophosphate, copper and hydrocarbons. Total suspended solids were reported below the limit of detection with the exception of downgradient location SW3 on 09/09/2020, but still below the Salmonid Water Regulations. Faecal coliform and manganese, which both exceeded in previous monitoring were not part of the analytic suite in 2020 and 2021. It is submitted that potential for impacts on water quality and salmonid habitat arising from historical quarrying activities would have been no greater than '*minor*' in the long-term.
- 11.9.34. I would note that no submission was received from Inland Fisheries Ireland (IFI) raising concerns.
- 11.9.35. I am satisfied that sufficient historic and contemporary information has been provided to inform the consideration of effects in respect of water quality and aquatic ecology. I am therefore satisfied that the reason cited in the Boards previous reason for refusal under ABP Ref. SU0121 has been adequately addressed in this chapter of the rEIAR.
- 11.9.36. I note the condition recommended by the PA to be attached to a grant of SC in respect of the submission of a Restoration Plan within 6 months. Given the nature of the SC quarry application, and need to enhance the ecological value of the site, if the Board are minded permitting the application, I consider it appropriate that a revegetation and rewilding plan for the Site, based solely on the extent of quarry extraction that has taken place to date be agreed with the planning authority would ensure the enhancement of the ecological value of the site.

Conclusion: Direct and Indirect

11.9.37. Having regard to the examination of environmental information provided in respect of biodiversity, in particular in Chapter 4 of the rEIAR it is considered that there were no significant environmental effects on biodiversity. However, with this type of land use change such effects are unavoidable and no protected habitats were lost.

11.9.38. Mitigation measures implemented, include the management of the retained boundary hedgerows and trees and the protection of water quality on site. The implementation of a suitable post landscape plan which recognises developing habitats has the potential to improve local diversity. While quarrying and related activities will have inevitably impacted directly on ecological habitats, with the adoption of mitigation measures outlined and taking into account the revegetation and planting measures proposed, a finding of no significant adverse ecological impacts are evident from works to date within the Substitute Consent application quarry area.

11.10. Land, Soil, Water, Air and Climate

11.10.1. The format of my assessment follows the headings as set out in the Planning and Development Acts, (as amended). Having regard to the information provided in the applicants rEIAR the following sub-headings are used;

- Soils and Geology
- Water (Surface and Groundwater)
- Air and Climate
- Noise and Vibration

Soils and Geology

Issues Raised

11.10.2. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.10.3. Chapter 5 of the rEIAR considers the retrospective potential effects of the development resulting from quarrying related to activities carried out at ECT Sand and Gravel's quarry at Ballinabarny, Co. Wicklow on land, soils and geology at the site and in the wider study area.

Baseline

11.10.4. The loss of agricultural soils is considered, as well as the potential impact on geologically important sites and land quality. Associated secondary potential impacts from changes to land quality on human health are also considered. Potential impacts and effects associated with the water environment, people and ecology are considered in Chapters 6 (Water), Chapter 3 (Population and Human Health), and Chapter 4 (Ecology and Biodiversity).

11.10.5. The geographical study area for the assessment covers the rEIA site boundary and a buffer zone of 500m. The lower basal elevation of the working quarry in 1993 has been used to approximate the 1990 baseline. The baseline has been set at 01 February 1990 to present (i.e. May 2022). This assessment period equates to 32 years and is identified as '*long-term*' duration.

The annual tonnage rate of extraction from the sand and gravel pit during the period of the development was on average 50,000 tonnes per annum.

Potential Effects

11.10.6. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.10.1: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	In 1990 the area of the quarry is estimated to be 0.75ha with surrounding land in agricultural use with some patches of woodland.

	• The lower basal elevation of the working in 1993 was approx. 124mAOD.
Operation	• Approx. 19.41 ha of agricultural land was lost during the assessment period, with an overall extraction area of 20.16ha. • The typical lower basal elevation of quarrying in 2022 was 114m AOD, except for in the northwest corner of the site where below water table excavation took place, and the basal elevation is c. 111mAOD. • A total extraction volume of over c. 1.48 million tonnes of aggregate has occurred over 32 years from 1990 to 2021. • Ongoing monitoring of groundwater quality supports an understanding as to whether there have been events that could have resulted in land pollution.
Decommissioning/ Restoration	• Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. • A Concept Restoration Plan is included in Appendix 10-1. This includes. - Quarry area to be reinstated to agricultural grazing pasture - Enhancement of tree line to the east - Hedgerows to be enhanced with native trees to the SE & SW - Retention of existing surface water lagoons
Cumulative	• There are no similar extractive industries within the study area (i.e. 500m from the application site) which may contribute to cumulative impacts. The closest quarry is Baleese Wood Quarry, located 2.5km northwest of the site. • As there are no other relevant plans or projects in the 500m of the site during the assessment period 1990 to present, it is considered that in-combination effects as a result of the historical works with regard to other plans or projects is not significant.

Mitigation

- 11.10.7. It is stated that mitigation measures were implemented during the quarrying activities and are outlined in Section 5.5.1.
- 11.10.8. These include mechanical removal of material with no blasting taking place, gradual removal of soils and other overburden in phases and on-site storage for use in restoration. Topsoil was not stored in mounds higher than 3m and removed in wet conditions. Restoration has commenced in the south-eastern corner of the site. Silt was dredged from the bottom of the settlement ponds, was stored at least 5m away from any watercourse, and once dried used for in the restoration of the site.
- 11.10.9. Contents of the septic tank were periodically tankered off site, and the system was serviced and regularly. Fuel storage was in double skinned tanks on concrete aprons in the maintenance area. Oil, chemicals and mixtures were ordered as needed, used oil and chemical containers were stored in the maintenance area for disposal by a licenced contractor. Intermediate bulk containers in which waste oil was stored were sealed and monitored by on-site personnel.
- 11.10.10. Scrap metal was stored in a designated area prior to collection by a licenced waste contractor. Sludge from wheel wash was taken off site for disposal at an appropriate facility. Perimeter fencing was actively maintained to ensure risk of injury was minimised to civilians and animals. Catch berm have been placed along non-active faces and warnings were used to limit access to non-active faces.
- 11.10.11. It is stated that no remedial mitigation measures to reduce the significance of the effects is required.

Residual Effects

- 11.10.12. The assessment concludes that the existing development did not and does not give rise to significant adverse effects on soils and geology surrounding the site during the assessment period of 1990-2022. In all cases the residual effect is no greater than *slight* and therefore overall, *not significant*.
- 11.10.13. In terms of cumulative effects, it is stated in the rEIAR that given the distance between other developments, and their relative size compared to the area of agricultural land available in the region, that there will have been no significant

cumulative effects of their activities on the surrounding environment in terms of land, soils, and geology.

- 11.10.14. It is also stated that the site provides an insignificant contribution of effects to the water environment, human health and ecology, therefore, the potential cumulative effects on soils and geology surrounding the site are not significant.

Evaluation and Assessment: Direct and Indirect Effects

- 11.10.15. I have examined, analysed and evaluated the information provided in Chapter 5 and all the associated documents and submissions on file in respect of Soils and Geology. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section 5.5.1 to reduce any potential impacts.
- 11.10.16. The soils in the area are identified as being shallow 80cm well drained brown earth ones. Within the SC area, the quarry has been worked for the extraction of sand and gravels. It is stated that the presence and thickness of soils is not known as there are no soils remaining.
- 11.10.17. Figure 5.9 includes the quaternary map for the area as published by the Geological Survey of Ireland (GSI, 2022). The GSI mapping identifies subsoils in the area as comprising sand and gravels and till derived from sandstones and shales. In terms of bedrock, the GSI indicates that the SC area overlies the Kilmacrea formation which comprises grey and black slates and shales.
- 11.10.18. Previous operations on the existing quarry site involved extraction of sand and gravels. Historical and contemporary information is presented from OSI aerial photographs from 1993, 1995, 2000, 2004, 2009 and Google Earth imagery from 2011, 2015 and 2021, historical mapping and GSI's aggregate potential mapping online viewer (2022, historical pits and quarries layer). The associated quarrying progression is illustrated in Figure 5.2 to Figure 5.6. An estimation of the tonnage extracted between 1990 and 2021 is illustrated in Table 2.1 Chapter 2.
- 11.10.19. It is stated in the rEIAR that the extraction area expanded initially in a westerly and northerly direction up to 2000, then lateral expansion occurred in all directions between 2000 and 2009.

- 11.10.20. It is stated that extraction has taken place below the water table during quarrying activities in the northwest corner of the quarry and that while dewatering was required this was predominantly pre-2008.
- 11.10.21. No information in relation to variances in water table levels between winter and summer is provided in the rEIAR. There are no sites designated for their geology or geological heritage located on site or within the wider study area as per the GSI 2021.
- 11.10.22. It is stated that water quality data indicates that groundwater and surface water quality has been generally 'good'. Groundwater flow is stated to be in a north westerly direction towards the watercourse located along the northern boundary of the quarry area, so groundwater may have an input to surface water at this location.
- 11.10.23. In terms of land use, the development involved quarrying activities on an area which was suitable for agricultural use. The quarrying has resulted in a permanent loss of land, removing its availability potential for tillage and pasture. However, I am satisfied that the loss is small by comparison to the available land in the area locally and the wider county area for similar uses.
- 11.10.24. The extraction of sands and gravels has also resulted in the loss of a geological resource. However, this resource is used as a raw aggregate for road construction, house building and agricultural development. I am of the opinion that these represented a beneficial impact to the local and regional economy and is supported by national and local planning policy, as outlined under the Planning Policy section, included within this report above.
- 11.10.25. Previous potential for contamination of exposed subsoil from spillages or leakages from machinery or stored substances would have been likely with a resultant 'slight' significant impact. It is submitted that laboratory analysis of the water within the site has revealed that groundwater quality at the site has not been adversely impacted by previous operations (though slightly elevated levels of ammonia were recorded in 2020/2021). However, these are likely to be associated with agricultural activities or as a result of domestic wastewater run-off.
- 11.10.26. Having regard to the above, I would agree with the conclusion reached in Chapter 5 of the rEIAR that the previous quarrying operations did not give rise to direct nor

indirect adverse impacts, and that significant adverse impacts on land, soil and geology can be ruled out.

- 11.10.27. The previous quarrying activities within the substitute consent area has resulted in the loss of a geological resource and the loss of land for agricultural purposes. However, such losses are not unacceptable, having regard to the primary function of the quarrying activities to harness the natural resource which led to benefits within the construction and agricultural sectors and also noting the wide availability of agricultural land in the vicinity. Beyond these identified impacts, the quarrying activities are unlikely to have resulted in significant impacts on land, soils and geological environmental factors.

Conclusion: Direct and Indirect

- 11.10.28. Having regard to the examination of environmental information provided in respect of soils and geology, in particular in Chapter 5 of the rEIAR it is considered that there is no potential for significant environmental effects on soils and geology.

Water

Issues Raised

- 11.10.29. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

- 11.10.30. Chapter 6 of the rEIAR considers the retrospective potential effects of the development on surface water and groundwater. The chapter outlines the methodology used, sources of information and the assessment criteria.
- 11.10.31. Sources of information include; a desktop study of the development site and receiving water environment was undertaken. Site specific sources of information were also utilised, which include previous reports carried out by Awn Consulting on 2016 and 2017 and PD Lane in 2009 and a walkover survey of the site was carried out in April and July 2022.

Baseline

- 11.10.32. The geographical study area for the assessment covers the rEIA site boundary and a buffer zone of 500m. However, where deemed appropriate the buffer zone is increased to allow for identification of downstream or downgradient hydraulic connectivity with off-site water features or users that may have been affected by changes associated with the site activities.
- 11.10.33. A summary of the baseline (1990) and subsequent conditions (up to July 2022) for the water environment (hydrology, hydrogeology and flooding) is presented.
- 11.10.34. The baseline site topography in 1990 is presented in SC planning application Drawing 02-Baseline Conditions. The landform at this time was a hillside with the central site area sitting at an elevation of c. 130mOD and a maximum elevation of c. 132mOD to the southwest of the site area. The ground elevation can be seen to slope away from the raised central area towards to natural watercourses and field drains located along the perimeters of the site (minimum elevation c. 119 mOD).
- 11.10.35. The topography in 2022 is presented in SC planning application Drawing 03-Existing Conditions. The current landform at the site has been heavily altered by extraction and has an average working depth of c. 114mOD. In general, the topography of the site is higher in the south, peaking at 128mOD along the southern boundary.
- 11.10.36. Within the areas of extraction, the ground slopes from the southern areas towards the northeast corner and then towards the lowest elevation excavated area in the northwest corner c.111mOD. Elevations to the west, north and eastern perimeters are unchanged and still slope towards the perimeter streams and drains with minimum elevation remains c.119mOD.

Surface Water

- 11.10.37. Surface water and groundwater are considered together in Chapter 6 of the applicants rEIAR. Bedrock under the site is classified as a locally important aquifer with low transmissivity and limited fracture connectivity.
- 11.10.38. Under the EU Water Framework Directive (2000/60/EC) (WFD) risk classification, the quality of surface water for the quarry which is located within the surface water catchment for the Avoca-Vartry is classified as 'good'.

11.10.39. Downstream the Avoca River is classified as '*bad/poor*', demonstrating that the WFD status progressively deteriorates downstream, where the Avonmore River meets the Avoca, it is noted as historically polluted (EPA,2022b), away from the Avoca Mines.

Groundwater

11.10.40. The groundwater vulnerability within the quarry is assigned a rating of '*moderate*' and '*high*' vulnerability due to the exposure of bedrock at the surface.

11.10.41. The application is accompanied by a Hydrogeological Investigation and Geophysical survey carried out by PD Lane dated January 2009. This report also accompanied the previous application PA Reg. Ref. 08/1153 ABP PL27.233638 which was refused by the Board 31/08/2009.

Flood Risk

11.10.42. Surface water flood risk maps published by the Office of Public Works (OPW 2022) show that the site is not located within a potential flood plain. There are no recorded flood events in the vicinity of the site. Flood events are recorded along the Avonmore c.2.5km northwest of the site in Rathdrum in 2011 and downstream from the site at Lions Bridge c. 4km southwest of the site in 1986.

Wastewater

11.10.43. Discharge of wastewater is to ground via an existing wastewater treatment system. An abstraction well within a pumphouse is located adjacent to the administrative area and provides potable water to serve on site welfare facilities since at least 2008.

11.10.44. Water for the washing of aggregate is sourced from the on-site waterbody and is recycled through a closed loop system via a series of silt ponds which are periodically emptied. The closed loop system has been in place since approx. 2003 when aggregate washing commenced.

Potential Effects

Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.10.2: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	- In 1990 the area of the quarry is estimated to be 0.75ha and had an average working depth of 124 mOD. - Potential for downstream surface water quality effects in Newbawn Stream and Avoca River from suspended sediments.
Operation	- Changes in groundwater or surface water quality - due to screening and washing activities (including settlement ponds). - from wastewater generated by on-site welfare and wheel wash facilities - from uncontrolled material storage - caused by hydrocarbon leaks from fuel/oil storage tanks or the unmanaged spillage of fuels or lubricants from site plant or vehicles. - Due to discharges from the northwest waterbody via the settlement ponds. - Changes in the suitability of the on-site abstraction borehole for drinking water supply - Changes in groundwater levels and flow directions as a result of pumping and - Changes in surface water flows adjacent Newbawn stream. - The extraction area expanded initially in a westerly and northerly direction up to 2000, then lateral expansion occurred in all directions between 2000 and 2009. - In 2022 the extraction area is shown to have expanded to c. 20.16ha and had an average working depth of 114m AOD.

	• Limited extraction below the water table took place, but this ceased in 2008, with the resulting waterbody located to the northwest of the plant site. • Dewatering was required where extraction took place below the water table (predominantly pre-2008). Groundwater was generally encountered at the interface between bedrock and the sand and gravel deposits, at c. 114mOD within the northeastern and northwestern areas of the site.
Decommissioning/ Restoration	• Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. • A Concept Restoration Plan is included in Appendix 10-1. This includes. - Quarry area to be reinstated to agricultural grazing pasture - Enhancement of tree line to the east - Hedgerows to be enhanced with native trees to the SE & SW - Retention of existing surface water lagoons
Cumulative	• Groundwater abstraction could combine with adjacent residential properties to dewater the aquifer. • Hydrocarbons and suspended solids captured in the northwest waterbody and discharged via the settlement ponds could combine in the River Avonmore with sources arising from runoff from the upstream Rathdrum area and any local residential or agricultural fuel stores. • Effects on surface water quality could combine with any upstream discharges from the nearby C&D waste facility and combine with any downstream discharges from the Ballese Wood Quarry (where the Newbawn stream discharges to the River Avonmore) and again further downstream with the poor discharges from the Avoca Mine area, which is a historically polluted site (close to the confluence of the Rivers Avonmore and Avonbeg to form the River Avoca).

Mitigation

11.10.45. It is stated that mitigation measures were implemented during the quarrying activities and included;

- Material was/is excavated mechanically – no blasting has taken place.
- Removal of soils and other overburden took place gradually in phases and material was stored on site for use in restoration. Restoration has already started in the south-eastern corner of the site.
- Topsoil stripped at the site was not stored in mounds higher than 3m and was not moved in wet conditions.
- Silt that was dredged from the bottom of the central settlement ponds was stored at least 5m away from any watercourses and on land that has slopes away from the watercourse. Run-off from silt storage was directed to a holding/settlement pond.
- Once dried, the silt from the central settlement lagoons/ponds was stored on-site for use in the restoration of the site.
- Discharges from the northwest waterbody are made via the settlement lagoons in the northwest corner of the site allowing for settlement of suspended solids and for precipitation of dissolved metals.
- The washing plant is located on concrete hardstanding limiting the potential for the release of oils and lubricants to ground.
- The contents of the septic tank were periodically tankered off-site as needed. There have been no known issues with the septic tank and the system was serviced annually.
- Fuel storage was typically double skinned tanks on concrete aprons in the maintenance area. Refuelling occurred at these tanks over a concrete apron. Fuel for the site was delivered regularly as bulk liquid by a dedicated mobile tanker.
- Oils, chemicals and admixtures were ordered and used as needed (avoiding large quantities being stored on site).

- No flocculants were required to be added to waters to encourage precipitation and settlement of solids.
- Used oil and chemical containers were stored within maintenance area for disposal by a licenced contractor.
- Intermediate Bulk Containers, in which waste oil was stored, were sealed and it is understood that their integrity was monitored by on-site personnel.
- The waste arising on site comprised municipal waste from staff welfare activities and were disposed of via domestic waste collection.
- Scrap metal arising on-site was stored within a designated areas at the site prior to collection by a licenced waste contractor.
- Sludge from the wheel wash was taken off-site for disposal at an appropriate facility.
- Perimeter fencing was actively maintained to ensure that the risk of injury to civilians was minimised. The entrance gate was locked and controlled by the site management.

Remedial Measures

11.10.46. While the potential effects are generally shown to be '*imperceptible*' or '*slight*', except for the effects on flows in the Newbawn stream which are moderate, the following additional remedial mitigation measures are to be carried out:

- An Environmental Management System (EMS) or Working Plan for the Site should be developed to establish good record keeping of incidents, record water uses for future activities and clearly embed mitigation practices and routine monitoring into site practices.
- The effect of pumping/discharges upon the Newbawn stream warrants further monitoring to confirm current conditions.
- Pumping/discharges from the northwest waterbody should be minimised where possible. It may be possible to raise the height of the pump to allow for the water level to rebound further.
- Regular inspections of on-site equipment and tanks should be carried out to check for rusting and leaching of metals to ground.

- An emergency spill kit (including absorbers) should be available for use in the event of an accidental spill on the quarry floor and key personnel trained in its use.
- Treatment to lower manganese concentrations with the on-site water supply is recommended and the supply should be routinely tested to assess ongoing suitability as the sources of drinking water. Otherwise only bottled water should be used at the site.
- The on-site waterbodies should be inspected regularly for signs of any hydrocarbon contamination, and
- Maintenance and refuelling of vehicles and plant on site should continue to be carried out on the hardstanding.

Residual Effects

11.10.47. The assessment concludes that the existing development did not and does not give rise to significant adverse effects on the water environment surrounding the site during the assessment period of 1990-2022. In all cases the residual effect is no greater than '*moderate*' and therefore overall, '*not significant*'.

11.10.48. In terms of cumulative effects, it is stated in the rEIAR that due to the predominant lack of hydraulic connectivity for groundwater, the large catchment area for the River Avonmore and the '*not significant*' and not greater than '*moderate*' nature of the effects assessed, there is considered to be limited potential for cumulative impacts to occur.

Evaluation and Assessment: Direct and Indirect Effects

11.10.49. I have examined, analysed and evaluated the information provided in Chapter 6 and all the associated documents and submissions on file in respect of Water. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section 6.9 to reduce any potential impacts.

Surface Water

11.10.50. Surface water on the site predominately drains towards the northwest waterbody the lowest section of the quarry. The site is bounded on all sides by either the Newbawn

stream or field drains both of which drain to the northwest and are predominantly fed by rainfall runoff from higher topographical areas.

- 11.10.51. The northwest waterbody formed in the excavated area and a series of settlement ponds are located directly west. The pit lake occupies an area previously used for sand and gravel extraction below the water table, it marks the lowest point in the quarry at c. 111mOD.
- 11.10.52. It is noted in the rEIAR that some pumping of water from the northwest water body area occurred, when the pit within the SC was being excavated. The water was pumped from the northwest waterbody to a series of gravity-fed settlement ponds prior to discharge via stone soakaway to the Newbawn stream located along the northern side boundary.
- 11.10.53. The washing of aggregate is recycled through a closed-loop system via associated silt ponds which are periodically topped up with water from the quarry pond.
- 11.10.54. In 2008, 2016, 2017 and 2022, surface water quality monitoring was conducted by the applicant. Surface water quality monitoring was undertaken in February 2008 at two monitoring points, upstream and downstream of the discharge point (SW1 and SW2 respectively) (see Figure 6-11 of rEIAR). The results of the suspended solids were interpreted by PD Lane (2015) to indicate that the quarry discharge to the Newbawn stream had undergone adequate settlement prior to discharge to the receiving stream.
- 11.10.55. In March 2008 Surface water quality monitoring was undertaken at two monitoring points, downgradient of the quarry. In both samples orthophosphate as PO₄ and dissolved manganese was found to be marginally in exceedance of the drinking water standard. Hydrocarbons were not reported above the limit of detection (LOD).
- 11.10.56. Surface water monitoring was again carried out in 2016 and 2017 by Awn Consulting Limited on the nearby waterbodies. From the 2016 investigation, the water quality was found to be 'good' with generally low levels of inorganics and metals. Microbiological faecal coliform levels were found to be slightly elevated in upstream location SW4, which was interpreted to be due to the proximity of agricultural lands in the vicinity.

- 11.10.57. Exceedances of the Surface Water Regulations were recorded by AWN in March 2016 for copper at downstream monitoring locations. Copper concentrations appear to have reduced since with all samples recorded in 2020-2021 at less than the limit of detection (LOD). The Avoca Mines were copper mines and so the presence of copper concentrations is likely due to this.
- 11.10.58. Surface water quality testing in 2017 was completed for total suspended solids (TSS) and Mineral Oil only. Hydrocarbons were not reported above the LOD in either of the two sample locations SW1 and SW2. It is noted in the rEIAR that in September 2020 surface water samples were undertaken by Golder in support of an application at the adjacent waste recycling facility. These were located upstream and downstream of the SC quarry site.
- 11.10.59. In June and July 2022, surface water quality monitoring was conducted by the applicant. Monitoring was carried out at 5 locations in June and 7 locations in July. It is noted in the rEIAR that surface water monitoring to date has generally observed good quality water and best practice measures relating to hydrocarbons are employed at the site.
- 11.10.60. I refer to the Memorandum in relation to water quality and groundwater, prepared by An Bord Pleanála Scientist, which has been appended to my Planning Report as Appendix 1. This internal specialist report concurs with the conclusion reached in the rEIAR that any changes in surface water levels during the period of review resulting from activities relating to the operation of the site are of low magnitude, direct, short term and reversible.
- 11.10.61. Having regard to the management of surface water on site, I am satisfied that the potential retrospective effects on existing surface water would not be significant.

Groundwater

- 11.10.62. The northwest water body (and groundwater) is noted to be at a lower elevation than the adjacent Newbawn stream. Groundwater within the sand and gravel deposits is not considered to be an aquifer due to the limited lateral extent and thickness of the deposits. It is stated in the rEIAR that any groundwater within the sand and gravel deposits are unlikely to be in direct hydraulic connectivity with the Newbawn stream.
- 11.10.63. Groundwater monitoring occurred prior to 2008 with evidence of 3 groundwater boreholes. A further 5 were drilled in 2008 and so groundwater elevations are

available for 2008, 2014 and 2016. These groundwater contour plots indicate a groundwater flow direction as being in a north-westerly direction towards a northwest pond area and ultimately towards the Avonmore River.

11.10.64. Further groundwater elevation investigations were recorded by the applicant from July 2020 to July 2022 with tabulated monitoring data provided in Appendix 6.4. Seasonality can be seen in groundwater with water levels displaying an increasing trend from late summer 2021 to late spring 2022 before decreasing through the drier early summer months, however little variation is observed in ground water levels.

11.10.65. An estimate of the groundwater flow into the western pit under pumped conditions is presented in Table 6-13. The calculated groundwater inflow to the northwest pond of 0.36 m³/day is noted to be low and whilst not unexpected for a poorly productive aquifer there is potential for actual inflows to be up to an order of magnitude higher.

11.10.66. Having regard to the low permeability of the rock and poor storage capacity the aquifer (which has a low 'recharge acceptance'), to the on-going monitoring of the quarry discharge, the groundwater levels within the site, I am satisfied that the potential retrospective effects on existing groundwater can be ruled out.

11.10.67. I refer to the Memorandum in relation to water quality and groundwater, prepared by An Bord Pleanála Scientist, which has been appended to my Planning Report as Appendix 1. This internal specialist report concurs with the conclusion reached in the rEIAR that any changes in groundwater quality and quantity during the period of review resulting from activities relating to the operation of the site are of low magnitude, direct, short term and reversible.

11.10.68. The specialist report notes that the measured changes in water levels within the quarry are normal for a dewatered sand and gravel quarry operation. The quantitative tests to assess if a groundwater waterbody is at risk of failing the WFD objectives are set out and considered in the report. Of particular note is the extent of the Wicklow Groundwater waterbody which is stated as covering an area of 1,396km². The quarry site subject of the SC application represents 0.02% of the entire waterbody in area. This internal specialist report concludes that the data submitted in the rEIAR when considered along with the EPA's groundwater status data demonstrate no significant impact on groundwater quantity from the quarrying

activities at the SC site during the period of review. The fact that no third-party submissions were received in relation to this application is of further note in this regard.

11.10.69. In summary, it is submitted that results indicate previous activities which occurred on site did not have a detrimental impact on groundwater quality and quantity.

11.10.70. Having regard to the predominant lack of hydraulic connectivity to groundwater, I am satisfied that the potential retrospective effects on existing groundwater would not be significant.

11.10.71. I note the condition recommended by the PA to be attached to a grant of SC in respect of specific requirements for extraction levels relative to the underlying groundwater level and requirements in relation to the recording of groundwater levels in the boreholes. I note however that a grant of SC relates only to past quarrying that have been undertaken as described in the application. In any future application for continuation of extraction the requirements of the PA can be more appropriately addressed by way of condition.

Wastewater

11.10.72. A toilet and associated septic tank exist on site in 2022 with a sufficient capacity to cater for a PE of average 30 persons, arising from full time site employees, contractors and visitors. The contents of which were periodically tankered as needed.

11.10.73. A domestic well survey undertaken by WYG in 2008 identified a total of 12 domestic wells within a 1km radius of the site (Table 6-10). The closest off-site well (c. 373 m distance) was noted to be outside the maximum cone of depression extent of 160m (calculated by WYG, 2009).

11.10.74. A review of Wicklow County Council Planning Applications (2022) within a 1km radius of the site found ca. 36 applications in relation to private wastewater systems, septic tanks, bored wells, and drainage and are included in Appendix 6.5.

11.10.75. A wheel wash was installed along with the current access road in 2016 and is a concrete basin. Wash water is contained within the basin and topped up with clean water where required.

11.10.76. I note the conditions recommended by the PA to be attached to a grant of SC in respect of wheel washing and road maintenance, as well as bunding of chemical storage tanks. This can be dealt with in any future application for continuation of extraction.

11.10.77. In summary, it is submitted that results indicate previous wastewater generated on site by onsite welfare and wheel wash facilities which occurred on site did not have a detrimental impact on groundwater or surface water quality.

Flood Risk

11.10.78. The SC site is not located within a flood zone. The northwestern area of the quarry has been excavated below the water table, and as such experiences surface water and groundwater flooding. Flooding is managed to maintain the water table in the pond to c.113mOD. If pumping were to cease, then groundwater would be expected to rebound over time to an elevation of c 114mOD in the northernmost areas of the site which would extend the flooded area.

11.10.79. The 2022 topography (Application Drawing 3 SC planning application Drawing 03-Existing Conditions) shows the perimeter elevations of the site generally have a minimum elevation of 120mOD, limiting the risk of off-site flooding.

11.10.80. The maximum discharge from the quarry to the Newbawn stream is limited to 36 l/s. I am satisfied that the site is not at risk of flooding under pumped conditions and has significant capacity within the excavated areas for attenuation and containment during heavy rainfall.

Water Framework Directive

11.10.81. The purpose of the Water Framework Directive (WFD) is to protect and enhance all waters as well as water dependent wildlife and habitats, with the aim to achieve 'good' water quality status for all waters subject to the WFD and to mitigate against the risk of a decline in the water body status.

11.10.82. The downstream Avoca River is classified as 'bad/poor', demonstrating the WFD status progressively deteriorates downstream. Where the Avonmore River meets the Avoca River, it is noted as a Historically Polluted Site (EPA, 2022b). Therefore, I am satisfied that the development was not responsible for the decline in water quality status of the river.

11.10.83. I refer to the Memorandum in relation to water quality and groundwater, prepared by An Bord Pleanála Scientist, which has been appended to my Planning Report as Appendix 1. This report concludes that the data submitted in the rEIAR when considered along with the EPA's water quality and groundwater status data demonstrate no significant impact on groundwater quality and quantity from the quarrying activities at the site in question during the review period.

11.10.84. Having regard to the information provided I am satisfied that the proposed development has not resulted in a diminution of quality or quantity of ground water or affected the 'good' ecological status.

Conclusion

11.10.85. Having regard to section 6.10 of the rEIAR which considered the potential for the effects caused by the site to have cumulative effects, I concur with the findings and am satisfied that cumulative effects have been identified and addresses the Boards reason for refusal in 2016 under ABP Ref. SU27.SU0121. I further note that cumulative impacts associated with the adjoining C&D waste facility which was originally granted permission in 2012 have also been referenced.

11.10.86. I am also satisfied that sufficient historic and contemporary information has been provided to inform the consideration of effects in respect of water resources and hydrology. I am therefore satisfied that the reason cited in the Boards previous reason for refusal under ABP Ref. SU0121 has been adequately addressed in this chapter of the rEIAR.

11.10.87. Having regard to the above, I would agree with the conclusion reached in Chapter 6 of the rEIAR that the previous quarrying operations did not give rise to direct nor indirect adverse impacts. I would also agree that significant adverse impacts on water can be ruled out.

Conclusion: Direct and Indirect Effects

11.10.88. Having regard to the examination of environmental information provided in respect of water, in particular in Chapter 6 of the rEIAR it is considered that there is no potential for significant environmental effects on water.

Air Quality and Climate

Issues Raised

11.10.89. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

- 11.10.90. Chapter 7 of the rEIAR considers the retrospective potential effects of the development on air quality and climate. The chapter outlines the methodology used, sources of information, and the assessment criteria used.
- 11.10.91. The site is located in the townland areas of Ballinabarny North and Bolagh Lower, Redcross, Co. Wicklow. The lands comprising the subject of this rEIAR are roughly square in shape, and are bounded by agricultural lands, with a network of streams delineating the site boundary on all sides. The immediate character of the lands is rural, with low density, isolated roadside housing and farmyards.
- 11.10.92. Access to the site is via a gravel covered laneway from the L5155 road, linking to the L1152. The laneway is approx. 800m long and is bounded by agricultural fields, plantation and heath/scrub on either side.

Baseline

- 11.10.93. Quarrying activities typically emit dust. The dust impact assessment considers the effects of larger particles 'deposited dust' and very small particulates matter (PM₁₀ and PM_{2.5}) on sensitive receptors. The closest sensitive receptor/house to the quarry is located 300m south of the extraction area of the quarry.
- 11.10.94. There are no statutory limits for deposition or official air quality criterion for dust annoyance set in Ireland. The TA Luft (German Government 'Technical Instructions on Air Quality') sets a guideline of 350 mg (m² *day) as measured using Bergerhoff type dust deposit gauges for the deposition of non-hazardous dusts. Below these thresholds dust problems are considered less likely.
- 11.10.95. Recommendations outlined in 'Quarries & Ancillary Activities: Guidelines for Planning Authorities (DOELG 2004), also apply the limit of 350 mg/ (m² *day) to the

land ownership boundary of quarries. The Air Quality Standards Regulations 2011, as amended, set certain limits for pollutants and of relevance to the quarry site, include PM₁₀ and PM_{2.5}. The IAQM Guidance on the Assessment of Mineral Dust Impacts for Planning (2016) has been used in the rEIAR for assessing the impacts of deposited dust.

11.10.96. It is stated in the rEIAR that the climate in the area of the site is typical of the Irish climate which is temperate maritime.

11.10.97. A profile of the climate by reference to the closest Met Eireann synoptic weather station at Carlow Oak Park, Co. Carlow, located approximately 55 kilometres west of the site is set out. Monthly average rainfall at the Meteorological rain station is provided. High rainfall in October and December provides natural dampening for potential dust emissions. The month with the highest mean wind speed is December to March. An important meteorological parameter with regard to the dilution and dispersal of air pollutants is wind speed and direction. The prevailing winds are from a southerly direction, with some north westerlies.

Potential Effects

11.10.98. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.10.3: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	Dust impacts during the construction phase (i.e. initial stripping of overburden) may have had the potential to have been greater than those experienced during the operation phase. This is due to the nature of the materials as soils contain finer particulates than rock and therefore can be carried further in the air.
Operation	Due to mitigation measures employed at the site, it is not expected, and neither is there evidence for these being an increased impact during the operation phase.

	Development is not considered to be of a sufficient scale to have had the potential to impact the regional or local climate in any significant manner.
Decommissioning/ Restoration	Given the nature of the rEIAR the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has been considered as outside the scope of the SC process.
Cumulative	There is a permitted C&D recycling facility located approx. 400m to the southeast of the quarry that accepts low volumes of C&D wastes (c.5,000t per annum) such as waste concrete and soil and stone for recovery and recycling. This facility carries out independent dust monitoring for the facility in accordance with the conditions of the Waste Facility permit.

Mitigation

11.10.99. Mitigation measures, (outlined in Section 5) all of a standard nature, are stated to have been implemented. The primary measures included:

- Dust monitoring was and is conducted and records are retained as part of the environmental monitoring system in place on the quarry site,
- Regular visual inspections to assess visual dust emissions,
- Timing of operations in relation to weather conditions,
- Spraying internal haul roads and site access road and with water to reduce dust during dry periods;
- Screening equipment in plant area are fitted with dust suppression systems;
- Material management to minimise exposure to wind;
- Screening bunds are in place along site boundaries;
- Plant regularly maintained;
- Conveyors are partially enclosed where possible;
- Internal haul roads are partially compacted where possible;
- Operating vehicles at a reduced speed;

Residual Effects

11.10.100. The assessment concludes that the existing development did not and does not give rise to significant adverse effects on air quality surrounding the site during the assessment period of 1990-2022. In all cases the residual effect is no greater than '*negligible*' and therefore overall, '*not significant*'.

11.10.101. In terms of cumulative impacts, it is stated in the rEIAR that there have been no exceedances of the dust threshold limit to date at the C&D waste recycling facility. Therefore, that have been no opportunities for significant cumulative impacts to arise as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.10.102. I have examined, analysed and evaluated the information provided in Chapter 7 and all the associated documents and submissions on file in respect of Air and Climate. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures, which are already in place at the quarry site.

11.10.103. The applicants conducted dust monitoring at locations along the eastern, northwest, northeast, southern and western boundaries of the quarry site. Monitoring was undertaken between 2008 and 2014 at 4 locations and in 2012/2022 at 3 different locations. Results/details are illustrated within Table 7.4. Results are recorded as being below the threshold limit of 350 mg (m² *day) as measured using the Bergerhoff method at all four dust monitoring locations. Therefore, on the basis of the dust results gathered at Ballinabarny North and Bolagh Lower, Redcross, the impact of dust deposition is considered to have been '*negligible to slight, adverse*' and localised.

11.10.104. The nature and particle size of the aggregates being handled on a quarry site have a fundamental influence on their tendency to be broken down and to generate dust emissions. Other relevant factors include material density and particle shape. Mechanical activity is the most significant factor in the generation of dust. The effect of wind and high ambient temperatures are also important factors in dust generation and migration. Problems may arise within quarry sites when all of these factors arise simultaneously. As dust travels downwind from the source it initially disperses

outwards and upwards and then progressively falls to the surface. Larger particles fall first and, therefore, do not migrate as far as smaller particles.

11.10.105. The concentration of dust, therefore, reduces very quickly from the emissions source. Most emitted dust is deposited close to its source, generally within a distance of a few tens of metres.

11.10.106. The amount of dust capable of being dispersed to a particular location during windy conditions relates to a number of factors including the distance between the source and receptor, prevailing weather conditions and intervening topography between the source and receptor.

11.10.107. Section 3.3 of the Quarry Guidelines recommend that haul roads have a low gradient as possible and paving be considered where dust sensitive receptors are likely to be affected. Section 3.3 of the Guidelines sets out a number of best practice mitigation measures to prevent dust creation at source, one such measure includes paving road surfaces. I can confirm from my site visit that a water retention pond is located close to the entrance/ exit from the quarry site, which supplies water for dust suppression, and that the road gradient is low and that the surface to the quarry from the public road has now been hard surfaced. I am satisfied that the mitigation measures used to suppress dust would have resulted in *negligible to slight, adverse*.

11.10.108. PM₁₀ and PM_{2.5} comprise very small particulate matter and have the potential to affect human health. Monitoring for PM₁₀ and PM_{2.5} is carried out by the EPA and Local Authority's. The limit values for PM₁₀ and PM_{2.5} as set out in the CAFE Directive 2008/50/EC and the Air Quality Standards Regulations, 2011, are a standard of 50ug/m³ in a 24-hour period and a standard of 40ug/m³ in a calendar year for PM₁₀ and a standard of 25ug/m³ in a calendar year for PM_{2.5}.

11.10.109. The background data submitted in the rEIAR indicates a conservative annual mean background concentration level of 11.6 ug/m³ for PM₁₀ for Zone D stations (sparsely populated areas areas) which when combined with the likely concentration at the closest receptor (0.4ug/m³) would be 12 ug/m³ for PM_{2.5}. The impact from fine particulate from the site is considered '*negligible*' to '*slight*' prior to mitigation which would reduce to '*negligible*' due to mitigation measures employed historically at the site. The annual PM_{2.5} predicted environmental concentration (PEC) would be 48% of the Stage 1 air quality system (AQS) and 60% of the Stage 2 AQS at the closest

receptor. Therefore, I am satisfied that dust generated by the development would not have had a significant impact on human health.

11.10.110. There are also potential impacts for people working within the quarry due to exposure to fine dust. However, serious risks to human health are not envisaged to have occurred where the quarry was managed in accordance with all applicable legislation and guidelines, including Safety, Health and Welfare at Work (Quarry) Regulations 2008.

11.10.111. I note the condition recommended by the PA to be attached to a grant of SC in respect of dust requirement. This can be dealt with in any future application for continuation of extraction.

Climate

11.10.112. There is potential for CO₂ emissions associated with vehicles generated by the quarrying activity to impact climate. Section 7.6 of the rEIAR states that the operation of plant and traffic movements at the site are estimated to have generated less than 0.75 kt CO₂e per annum, equalling approx. 24kt CO₂e over the 32 year assessment period. Having regard to the information provided I agree with the rEIAR that the impacts on climate and climate change are not considered to be significant.

11.10.113. **Conclusion:**

Conclusion – Air quality

11.10.114. Based upon the observations and findings set out above, I consider that it is reasonable to conclude that the previous quarrying activities within the substitute consent area, the subject of this application were unlikely to have resulted in significant impacts on air quality.

Conclusion - Climate

11.10.115. It is not likely that the works at Ballinabarny North and Bolagh Lower, Redcross quarry had any impact upon the local or global climate. Mitigation measures have been implemented on site and are stated to have included adherence to good practice to minimise emissions. Post mitigation, no residual impacts on climate have been identified.

11.10.116. Overall, I am of the opinion that it is reasonable to conclude that the previous activities within the substitute consent quarry site did not result in any significant impacts on air quality and climate and that no significant adverse impact arose for sensitive receptors from the operations within the substitute consent area in relation to air quality or climate.

Conclusion: Direct and Indirect Effects

11.10.117. Having regard to the examination of environmental information provided in respect of air quality and climate, in particular in Chapter 7 of the rEIAR it is considered that there is no potential for significant environmental effects on air quality and climate.

11.11. Noise and Vibration

Issues Raised

11.11.1. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

11.11.2. Chapter 8 of the rEIAR considers the retrospective potential effects of the development on Noise and Vibration. The chapter outlines the methodology used, sources of information, and the assessment criteria.

Context

11.11.3. At the outset, reference is made to the Environmental Management Guidelines (EPA, 2006). In relation to quarry developments and ancillary activities, it is recommended that noise from the quarrying activities on site would not have exceeded the following noise limits at the nearest noise-sensitive receptors:

- L_{Aeq} (1 hour) - 55dB(A) (daytime) and L_{Aeq} (1 hour) - 45dB(A) (night time).

11.11.4. The hours of operation at the quarry are stated to have been Monday and Friday 7:30 to 17:30 and Saturdays from 7:30 to 14:00.

Baseline

- 11.11.5. The assessment presents the predicted noise level for four different locations which are indicated on Figure 8.1 of the rEIAR. These activities included the removal of overburden, the extraction of sand and gravel from the SC area by excavation, aggregates were subsequently stockpiled and loaded onto trucks for export off-site.
- 11.11.6. There is no published national guidance relating to the maximum permissible noise level that may be generated for a project of this nature. By reference to BS 5228: Code of Practice for Noise Control on Construction and Open Sites (Part 1: Noise) and NRA/TII limit values, which I am satisfied are relevant guidance for the enabling/construction stage of the project, noise generated during soil stripping and overburden removal would not likely have exceeded the limits set out.
- 11.11.7. During quarry operations it is stated that no blasting occurred within the quarry site. The result of the blasting would typically result in the generation of noise and vibration.

Potential Effects

Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.11.1: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	This is ongoing.
Operation	This is ongoing.
Decommissioning/ Restoration	- Future noise impacts from the quarry will be addressed separately under an application for continuation of extraction under 37L of the Planning and Development Act 2000 as amended. - The site will be restored in the future in accordance with the submitted restoration scheme. Works associated with restoration works has the potential to result in potential noise impacts. - Noise levels from de-commissioning of the structures on the quarry site and / or the regrading of the benches in the extraction area and any subsequent infill will be short-term noise impacts, and subject

	to a higher noise limit of 70 dB(A) as distinct from normal site operations.
Cumulative	Measured daytime noise levels presented in Table 8.4 indicate that the cumulative noise from the site and the occasional operation of the recycling plant on a site located to the south of the quarry site has not had a significant noise impact at properties in proximity to the quarry site relative to the quarry noise limits during daytime.

Mitigation

11.11.8. Noise levels at each of the noise sensitive locations are presented in Table 8.5 of the rEIAR. In 2022 noise levels at all of the monitoring stations were recorded as being below the daytime limit of 55dB LAeq (1 hour).

11.11.9. The maximum predicted noise associated with the quarry operation was stated to be 43.2dB (A), LAeq, 1 hour, which does not exceed the 55dB (A), LAeq, 1 hour threshold, accepted as the recommended noise threshold by the EPA, Irish Construction Federation (ICF) and the Department of Housing, Local Government and Heritage. It is not considered that there would have been an adverse impact on noise quality in the vicinity of the application site provided that best practice standards were applied.

Residual Effects

11.11.10. The assessment concludes that the existing development did not and does not give rise to significant adverse effects on human environment surrounding the site during the assessment period of 1990-2022.

11.11.11. In terms of cumulative effects there have been no exceedances of the dust threshold limit to date at the facility. Therefore, that have been no opportunities for significant cumulative impacts to arise as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.11.12. I have examined, analysed and evaluated the information provided in Chapter 8 and all the associated documents and submissions on file in respect of Noise and Vibration. I have inspected the site and the surrounding area. I also had regard to relevant policy and objectives of the Wicklow Development Plan 2022-2028. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts generated by the development

and provides a suitable range of mitigation and monitoring measures, which are already in place at the quarry site.

- 11.11.13. Due to the separation distance between the quarry and nearest noise sensitive receptors, while the extraction activities would have been audible, their impacts would not have exceeded the thresholds set out within best practice standards as set out by the EPA and the Construction Federation Guidelines in respect of vibration and air overpressure limits at sensitive receptors in the vicinity of the development. The impact of noise has been further reduced with the presence of planting around the perimeter of the quarry site and through the implementation of best practice procedures.
- 11.11.14. Having regard to the above, I would agree with the conclusion reached in Chapter 8 of the rEIAR that the previous quarrying operations did not give rise to direct nor indirect adverse impacts.
- 11.11.15. Overall, I am of the opinion that it is reasonable to conclude that the previous activities within the substitute consent quarry site did not result in any significant noise, blasting and/or vibration impacts and that no significant adverse impact arose for sensitive receptors from the operations within the substitute consent area in relation to noise and vibration.
- 11.11.16. I note the conditions recommended by the PA to be attached to a grant of SC in respect of hours of operation and noise requirement. Appropriate conditions can be dealt with in any future application for continuation of extraction.

Conclusion: Direct and Indirect Effects

- 11.11.17. Having regard to the examination of environmental information provided in respect of noise and vibration, in particular in Chapter 8 of the rEIAR it is considered that there is no potential for significant environmental effects on noise and vibration.

11.12. Material Assets

- 11.12.1. The format of my assessment follows the headings as set out in the Planning and Development Act, 2000 (as amended). Having regard to the information provided in the applicant's rEIAR the following sub-headings are used.

- Traffic

- Material Assets – Waste and Utilities
- Cultural Heritage
- Landscape and Visual

Traffic

Issues Raised

11.12.2. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.12.3. Chapter 11 of the rEIAR considers the retrospective traffic impacts as a result of the development. The chapter outlines the methodology used, sources of information and the assessment criteria.

11.12.4. Traffic counts were collected in March 2022, at 8 junctions and the results of the traffic survey are summarised in Appendix 11.1 of the rEIAR.

Baseline

11.12.5. The baseline for this rEIAR has been set to the year 1990, and the rEIAR process has assessed environmental impacts from that date to the present. The assessment period equates to 32 years and is identified in the EPA's 2022 Guidelines on the information to be contained in EIAR as 'long term' duration.

11.12.6. The lands subject of this rEIAR extend to approx. 23.7ha, that reflects the historic operational site information including the extractable area declared under S.261 quarry registration in 2005. At baseline, in 1990, the quarried area has been determined to have extended to approx. 0.75 ha and to have expanded laterally to approx. 20.16 ha in 2022.

11.12.7. The existing quarry site is accessed via a priority-controlled T-Junction with the L5155, with the quarry located approx. 800m north of the L5155 junction. The access includes a gravel surface, which also provides access to a private development (Oakwood Stables) approx. 100m west of the L5155.

- 11.12.8. The L5155 local road is a two-way single carriageway running in a southwest-northeast direction. In the vicinity of the site, the road is approx. 4.5-5.0m wide with no footpaths or hard shoulders. The posted speed limit of the L5155 is 80kph.
- 11.12.9. The L1152 local road is a two-way single carriageway running in a northwest-southeast direction providing connection to the R752 Regional Road in the west, and the M11 in the east. The road is approx. 5.0m wide with no footpaths or hard shoulders. The posted speed limit of the L1152 is 80kph.
- 11.12.10. There has been one significant network improvement between 1990 and 2022, which includes the Transport Infrastructure Ireland's (TII) upgrade to the N11. The M11 Motorway between Arklow and Rathnew was opened in 2015 and consisted of 16km of dual carriageway on the Arklow to Rathnew section of the N11, along with associated link roads, side roads and junctions which connect the existing N11 Arklow bypass with the N11 Rathnew/Ashford bypass. This section of road is currently used by approx. 80% of the HGV development traffic entering the site.

Potential Effects

- 11.12.11. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.12.1: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	Table 11.1 indicates approx. 8 HGV movements per day in 1990.
Operation	- Approx. 8 HGV movements per day between 1990 and 2002. - Approx. 26 to 28 HGV movements per day between 2003 and 2009. - Approx. 18 and 12 HGV movements per day between 2010 and 2021.
Decommissioning/ Restoration	Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered.

Cumulative	There is a permitted C&D waste recycling facility located approx. 400m to the southeast of the quarry that accepts low volumes of C&D wastes (c.5,000t per annum) such as waste concrete and soil and stone for recovery and recycling. The facility is owned and operated by the same owner as the operator of the quarry. Deliveries to the recycling facilities are low with about 2 no. deliveries per day and are typically made by trucks associated with the quarry as a backload from sand and gravel deliveries offsetting any additional traffic movements.
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Mitigation

- 11.12.12. The initial assessment of the significance of potential effects resulting from the development takes into considerations any embedded design and implemented site management practices undertaken during the assessment period of 1990 to 2022. The elements of development design and good working practices that reduce the potential impacts to the surrounding road network are listed under section 11.8 of the rEIAR.
- 11.12.13. A new quarry access was granted planning permission in 2007 by the PA, and the new access has been constructed and accesses the L5155 north of Kilmacree crossroads. The use of this access is only permitted to an authorised quarry development and use of this access was suspended on refusal of the previous SC under SU0121 until such time the quarry lands are authorised.
- 11.12.14. It is stated in the rEIAR that it is proposed to revert to use this route should SC be granted by the Board. The new access is to be located on the L5155, approx. 680m north of the existing/historical access.
- 11.12.15. In terms of parking provision, a total of 8 no. spaces are provided on site, and is considered sufficient for the number of staff working on site and any miscellaneous trips that may occur. Given the location of the site in a rural area there are no footpaths or cyclists provisions, nor is there public transport in the vicinity of the site.
- 11.12.16. No other remedial mitigation measures other than those detailed in specific chapters of the rEIAR are required.

Residual Effects

- 11.12.17. Residual effects on the traffic network surrounding the site during the assessment period of 1990-2022 are considered in the rEIAR. The traffic modelling assessment

concludes that the existing development did not and does not give rise to significant adverse effects on the traffic network surrounding the site during the assessment period of 1990-2022. In all cases the residual effect is no greater than slight and therefore overall, not significant.

11.12.18. In terms of cumulative effects, it is stated in the rEIAR that no significant cumulative impacts have arisen as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.12.19. I have examined, analysed and evaluated the information provided in Chapter 11 and all the associated documents and submissions on file in respect of Traffic. I have inspected the site and the surrounding area. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures, which are already in place at the quarry site.

11.12.20. It is submitted that the quarry has always operated for 5.5 days per week for approx. 50 weeks per year. The historical annual extraction rate (tonnes per annum) has been used in determining the trips generated by the facility since 1990. Material leaving the site is transported in an average load of 25 tonnes.

11.12.21. Trip generation figures since 1990, taking into account material extraction operations and staff trips are provided in Table 11-1 and Table 11-2.

11.12.22. There were 4no. haulage routes used between 1990 and 2022. These include HGV's exiting the site travelling north and south on the L5155, before either travelling west on the L1152 to join the R752 at the railway bridge 1.5km northeast of Rathdrum or travelling east before joining the L1113. From the L1113 HGV's turn right onto the L1157 to join the N11 at 'The Tap' on the R772. The other route is from the M11 at 'The Beehive', where HGV's access the L1113 and travel southwest to join the L1152 before turning left onto the L5515 towards the site.

11.12.23. It is submitted that there would have been approximately 8 Heavy Good Vehicles (HGV) movements (in and out of the quarry site) per day between 1990 and 2002, increasing to between 26 to 28 HGV movements per day between 2003 and 2009 at the height of quarrying activities on site. The number of HGV movements per day dropped between 2010 and 2021 to between 18 and 12 per day.

- 11.12.24. Traffic counts (12-Hour classified counts) were carried out on the 9th March 2022 at 8 separate local and regional road junctions including at the roundabout serving the N11/R772/I1113. The traffic counts were carried out between 7am and 7pm corresponding with the main operating hours of the quarry and also includes the peak hours on the adjacent road network.
- 11.12.25. Table 11.3 provides historical years traffic growth for County Wicklow, from which a medium growth scenario has been adopted given the site location and scale. A background traffic threshold of 10% is used as the site is located in a rural area. It was found that two of the road junctions exceeded the 10% threshold between 1990 and 2022 and so further investigation at these junctions was required.
- 11.12.26. The assessment identifies the year 2004 with the highest percentage of development traffic at each of the two junctions (i.e. worst-case scenario), and traffic modelling of the junctions performance was carried out. Detailed junction capacity analysis outputs for both junctions demonstrate that each operated within capacity (see Appendix C) and were found to have had a negligible impact on the local road network.
- 11.12.27. In terms of sightlines visibility splays were assessed based on the TII Publication DN-GEO-03060 'Geometric design of Junctions (priority junctions, direct accesses, roundabouts, grade-separated and compact grade separated junctions)'. Visibility splaying at the existing access from a 3.0m setback for 160m in both directions were assessed. Visibility to the southwest exceeds the 160m requirement, however visibility to the northeast was measured at 65m which is significantly below the 160m requirement.
- 11.12.28. It is acknowledged in the rEIAR that visibility is restricted due to the horizontal alignment, mature trees and vegetation along the L5155, it is also submitted that there have been no recorded collisions at the quarry access/L5155 junction. It is also submitted that as the majority of traffic exiting the quarry turns east on the L5155, the opportunity for westbound traffic to conflict with HGV's exiting the quarry is removed.
- 11.12.29. Having reviewed the Road Safety Authority collision database, there were four minor recorded collisions on the local road network between 2005 and 2016, which would indicate that the entrance has been operating within capacity and safely. The rEIAR

concludes that the operation of the development site between 2005 – 2016 is deemed to have had a negligible impact on road safety. Having regard to the location of the minor collisions indicated in Figure 11-3 none are in the vicinity of the entrance to the site.

11.12.30. Having regard to the above, I would agree with the conclusion reached in Chapter 11 of the rEIAR that the previous quarrying operations did not give rise to direct nor indirect adverse impacts on the surrounding road network. I would also agree that significant adverse impacts on traffic can be ruled out.

11.12.31. The local road network appears to have accommodated the '*minor*' to '*negligible*' increase in HGV and other traffic generated without significant incidents, including '*insignificant impact*' on the carrying capacity of the road network, interference with traffic flows, creation of hazard and direct contribution to accidents. In light of this, I consider that it is reasonable to conclude that the impact, in traffic and transportation terms, of the quarrying and associated activities, the subject of this substitute consent application was not likely to have resulted in any significant environmental impact.

11.12.32. I am satisfied also that no significant cumulative impacts have arisen as a result of the activities at the site since 1990.

Conclusion: Direct and Indirect Effects

11.12.33. Having regard to the examination of environmental information provided in respect of traffic, in particular in Chapter 11 of the rEIAR it is considered that there is no potential for significant environmental effects on traffic.

Material Assets (Waste and Utilities)

Issues Raised

11.12.34. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.12.35. Chapter 12 of the rEIAR considers the retrospective potential effects of the development on Material Assets including the built services and infrastructure comprising;

- Surface Water Drainage,
- Telecommunications,
- Electricity Supply,
- Gas and Water Supply, and
- Waste Management.

11.12.36. It is stated that the scope of the work undertaken for the assessment included a desk-based study of material assets namely built services, utilities and waste management infrastructure associated with the existing site. The desk study involved collecting all the relevant data for the site and surrounding area, including published information and details pertaining to the proposed development.

Baseline

11.12.37. In terms of power supply, it is stated that the site is connected to the grid by an underground medium/low voltage cable which is connected to a transformer linked to a medium voltage overhead powerline which enters the site from the north. The 10KV overhead power line was introduced to the site in 2000 to ensure a dedicated power source to run the processing plant. It is also noted that there is currently no gas line supplying the site.

11.12.38. For mobile telecommunication for transmission and reception there are no existing underground or overhead telecommunications cables in the quarry area.

11.12.39. The site is not connected to a municipal water supply. There is an abstraction well and pumphouse located adjacent to the administration area, and water from the well has been used to service potable water and on-site welfare facilities since at least 2008. Foul water from staff facilities is contained in and managed by a private septic tank system, which it is stated has sufficient capacity to cater for a PE equivalent of average 30 persons. The contents of which have been periodically tinkered off site as needed.

11.12.40. In terms of surface water drainage there are a series of retention cells within the site which connects to a larger lagoon in the north west. Water requirements for site

activities is sourced recycled through a closed loop system via the site ponds and pit lake as described in Chapter 6 of the rEIAR.

11.12.41. In relation to waste management small amounts of general refuse waste are generated by the site office and staff portacabin facilities. This municipal waste is disposed of via domestic waste collection. Waste generated from the maintenance and servicing of equipment are collected and managed by an authorised waste contractor.

Potential Effects

11.12.42. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.12.2: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	Activities or events that might have impacted services/networks and utilities for the surrounding area.
Operation	Activities or events that might have impacted services/networks and utilities for the surrounding area.
Decommissioning/ Restoration	- Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. - A Concept Restoration Plan is included in Appendix 10-1.
Cumulative	Impacts identified during the assessment period were mitigated by design or good practice. The closest quarry is Baleese Quarry, located 2.5km northwest of the site. Therefore, it is not considered that there is potential for a significant cumulative effect on the Material Assets.

Mitigation

11.12.43. No remedial measures have been identified. Other monitoring measures which may be required are detailed separately under chapters of the rEIAR in

relation to water, air quality and climate, noise and vibration, landscape and visual impact and traffic.

Residual Impacts

- 11.12.44. The assessment concludes that the development did not give rise to significant adverse effects on material assets, and that the residual effect is no greater than 'slight' and therefore overall, not significant.

Evaluation and Assessment: Direct and Indirect Effects

- 11.12.45. I have examined, analysed and evaluated the information provided in Chapter 12 and all the associated documents and submissions on file in respect to material assets. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts of the development on material assets and provides a suitable comprehensive range of mitigation and monitoring measures to reduce any potential impacts on the receiving environment.

Conclusion: Direct and Indirect Effects

- 11.12.46. Having regard to the examination of environmental information provided in respect of waste and utilities, in particular in Chapter 12 of the rEIAR it is considered that there is no potential for significant environmental effects on waste and utilities.

Cultural Heritage

Issues Raised

- 11.12.47. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

- 11.12.48. Chapter 9 of the rEIAR considers the retrospective potential effects of the development on Cultural Heritage.
- 11.12.49. The site is located in the townland areas of Ballinabarry North and Bolagh Lower, Redcross, Co. Wicklow. The site is bounded by agricultural lands, with a network of streams and hedgerows delineating the site boundary on all sides. The

immediate character of the lands is rural, with low density, one-off housing and farmyards.

11.12.50. It identifies the nature of the archaeological, architectural heritage resources in and within the vicinity of the site, provides an outline of the likely effects, details mitigation measures and describes any residual effects.

11.12.51. The assessment of effects had regard to legal requirements and national and industry best practice guidelines. The assessment methodology included a review of available data to identify any known sites and previously unrecorded features, structures and portable finds. The assessment comprised a paper survey and cartographic research. The sources used were the Sites and Monuments Record (SMR), Record of Monuments and Places (RMP), the County Development plans and various literature resources.

Baseline

11.12.52. The spatial scope of the assessment in respect of cultural heritage extends to include a 1km buffer around the site to allow an assessment of indirect impacts.

Archaeological Heritage

11.12.53. There are 3 no. ringforts within the study area, 2 to the north of the site and one to the south. These are indicated in Figure 9.1 and listed in Table 9.5 of the rEIAR. None of these are located within the site. A ruined church (SMR ref. WI035-020001) is located in Kilamcoo, approx. 2.2km to the south of the site. There site is not located within an Area of Archaeological Potential, the nearest is the Ennisboyne AAP located near Brittas approx. 8.5km east of the site.

Architectural Heritage

11.12.54. There are no protected structures or buildings listed in the NIAH within the study area, and the site is not within an Architectural Conservation Area.

Potential Effects

11.12.55. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.12.3: Summary of Potential Effects by the Applicant

Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a 'Do Nothing' scenario (if the development were not operating during this period) has not been considered.
Construction	Due to the nature of the development (i.e. progressive quarrying), all effects have been considered as occurring during the operational phase (i.e. no discrete construction phase has been considered).
Operation	Table 9.6 of the rEIAR presents the potential effects on cultural heritage assets during operation.
Decommissioning	- Given the nature of the rEIAR and the SC process the potential impacts of a 'decommissioning scenario' (if the development were not operating during this period) has not been considered. - A Concept Restoration Plan is included in Appendix 10-1.
Cumulative	Potential cumulative effects would be limited to indirect effects to the setting of cultural heritage assets within the study area.

Mitigation

11.12.56. No specific remedial mitigation measures have been enacted on site with regards cultural heritage assets.

Residual Effects

11.12.57. As no specific mitigation measures have been enacted on-site, residual effects are as presented in Table 9.6.

11.12.58. In terms of cumulative effects, it is stated in the rEIAR that no significant cumulative impacts have arisen as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.12.59. I have examined, analysed and evaluated the information provided in Chapter 9 and all the associated documents and submissions on file in respect of Archaeology and Cultural Heritage. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section .. to reduce any potential impacts the receiving environment.

11.12.60. I accept that there would have been a slight change to the setting of each of the 3 ringforts as a result of visual changes however, this '*slight adverse*' effect is '*negligible*'.

11.12.61. There are no structures identified on either the Record of Protected Structures as set out within the current Wicklow County Development Plan or in the National Inventory of Architectural Heritage (NIAH) that are so close as to result in any adverse impact as a result of the historic quarrying activities.

Conclusion: Direct and Indirect Effects

11.12.62. Overall, I am of the opinion that it is reasonable to conclude that the previous activities within the substitute consent quarry site did not result in any significant impacts on and that no significant adverse impact arose from the operations within the substitute consent area in relation to archaeological and cultural heritage. I am satisfied that the quarrying operations had no direct, permanent and significant negative impact archaeological and cultural heritage as a result of the historic quarrying activities on-site. I am satisfied that there are no other features of archaeological significance within the site or in its immediate vicinity.

Conclusion

11.12.63. Having regard to the examination of environmental information provided in respect of cultural heritage, in particular in Chapter 9 of the rEIAR it is considered that there is no potential for significant environmental effects on cultural heritage.

Landscape and Visual

Issues Raised

11.12.64. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.12.65. Chapter 10 of the rEIAR considers the retrospective potential effects of the development on landscape and visual impact. The remedial Landscape and Visual Impact Assessment (LVIA) was prepared by Macro Works.

11.12.66. The chapter outlines the methodology uses, sources of information the assessment criteria, and limitations. A total of 9 no. viewpoints are captured within the study area of approx. 5km.

11.12.67. The site is located in the east of County Wicklow, southeast of the town of Rathdrum and within the administrative area of Wicklow County Council. The site is located within the townland of Ballinabarny North and Bolagh Lower and is located 4.4km west of the M11 Dublin to Wexford Road, ca. 3.2km of the southwest of Rathdrum. The site is well positioned to serve the greater Dublin area and its location in a regional context has continued influence on the economic activity of the area.

Baseline

11.12.68. Baseline data of c. 1990 are used and the rEIAR notes that while images, maps and documents all provide data, the description of the landscape character and views/visual amenity is general, and it is not possible to give an exact description of the landscape at the time.

11.12.69. The lands subject of the rEIAR extend to c. 23.7ha and reflect the historic operational site area including the extractable area declared under S.261 quarry registration in 2005. The quarry extraction area that makes up the application for the SC currently extends to c. 20.16ha. This has extended in a relatively shallow fashion from an area of c.75ha in 1990, with average working depth is 124m AOD at baseline.

Potential Effects

11.12.70. Likely significant effects of the development as identified in the rEIAR are summarised in the table below.

Table 11.12.4: Summary of Potential Effects by the Applicant

Project Phase	Potential Direct, Indirect and Cumulative Effects
Do Nothing	Given the nature of the rEIAR and the SC process the potential impacts of a ‘Do Nothing’ scenario (if the development were not operating during this period) has not been considered.

Construction	It is stated under Section 10.4 (Development which has occurred) that in 1990 activities on site extended to an area of c.75ha, with average working depth of 124m AOD at baseline.
Operation	The year-on-year variation in volumes of material extracted can be found in Table 2.2 of the Project Description Chapter.
Decommissioning/ Restoration	- Mitigation measures that have been carried out to date are outlined in section 10.6 of the rEIAR. - A Concept Restoration Plan is included in Appendix 10-1.
Cumulative	- The expansion of another quarry some 2km to the west within the Avonmore River Valley is similar in terms of scale and nature and is the only notable change to the landscape. - Together these two quarries make a slightly greater contribution to the land use fabric of the study area but are not intervisible. - As there are no other relevant plans or projects in the 500m of the site during the assessment period 1990 to present, it is considered that in-combination effects as a result of the historical works with regard to other plans or projects is not significant.

Mitigation

11.12.71. Section 10.6 of the rEIAR outlines the mitigation measures which have already been put in place to reduce the visual effects of the quarry site. The mitigation measures include the retention of existing hedgerows, perimeter fencing and trees and shrubs, natural regeneration along parts of the northern slopes eastern, southern and western boundaries within the SC area, and establishment of dense forestry along the sites southern boundary.

11.12.72. Additional mitigation measures proposed are outlined in the Concept Restoration Plan included in Appendix 10.1.

Residual Effects

11.12.73. The assessment concludes that the existing development does not obstruct or unduly intrude on the extensive rural views during the assessment period of 1990-2022.

11.12.74. In terms of cumulative effects, it is stated in the rEIAR that the combined contribution (of both quarries) to cumulative visual impact is 'negligible'. It is considered that no significant cumulative impacts have arisen as a result of the activities at the site since 1990.

Evaluation and Assessment: Direct and Indirect Effects

11.12.75. I have examined, analysed and evaluated the information provided in Chapter 10 and all the associated documents including the Concept Restoration Plan. I have inspected the site and the surrounding area. I also had regard to the relevant policy and objectives of the Wicklow County Development Plan 2022-2028. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential effects of the development on landscape and visual impact.

Landscape

11.12.76. In relation to the landscape, the assessment considers the Wicklow County Landscape Character Assessment, as set out within the Development Plan. The application site is located within the 'South East Mountain Lowlands' landscape area which is categorised as an Area of Special Amenity (ASA). Areas of Special Amenity are second only to the Areas of Outstanding Natural Beauty (AONB) in terms of vulnerability class. The main characteristics of this landscape include undulating lands bordering the AONB and surrounding the distinctive features of the Vale of Avoca.

11.12.77. Patchwork farmland both pasture and tillage are the dominant land use and when further detailed is located within a landscape type categorised as 'Farmed Lowland'. Within the land use capacity matrix contained within the Landscape Character Assessment referred to above, mountain lowlands are shown as having a moderate capacity to absorb extractive industry.

11.12.78. As set out earlier in my assessment, the site is located in a rural area where agriculture is the predominant land use. The Landscape Sensitivity in this area is designated as being '*Medium*'. There are a small number of single houses and agricultural structures within the local landscape in the vicinity of the SC site.

11.12.79. The magnitude of change in the landscape as a result of the historic quarrying activities has been assessed as '*Medium-Low*' and the significance of landscape

impacts of the development is assessed as localised and '*Moderate-slight*'. It is submitted that at a broader level the landscape would have read as a rolling pastoral landscape with occasional variant features such as woodlands, conifer plantations and quarries, and despite having increased to approx. 20 times the extent is not a strongly influential feature in the in the context of the wider landscape. Having visited the site and viewed from the surrounding landscape I would agree that the magnitude of landscape impact for the wider area would be '*adverse*' and long term in duration.

- 11.12.80. The loss of previous vegetation as a result of extraction of sand and gravel undoubtedly resulted in a change to the landscape at a local level. However, given the available natural screening from hedgerows and additional screening which has resulted from the perimeter revegetation, and noting the purpose of the development, which was to extract sand and gravel resources, on balance I consider the change to the landscape at a local level as acceptable.

Visual Impact

- 11.12.81. The site is located within an area of low population concentration. There are two protected viewpoints in the immediate vicinity of the site, and these are View 19 and View 20. There is a designated scenic route along the L5155 Connary, Parnell Drive with a prospect towards Avonmore River valley which is identified as prospect 37 and runs to the southeast of the SC area.
- 11.12.82. A zone of visual influence (ZVI) was established and the key visual receptors within the ZVI were local roads infrastructure, (including laneway to the south), junctions and crossroads. A number of key viewpoints were selected within the ZVI and were considered to be representative of the main visual receptors within the study area.
- 11.12.83. Due to the intervening vegetation, undulating topography of the site itself, the exposed quarry faces can only be seen from some slightly elevated locations overlooking the quarry from less than 800m of the SC area. Visibility at distances beyond 800m kilometres would depend on weather conditions, intervening vegetation and topography. The views are from local roads to the north, east, south and west of the site.

11.12.84. The visual impact assessment submitted includes 9 no. viewpoints. In my opinion VP1, VP2, VP 8 and VP9 are short distance views, VP5, VP6 and VP7 are medium distance views and VP3 and VP4 are longer distance views. Section 10.5.2 provides an assessment of the visual impact of the development from the 9 no. viewpoints.

Short Distance Views VP2, VP7, VP8 and VP9

11.12.85. VP2 is a low-lying view taken at approx. the same elevation as the quarry which lies c. 600m to the east. The view which takes in a large arable field, a mixed band of sporadic trees and block of conifers which serve to substantially screen views of the quarry. The existing quarry is not visible from this location. I agree with the rLVIA that the significance of the impact is '*imperceptible*'.

11.12.86. VP7 is taken from a narrow laneway off the local scenic designation to the south east which affords some of the clearest and closest views over the quarry. At a distance of 750m the quarry is substantially visible from here as a series of spoil heaps scrubland and bare ground with quarry plant and machinery. The visual receptor sensitivity is considered medium. It is submitted that due to the location of the quarry in a low-lying section of the landscape, amongst other productive rural land uses that the overall magnitude of visual change is medium low. I agree that the significance of the visual effect therefore is '*moderate-slight*'.

11.12.87. VP8 is from a local road at Bolagh to the east of the site, where an alternative access to the quarry is located. I concur with the rLVIA in that neither the present-day quarry nor the 1990 baseline quarry are/would have been visible from here. The intervening conifer plantation effectively screens views, and I am satisfied that the magnitude of change is '*negligible*' with the significance of effect is '*imperceptible*'.

11.12.88. VP9 is a slightly elevated view taken from the local road to the northeast. It represents a relatively open view with the quarry contained in the base of the topography. It is submitted that the significance of the visual effect is '*moderate slight*', with the quality of the effect as adverse and long term.

Medium Distance Views VP5, and VP6

11.12.89. VP5 is taken from the local road between Conary and Kilmacrea and is one of the two designated views. This elevated and extensive view to the north is only visible through a gateway and the backdrop is similar to VP3 and VP4. In the

foreground a house is under construction. The visual receptor is considered high medium; however, it is submitted once the dwelling has been completed the view will be truncated. I agree with the rLVIA that the significance of the impact is '*slight*' but that the quality of the effect is adverse, and duration is long-term.

- 11.12.90. VP6 (which is very close to VP5) is taken from local road at Kilmacrea and is also a designated view. The quarry is visible as bare ground, spoil heaps and scrub with some of the machinery also in view. It is submitted that due to the position in the bottom of the basin, which is substantially screened by intervening vegetation, it is not an overly distinctive or dominating feature. The magnitude of change is deemed to be medium-low, with significance of effect as '*moderate-slight*'. The quality of the effect is adverse, and duration is long-term.

Longer Distance Views VP1, VP3 and VP4

- 11.12.91. VP1 is taken from a brief gateway view from the south along an elevated local road that descends to the southwest. The rLVIA describes this view (which takes in a basin of rolling patchwork farmland) as contained by a low forested ridge just beyond to the southeast. I agree with the rLVIA that the existing quarry is discernible at a distance of 1km at the base of the basin and can confirm that it is partially screened by intervening vegetation.

- 11.12.92. The visual receptors sensitivity is considered medium, and while acknowledging that since 1990 the quarry has expanded, it does not however draw the eye and does not substantively detract from visual amenity at this location. I agree with the conclusion that the significance of visual effect is '*slight*'.

- 11.12.93. VP3 is taken from the Cross Roads settlement of Conary with the view towards the quarry being truncated in the near distance by a descending spur planted in gorse and scrub. Due to the intervening terrain and vegetation the existing quarry is not visible, and I agree with the rLVIA that the significance of the visual effect is '*imperceptible*'.

- 11.12.94. VP4 is taken from the local road northeast of Conary and is one of the designated views. The north easterly view towards the quarry is screened by lower lying mixed broad leaf and conifer vegetation in the near distance, opening up across rolling farmland and forestry with the Wicklow Mountains forming a distant backdrop. While it is accepted that the visual receptor sensitivity is high-medium it is also the

case that a very small section of the quarry can be seen. Therefore, I agree with the rLVIA that the significance of the visual effect is '*imperceptible*'.

Summary of Visual Effects

11.12.95. Overall, in terms of visibility, the quarrying activity has had an impact on the visual and landscape character of the surrounding area. These impacts have arisen from: visibility of the abstraction area and plant, removal of vegetation and the state of the quarry.

11.12.96. The impact of the development on views is considered to be *long term* and *adverse* if no mitigation was to be put in place. The impact reduces considerably with natural regeneration and screening within the SC area. I would agree with the findings of the remedial visual impact assessment that the significance of impact would be '*neutral*' or '*adverse*' at all viewpoints.

11.12.97. The SC area will remain concealed from many viewpoints due to the nature of the topography and existing vegetation in the area. development has had localised moderate impact on the landscape character. However, the regeneration of the quarry, including habitat regeneration and scrub growth will ameliorate this impact in the medium and long term. The greatest impact on the landscape character is the exposed quarry faces of the excavation area and the stockpile of aggregates visible from close to medium distances of the site. The impact is somewhat mitigated by hedgerows, trees and vegetation in the adjoining fields. The site is sufficiently screened at its most vulnerable northern boundary, resulting in high landscape and moderate visual impacts. The SC area is also visible from areas along public roads in the vicinity of the site and there are intermittent views of the quarry from the east. Further impact reduction will be achieved with regeneration of grass, scrub and native woodland growth at the site.

11.12.98. I am satisfied that the mitigation measures would assist in the establishment of biodiversity and wildlife amenity within the quarry faces and in the existing surface water lagoons quarry pond on the quarry floor and would also further reduce the visibility of the application site from the receiving environment and offset the effects of vegetation and habitat loss. The proposed measures include the management/improvement of the retained site boundary hedgerows and trees, and enhancement of existing boundary screening with native vegetation and planting, re-

vegetation/colonisation of the northern slope and regrading of the existing central area of the quarry to form gentle slopes and mitigation planting.

11.12.99. I note the condition recommended by the PA to be attached to a grant of SC in respect of the submission of a Restoration Plan within 6 months, and levels of refilling of extracted lands. Given the nature of the SC quarry application, and in the interest of visual amenity, if the Board are minded permitting the application, I consider it appropriate that a revegetation and rewinding plan for the Site, based solely on the extent of quarry extraction that has taken place to date be agreed with the planning authority.

Conclusion:

11.12.100. I have had regard to the examination of the environmental information in respect of Landscape and Visual Impact, in particular the rEIAR and supplementary information provided by the applicant in the course of the application. I am satisfied that the information submitted in the rEIAR adequately demonstrates an understanding of the retrospective potential effects of the development on landscape and visual amenity.

11.12.101. Of the 9 no. viewpoints assessed the significance of visual impact for 6 no. viewpoints was slight (VP1 and VP5) or imperceptible (VP2, VP3, VP4 and VP8). These viewpoints are all located in slightly elevated locations overlooking the quarry from less than 800m. 3 no. viewpoints assessed the significance of visual impact as (moderate/slight) and were at VP6, VP7 and VP9.

11.12.102. While the quarrying activities are visible, I am satisfied that the surrounding context of local roads and agricultural uses the SC quarry area is not detrimental to the visual amenity of the area or on any protected view or prospect. I am also satisfied that the quarry development is in accordance with development plan policies CPO 17.37 and CPO 17.38.

Conclusion: Direct and Indirect Effects

11.12.103. Having regard to the examination of environmental information provided in respect of landscape and visual, in particular in Chapter 10 of the rEIAR it is considered that there is no potential for significant environmental effects on the landscape and visual amenity of the area.

11.13. The interaction between these factors

Issues Raised

- 11.13.1. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

- 11.13.2. Chapter 13 of the rEIAR addresses the main interactions between the various aspects of the environment that may have been affected as a result of the quarry development. It is acknowledged that all aspects of the environment are likely to interact to some extent and to varying degrees of complexity. Table 13.1 provides a matrix of interactions and highlights those interactions which are considered to potentially be of a significant nature.

Potential Effects

- 11.13.3. Quarrying can give rise to inevitable and unavoidable impacts on the environment and many of these impacts interact with each other. The main area of concern relates to the effects of the extraction and processing works which may have impacted on population and human health, hydrology and hydrogeology and the interaction with soils and geology and surface water processes, ecology, and on the landscape.
- 11.13.4. As the development is unlikely to have had a significant effect on the environmental factors assessed above, there are no other significant effects on the environment that are likely to arise from the development due to the interaction between those factors.

Residual Effects

- 11.13.5. Any potential interactive negative impacts have been identified and are addressed by the mitigation measures included in the relevant sections of the rEIAR, with residual effects as presented in each relevant chapter.

Evaluation and Assessment: Direct and Indirect Effects

- 11.13.6. Cumulative impacts have been covered, where applicable, under the relevant chapters within the rEIAR. The SC quarry area is located within a rural landscape which has seen only relatively small-scale development including rural one-off dwellings and some agricultural development. A C&D waste recycling facility is located approx. 400m to the southeast of the application site. It is stated that the waste facility operates under permit conditions including environmental emissions thresholds of which there has been no exceedance to date. I am satisfied that with the adoption of standard best practice construction management, no significant cumulative effects are noted other than those identified in preceding chapters of the rEIAR.
- 11.13.7. I am satisfied that given the separation distances to other developments, which would be regulated such that no significant effects as a result of cumulative impacts with these or any other developments are likely to have arisen.
- 11.13.8. I am satisfied that sufficient historic and contemporary information has been provided in each of the individual chapters and that the consideration of cumulative effects cited in the Boards previous reason for refusal under ABP Ref. SU0121 has been adequately addressed in the rEIAR.
- 11.13.9. Having regard to the above, I would agree with the conclusion reached in Chapter 13 of the rEIAR, that there were no significant effects from interactions between the historic quarrying and any associated activities and any of the environmental factors or as a result of cumulative impacts.

Conclusion: Direct and Indirect Effects

- 11.13.10. Having regard to the examination of environmental information provided in respect of the interactions between each factor, in particular in Chapter 13 of the rEIAR it is considered that the previous quarrying operations did not give rise to significant interactions between any of the various environmental topic areas.

11.14. The vulnerability of the proposed development to risks of major accidents and/or disasters

Issues Raised

11.14.1. No third-party submissions to this SC application were received and no issues were raised by prescribed bodies. The PA have not raised any issues and conditions recommended to be attached to a grant of SC are noted.

Examination of the rEIAR

Context

11.14.2. Chapter 2, Section 2.4 of the rEIAR addresses the vulnerability of the project to risks of major accidents and/or disasters relevant to the quarry development. Directive 2014/52/EU requires that the development is assessed in terms of vulnerability to the risks of major accidents and/or disasters which are relevant to the project.

Potential Effects

11.14.3. Potential risks of major accidents and/or disasters that are inherent to quarrying operations include; fire/explosion, unplanned outages or disruption to services, road traffic accidents resulting from HGV movements, contamination of groundwater/surface water, flooding and falling debris or the collapse of benches or quarry faces.

Mitigation

11.14.4. It is stated in the rEIAR that extraction activities at the site have been managed to ensure that the risk and vulnerability of the site and the surrounding infrastructure to major accidents and disaster has been minimised.

Residual Effects

11.14.5. In terms of national guidance, in January 2010 the then Department of Environment, Heritage and Local Government (DEHLG) produced 'Guidance Document 1, A Guide to Risk Assessment in Major Emergency Management' (DEHLG 2010 Guidelines). It is stated that during the assessment period of 1990 to the present day, activities at the site have not resulted in accidents or disasters that are deemed to be 'Major', therefore, there have been an *imperceptible* effect (including no effect) of the site activities on the surrounding environment in regard to major accidents and disasters.

Evaluation and Assessment: Direct and Indirect Effects

- 11.14.6. The single most significant impact of the development is that it consists of a quarry, and therefore, there has been movement of soils/subsoils and extraction of aggregate from the void area.
- 11.14.7. Having regard to the nature and scale of the past development which took place and the nature of the receiving environment, while unplanned events and accidents cannot be ruled out, these, if they occurred would have been dealt with in their own right outside of the planning process, including adherence to Health and Safety requirements and emergency response planning. Otherwise, within the meaning of the Directive, and considering the effects on the environment, the project is not of a nature which would have resulted in it generating a risk of major accidents and/or natural disasters and no such major accidents and/or natural disasters have been referenced, so it is reasonable to assume none have occurred as a result of the past quarrying activities.
- 11.14.8. I am satisfied that given the separation distances to other developments, which would be regulated such that no significant effects as a result of cumulative impacts with these or any other developments are likely to have arisen.
- 11.14.9. Having regard to the above, I would agree with the conclusion reached in Chapter 2 of the rEIAR that the previous quarrying operations did not give rise to significant effects of the site activities on the surrounding environment in regard to major accidents and disasters.

Conclusion: Direct and Indirect Effects

- 11.14.10. Having regard to the examination of environmental information provided in respect of the vulnerability of the proposed development to risks of major accidents and/or disasters, in particular in Chapter 2 of the rEIAR it is considered that the previous quarrying operations did not give rise to significant effects of the site activities on the surrounding environment in regard to major accidents and disasters.

11.15. Reasoned Conclusion on the Significant Effects

- 11.15.1. Having regard to the examination of environmental information contained above, in particular to the rEIAR and supplementary information provided by the developer, and the submission from the Planning Authority, prescribed bodies in the course of the application, it is considered that the main significant direct and indirect effects of

the historic development on the environment, with the implementation of measures to avoid, prevent or reduce such effects are likely to have been as follows:

- **Land, Soils, and Geology:** The quarrying activities within the SC application site have resulted in a permanent loss of a geological resource and significant loss of land for agricultural purposes. However, such losses are not unacceptable, having regard to the primary function of the quarrying activities to extract the resource which itself brings benefits to the construction and agricultural sectors and would be imperceptible in size and scale when taken in context with the available agricultural lands in the area. Mitigation measures are stated to have included ensuring refuelling within a designated hardstand area, ensuring bunding of mobile fuel bowsers/tanks, and ensuring stockpiled overburden was made stable through establishing vegetation.
- **Material Assets, Cultural Heritage and the Landscape:** While the quarrying activities altered the local landscape resulting in significant impacts at a local level, given the partially enclosed nature of the site, which is reasonably well screened from views, the gradual (rather than abrupt) nature of changes to the landscape over time, and noting the purpose of the activity, and distance from the public road and adjoining dwellings such an impact is considered acceptable.
- **Ecology and Water:** The quarry development has resulted in significantly changed environment which has resulted in a different and diverse habitat and resultant ecology. Impacts on aquatic ecology, including the underlying locally important aquifer, through ground water containing sediment and/or hydrocarbons, with potential for degradation of habitats, species and water quality. Such impacts are stated to have been mitigated by adherence to good environmental management during the quarry operation and rewinding phases. The mitigation measures include the natural revegetation of the site, the carrying out of water monitoring quality within the SC site boundaries and refuelling within designated bunded areas, the retention of the lagoon feature and the proposals for planting to the northern part of the site. Nonetheless, having regard to all the information on file, there is no evidence that adverse impacts of this nature arose on the receiving environment.

12.0 Appropriate Assessment

12.1. Appropriate Assessment Stage 1-Screening

- 12.1.1. The project was subject to an Appropriate Assessment (AA) screening, and I have examined the Stage 1 screening report for Appropriate Assessment (incorrectly titled Stage 2 rNIS). Two European sites are deemed to be located within the zone of influence of the quarry site and are listed in Table 1 below.

Table 1:

European sites within the designated Zone of Influence and their Conservation Objectives

European Site	Conservation Objective(s)
Deputy's Pass Nature Reserve SAC (site code 000717) Located approx. 3.6km north east of the site.	To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Deputy's Pass Nature Reserve SAC.
Vale of Clara (Rathdrum Wood) SAC (site code 000733) Located approx. 3.8km north west of the site.	To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Vale of Clara (Rathdrum Wood) SAC.

- 12.1.2. I am satisfied that other European sites outside of this potential zone of influence can be discounted as having potential for significant effects on the basis of separation distance and the lack of any complete source-pathway-receptor connectivity. The substitute consent site is not located within any European site and, therefore, I am satisfied that no significant effects as a result of direct impacts as a result of the quarrying activities.
- 12.1.3. The superficial deposits in the vicinity of the site are not designated as an aquifer by the GSI with the closest gravel aquifer located c. 4.5km to the south-west (GSI, 2022). The GSI aquifer designation (GSI, 2022) for bedrock underlying the quarry site is classified as 'locally important' and Kilmacrea formation. The groundwater vulnerability across the site, as mapped by the Geological Survey of Ireland, is reported as both 'moderate' and 'high'. Areas where bedrock is exposed, e.g. lowest areas of the quarry floor, may be elevated to 'extreme' in vulnerability. It is stated in the application that the presence and thickness of soils is not known as there are no soils remaining. Soils mapped in the area include shallow, well drained, brown earth soils.

- 12.1.4. Ground water flow across the site can be inferred from topography and as stated by the applicants to be in a northerly to north-westerly direction. Therefore, given the nature of the area, and that soil stripping occurred on site in order to allow for the extraction of sand and gravel aggregates to occur, there is potential that the quarrying activities on site to have impacted upon the underlying groundwater regime. Therefore, groundwater hydrological connectivity from the quarry site to nearby European sites will be considered in greater detail.
- 12.1.5. The underlying rock which is grey and black slates and shales with occasional sandstone is sensitive to contamination through, faults and fissures that lie beneath the ground. It is stated in the application that flow in the bedrock is likely to be confined to bedding planes and that no faults are mapped through the site. There is potential for the existence of hydrological pathways between the SC quarry site and the two SAC European sites as identified in table 1 above, via groundwater. Qualifying interests within these SAC' s are not strictly water dependant or require that water levels are maintained to a high standard of ecological status.
- 12.1.6. Given the absence of bedrock/groundwater pathways potential groundwater source-pathway-receptor connection between the source and the receptors in this instance and the fact that the quarry site overlies a locally important aquifer which has a rating of '*moderate*' and '*high*' vulnerability, I am satisfied that the water quality within the two European sites was not potentially vulnerable to indirect adverse effects which had the potential to resulting in a deterioration in water quality within the SAC's. Therefore, I consider that the potential for significant adverse effects on water dependant habitats and species can be screened out. Given the nature of the quarrying activities that were conducted on site, other potential indirect impacts that would need to be considered include noise, vibration and dust and how they may have adversely impacted upon the QI's within the two SAC's.

Potential Impacts on identified European Sites

Table 2

Site 1:

Name of European Site, Designation, site code: Deputy's Pass Nature Reserve SAC, 000717

Summary of Key issues that could give rise to adverse effects.

• Water Quality and water dependant habitats • Noise, vibration and dust • Habitat/species degradation/loss Conservation Objective: To maintain the favourable conservation status of within the Deputy's Pass Nature Reserve SAC					
		Summary of Appropriate Assessment			
Qualifying Interest feature	Conservation Objectives Targets and attributes	Potential adverse effects	Mitigation Measures	In-combination effects	Can adverse effects on integrity be excluded?
Old sessile oak woods with Ilex and Blechnum in the British Isles	To maintain the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Deputy's Pass Nature Reserve SAC	Deterioration in water quality arising from sedimentation and release of hydrocarbons to groundwater arising from quarrying activities on site and potentially adversely impacting upon protected habitat	Storage of fuels within a designated hardstanding area.	No significant in combination adverse effects	Yes
Overall conclusion: Integrity test Following the implementation of mitigation, the operation of the quarrying activities did not adversely affect the integrity of this European site, and no reasonable doubt remains as to the absence of such effects.					

Table 3

Site 2:

Name of European Site, Designation, site code: Vale of Clara (Rathdrum Wood) SAC (site code 000733)

Summary of Key issues that could give rise to adverse effects.

- Water Quality and water dependant habitats
- Noise, vibration and dust
- Habitat/species degradation/loss

Conservation Objective: To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Vale of Clara (Rathdrum Wood) SAC

Summary of Appropriate Assessment					
Qualifying Interest feature	Conservation Objectives Targets and attributes	Potential adverse effects	Mitigation Measures	In-combination effects	Can adverse effects on integrity be excluded?
Old sessile oak woods with Ilex and Blechnum in the British Isles	To restore the favourable conservation condition of Old sessile oak woods with Ilex and Blechnum in the British Isles in Vale of Clara (Rathdrum Wood) SAC	Deterioration in water quality arising from sedimentation and release of hydrocarbons to groundwater arising from quarrying activities on site and potentially adversely impacting upon protected habitat	Storage of fuels within a designated hardstanding area.	No significant in combination adverse effects	Yes

Overall conclusion: Integrity test

Following the implementation of mitigation, the operation of the quarrying activities did not adversely affect the integrity of this European site, and no reasonable doubt remains as to the absence of such effects.

- 12.1.7. The conservation objectives for the two SAC's are to maintain or restore the favourable conservation condition of Annex 1 Habitats and Annex 2 species for which the SAC's have been selected. The key water dependent species and habitats of qualifying interest of these SAC's which could potentially be impacted by the existing quarry development are set out in the Tables 2, and 3 above. As the development is not located within any of the SAC's, there is no potential for direct impacts on the habitats and species of qualifying interest.
- 12.1.8. In combination effects have also been considered as part of this assessment. I have considered the effects of the development in the vicinity of the quarry site, which mainly comprises of one-off rural dwellings and agricultural development. However, with the incorporation of best practice quarrying methods, and the fact that many/all of these developments would have been subjected to their own individual Appropriate Assessments, Strategic Environmental Assessment and an Appropriate Assessment determination under the preparation of the Wicklow County Development Plans of 2016 and 2022, therefore, the cumulative environmental impact of development within the appeal site and within the adjacent lands have been considered, and deemed acceptable.
- 12.1.9. **Appropriate Assessment Stage 1- Screening Conclusion**

Potential for significant effects on the Deputy's Pass Nature Reserve SAC (site code 000717), and the Vale of Clara (Rathdrum Wood) SAC (site code 000733) noting the sites' conservation objectives can be screened out for the reasons outlined above. Accordingly, a Stage 2 Appropriate Assessment is not required to determine if the historic development was likely to have affected the integrity of these sites.

13.0 Recommendation

- 13.1. Having regard to the provisions of Section 177K(1A) and 177 K(1J) of the Planning and Development Act 2000, (as amended), which provides that the Board shall only grant for substitute consent where Appropriate Assessment is required and that it is satisfied that exceptional circumstances exist such that the Board considers it appropriate to permit the regularisation of development by permitting an application for substitute consent, I am satisfied that such exceptional circumstances exist in this case, and therefore recommend that substitute consent be permitted.

14.0 Reasons and Considerations

Having regard to the following:

- (a) the provisions of the Planning and Development Acts, 2000, as amended, and in particular Part XA, and the provisions of the Planning and Development Regulations, 2001, as amended.
- (b) the Climate Action Plan 2024
- (c) the National Planning Framework (Project Ireland 2040)
- (d) the 'Quarries and Ancillary Activities, Guidelines for Planning Authorities', issued by the Department of the Environment, Heritage and Local Government, April 2004,
- (e) the Supplementary Guidelines for Planning Authorities, issued by the Department of the Environment, Heritage and Local Government, July 2012
- (f) the applicable national, regional and local planning policy provisions including the Wicklow County Development Plan 2022-2028,
- (g) the remedial Environmental Impact Assessment Report submitted with the application for substitute consent, and documentation on file generally,
- (h) the report and the opinion of the planning authority under section 177I of the Planning and Development Act 2000, as amended,
- (i) the submission received from prescribed bodies
- (j) the planning history of the site,
- (k) the pattern of development in the area,
- (l) the nature, scale, characteristics and location of the historic development, the subject of this application for substitute consent including in relation to potential significant effects on the environment and on the integrity of European sites in the area,

it is considered that notwithstanding the nature, scale and extent of the development, and to the acceptability of the environmental effects and noting that the integrity of European Sites were not adversely affected, in view of the sites' conservation objectives, as set out above, and subject to compliance with the conditions set out below, the Board is satisfied that to grant substitute consent for the development is therefore in accordance with the proper planning and sustainable development of the area.

15.0 Conditions

1. This grant of substitute consent shall be in accordance with the plans and particulars submitted to An Bord Pleanála on the 10th day of August 2022 and relates solely to the area as outlined in red on the drawings submitted with the application, except as may otherwise be required to comply with the following conditions.

Reason: In the interest of clarity and conservation of the environment.

2. A detailed plan for the revegetation and rewilding for the subject site, based solely on the extent of quarry extraction that has taken place to date, shall be submitted to, and agreed in writing with, the planning authority within six months of the date of this Order, unless, prior to that time, a planning permission has been granted for the further quarry development within the area covered by this grant of substitute consent.

Reason: In the interest of visual amenity and in order to enhance ecological value and to ensure public safety.

3. Unless permission is granted for the further quarry development within the area covered by this grant of substitute consent has been granted prior to that date, the developer shall lodge with the planning authority, within 12 months of the date of this Order, a cash deposit, a bond of an insurance company, or other security to secure the provision and satisfactory restoration/revegetation of the site, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory restoration/revegetation of any part of the development. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination.

Reason: To ensure the satisfactory restoration of the site.

4. A programme and timescale for ongoing monitoring of water quality shall be submitted to and agreed in writing with the Planning Authority. It shall include proposals for monitoring to be undertaken to establish a baseline and for the

period during the restoration/revegetation works. Reports on the findings should be submitted to the Planning Authority.

Reason: To ensure protection of water quality.

5. 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 within 6 months of the date of this permission or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer, or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme.

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

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.

Susan McHugh
Senior Planning Inspector

26th February 2025

Appendix 2.

Screening for Appropriate Assessment Screening Determination

Step 1: Description of the project

I have considered the quarry development in light of the requirements of S177U of the Planning and Development Act 2000 as amended. A remedial Natura Impact Statement (rNIS) (August 2022) was submitted with the SC application and prepared by WSP Ireland Consulting Ltd. In addition, the application is supported by the following documentation.

- Remedial Environmental Impact Assessment (rEIA) (and appendices which included a Hydrogeological Risk Assessment Report.

These documents have been prepared on behalf of the Applicant and the objective information presented informs the screening determination.

The SC site has a stated area of 23.7ha and is located within the townland of Ballinabarny North and Bolagh Lower, Co. Wicklow. I have provided a detailed description of the site location and its surrounding context in section 2 of my report, while the development is described in section 3.

In summary the development seeks Substitute Consent for the development of a sand and gravel quarry on the subject site. The annual tonnage rate of extraction of sand and gravel during the period of development was on average 50,000 tons per annum over a 32-year period. In terms of the operational phase of the quarry it is stated that the extraction has taken place below the water table during quarrying activities in the northwest corner of the quarry and that while dewatering was required this was predominantly pre-2008.

The nearest designated site Deputy's Pass Nature Reserve SAC (Site Code 000717) is located c. 3.6km to the northwest of the SC site. SAC's and SPA's within the potential zone of influence (Zol) have been identified within the Applicant's Screening Report which indicated that there are two (2) no. SAC's within the development's Zol.

I note on previous applications on the site the PA and the Board screened out the need for AA.

European site (SAC)	Site code	Distance to subject site	Connections (source, pathway, receptor)	Considered further in Screening (Y/N)
Deputy's Pass Nature Reserve SAC	000717	3.6km	No potential connections	N
Vale of Clara (Rathdrum Wood) SAC	000733	3.8km	No potential connections	N

In the case of the Deputy's Pass Nature Reserve SAC and Vale of Clara (Rathdrum Wood) SAC, there are no direct hydrological pathways from the SC

development to the European Sites. In addition, the intervening distances between the subject site and the SAC's are sufficient to exclude the possibility of significant the European Sites arising from;

- emissions of noise, dust, pollutants and/or vibrations emitted from the site during the construction and operational phases;
- increased traffic volumes during the construction and operational phase and associated emissions;
- potential increased lighting emitted from the site during construction and operational phase; and
- increased human presence at the site during construction and operational phase.

Therefore, it is considered that the construction and operation of the SC quarry development will not impact on the conservation interests of the Designated Sites and no potential impacts are foreseen.

Step 2: Potential impact mechanisms from the project

I have considered direct impacts such as wastewater discharge, habitat loss or deterioration, and species disturbance or mortality.

I have also considered indirect impacts and effect mechanism via

- hydrocarbon/ construction related) from construction works resulting in changes to environmental conditions such as water quality/ habitat degradation.
- Ground water pollution/ alteration of flows- effects on groundwater dependent habitats.

Given the lack of hydrological connectivity and separation distances to Designated Sites it is considered that the SC quarry was unlikely to generate direct or indirect impacts which uncontrolled might have represented a risk to the achievement of the conservation objectives of the European Sites.

Step 3 & 4: European Sites at risk from impacts of the SC quarry and likely significant effects on the

Natura 2000 Site	Source Pathway Receptor	Impact Assessment	Screening Conclusion
Deputy's Pass Nature Reserve SAC (site code 000717)	There is no hydrological connectivity between the subject site and this SAC during the construction and operational phase of the development.	In the context of -Habitat / Species Fragmentation, -Changes in Water Quality and Resource Disturbance and / or -Displacement of Species there will be no direct habitat loss within any European sites, I am satisfied that no habitat fragmentation will arise	The possibility may be excluded that the proposed development could have had a significant effect on the SAC. AA is therefore not required.

		as a result of the SC quarry development.	
Vale of Clara (Rathdrum Wood) SAC (site code 000733)	There is no hydrological connectivity between the subject site and this SAC during the construction and operational phase of the development.	In the context of -Habitat / Species Fragmentation, -Changes in Water Quality and Resource Disturbance and / or -Displacement of Species there will be no direct habitat loss within any European sites, I am satisfied that no habitat fragmentation will arise as a result of the SC quarry development.	The possibility may be excluded that the proposed development could have had a significant effect on the SAC. AA is therefore not required.

I conclude that the SC quarry development would have had no likely significant effect 'alone' on any qualifying feature(s) of Deputy's Pass Nature reserve SAC or Vale of Clara (Rathdrum Wood) SAC, further AA screening in-combination with other plans and projects is required.

Step 5: Likely significant effects on the European site(s) 'in-combination with other plans and projects'

It is considered that as there are no relevant plans and projects which have the potential to act in combination with the subject project, that there are no residual impacts that could impact in combination, it can therefore, be concluded that no in-combination issues arise.

I conclude that the proposed development would have had no likely significant effect in combination with other plans and projects on the qualifying features of any European site(s). No further assessment is required for the project.

Overall Conclusion- Screening Determination

In accordance with Section 177U(4) of the Planning and Development Act 2000 (as amended) and on the basis of objective information

I conclude that that the proposed development would have had no likely significant effect on any European Site either alone or in combination with other plans or projects. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is not required.

This conclusion is based on:

- Objective information presented in the Screening Report
- The limited zone of influence of potential impacts, restricted to the immediate vicinity of the proposed development.

- Standard pollution controls that would have been employed regardless of proximity to a European site and effectiveness of same
- Distance from European Sites,
- The absence of meaningful pathway to any European site
- Impacts predicted would not affect the conservation objectives.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.