



Further Information Response (P. Ref. 24/60545)

Proposed Sand & Gravel Pit Extension, Mounthall & Cummer townlands, Camross, Co. Laois

Breedon Materials Limited (trading as Breedon Ireland)

Client Address

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Basis of Report

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Appendix B L1031 Structural Evaluation & Pavement Investigation: (FWD) Level 2

Report

Appendix C L1031 Pavement Surface Condition Survey Report **Appendix D** Programme of Inspection and Maintenance/Repairs

Appendix E Delour Bridge: Principal Inspection Report

Appendix F Kileen River Bridge: Principal Inspection Report

Appendix G Stage 1 & 2 (Combined) Road Safety Audit

Appendix H Archaeological Testing Report & Summary Findings

Appendix I Biodiversity Survey Methodology & Results

Appendix J Environmental Management System

Appendix K Response to 38 Third Party Submissions



Introduction

By letter dated 13th November 2024, Laois County Council requested further information in respect of the development proposed under planning application ref. 24/60545. We hereby submit our response to the further information request, with responses provided in the same order as they were requested in the further information letter.

The overall further information response has been prepared by SLR Consulting; with related Traffic and Transportation items addressed by PMCE Consulting, Roughan & O'Donovan (ROD) Consulting Engineers and Pavement Management Services (PMS) Ltd.; and Cultural Heritage by Dr. Charles Mount.

The information contained in this Further Information response does not introduce any new proposals or change any assessment outcomes or mitigation/monitoring required. It also does not introduce any change to the assessment of interactions of the EIAR, and there is no change to the information submitted in the Non-Technical Summary of the EIAR.

1.0 Item 1 (a) EIAR: Proposed Development (Chapter 2)

1.1 Item 1 (a) (i) and (ii): Phasing

i. Phasing - The Planning Authority requests that the applicant amends the proposed phasing plan, to ensure the proposed screening berms and acoustic fencing are constructed and installed prior to the extraction of any materials from the site.

ii. An additional plan is also required to show how Phase 1 will be accessed, as it appears that access through Phase 3 would be required. If so, details shall be submitted, and the proposed mitigation and phasing plan may need to be revised.

A revised phasing plan and description of proposed works shall be submitted.

Response

With respect to **Item 1(a)(i)**, an updated proposed phasing plan has been prepared and is presented in **Drawing FI-1**, enclosed. The phasing on the drawing remains the same but has been amended to ensure that the proposed screening berms and acoustic fencing are constructed and installed prior to the extraction of any materials from the site. The updated phasing plan clarifies this sequencing of events ensuring the following:

- 1. The 3m high acoustic fencing will be installed first, prior to construction of the screening berm on the inner side of the acoustic fence.
- 2. Stripped soil materials will then be used to construct the 2m high screening berm.
- 3. Only following installation of the acoustic fencing and construction of the screening berm will sand and gravel extraction operations commence.

Note: acoustic fencing and screening berm construction will be carried out adjacent to R1 (north) and R2 / R3 (east) prior to any sand and gravel extraction operations commencing.

With respect to **Item 1(a)(ii)** (regarding how Phase 1 will be accessed), this is now clarified in **Drawing FI-1**, which shows that the proposed access route into Phase 1 will be via the existing sand & gravel pit. From the existing pit floor, HGV traffic will traverse around the west / southwest periphery of Phase 3 for a distance of c. 215m before entering the pit floor in Phase 1.



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1.2 Item 1 (a) (iii): Screening Berm / Acoustic Fencing

iii. The description of development refers that the fencing would be 2-3m in height. However, the example of fencing shown in Appendix 2-A of the EIAR refers that the height could be between 2m to 4m.

The applicant is requested to confirm the precise height of the fencing proposed. The applicant shall also submit a revised site layout plan showing the location and height(s) of the acoustic fencing proposed.

Response

Appendix 2-A of the EIAR provided an example of the typical fencing proposed to be installed to indicate the typical type and finish to the fencing.

The proposed acoustic fencing will be 3m in height as previously shown in cross sections B-B' and C-C' on Planning Drawing 7 and EIAR Figure 2-4.

Drawing FI-1 confirms the height of the fencing to be 3m, along with indicating the 2 no. locations where the fencing will be installed: along the site boundary between residence R1 and the Phase 3 extraction area, and along the site boundary at residence R3.

2.0 Item 1 (b) EIAR: Alternatives (Chapter 3)

Section 3.31 of the EIAR states at the current time, there is no suitable alternative replacement sand and gravel location available to the applicant.

However, it is not clear if any other areas to quarry were considered, or if there are no alternatives.

The applicant shall confirm, and, where necessary amend Chapter 3 of the EIAR accordingly.

Response

The Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, at Section 4.12 notes that 'The Directive requires that information provided by the developer in an EIAR shall include a description of the reasonable alternatives studied by the developer. These are reasonable alternatives which are relevant to the project and its specific characteristics. The developer must also indicate the main reasons for the option chosen taking into account the effects of the project on the environment.'

Section 4.13 goes on to state 'Reasonable alternatives <u>may relate to matters such as project design, technology, location, size and scale</u>. The type of alternatives will depend on the nature of the project proposed and the characteristics of the receiving environment. For example, some projects may be site specific so the consideration of alternative sites may not be relevant. It is generally sufficient for the developer to provide a broad description of each main alternative studied and the key environmental issues associated with each.'

As outlined in Section 3.29 of the EIAR, aggregates can only be worked where they exist. The location of extractive developments is determined in the first place by the location of the mineral resources which are to be exploited and for that reason neither the national guidelines nor the County Development Plan have guidance to direct extractive developments with regard to particular locations. Secondly, one must identify a vendor / landowner who is willing to enter into an agreement with the developer with respect to mineral bearing lands.

The applicant previously operated a sand & gravel pit (Quarry Registration Ref. QY138) at Annagh townland near Coolrain, c. 5km south of the application site at Mounthall. The agreement relating to the applicant's use of the Coolrain sandpit came to an end in January



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2023. Since this time, the applicant has been actively seeking to identify a suitable alternative source of sand and gravel in this area and the lands at Mounthall were identified following an extensive search in the region. The lands at Mounthall represent a suitable alternative source location of sand and gravel for the applicant in the region.

The lands at Mounthall are the only alternative location available as a suitable replacement supply to the Coolrain site in terms of aggregate quality that can be utilised to service market demand in the area. It is generally considered preferable to allow applications for continuance of use and extensions to existing mineral workings in contrast to opening new quarries and pits at 'greenfield' sites. In this regard, the Mounthall site is considered more favourable than a greenfield site due to the history of sand and gravel extraction at this Section 261 registered site along with an established site entrance.

Aggregate Demand

The global demand for sand is increasing significantly, leading to shortages in many regions and Ireland is no exception. Ireland faces challenges with its permitted sand and gravel reserves. The Irish Concrete Federation has highlighted the importance of ensuring a steady supply of high-quality aggregates for construction. While Ireland has abundant natural resources, there is a need for sustainable management and planning to avoid shortages.

It is estimated that Ireland will need to produce an estimated 1.5 billion tonnes of aggregates to meet housing and infrastructure targets set down under the Government's Project Ireland 2040 plan, according to the Irish Concrete Federation¹ (ICF) in a major publication issued by them in October 2019.

"Essential Aggregates: Providing for Ireland's needs to 2040" is an industry led call for Government to ensure that Ireland's future supply of aggregates (crushed rock, sand and gravel) is planned, monitored and managed in a sustainable manner, to provide for Ireland's future infrastructure development.

The report identifies that demand for aggregates in Ireland at 12 tonnes per capita is twice the current EU average, due to Ireland's infrastructural deficit, dispersed pattern of settlement and resulting large road network. The Federation warns that scarcities of some aggregates are now emerging in the Eastern and Midland regions, due to natural shortages, a lack of forward planning and delays and other shortcomings in the planning process. The report also highlights that:

"Ireland has abundant natural reserves of high-quality aggregates, but their future accessibility must be planned for and protected by Government. A lack of future planning and priority in the planning process and delays in achieving prospective quarry planning permissions will result in future shortages in the supply of some types of construction aggregates in certain areas of the country. The future supply of aggregates needs to be prioritised and addressed in a planned manner if we are to reach the ambitious construction targets as laid out in Project Ireland 2040".

-



¹ Breedon is a member of the ICF

3.0 Item 1 (c) EIAR: Population & Human Health (Chapter 4)

3.1 Item 1 (c) (i): Extraction Works

The Planning Authority notes that the EIAR states that:

- a) The proposed extraction works are referred to as 40m east of the R1 receptor. However, it is to the west / south west of the receptor.
- b) The proposed extraction would be to the east of R3 residence. However, it will be west of R3

The applicant is requested to submit further information in response.

Response

EIAR Chapter 4, at paragraph 4.64 incorrectly states:

"R1 is 25m east of the application site, but is closest to the proposed extraction works, which will be 40m east of the receptor at the nearest point. R1 is the landowner's residence."

The above paragraph should state:

"R1 is 25m east of the application site, but is closest to the proposed extraction works, which will be 40m west / southwest of the receptor at the nearest point. R1 is the landowner's residence."

Also, within EIAR Chapter 4, the last sentence of paragraph 4.63 incorrectly states:

"... The closest proposed extraction works will be 100m east of R3 at the nearest point."

The last sentence should state:

"... The closest proposed extraction works will be 100m west of R3 at the nearest point."

3.2 Item 1 (c) (ii): Sensitive Residential Receptors

The Planning Authority notes that Chapter 4 refers that there are 21 no. sensitive residential receptors within 500m of the application site.

However, this contradicts with some other chapters, which refers to 20 no. sensitive receptors within 500m.

The applicant is requested to review and confirm, and, where necessary updating each respective chapter for consistency.

Response

A review of all EIAR chapters, the non-technical summary (NTS), planning report and Natura Impact Statement (NIS) was carried out to check and confirm the correct number of residences within 500m and 1km of the site boundary.

Table 3-1 below summarises the receptors located within 1km of the site and their distances from the red line application boundary. **Plate 3-1** (extract from EIAR Figure 4-2) below shows the receptor (residence) locations plotted at a scale of 1:10,000. Owing to the scale of the mapping and the annotation of the receptor number being a size that is legible to the reader, R21 is showing overlaying the 500m off-set distance boundary, even though it lies just outside the 500m radius at a distance of 505m. It is for this reason it is included in the count of residences within 500m.



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Reference is consistently made to c. 21 receptors within 500m and a further 29 receptors - R. V. E. D. O. 7. O. 5. 2025 between 500m – 1km of the site boundary in:

- EIAR Chapter 1 Introduction;
- EIAR Chapter 4 Population and Human Health;
- EIAR Chapter 8 Air Quality;
- EIAR Chapter 10 Noise & Vibration;
- EIAR Chapter 11 Material Assets;
- Non Technical Summary (NTS); and
- Planning Report.

Within the Noise & Vibration chapter, Table 10-1 outlines 20 no. receptors within 500m which were included as part of the impact assessment.

Within the Air Quality chapter, Table 8-6 highlights 21 no. receptors that were included in the impact assessment; 20 no. of which are within 500m, along with R21 at a distance of 505m was included. Footnote 14 on page 8-18 noted this by stating "Residence R21 which lies just outside the 500m radius is included in the assessment".

Table 3-1: Receptor distances used in EIAR assessment

Receptor Reference	Distance From Red Line Site Boundary (m)
R1	25 (E)
R2	25 (E)
R3	5 (E)
R4	205 (E)
R5	235 (S)
R6	245 (SW)
R7	300 (S)
R8	385 (SW)
R9	475 (SW)
R10	345 (W)
R11	275 (NE)
R12	305 (NE)
R13	350 (NE)
R14	395 (NE)
R15	305 (E)
R16	330 (E)
R17	350 (E)
R18	400 (E)
R19	415 (E)
R20	450 (E)
R21	505 (E)
R22	540 (E)
R23	625 (E)



Receptor Reference	Distance From Red Line Site Boundary
R24	685 (E) 685 (SE)
R25	685 (SE)
R26	585 (SE)
R27	710 (S)
R28	550 (SW)
R29	750 (SW)
R30	645 (N)
R31	740 (N)
R32	540 (NE)
R33	545 (NE)
R34	600 (NE)
R35	650 (NE)
R36	795 (E)
R37	940 (E)
R38	955 (E)
R39	770 (SE)
R40	870 (SE)
R41	845 (SE)
R42	785 (SE)
R43	975 (S)
R44	870 (SW)
R45	805 (SW)
R46	815 (SW)
R47	820 (SW)
R48	825 (SW)
R49	870 (SW)
R50	915 (N)



4.0 Item 1(d) EIAR: Biodiversity (Chapter 5)

4.1 Item 1(d) (i): Competencies

There is no reference to the competencies of Hugo Brooks or Alice Magee who undertook the Hen Harrier and Bat Activity Surveys. Details shall be submitted to demonstrate competency.

Response

Alice Magee Senior Field Ecologist MSc, BSc (Hons)

Alice is a Senior Field Ecologist who joined SLR in April 2022. She was awarded a BSc degree in Zoology from University College Dublin in 2019 and a MSc in Ecological Management and Conservation Biology from Queen's University, Belfast in 2021. Since joining SLR, Alice's field experience has included a range of bird surveys for onshore wind farms, intertidal bird surveys for offshore wind farms, bat surveys and ecological walkover surveys. Alice has also prepared bird survey reports and contributed to desk studies for wind farm projects.

Alice previously completed a work placement with Fieldfare Ecology during the summer of 2021 as part of her postgraduate degree. Her work placement project title was "Assessing woodland succession and changes to grassland habitat at Slievenacloy". Her undergraduate thesis was titled "Linking behavioural traits collected at capture with the personality of fallow deer fawns during their first year of life".

Hugo Brooks Project Ecologist BSc

Hugo is a project ecologist who joined SLR in January 2023. He graduated with a degree in Zoology in 2021. Through his studies, Hugo learned many relevant skills for a career in ecology. Modules on environmental impact assessments gave him an important introduction to the profession. He also gained valuable experience in data collection, data analysis and



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report writing throughout his degree, especially during his final year thesis. This thesis was researching early investment in reproduction by yearling male fallow deer in the Phoenix Park, Co. Dublin.

During the summer of 2020, Hugo volunteered with Archelon: The Sea Turtle Protection Society of Greece. In Kyparissia Bay, Greece, Hugo performed morning and night beach surveys, recorded loggerhead turtle nests and hatchling tracks. Nest excavations were also performed and data on these nests recorded. This experience provided valuable experience of conducting fieldwork independently. Hugo's first professional role in ecology was as a temporary consultant ecologist with Scott Cawley Ltd. (March – October 2022). During this time, Hugo was exposed to a wide range of work. He gained important skills such as performing various kind of bat surveys and bat call analysis. He also performed breeding bird surveys in a range of habitats. He learned about data management and helped project managers with a range of desk tasks.

Since joining SLR, Hugo has worked on multiple renewable energy projects. He has carried out various bird surveys including vantage point bird surveys, breeding wader surveys, breeding raptor surveys, hen harrier surveys, swan and goose feeding/distribution surveys and intertidal surveys. Hugo has also gained experience in bat transect surveys, bat roost potential surveys and general walkover habitat surveys.

Hugo has written multiple bird survey reports for various onshore wind farm projects. Hugo's passion for wildlife continues to drive him to improve his skills as an ecologist. He volunteers for BirdWatch Ireland, participating in the nationwide wetland bird surveys.

4.2 Item 1 (d) (ii): Hen Harrier

The Planning Authority notes that the guidance set out in Hardey et al (2013) recommends four surveys for hen harriers. However, only two surveys have been completed to date.

- It is not clear how the proposed mitigation will result in the impact to the SPA hen harrier population would be minor in the significance of residual effects.
- Table 5-27 refers to the presence of breeding hen harrier which are likely located beyond the 750 buffer recommended. However, as all 4 no. surveys have not been completed, this brings into scientific doubt the basis of this conclusion

Further assessments of the hen harrier, and a more robust mitigation strategy should be proposed by the applicant.

Therefore, an additional 2 no. surveys are considered necessary.

Response

Whilst two additional hen harrier surveys were requested by the planning authority, <u>four additional</u> hen harrier surveys were conducted by SLR Senior Ecologist Jake Matthews², following the guidance set out in *Raptors: A field guide for surveys and* monitoring (Hardey et al., 2013)³ and *Irish hen harrier winter survey – Survey guide* (O'Donoghue, 2019)⁴. Each survey started 40 minutes before sunrise and ended after 1.5 hours and were carried out using binoculars and scope.

^{*} O'Donoghue (2019). Irish hen harrier winter survey – Survey guide. Available online: http://www.ihhws.ie/IHHWS_Guide.pdf. Accessed: April 2025.



² Qualifications and competencies provided in Appendix I

Hardey, J., Crick, H., Wernham, C., Riley, H., Etheridge, B. & Thompson, D. (2013). Raptors: a field guide to survey and monitoring (3rd Edition). The Stationery Office, Edinburgh.
 O'Donoghue (2019). Irish hen harrier winter survey – Survey guide. Available online: http://www.ihhws.ie/IHHWS_Guide.pdf.

The additional hen harrier surveys were conducted on the following dates (refer to Table 13-2 in **Appendix I** for further details):

- 22/01/2025;
- 12/02/2025:
- 04/03/2025; and
- 18/03/2025.

ENED. OTOS ROSS Following the completion of the four additional hen harrier surveys, a total of six hen harrier surveys have been conducted on the site during 2024 and 2025 specifically relating to this application process. The surveys were conducted from ITM coordinates X 626704 Y 698161. Given that the aim of the surveys was to determine the presence / likely absence of hen harrier on the site and the immediate surrounding area, it was considered appropriate to survey from this single vantage point. This location was chosen due to it comprising a high point, located centrally on the site with a good view of all aspects and following extensive pre-survey reconnaissance was deemed to be the best vantage point from which to conduct the surveys.

Significantly, no hen harriers were recorded on any of the four additional surveys. The number of surveys conducted on the site have exceeded the minimum required as stated in the guidance and as stated previously, no hen harrier activity was recorded on the site during these four additional surveys.

Throughout the six surveys which were undertaken during 2024 and 2025, just one survey recorded any hen harrier activity. Additionally, this activity was brief and minimal comprising only one hen harrier which was recorded flying in a south-westerly direction north of the site boundary (as detailed in the EIAR Biodiversity chapter). This hen harrier was passing the site and was not recorded foraging on any part of the site.

It is therefore concluded that the site does not support roosting hen harrier and at best, may only provide foraging value to this species given that the site is located adjacent to the Slieve Bloom Mountains SPA, which is designated for hen harrier and the Core Foraging Zone (CFZ) for hen harrier is 2km, with a maximum range of 10km (SNH, 2016)⁵. It should be noted that the CFZ extent in the Slieve Bloom Mountains SPZ is a theoretically applied zone over a geographical area. Site specific data such as the hen harrier surveys which were undertaken are required to confirm whether a particular site does in fact comprise a foraging zone. However, throughout all six hen harrier surveys, no hen harrier has been recorded using the site for foraging purposes. Furthermore, it can be reasonably assessed that hen harrier are located beyond the 750m recommended buffer stated in Table 5-27 of the EIAR.

The mitigation strategy for the proposed development has been updated in Table 4-1 below based on the findings of the additional hen harrier surveys.

4.2.1 Mitigation

Table 4-1: Proposed Mitigation Strategy

Previous mitigation measures detailed in the EIAR	Response
No SPA-related habitats will be lost through the proposed development.	Additional mitigation No part of the proposed development intersects or is located within the Slieve Bloom SPA.

⁵ Scottish Natural Heritage (2016). Assessing connectivity with Special Protection Areas (SPAs). Available online: Accessed: April 2025.



Previous mitigation measures detailed in the EIAR	Response
	Retained habitats bordering the site, including those habitats comprising the slieve Bloom Mountains SPA will be fenced off using appropriate fencing to avoid accidental harm or removal.
	Moreover, native tree planting will be created within the application site (refer to Figure 2-5 and 2-6 of the EIAR), creating additional suitable habitat for hen harrier prey species.
	Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard.
	The mitigation will effectively protect SPA habitats, as well as retained habitats that will support important prey for hen harrier. Therefore, no habitat directly designated for hen harrier will be lost as a result of the proposed development.
Hen harrier will use mainly heath habitat for breeding (Hardey et al., 2013). Heath spatial data was downloaded from the NPWS website (NPWS, 2019c), which was 200m at the closest point. However, this was located by a nearby active farm and is considered unlikely to be used by breeding hen harrier. Most of the heath habitat that is located in upland areas of the SPA, and more likely to be used by breeding hen harriers is located beyond 750 m from the site, and beyond the 300 – 750m buffer zones that is recommended by NatureScot (Goodship and Furness, 2022).	Additional surveys have proven that hen harrier do not use the site or the immediate surrounding area. As such, the mitigation detailed in the EIAR is valid.
Suitable habitat for prey species for hen harrier will be retained, enhanced and created in the long-term through native tree planting, hedgerow planting, and natural regeneration of areas (see Figure 2-6).	There will be a reduction of suitable habitat for potential prey species for hen harrier (e.g., passerine bird assemblage) during the construction and operational phases. This will cause a reduction in potential prey species abundance on the site and may affect hen harrier for the duration of these phases. However, abundant areas of foraging habitat remain for hen harriers and no hen harriers were recorded foraging on the site throughout any of the surveys undertaken. Therefore, the site's importance as a foraging area for hen harrier has been confirmed as low. In addition, retained habitats (the extent of which are shown on Figure 2-5 and further detailed in the EIAR — Biodiversity and Landagane shouters) will continue to support
	Landscape chapters) will continue to support a reduced abundance of the passerine assemblages recorded during the breeding bird surveys, which will continue to contribute to the number of prey available to hen harrier



in the local area.

Previous mitigation measures detailed in the EIAR	Response
	In summary, the reduction in potential prey for hen harriers will be limited to the construction and operational phases only. This reduction in potential prey will have low impact on hen harrier as the site is confirmed as having low importance to foraging hen harriers given that no foraging activity recorded on the site or its immediate surroundings across the six hen harrier surveys. Breedon Ireland will ensure additional mitigation specific to the hen harrier is
	incorporated into the company environmental management system which is accredited to ISO 14001 standard.
	This mitigation is certain to occur and it is near certain that these retained habitats will continue to support bird species (and potential prey for hen harrier should it start foraging at the site in future) throughout the duration of the construction and operational phases.
	Additional mitigation
	All initial vegetation clearance will be undertaken outside the hen harrier breeding season. Whilst hen harrier have been confirmed as not using the site for either breeding purposes or foraging purposes, they do use the nearby Slieve Bloom Mountains SPA for breeding. This mitigation will enhance further the robustness of the protective measures being implemented by ensuring the likelihood of disturbance to the hen harrier is reduced further from its already very low likelihood. Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard.
	This mitigation is certain to occur, as vegetation clearance will be undertaken outside the breeding bird season to avoid impacts to other nesting birds and is near certain to minimise any potential noise and disturbance impacts to hen harrier during the sensitive breeding period.
The Site will be restored to its current agricultural land use following completion of operation phase. This will provide habitats for prey species of hen harrier and will allow the species to use the Site for foraging purposes.	Following the completion of the operational phase, the site will be returned to agricultural use and new grassland, scrub and hedgerow habitats will be created. As such, in the long-term the site will support similar numbers of passerine birds and potential prey for hen harrier and in the long-term hen harrier will not be affected significantly.
	In addition the site has been confirmed as being low importance to foraging hen harriers given that no foraging activity recorded on the



Previous mitigation measures detailed in the EIAR	Response
	site or its immediate surroundings throughout the six hen harrier surveys.
	Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard.
	This mitigation is certain to occur and it is near certain that these created habitats will continue to support bird species (and potential prey for hen harrier) at similar levels to the baseline.
Relevant mitigation relating to noise have been provided in the are provided in EIAR Chapter 10 – Noise and are detailed further above. Such measures include: The implementation of a construction noise and vibration management plan. This will: Outline management processes and mitigation measures to be utilised to remove or reduce significant noise impacts from the construction works; Define noise and vibration monitoring and	The mitigation measures provided for noise impacts will reduce predicted noise levels to the minimum levels feasible for the duration of the construction and operational phases – and additionally to levels that will not create impacts on the hen harrier. Noise levels may be significant only within the site and the immediate surrounding area during these phases. Screening berms and vegetation planting will further ensure that any noise created is retained within the site and prevented from reaching more sensitive habitats, such as those within the Slieve
reporting; Include method statements for each phase of the works including associated specific measures to minimise noise and vibration in so far as is reasonably practicable for the specific works covered by each plan and a detailed appraisal of the resultant construction noise and vibration generated.	Bloom Mountains SPA. Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard. This mitigation is certain to occur and is highly likely to limit noise levels created on the site
 Screening berms, vegetation planting and acoustic fencing will be constructed along the boundary of the extension area prior to commencement of extraction activities and will act as acoustic barriers. Screening berms will be inspected on a regular basis and maintained as necessary. 	from reaching the sensitive areas within the Slieve Bloom Mountains SPA and affecting hen harrier through disturbance. As such, noise impacts are unlikely to cause a disturbance to hen harrier.
Plant & Traffic	The mitigation provided will limit noise and

Plant & Traffic

- All mobile plant used at the development will have noise emission levels that comply with the limiting levels defined in EC Directive 86/662/EEC and any subsequent amendments.
- All plant items will be properly and regularly maintained and operated according to the manufacturers' recommendations, in such a manner as to avoid causing excessive noise (i.e., all moving parts are kept well lubricated, all cutting edges are kept sharpened, the integrity of silencers and acoustic hoods are maintained)
- All plant will be fitted with effective exhaust silencers which are maintained in good working order to meet manufacturers' noise rating levels.

The mitigation provided will limit noise and disturbance impacts that would be caused by plant and traffic during the construction and operational phases of the development.

Vehicle movements and activity will be limited during the early morning and evening when hen harrier foraging peaks. This will limit any potential disturbance to hen harrier foraging near the site.

Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard.



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Previous mitigation measures detailed in the EIAR

Any defective silencers will be replaced immediately.

- Any deliveries to the site will be programmed to arrive during daytime hours only;
- Care will be taken when unloading vehicles to reduce or minimise potential noise disturbance to residents:
- Access / internal haul roads will be kept clean and maintained in a good state of repair, i.e., any potholes are filled, and large bumps removed, to avoid unwanted rattle and "body-slap" from heavy goods vehicles;
- Vehicles waiting within the site will be prohibited from leaving their engines running and there will be no unnecessary revving of engines.
- Experience from other sites has shown that by implementing these measures, ambient noise levels from site activities and operations can be reduced by up to 5 dB(A).

Response

This mitigation is certain to occur and is near certain to reduce noise levels to limits that are unlikely to cause disturbance during the most sensitive foraging times for hen harrier.

Air quality

Relevant mitigation relating to air quality have been provided in the are provided in EIAR Chapter 8 - Air and are detailed as follows:

- Minimise drop heights when handling materials by excavators / HGV loading.
- Minimise length of on-haul routes.
- Use of mist cannon / sprinklers / water bowser to dampen haul routes and stockpiles.
- Restrict vehicle speeds to less than 20kph. Install signage and undertake staff training.
- Routing of traffic and away from any surrounding sensitive receptors.
- Use of road sweeper to reduce the amount of material available for re-suspension.
- Travel over paved surfaces / access road.
- Direct all HGVs through wheel wash facility.
- Locate stockpiles to take advantage of any available shelter from wind.
- Limit mechanical disturbance of materials more likely to become airborne and/or time operations having regard to expected weather conditions.
- Air quality will be regularly measured throughout the operational phase.

The mitigation provided is certain to occur and will limit the impacts of dust creation during the construction and operational phases of the development.

Breedon Ireland will ensure additional mitigation specific to the hen harrier is incorporated into the company environmental management system which is accredited to ISO 14001 standard.

These are industry standard approaches to minimise the impacts to air quality and as such, no significant residual effects will occur to hen harrier from this impact.

4.3 Item 1 (d) (iii): Salmonids

Table 5-27 of the EIAR states that it is anticipated that the salmonids breed upstream of the Site's location as salmonids breed in upstream gravel beds. However, the reference to "anticipated" is not clear. The survey should identify the presence or salmonids or not, and an assessment should be undertaken thereafter on that basis. This requires clarification.



The Planning Authority notes that the significance of residual effects to salmonids is assessed to be minor and short-term and not significant. However, as the construction and operational phase is 10 years, the Planning Authority would question how the conclusion reached is that

the residual effect is minor, short term and not significant. This requires clarification and

submission of further information.

Response

The aquatic survey confirmed the presence of Atlantic salmon Salmo salar in the Kileen River (subsites B1 – B3), with a relative abundance of moderate to high. Atlantic salmon were found to be absent from the unnamed stream (subsites A1 – A3), located to the south of the site (refer to **Figure A** in **Appendix I** for the subsite and river locations). However, both streams are hydrologically connected downstream and therefore, the possibility for Atlantic salmon to become present at subsites A1 – A3 in future does exist.

The Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022)⁶ details the duration of effects and are detailed in **Table 4-2**.

Table 4-2: EPA Guidance on the Duration of Effects

Criteria	Duration	
Momentary	Effects lasting from seconds to minutes	
Brief	Effects lasting less than a day	
Temporary	Effects lasting less than a year	
Short-term	Effects lasting one to seven years	
Medium-term	Effects lasting seven to fifteen years	
Long-term	Effects lasting fifteen to sixty years	
Permanent	Effects lasting over sixty years	

The operational phase for the proposed development is 10 years. As such, the effects arising from dust, sediments or accidental spillages of hydrocarbons entering the nearby watercourses have been revised to be medium-term (i.e., seven to fifteen years) as they may occur throughout the lifetime of the construction and operational phases.

The main threats to salmonids caused from the proposed development are from sediments and/or hydrocarbons entering the nearby Kileen River (via the unnamed stream located immediately south of the site) through surface run-off; and dust entering the river catchment.

The EIAR – Water (Hydrology & Hydrogeology) chapter concluded that there will be no significant residual impacts with respect to groundwater and surface water during any phase of the proposed development. Moreover, there may be a 'slight positive' residual effect caused through the removal of livestock that currently poach the stream to the south of the site. As such, there will be no significant risk of sediments or hydrocarbons reaching the stream and impacting salmonids near the site and downstream. This chapter also presents the following mitigation and monitoring measures will be carried out to demonstrate that the development is not having an adverse impact on the surrounding environment and will document any improvements in water quality and does not affect the sensitive sub-catchment and salmonids.

⁶ Environmental Protection Agency (2022). Guidelines on the information to be contained in Environmental Impact Assessment Reports. Available online: https://www.epa.ie/publications/monitoring-assessment/assessment/EIAR Guidelines 2022 Web.pdf. Accessed: April 2025.

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4.3.1 Mitigation measures

- Rain falling across hardstanding areas will percolate downwards and recharge to the underlying sand and gravel. There will be little or no surface water run-off or overground flow across the site;
- There will be no off-site discharge from the proposed development to any surface watercourse in the locality;
- Outside of impermeable surface areas at the site, all surface water percolates naturally
 to the ground;
- No re-fuelling (or servicing) of excavation plant will occur at extraction areas.
 Refuelling will take place adjacent to the bunded fuel storage area on a concrete pad with associated hydrocarbon interceptor attached;
- Fuel and oils will be stored in bunded fuel tanks, which will be covered and enclosed
 to prevent the build-up of potentially contaminated water within the bund arising from
 rainfall. A build-up of rainwater in the bund could also reduce the holding capacity of
 the bund. The bund capacity will be in excess of 110% of the combined volume of the
 tank(s);
- Final floor levels at the proposed pit excavations will be maintained above the underlying (seasonal maximum) groundwater level and any rain falling across the pit will percolate naturally through unsaturated ground to the underlying shallow groundwater in the superficial deposits;
- A number of spill kits will be available on-site to stop the migration of any minor accidental leakages or spillages should they arise;
- The incidence of fugitive dust outside of the operation will be reduced by the proposal to locate mobile crushing and screening plant within the pit void;
- In order to control dust emissions, water will be sprayed from a tractor drawn bowser on dry exposed surfaces and stockpiles (paved roads, unsealed haul roads and hardstand areas) as required;
- Areas of bare or exposed soils will, insofar as practicable, be kept to a minimum during the extraction operations;
- All HGVs exiting the site will be routed through the proposed wheelwash. This will
 minimise the transport of fines by HGVs over the access / egress road and the public
 road network; and
- Periodic sweeping of the internal paved site access road and surrounding public roads will be carried out as required by a mechanical road sweeper.

4.3.2 Monitoring Measures

- Surface water quality monitoring to be undertaken on a quarterly basis for the duration of the proposed development. Improvements in surface water quality are expected at location SW2 in particular;
- Groundwater levels in all boreholes will be monitored on a quarterly basis for the duration of the proposed development;
- Groundwater loggers installed in the five selected boreholes will continue to provide for continuous groundwater level monitoring and logger downloads will be undertaken on a quarterly basis for the duration of the proposed development; and
- Groundwater quality monitoring to be undertaken on an annual basis for the duration of the proposed development.



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Following the implementation of the above mitigation and monitoring measures, the residual effects of the proposed development on the Kileen River catchment and to salmonids as a result will not be significant.

The EIAR - Air Quality chapter concluded that there will be no significant residual effects following the implementation of mitigation measures at the source of potential air pollution sources. This mitigation measures relating to air quality are provided in **Table 4-3**.

Table 4-3: Particulate Emission Mitigation Measures

(extracted from Table 8-15 of the EIAR - Air Quality chapter)

Source / Receptor	Emission Potential	Recommended Mitigation Measures	Effectiveness		
Excavators / HGV Loading	High – dry or fine material during strong windy weather		High		
	Low – material of high moisture content during conditions of low wind speed	Minimise drop heights when handling material. Protect from wind where possible.	High		
On-site	High when	Minimise length of on-site haul routes.	High		
Vehicles	travelling over unsurfaced and dry site roads.	Use of mist cannon / sprinklers / water bowser to dampen haul routes during dry weather periods.	High		
		Restrict vehicle speeds to less than 20kph. Install signage and undertake staff training.	High		
		Routing of traffic and away from any surrounding sensitive receptors.	High		
Road Vehicles	Low / Moderate on paved road surfaces	l	Moderate / High		
(transfer off- site)		Travel over paved surfaces / access road.	High		
/		Direct all HGVs through wheelwash facility	High		
Stockpiles	High when dry or fine material being stored or handled during strong windy weather	perimeter mounds and stockpiles of	High		
		Locate stockpiles to take advantage of any available shelter from wind.	High		
		Use of mist cannon / sprinklers / bowser to moisten materials during periods of dry and windy weather	High		
		Limit mechanical disturbance of materials more likely to become airborne and/or time operations having regard to expected weather conditions	High		
Moderate and Slight		Hardstanding areas/site roads, stockpiles with the potential to give rise to dust will be regularly watered as appropriate during dry	High		



With the implementation of the above mitigation measures at source, there is limited potential for dust to reach the Kileen River in significant quantities. Only very small quantities of dust is likely to enter the river habitat, and this will be quickly dispersed by the transient nature of this aquatic habitat. As such, there will be no significant residual effect to salmonids.

Provision of screening berms

4.4 Item 1 (d) (iv): Otters

Otters are listed on Annex II and IV of the Habitats Directive and afforded protection under the Wildlife Acts and subsequent amendments. The Planning Authority notes that Chapter 5 states that the Site itself was of negligible value for otters. However, as no otter-specific surveys were conducted on the Site, the Planning Authority question how this conclusion can be reached.

Therefore, the applicant is advised to undertake the necessary surveys within the optimal survey season.

Response

An otter survey was conducted on 22/01/2025 by SLR Senior Ecologist Jake Matthews and SLR Project Ecologist Anna Finnegan⁷ following the guidance set out in *Ecological surveying techniques for protected flora and fauna during the planning of national road schemes* (NRA 2008a)⁸ and *Guidelines for the treatment of otters prior to the construction of national road schemes* (NRA, 2008b)⁹ (refer **Appendix I** for survey metadata and surveyor experience and competencies).

The stream was surveyed 150m upstream and downstream of the site. No otter holts or couches were identified during the survey. In addition, a camera trap was deployed on the bank of the river between 12/02/2025 and 04/03/2025 at ITM coordinates E626947 N698004.

No otters or evidence of otters, including any potential holts or couches were recorded during the survey or monitoring. As such, it is assessed that no otter holts or couches are present within 150m of the site boundary.

It is therefore submitted that the assessment, mitigation, and residual effects detailed in the Biodiversity chapter of the EIAR are accurate.

⁹ National Roads Authority (2008b). Guidelines for the treatment of otters prior to the construction of national road schemes. Available online: https://www.tii.ie/media/wsmlbxmv/guidelines-for-the-treatment-of-otters-prior-to-the-construction-of-national-road-schemes.pdf. Accessed: April 2025.



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⁷ Qualifications and competencies provided in Appendix I

⁸ National Roads Authority (2008a). Ecological surveying techniques for protected flora and fauna during the planning of national road schemes. Available online: https://www.tii.ie/media/4nthqz3a/ecological-surveying-techniques-for-protected-flora-and-fauna-during-the-planning-of-national-road-schemes.pdf. Accessed April 2025.

4.5 **Item 1 (d) (v): Badgers**

The Planning Authority notes that the EIA states that One potential, disused outlier badger sett was identified within woodland on the site.

However, the Department of Housing, Local Government and Heritage (DHLGH) response states that upon a site inspection further badger setts were identified on the site boundary, and some are in frequent use. This requires further attention by the applicant. See below the full response from the DHLGH.

Response

Badger sett monitoring was undertaken following the guidance set out under *Ecological* surveying techniques for protected flora and fauna during the planning of national road schemes (NRA, 2008a) and Guidelines for the treatment of badgers prior to the construction of national road schemes (NRA 2008c)¹⁰.

In summary, five badger sett entrances and one Stoat/Fox den were recorded on site surveys conducted between 22/01/2025 and 18/03/2025 by SLR Senior Ecologist Jake Matthews, the locations are shown on **Drawing FI-2a**. None of the locations comprise a main sett confirming that badger breeding does not take place onsite. The badger setts identified onsite comprise only outlier setts.

Results

Monitoring of these sett entrances found the following:

- **Sett 1** was located at ITM coordinates E 626635, N 698146. It comprised a single entrance and was found to be disused (see **Appendix I** Photographs 1 and 2).
 - Therefore, Sett 1 was assessed to comprise a disused outlier sett.
- **Sett 2** was located at ITM coordinates E 626645 N 698126. It comprised a single entrance and was found to be active by a single badger (see **Appendix I** Photograph 3).
 - Therefore, Sett 2 was assessed to comprise an active outlier sett.
- **Sett 3** was located at ITM coordinates E 626591 N 698020. It comprised two entrances and was found to be active by a single badger (see **Appendix I** Photograph 5). In addition, a latrine was recorded in close proximity to this sett.
 - Therefore, Sett 3 was assessed to comprise an active outlier sett.
- **Sett 4** was located at ITM coordinates E 626629 N 698019. It comprised a single entrance and was found to be active by a single badger (see **Appendix I** Photograph 7).
 - Therefore, Sett 5 was assessed to comprise an active outlier sett.
- **Sett 5** was located at ITM coordinates E 626614 N 698026. It comprised a single entrance and was found to be active by a single badger (see **Appendix I** Photograph 8).
 - Therefore, Sett 5 was assessed to comprise an active outlier sett.
- Location 6 was located at ITM coordinates E 626660 N 698039. It comprised a single entrance; however, this appeared to be too narrow to comprise a badger sett (see

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National Roads Authority (2008c). Guidelines for the treatment of badgers prior to the construction of national road schemes. Available online: https://www.tii.ie/media/dv2dnea4/guidelines-for-the-treatment-of-badgers-prior-to-the-construction-of-a-national-road-scheme.pdf. Accessed: April 2025.

Appendix I Photograph 9). Monitoring found evidence of a badger investigating the entrance but did not enter the sett.

Therefore, Location 6 was discounted as being a badger sett at present and is most likely a disused fox den.

Assessment

The woodland / scrub habitat in which the five outlier setts were located was searched as thoroughly as possibly; four of which are actively used by badgers. None of these setts are considered main setts and furthermore, a main sett could not be found on the site. **Drawing**FI-2b shows the accessible route that was possible through this habitat.

The woodland / scrub habitat is to be lost under the current proposals, which would cause the destruction of the five confirmed badger setts. The unmitigated destruction of the four active setts may directly harm or kill badgers, which would cause an offence under the Wildlife Acts. The proposed development will also cause the loss of four active resting places for badgers and the loss of potential sett creating and foraging habitat. This is likely to cause a reduction in the local badger population for the duration of the construction and operational phases of the development.

Proposed Mitigation

All six locations, including the disused Sett 1, Four no. active setts, and Location 6 (which likely comprises a disused fox den), will undergo sett exclusion operations whereby one-way gates are positioned over all sett entrances. These gates will allow any badgers located inside a sett to exit the sett but will prevent any badgers from entering the sett.

Note that it may also be necessary to place mesh on the ground also to prevent the digging of new entrances.

Following the positioning of the one-way gates, a monitoring period of each sett for a minimum of 21 days will be undertaken by suitably qualified ecologists with the aim to monitor that no badgers re-enter the setts. There must be 21 consecutive days of no badger entry into a given sett before sett destruction can occur. Monitoring will comprise the use of trail cameras (for which, an NPWS licence would be required), and/or the use of sticks positioned over sett entrances.

Once the 21-day period has elapsed with no badgers entering a sett, it can be reasonably concluded that all badgers have vacated the sett and no badgers remain inside. Following which, the sett can be removed with no risk of harming badgers. Sett removal will be undertaken under the supervision of a qualified ecologist.

Sett removal activities will be undertaken outside the badger breeding season (i.e., between 1st July and 1st December) to have the fewest and least severe impacts on potentially breeding badgers. Although it should be noted that the presence of only outlier setts and the absence of a main sett on the site indicates that no badger breeding takes place on the site.

Since only outlier setts will be affected and no main or breeding sett will be lost, there is no requirement to construct an artificial sett. The affected badgers will be able to move to and use areas of the site, including retained areas that do not currently support any badger setts.

The removal of each badger sett will be undertaken using a mechanical excavator. The sett will be removed from several directions, commencing approximately 25m distance from the entrance to a sett, working towards the centre of the sett, cutting 0.5, slices in a trench to a depth of 2m. Exposed tunnels will be checked by the ecologist for recent badger activity and to ensure no badgers are present. Exposed tunnels and chambers will be back-filled with the excavated material. Sett excavation will be completed within one working day to ensure no badgers re-enter exposed tunnels and entrances.



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Upon the completion of the badger sett closure, a report detailing evacuation procedures, sett excavation and removal, and any other relevant issues should be submitted to the local authority.

Note that derogation licences for badger sett removal is no longer provided by the NPWS and no licence is required for the removal of a badger sett. Rather, granted planning permission provides lawful authority for a proposed development and permission to carry out the sett removal activities.

4.6 **Item 1 (d) (vi): Irish Stoat**

The EIAR states that there are no records of Irish stoat within the two grid squares and no incidental sighting of Irish stoat were recorded on site throughout the various surveys, nor was any other evidence of their presence.

However, Irish stoat may be present on the site and are evaluated as being important on a local level.

The Planning Authority requests the applicant clarifies the matter, as whilst it states there has been no evidence found, the Irish stoat may be present on site. If they may be present on site, given they are protected under the Wildlife Acts and subsequent amendments, the Planning Authority would question the importance of "local level", being assessed in the Section 5.319 of the EIAR.

The applicant shall provide a response to the above matters, and where necessary, all relevant an inter related sections and tables of Chapter 5 of the EIAR, and all associated chapters.

Response

The site was surveyed for evidence of Irish stoat following the guidance set out in *Ecological surveying techniques for protected flora and fauna during the planning of national road schemes*. A transect of the site was conducted on 22/01/2025 by SLR Senior Ecologist Jake Matthews and SLR Project Ecologist Anna Finnegan to identify and record evidence of stoats on the site. Particular attention was paid to prominent features such as tree stumps, dead logs and stones.

One instance of potential stoat scat was recorded at E 626928 N 698176 (see **Appendix I**-Photograph 10) indicating the likely use of the site by Irish stoat. It was not possible to quantify the numbers of Irish stoat on the site.

The EIAR used extrapolated data from Britain to estimate that there are an estimated 160,000 lrish stoats in Ireland (Buckley et al., 2015)¹¹ and these are well distributed across the country (i.e., 726 10 km squares – refer to **Appendix I - Figure B**). Assuming the stoat population is evenly distributed across the country, each county could support c. 5,000 stoats; alternatively each 10 km squares could support 221 stoats.

Generally, a 1% measure of a geographical population is used to estimate significance (CIEEM, 2018)¹². 1% of an estimated county-level population is 50 stoats. It is highly unlikely that the site could support such a high number of this species and the proposed development is highly unlikely to affect this number of stoats.

¹² CIEEM (2018). Guidelines for ecological impact assessment in the UK and Ireland – Terrestrial, freshwater, coastal and marine. Vol. 1.3. Available online: https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf. Accessed: April 2025.



¹¹ Buckley, Kieran P., Éabhín B. Byrne, and D. Paddy Sleeman (2015). Diet of Irish Stoats (Mustela Erminea Hibernica) in Two Habitats. The Irish Naturalists' Journal 34, no. 1 (2015): 8–12. http://www.jstor.org/stable/24394296.

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With regards to the assessment of Irish stoat being important on a 'local level', the EIAR used CIEEM's (2018) Guidelines for ecological impact assessment in the UK and Ireland – Terrestrial, freshwater, coastal and marine to assess geographic importance rather than the Guidelines for assessment of ecological impacts of national roads schemes (11, 2009). Paragraph 4.20 of the CIEEM (2018) guidance states the following:

"When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline."

Irish stoat is afforded protection under the Wildlife Acts and subsequent amendments. However, it is also widely distributed across the country and is considered of 'least concern' (Nelson et al., 2019)¹³. As such, the proposed development is highly unlikely to affect Irish stoats on a county-level and a local-level importance is assessed as appropriate.

The stoat scat was located within an area of the site that will be retained under the current proposals. Furthermore, there will be additional native planting in this area (refer to Figure 2-3 and 2-5 from the EIAR). As such, stoat's present on the site, will still be able to use this area and other retained and enhanced areas of the site for foraging and resting. These areas will support additional prey species for stoats, to compensate for the foraging habitat lost within the proposed extraction area.

5.0 Item 1 (e) EIAR: Water (Chapter 7)

5.1 Item 1 (e) (i): Groundwater Supply Wells

The applicant shall confirm the precise location of the two no. domestic wells to the east of the site.

Response

The locations of the domestic wells within the vicinity of the site were shown on EIAR Figure 7-7B. This map is reproduced as **Drawing FI-3** as part of this submission.

The closest third-party residences to the east of the application site are residences R2 & R3. Well 1 on **Drawing FI-3** is the water supply that serves as a domestic water supply to both properties. The well is located within the front garden of R2 (at ITM coordinates E627001: N698079). The well is located c. 40m from the red line application site boundary.

The next nearest wells to the east are all in excess of 250m from the application site boundary as shown on **Drawing FI-3**.

5.2 Item 1 (e) (ii): Water Supply Well

A water supply well will be required to provide water for the closed water recycling system for washing of sand and gravel aggregate and dust suppression. The water supply well is located in the site facilities area and will abstract from the underlying bedrock aguifer.

It is noted that Section 2.41 of the EIAR states that the sand and gravel processing methods will consist primarily of washing and screening, using a mobile processing plant, to produce a

¹³ Nelson, B., Cummins, S., Fay, L., Jeffrey, R., Kelly, S., Kingston, N., Lockhart, N., Marnell, F.Tierney, D. and Wyse Jackson, M. (2019) Checklists of protected and threatened species in Ireland. Irish Wildlife Manuals, No. 116. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.



range of aggregates for sale and distribution by the company. The processing plant will operate in a closed loop water circuit with silt disposal lagoons to minimise the need for excessive take of groundwater and to eliminate the need to discharge process water from the site.

However, there is no specific reference to the amount of water necessary for the proposed sand and gravel processing, and how this may impact on the groundwater.

A more detailed assessment, and the impacts of this part of the proposed development is considered necessary.

Response

The mobile wash plant will use approximately 100m³ per day of water. The wash water passes through the plant to a closed loop settlement system before being recycled and returned to the plant to be re-used in the washing process. Of this it is expected that up to 20% of the water will be lost due to evaporation, dust suppression and on the washed aggregate material and this will need to be topped up daily depending on weather conditions. Therefore, it is confirmed that the daily water requirement will be $20m^3/d$.

A water supply well will be required on site to top up the wash plant and for dust suppression. The well will abstract limited volumes of groundwater, up to a maximum of 20m³/d for both the wash plant and dust suppression, from the Sandstone aquifer underlying the sand and gravel deposits at the site. It is expected that the abstraction of groundwater from the water supply well will result in limited drawdown in the Sandstone aquifer due to the small volume of water required.

The wash plant and dust suppression will be used on an intermittent basis only during the year. It is estimated that the wash plant will be used for approximately 72 days a year only. Therefore, the total annual abstraction will be 1,440 m³/yr. and this equates to a daily abstraction rate of only 4m³/day if averaged out over a year.

Water supply for the wash plant and dust suppression will only be required at the site during periods of dry weather. Available data from the on-site rain gauge for the period April 2024 – March 2025 shows that c. 3mm or greater daily rainfall is recorded at the site at a rate of 45% occurrence and during this time water supply will be required at the site.

Domestic Well Receptor

The primary receptors that could potentially be impacted by drawdown in the Sandstone aquifer caused by the proposed site water supply well are nearby domestic supply wells. The closest private (third party) water supply is identified as Well 1 located 40m to the east of the application site boundary, which supplies residences R2 & R3, see **Drawing FI-3**. Well 1 is located approximately 567m south east of the proposed on site water supply well.

The closest resident to the proposed site water supply well is located 140m from the well, to the south at R1. As noted in Section 5.1 of the EIAR, this is the recently constructed residence of the landowner at R1 and utilises an existing well within the landholding. As this water supply is within the landholding and services the residence of the landowner, it is not considered as a receptor for the purpose of the assessment.

Residence R10 is located 405m west of the proposed onsite supply well. However, there has been no water supply well identified at this location and the ground level at R10 is 40m higher than at the proposed water supply well location at the site, and therefore upgradient of the supply well. It is therefore considered unlikely that any private supply well associated with residence R10 would be impacted by the limited volumes to be abstracted at the proposed water supply well at the site.

Therefore, the potential impact on the private water supply Well 1 at residence R2 and R3 is assessed below as being the closest receptor.



Sandstone Aquifer Characteristics

Nearby records from the GSI for shallow domestic supply wells in bedrock (both < 25m bgl) indicate that the yield of the wells is 27.3m³/d and 32.7m³/d.

Transmissivity for the locally important (LI) Cadamstown Formation Sandstone aquifer has been estimated using the geomean figure for LI Dinantian Sandstone from the GSI's Irish Aquifer Properties Manual 2015. This has been compared with the permeability values measured onsite.

The GSI geomean is $8m^2/d$ for LI Dinandian Sandstone. Site specific permeability estimates from rising head tests in the Sandstone boreholes range from 0.213m/d to 0.067m/d. A transmissivity of $8m^2/d$ with those permeabilities would indicate that the site supply well would need to extend approximately 37m to 120m below the groundwater table in the Sandstone bedrock to provide a yield of c. 20m3/day, which is a plausible scenario.

Predicted Potential Maximum Drawdown

It is noted that any drawdown in the private water supply Well 1 will depend on the presence of interconnected fractures existing in the Sandstone aquifer between the proposed site supply well, and Well 1, as shown on **Drawing FI-3**. It is expected that there will be little storage in the Sandstone aquifer as groundwater flow occurs through preferential flow paths in the bedrock. Therefore, groundwater flow will be concentrated along a network of fractures, fissures and conduits in the bedrock, which in local areas may be interconnected, allowing greater development of a flow network. Groundwater drawdown will depend on the connection between the proposed site supply well and the horizons that provide flow to the private well (Well1) at a distance of 567m from the supply well. Therefore, the theoretical predicted drawdown calculated using the Theis Method is expected to be a conservative estimate of the potential impact of groundwater drawdown at the site supply well on Well 1.

The predicted potential drawdown to a radius of 1km, including Well 1 at 567m, from the proposed site supply well has been modelled using the Theis Method to estimate a theoretical drawdown. The predicted potential drawdown assumes fracture interconnectivity between the proposed site supply well any private well abstractions within a radius of 1km.

The following assumptions apply to the Theis method:

- the aquifer is confined;
- · the aquifer has infinite areal extent;
- the aguifer is homogeneous, isotropic and of uniform thickness;
- the initial water table is flat;
- the aquifer is pumped at a constant discharge rate;
- the water removed from storage is discharged instantaneously with decline of head;
- the pumping well is fully penetrating; therefore flow is horizontal; and
- flow to the well is in an unsteady state.

Although not all of the assumptions behind this method are satisfied by the site it is useful to provide conservative estimates of hydraulic properties and impacts. The predicted possible drawdown results are shown in **Chart 1** below for distances from the proposed site supply well location to Well 1 at R2 & R3 at a distance of 567m and extended to 1km from the site supply well.

A theoretical estimate of potential drawdowns in the Sandstone aquifer assuming a transmissivity of 8m²/day and a storativity of 0.00026 has been made using the Theis method. This indicates that a limited drawdown at R2 / R3 could be in the order of 0.3m, which



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represents a minimal drawdown in the Sandstone aquifer. It can be seen from **Chart 1** that the drawdown curve flattens from approximately 100m from the proposed site supply well abstraction point and that any potential drawdown beyond this distance is minimal.

Interconnectivity of Proposed Water Supply and Well 1

It is considered, for the reasons outlined above, that the results of the Theis model are conservative and represent a worst-case scenario for groundwater drawdown. The calculated minimal drawdown of 0.3m at the residential borehole at Well 1 would depend on interconnectivity of fractures in the Sandstone bedrock. The predicted drawdown shown in **Chart 1** is therefore likely to be a conservative overestimate of the actual drawdown that will occur at residential water supply Well 1. Should there be no interconnectivity of fractures in the bedrock, there would be no impact at all on groundwater levels at Well 1.

Well 1 was visited during the well survey carried out in June 2024. The groundwater level in the borehole was measured at 12.2m bgl and the depth of the borehole was measured at 17.87m. The ground level was estimated at 179.40m AOD. There is no log available for Well 1. However, nearby on-site groundwater monitoring well BH03 has a similar elevation, at 181.38m AOD. The ground conditions encountered at BH03 proved gravel, sand and sandy silt / clay to 12m bgl, with a groundwater level of 6.7m bgl. Therefore, with a depth of 17.87m bgl, Well 1 will be abstracting from the sand and gravel deposits overlying the Sandstone aquifer rather than abstracting at depth from the Sandstone aquifer where the proposed water supply will abstract from. In this case, there will be no impact on the residential supply borehole at Well 1 as the proposed site supply well will be abstracting from a different geological unit (Sandstone bedrock) to Well 1 (Sand & Gravel).

Conclusion

A water supply well will be required to provide the small top up water supply and dust suppression and will abstract limited volumes of water from the Sandstone aquifer underlying the sand and gravel deposits at the site. The top up supply and dust suppression will not be required on a full time basis as explained earlier.

The primary receptor that could be impacted by drawdown in the Sandstone aquifer caused by the proposed site supply well is the closest private water supply identified as Well 1 which supplies residences R2 & R3 and is located approximately 567m south east of the proposed supply well.

The maximum predicted potential drawdown to a radius of 1km, including Well 1 at 567m, that could occur has been modelled using the Theis Method. The calculated predicted potential drawdown assumes fracture interconnectivity between the proposed site water supply well and Well 1. This indicates that a theoretical drawdown at Well 1 could be in the order of 30cm, which represents a small drawdown in the context of a Sandstone aquifer. The drawdown curve flattens from approximately 100m from the proposed site water supply well and any potential drawdown beyond this distance is negligible.

It is noted that should there be no interconnectivity of fractures in the bedrock between the proposed site water supply and Well 1, the calculated drawdown of 30cm would not occur. With a depth of 17.87m bgl, Well 1 will be abstracting from the sand and gravel deposits overlying the Sandstone aquifer rather than abstracting at depth from the Sandstone aquifer where the proposed water supply will abstract from. Therefore, in conclusion there will be **no impact** on Well 1 from the proposed site water supply well abstracting from the Sandstone aquifer.



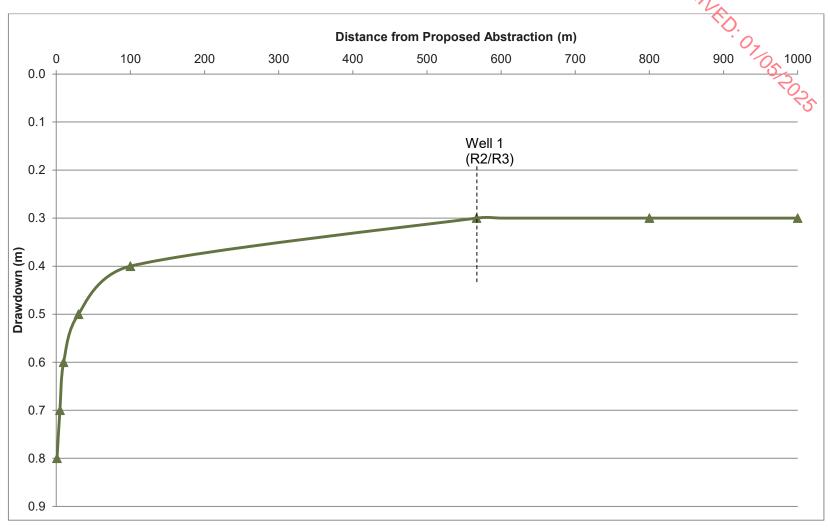


Chart 1: Predicted Possible Drawdown



Essential input 3) Theis (Time-variant confined aquifer) $4\pi Ts$ r^2S Optional input W(u)<u>47</u>t For assessing drawdown, s, at a distance, r, from a pumping well and a time, t Calculated expected Transmissivity of aquifer Т Time from start of abstraction 10000 Storage coefficient S 0.0003 To find Q if s is known Height of water table at radius of influence Н Height of water table at radius r D T. S Drawdown = (H-h) Distance from centre of well at r Well Function W(u) #NUM! Q #NUM! m³/d: #NUM! : #NUM! : m³/d Total discharge from ₩ell The following assumptions apply to this equation the aguifer is confined To find s if Q is known - the aguifer has infinite areal extent the aquifer is homogeneous, isotropic and of uniform thickness Total discharge from well 4.00 m³/d the initial water table is flat the aquifer is pumped at a constant discharge rate the water removed from storage is discharged instantaneously with decline of head the diameter of the well is small, i.e. the storage in the well can be neglected 0.0003 Well Function W(u) 7.6732 the pumping well is fully penetrating, therefore flow is horizontal. flow to the well is in an unsteady state 0.3; 0.3; m Drawdown at distance r (from Kruseman & de Ridder, 1994) Data sources (to complete an audit trail) Geomean LI Dinantian Sandstone - GSI Irish Aquifer Properties Manu Height of static water table Н Height of water table at radius r h Transmissivity of aquifer Time from start of abstraction LI typical S value - GSI Irish Aquifer Properties Manual 2015 R2/R3 - nearest domestic supply Well 1 567m away S Storage coefficient Distance from centre of well at r Index Required top up - 20m3/d adjusted for 72 days a year Total discharge from well

Chart 2: Calculation Sheet

5.3 **Item 1 (e) (iii): Levels**

The Planning Authority notes that the applicant states that the extraction within the extension area will also be carried out above the groundwater table, with the proposed pit floor sloping from northwest (c. 205m AOD) to southeast (c. 175m AOD).

Drawing Number 7 shows the existing and proposed cross sections for each of the three phases within the site.

However, this [there] is no indication of the existing groundwater levels with the area proposed to be extracted. Consequently, it is not clear the proximity of the proposed levels of extraction are to the groundwater. The applicant is requested to:

- a) Submit an amended existing and proposed cross section showing the existing groundwater level across the entire site; and
- b) Confirming what the buffer zone is between the pit floor and highest known water table level throughout the site

Response

EIAR Chapter 7: Water, within Plate 7-5 illustrated the ground conditions encountered during drilling and were presented as an indicative Conceptual Site Model, which included the water level on the cross section based on water level monitoring data up to the time of submission of the planning application.

Sand and gravel extraction in the extension area will remain above the surficial groundwater level in the sand and gravel deposits (dry working). The sand and gravel deposits are not classified as an aquifer, and these deposits are underlain by low permeability silt and clay across the extension area, which provides protection to the underlying Sandstone aquifer.

The cross section as previously presented in Planning Drawing 7 are presented again in **Drawing FI-4** showing the minimum and maximum groundwater levels inclusive of groundwater monitoring levels recorded over an extended period of time up to present, February 2024 - March 2025 (i.e. prior to submission of the planning application along with the time period between submission of the original planning application and this Further Information response).

Drawing FI-4 demonstrates that the proposed sand and gravel extraction will not intercept the high groundwater level in the sand and gravel deposits and there will be no impact to groundwater from the proposed development. As noted above, the sand and gravel deposits at the proposed development site are not defined by the GSI as an aquifer. Therefore, as well as remaining above the water table in the sand and gravel deposits, a 1m buffer above the top of Sandstone bedrock aquifer will be applied.

The groundwater monitoring boreholes encountered sands and gravels at all locations at the site, underlain by low permeability silt and clay. Sand and Gravel was underlain by low permeability silt and clay at BH1 - BH4 and BH7 - BH10. The ground conditions encountered during drilling are presented as an indicative Conceptual Site Model in **Plate 7-5** in the EIAR, below.

Sand and Gravel was directly underlain by Sandstone at BH5 only, towards the west of the site and outside the extraction area. However, the Sand and Gravel strata overlying the Sandstone bedrock at BH5 was dry during drilling. The low lying BH6 to the south of the site encountered Cobbles underlain by Clay.

Datalogger groundwater levels have been obtained from borehole BH4, which is within the extraction area and screened in the Sandstone aquifer, are presented in **Table 5-1** below. The groundwater level data shows that the maximum groundwater level for BH4 in the



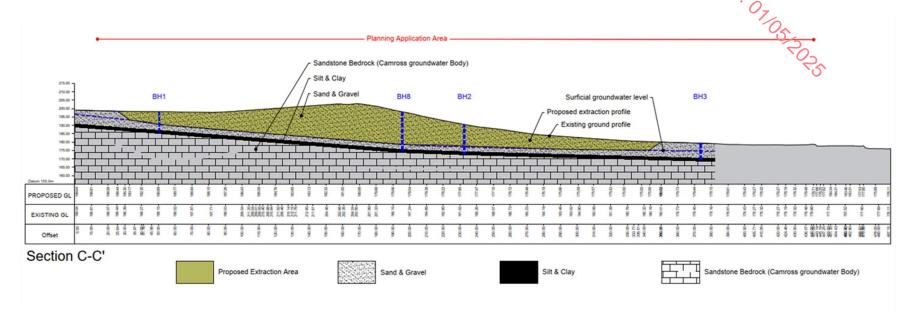
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Sandstone is 192.64m AOD, compared to the top of the Sandstone at 195,127m AOD (9.3m bgl), as shown on Section A-A' in **Drawing FI-4**.

The applicant is fully committed to acceptance of a planning condition to submit monthly groundwater levels to demonstrate compliance with maintaining a minimum of in buffer between the pit floor and the top of the sandstone aquifer.



Plate 7-5: Conceptual Site Model





rther Information Response (P. Ref. 24/60545)

SLR Project No.: 501.065036.00003

The groundwater levels at the site are shown visually in **Figure 5-1** and **Figure 5-2** below and numerically in **Tables 5-1** and **5-2**. Groundwater logger data has been obtained from March 2025 to establish the range in groundwater levels across the site.

Manual groundwater levels were taken approximately every two weeks from February 2024 to August 2024 by Breedon Ireland and monthly by SLR personnel from April 2024 to July 2024. These manual levels were used to calibrate, verify and adjust the logger groundwater level data. Manual readings coupled with barometric data were used to correct the logger groundwater data for the site conditions.

Five water level loggers were placed in BH02, BH03, BH04, BH05 and BH06 on the 15th of April 2024 and set to record a groundwater level every hour. Groundwater level data from February 2024 to March 2025 is shown in **Table 5-1** below.

A barometer was installed in borehole BH04 and set to take readings every hour. The barometer records variations in atmospheric pressure. One barometer is sufficing for a 25 km² area, therefore only one is needed for this site.

There is no rainfall gauging station nearby and therefore a rain gauge station was established on the site. The rain gauge was installed on 24th April 2024 at the entrance to the existing sand and gravel pit.

Rainfall data is available from April 2024 to April 2025 and is graphed against groundwater levels in **Figure 5-1**. A summary of the groundwater levels recorded by the data loggers can be seen in **Table 5-1** below. Spring 2024 was one of the warmest and wettest springs on record. For the winter 2023 / 2024 season, nearly all rainfall totals were above their Long-Term Average 1981-2010.

There is minimal variation in groundwater levels in the Sand and Gravel deposits, for example in BH02 to March 2025 monitoring period minor variability was recorded, with a total variation of 1.82m, a maximum of 177.26m AOD and a minimum of 175.43m AOD.

The groundwater levels in the Sand and Gravel deposits at BH03 from the April 2024 to March 2025 monitoring period had a maximum of 174.94m AOD and a minimum of 173.69m AOD, showing a total variation of 1.25m. This is the smallest variation in the monitoring wells with data loggers.

The groundwater levels in the sandstone bedrock in BH04 have a total variation of 3.16m, with a maximum of 192.64m AOD and a minimum of 189.49m AOD. The sandstone bedrock at BH05 showed the maximum variation in all the wells with a total variation of 3.56m. The well reported a maximum of 189.93m AOD and a minimum of 186.37m AOD.

The groundwater levels in the Clay and Cobbles deposits near the stream at BH06 showed a variation of 1.42m. This well reported a maximum groundwater level of 175.53m AOD and a minimum of 174.11m AOD.

It can be seen from the discussion above and **Figure 5-1** below, that there is very little variation in groundwater levels across the site. The gravel and sand strata across the site allow for intergranular groundwater flow and the storativity here is generally high. Water flow through this layer is generally quick leading to fast recharge rates.

Groundwater levels at each borehole do not vary greatly and directly follow rainfall patterns due to high aquifer storativity. The manual groundwater levels trendlines have an average gradient of 0.01m. The highest trendline was recorded at BH05 (0.022m) and the lowest at BH03 (0.0018m).

Manual groundwater levels are graphed against rainfall in **Figure 5-2** below. The nearest Met Éireann rain gauging station is Slieve Bloom (Nealstown), located c. 8km to the south-west of the application site.



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Rainfall from the Slieve Bloom rain gauging station and the onsite rain gauge was used in **Figure 5-1** below to create a time series of rainfall from April 2024 to March 2025.

Data from **Figure 5-2** shows that there has been little overall change to manual groundwater levels, but all wells have shown a decrease from Q1. Groundwater levels have decreased no more than 3m since monitoring began.

Figure 5-1 below shows that groundwater levels reached a peak in most wells in Groundwater levels for 2024 had already begun to decrease before loggers were placed in some of the wells in April 2024. The lowest manual groundwater levels recorded were during the 9th July 2024 and 12th August 2024 monitoring rounds where both BH08 and BH09 were reported as dry.

Groundwater levels are highest in the north-west and lowest in the south-east of the site. These groundwater levels indicate that groundwater is flowing roughly in a south-easterly direction, towards the Killeen River as expected.

Table 5-1: Summary of groundwater level logger data (April 2024 – March 2025)

		BH02	BH03	BH04	BH05	BH06
Strata		Sand and Gravel	Sand and Gravel	Sandstone	Sandstone	Clay and Cobbles
	Minimum	175.43	173.69	189.49	186.37	174.11
mAOD	Average	176.26	174.29	190.65	187.81	174.77
	Maximum	177.26	174.94	192.64	189.93	175.53
m	Range	1.82	1.25	3.16	3.56	1.42



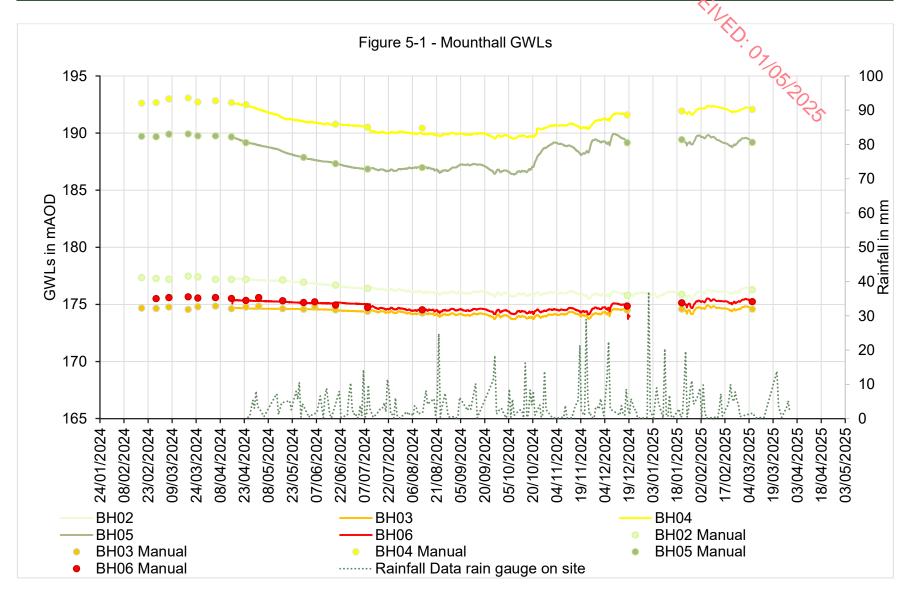
Table 5-2: Summary of manual groundwater levels (February 2024 – March 2025)

	Units	BH 01	BH 02	BH 03	BH 04	BH 05	BH 06	BH 07	BH-08	BH 09
Strata		Sand & Gravel	Sand & Gravel	Sand & Gravel	Sand-stone	Sand-stone	Clay & Cobbles	Sand	Sand	Silty Sand
Min	m AOD	188.41	175.79	174.23	190.43	186.84	174.53	205.16	176.93	176.59
Max	m AOD	190.50	177.46	174.84	193.07	189.92	175.66	207.60	178.37	177.35
Range	m	2.09	1.67	0.61	2.64	3.08	1.13	2.44	1.44	0.76

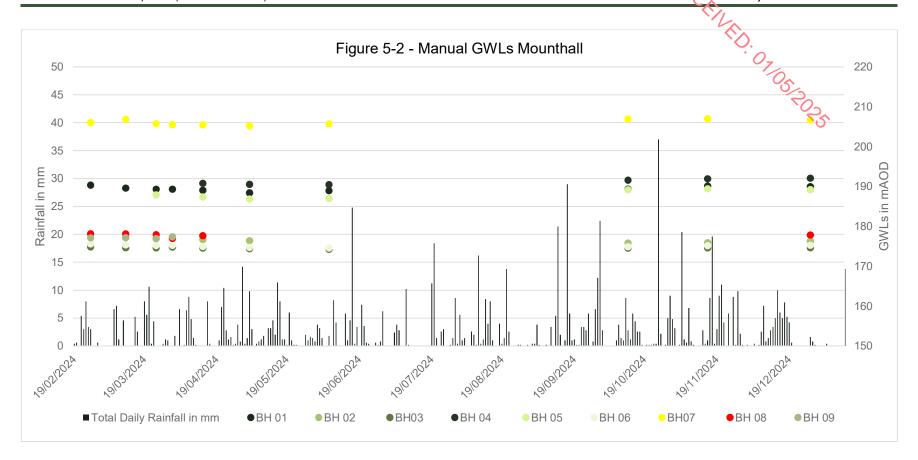
Table 3: Summary of combination of manual and logger groundwater levels

	Units	BH 01	BH 02	BH 03	BH 04	BH 05	BH 06	BH 07	BH 08	BH 09
Strata		Sand & Gravel	Sand & Gravel (logger)	Sand &Gravel (logger)	Sandstone (logger)	Sandstone (logger)	Clay & Cobbles (logger)	Sand	Sand	Silty Sand
Min	m AOD	188.41	175.43 (logger)	173.69 (logger)	189.49 (logger)	186.37 (logger)	174.11 (logger)	205.16	176.93	176.59
Max	m AOD	190.50	177.46	174.94 (logger)	193.07	189.93 (logger)	175.66	207.60	178.37	177.35
Range	m	2.09	2.03	1.25	3.59	3.56	1.55	2.44	1.44	0.76











Item 1 (f) EIAR: Noise and Vibration (Chapter 10) 6.0

6.1 Item 1 (f) (i): Proposed Hours

- A number of different guidelines are referred to in the EIAR, including:

 a) The EPA (2006) publication Environmental Management Guidelines for Environmental Management in the Extractive Industry (Non-Scheduled Minerals) (EMG-EMEI)
- b) The EU Noise Directive (2002/49/EC) and
- c) Noise guidance issued by the Agency (Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities (NG4, 2016)) provide updated definitions for day and night periods.

The EIAR states that the proposed development is only proposed during the daytime. However, this is not the case as the pit is proposed to operate between 0700 hours and 2000 hours Monday to Friday and 0700 hours to 1400 hours on Saturdays.

Therefore the night time limit applies between 07.00 to 08.00 hours.

The Planning Authority is concerned with the proposed hours of operation given the proximity to residential properties.

The Planning Authority is of the opinion that the hours of operation should be between 0800 hours to 1800 hours Monday to Friday, and 0800 hours to 1400 hours on Saturdays.

The Applicant is invited to comment on the above and update the EIAR in full accordingly.

Response

The EU Noise Directive, which is referenced in the Laois County Development Plan, as well as more recent noise guidance issued by the Agency themselves (i.e. NG4) present contemporary definitions of day and night periods. In both the EU Noise Directive and NG4, the daytime period is considered as commencing from 0700 hours rather than 0800 hours as presented in the original 2006 EPA guidelines. This is also referenced in general standards and guidance elsewhere including BS8233:2014.

The 0800 hours start time is deemed to be unnecessarily restrictive for on-site operations having regard to contemporary consideration of the time definition. It is submitted that the proposed commencement time of 0700 hours with a noise limit of 55 dB LAeq,T falls in line with best practice guidance and would not give rise to adverse noise impacts.

Should the planning authority continue to be of the opinion that the hours of operation should be restricted between 0800 hours to 1800 hours Monday to Friday, and 0800 hours to 1400 hours on Saturdays, then the applicant respectfully requests that deviation from these times may be allowed in exceptional circumstances where prior written agreement has been received from the Planning Authority.

6.2 Item 1 (f) (ii): Methodology

The Planning Authority notes that it is proposed to apply reduced sensitivity for receptor R1 as it is the landowners dwelling. The EIAR refers that this is reflected in environmental noise guidance documents including ETSU-R-97. However, the title of this document is "The Assessment and Rating of Noise from Wind Farms", and not for a guarry which is proposing to extract material for a period of c. 10 years.



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Notwithstanding that receptor R1 is the landowner's residence, the Planning Authority is of the opinion that the assessment should be consistent with that used for other residences in the zone of influence.

Response

The predicted noise levels at Receptor R1 range from 52 to 65 dB L_{Aeq,12hour} during the construction phase with the highest value to occur during the site preparation phase. It is expected that the elevated noise levels during the site preparation phase would be restricted to a number of weeks when heavy plant is operating in close proximity to the dwelling. Otherwise, worst case construction noise levels would be expected to fall in the region of 52 to 56 dB L_{Aeq,12hour}.

During the operational phase noise levels arising from general extraction and aggregate processing would range between 52 and 61 dB $L_{Aeq,1hour}$ with the higher predicted values occurring towards the latter end of the extraction period.

There is a range of empirical research which suggest that residents with a financial interest in a noise-generating activity (like airports, factories, wind farms, etc.) exhibit lower sensitivity to the noise compared to those without a financial stake.

The research suggests that the factors leading to reduced sensitivity are psychological rather than physiological and relate to a phenomenon called motivated reasoning. A large number of studies have completed on wind turbines and subsequently, consideration was given to the issue in the ETSU-R-97 guidance document. As the underlying principle is psychological rather than physiological, the actual noise source is largely irrelevant. As such, the guidance presented from ETSU-R-97 is considered relevant in this context. The dwelling cannot be considered to have the same sensitivity to noise as third party receptors and as such the same thresholds and limits should not apply.

Based on the reduced sensitivity of receptor R1, it was deemed appropriate that a 5 dB relaxation on the standard EPA limits would be appropriate. A threshold of 60 dB $L_{Aeq,1hr}$ would therefore be suitable to offer sufficient protection to noise arising at receptor R1.

6.3 Item 1 (f) (iii): Thresholds for noise levels

Section 10.86 of the EIAR states that it would be appropriate that noise from these activities be limited to 65 dB LAeq for the construction phase, as measured at the nearest noise sensitive locations.

However, this is above EPA guidelines, which refers to 55 dB during the daytime.

The applicant should revise the thresholds, and, where necessary the screening and acoustic fencing to minimise the noise impacts arising during the construction phase to ensure it is within the necessary guidelines.

Response

The EPA Environmental Management Guidelines for Environmental Management in the Extractive Industry (Non-Scheduled Minerals) (EMG-EMEI) states the following in respect of construction activities on permitted sites:

It is also appropriate to permit higher noise ELVs for short-term temporary activities such as construction of screening bunds, etc., where these activities will result in a considerable environmental benefit.

The activities such as construction of boundary screening provides both acoustic and visual benefits. In addition, construction of boundary screening expediates replanting and indirect



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biodiversity benefits. Therefore, the activities will result in sufficient environmental benefit to justify higher temporary noise ELVs.

The EMG-EMEI does not provide further guidance on what may be considered appropriate for higher noise thresholds. Reference has therefore been made to BS5228-1 which has established that it would be appropriate that noise from these activities be limited to 65 dB L_{Aeq.T} as measured at the nearest noise sensitive locations.

It is noted that a number of these works would be of very short duration, in the case of the erection of the boundary acoustic fencing, lasting approximately 2 weeks in duration so the subsequent impact would be negligible.

6.4 Item 1 (f) (iv): Acoustic Fencing

The EIAR includes the predicted construction stage and operational noise levels. It is noted that the screening protection proposed reduces the noise arising by 15dB. However, it is not clear:

- a) how the 15 dB screening correction from the proposed acoustic screening has been arrived at, and
- b) how the noise from the proposed development at both the construction and operational phases has been calculated.

Please submit a response, and, where necessary revised details.

Response

The screening effect of 15 dB has been calculated using the Maekawa method which considers the elevation and location of the source, receiver, as well as the height of the screening object. Screening effect is calculated on an octave band basis, the source octave band level is corrected to determine the overall potential screening effect. The Maekawa method is an established and industry accepted prediction method for barrier attenuation.

The specification of the proposed acoustic fencing to be implemented at the site was provided as an Appendix (Appendix 2-A) to the EIAR that accompanied the planning application. The fencing is covered by a guarantee and is advertised as showing a laboratory tested sound reduction value of $28 \ dB \ R_w$.

The noise propagation calculations have been conducted in accordance with British Standard BS5228-1:2009+A1:2014, which is considered more appropriate than specific extraction noise guidance which typically considers earth berm screening. The calculation method takes into account the magnitude of the source (in this instance, sound pressure level of plant and machinery based on empirical measurement); distance between the source and receiver; the absorptive properties of the intermediate ground; correction for operational duration of plant as well as potential screening effect from objects in the propagation path. The empirical source data reflects older plant and machinery, operational prior to mandatory vehicle noise requirements introduced by the EU. The method is known to <u>overpredict</u> values due to not accounting for the octave band spectrum of sources and attenuation due to atmosphere. The potential screening effect of 15 dB and 7 dB is deemed to be entirely justified.



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7.0 Item 1 (g) (i): Construction Phase

Chapter 13 does not include an impact assessment for the initial construction phase.

the applicant is requested to submit details.

Chapter 13 of the EIAR - Landscape does not differentiate between Construction Phase / Stage and Operational Stage impacts. In other words, the construction stage impacts form part of the assessment of Operational Stage impacts. It is acknowledged that this was not clearly set out in Chapter 13. Please find below the reasoning for this approach.

The first stage of the works on site will be the stripping of soil and extraction of underlying sand and gravel within the northern half of the Phase 1 extraction area. Only when the final extraction level within this part of the site is achieved will the mobile processing plant be installed. Therefore, strictly speaking part of the operational works (i.e. sand and gravel extraction and associated vehicular movements) will take place prior to what would typically be called the construction works (i.e. the installation of the processing plant plus vehicular movements), thereby merging the two phases in terms of visual impacts.

It may also be argued that the stripping of soil / overburden, prior to the extraction of sand and gravel, should be considered as the Construction Phase / Stage. However, considering the phasing of the extraction works and associated phased stripping of the site, this further mixes the construction stage with the operational stage in terms of an overall landscape impact.

In landscape and visual terms, the assessment concentrates on the gradual changes within the whole site, in accordance with the proposed extraction phasing, as well as the phased restoration of the site. The 'construction' of the processing plant and stripping of soils / overburden form part of these changes, during the active / operational phase of the proposed development. Whilst not explicitly separating out the stages of construction and operation, per se, Tables 13-3 and 13-6 do split the separate components of the works involved so that they are all addressed.

One element, which will be 'constructed' on commencement of the development is the temporary noise barrier along a section of the northern and eastern boundaries of the site. However, the installation of such a barrier will take place in a very short time frame (i.e. within a maximum of 2 weeks). The extent of these works would be small, akin to domestic garden works, and would involve very limited digging to set timber posts in concrete and securement of fence boards to posts using bolts and screws. Therefore, these works are considered to result in negligible landscape or visual effects.



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8.0 Item 2: Road Safety / Junction Sightlines

8.1 Item 2 (a): Road Markings / Signage

The applicant shall submit details indicating proposals for road markings and signage along the L-10317 around the junction with the L-1031 and at the location of the proposed entrance. Proposals shall at a minimum include stop road markings and sign post along with warning signs for Heavy Goods Vehicles on approach to the junction.

Response

Please refer to the enclosed PMCE Traffic Consultants Drawing P23199-PMCE-XX-01—DG-CR-3_0001 for the proposed road markings at the site entrance.

Refer to the enclosed PMCE Drawing P23199-PMCE-XX-01—DG-CR-3_0002 for the proposed road markings at the junction of the L10317 / L1031 local roads.

Refer to the enclosed PMCE Drawing P23199-PMCE-XX-01—DG-**CR-3_0003** for the proposed road signage details at the site entrance and the approaches along the L10317 local road.

These drawings comply with the requirement to include stop road marking and sign posting along with warning signs for HGVs on approach to the junctions.

8.2 Item 2 (b): HGV Route Restriction

The applicant shall confirm that no Haulage vehicles will be permitted to travel in a westerly direction along the L-1031 and that all vehicles will use the route highlighted in the Traffic Impact Assessment.

Response

The applicant confirms that no haulage vehicles will be permitted to travel in a westerly direction along the L-1031 and that all vehicles will use the route highlighted in the Traffic Impact Assessment.

HGV traffic exiting the sand and gravel pit will turn south onto the L10317, then will turn east onto the L1031 at the L10317/ L1031 priority junction. HGV traffic will then travel east approximately 4.7km, before joining the R440. The return journey will follow the same route.

The HGV haulage route is shown on the enclosed PMCE Traffic Consultants Drawing P23199-PMCE-XX-01—DG-**TR-3_0001**.

8.3 Item 2 (c): Road Strengthening surveys / proposals

The applicant shall submit proposals for strengthening the L-10317 from the junction with the L-1031 to the proposed Quarry entrance. In preparation for the further information response the applicant shall undertake tests (as indicated below) and then prepare a design for a structural upgrade of this section of road to ensure it will be fit to take the proposed loading for a defined design life.

The following tests shall be undertaken:

- Falling Weight Deflectometer,
- Pavement Survey Condition Index,



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Cores shall be taken and material tested.

A structural design shall be prepared and submitted for review by the Road Design Section of Laois County Council.

Response

8.3.1 Level 1: Site Investigations – Falling Weight Deflectometer (FWD)

PMCE Traffic Consultants commissioned Falling Weight Deflectometer (FWD) testing along the L-10317 road from the junction with the L-1031 to the existing site entrance which was carried out in January 2025 by Pavement Management Services Ltd. (PMS), with the full Structural Evaluation report provided in **Appendix A**.

The principal output deflection parameters from the FWD survey are the central deflection (D1), the Surface Curvature Index (SCI) and the outer deflection (D7). D1 provides an indication of the overall pavement structural condition. Lower D1 results are more desirable from a structural viewpoint, with higher D1 results indicating a poor structural condition.

The SCI is calculated as the difference between the D1 and the D2 deflection readings. High SCI readings would generally indicate poor load spreading ability in the upper pavement layers. The Department of Transport, Tourism and Sport (DTTAS) document 'Guidelines on the Depth of Overlay to be used on Rural Regional and Local Roads' states that SCI values in excess of 250 microns (normalised to 40kN) indicate poor load-spreading ability in the upper pavement layers and are not suitable for bituminous only overlays, as there is a higher risk of premature cracking.

Based upon the results, the condition is categorised descending from Good; Good to Poor; Poor to Bad; and Bad for the D1 Deflection and SCSI readings and for the D7 Deflection, the results, the descending categorisation is from Stiff; Stiff to Moderate; Moderate to Weak; and Weak.

The results for the entire 550m length of local road were deemed 'Poor to Bad' for the average D1 and SCSI parameters and deemed 'Weak' when assessed against the D7 parameters.

8.3.2 Level 2: Structural Evaluation and Pavement Investigations Report

Following on from the Level 1 FWD site investigations, PMS prepared a subsequent Structural Evaluation and Pavement Investigations report with the objective of the report to provide information on the required minimum structural strengthening options based on a design life for the section of road. The results of the assessment are provided in **Appendix B** and for which a number of strengthening options were examined, with the conclusion that overlay and inlay strengthening works are required.

8.3.3 Pavement Surface Condition Survey Report

In addition to the above, PMS prepared a subsequent Pavement Survey Condition report comprising of a video survey and Pavement Surface Condition Index (PSCI). The results of the assessment are provided in **Appendix C**.

8.3.4 Conclusion

PMS carried out a Pavement Condition Survey and a Structural Evaluation and Pavement Investigation (Level 1 and Level 2) of the L1031 Local Road in Mounthall, Co. Laois, including Falling Weight Deflectometer (FWD) tests and pavement coring for a 550m section of carriageway from the site access to the junction with the L10317.

The structural evaluation categorised the L1031's pavement condition as Poor to Bad, indicating a risk of pavement structural defects. As a result, structural pavement strengthening



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design options were developed. The proposed structural design options, include inlay or overlay design proposals for a 20-year requirement, which assessed different material options, including hot bituminous mix, granular or composite materials. The structural pavement strengthening design options are presented in chapter 4 of the Structural Evaluation and 07/05/2025 Pavement Investigation - Level 2 report prepared by PMS in **Appendix B**.

8.4 Item 2 (d): Road Strengthening surveys / proposals

The applicant shall be aware that all costs associated with any strengthening works required will have to be borne by the applicant if permission is granted for this development.

Response

The applicant is aware and will liaise with the local authority to discharge any requirements accordingly.

8.5 Item 2 (e): Annual Maintenance Scheme

The applicant shall submit proposals for an annual maintenance scheme in relation to the infrastructure, drainage and road verges in the vicinity of the proposed development site.

Response

A programme of Inspection and Maintenance/ Repair for the access serving the development has been prepared by PMCE Traffic Consultants and is provided in Appendix D. The recommendation if for a visual inspections and maintenance to be undertaken by the developer every year, and shall include:

- Identifying defects in infrastructure such as proposed signs, road markings, drainage, and road verges;
- 2 Recording any changes in infrastructure, drainage, and road verges since the previous inspection; and
- 3 Addressing and repairing any newly identified defects, including:
 - a) Ensuring no surface water sheds onto the L-10317;
 - b) Refreshing road markings at the access as needed; and
 - c) Maintaining sightlines by trimming any overgrown hedges.

8.6 Item 2 (f): Sightline Drawing

The Applicant shall submit a drawing showing how sightlines at the proposed junction will be achieved, including how high banks and entrance to the private dwelling will be dealt with. The drawing shall be to scale of 1:500.

Response

Please refer to the enclosed PMCE Traffic Consultants Drawing P23199-PMCE-XX-01—DG-CR-3_0004 for the proposed sightline assessment at the site entrance. In accordance with the Item 2(f) request, the drawing is provided at a scale of 1:500 when printed @ A1 size.



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Visibility in both directions is restricted by overgrown vegetation and the adjacent embankment. A 90m sightline can be achieved within the landownership boundary by reprofiling of the adjacent embankment and vegetation cut back.

8.7 Item 2 (g): Bridge assessment

The applicant shall assess the strength of the existing bridges required to be used for the transportation of material, and, where necessary include proposals to strengthening them.

Response

PMCE Traffic Consultants commissioned Roughan & O'Donovan Consulting Engineers to carry out principal inspections of the Delour Bridge and the Kileen River Bridge, both of which are located along the proposed haul route on the L1031 local road between the site and the R440 regional road. The inspections were carried out in December 2024.

The principal inspections were undertaken in respect to:

- 4 Bridge Surfacing;
- 5 Expansion Joints;
- 6 Footway / Median;
- 7 Parapet / Safety Barrier;
- 8 Embankment / Revetment;
- 9 Wingwall / Spandrel Wall / Retaining Wall;
- 10 Abutments;
- 11 Piers:
- 12 Bearings;
- 13 Deck;
- 14 Beams / Girders / Transverse Beams;
- 15 Riverbed;
- 16 Other Elements; and
- 17 Structure in General.

8.7.1 Delour River Bridge Inspection

The principal inspections undertaken for the Delour Bridge did not identify any requirement for strengthening works at this time.

The full results of the inspection for the Delour Bridge are provided in **Appendix E** and the summary conclusion is:

- 1 The bridge was generally found to be in very good condition. It would appear that it may have been subject to extensive refurbishment in the recent past with new transverse deck beams, deck plates and parapets provided. Defects that were identified are described within the report. It should be noted that we would consider that none of the defects described would lead to any loss of capacity of the structure.
- 2 The bridge consists of a single span, steel ladder deck superstructure supported on cut stone masonry abutments.



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- The two main longitudinal beams were measured to be 15.85m (52 tt) long, spanning 14.63m (48 ft) between the faces of the abutments. These beams are built up of a series of plate and angle sections which are rivetted together.
- The beams are profiled in elevation with the depth of the beams at midspan measured to be 0.965m (38 inches) and 0.889m (35 inches) and both ends. Both the top and bottom flanges were measured to be 0.305m (12 inches) wide, made up of 22mm (1/2 inch) plate. The fact that the two main longitudinal beams consist of built up sections that are rivetted together may suggest that they are of wrought iron construction. However, this was not confirmed.
- 5 There are 15 No transverse beams, spaced at equal centres connecting the two main longitudinal beams. These consist of 200x100x10mm fabricated steel sections and do not date from the time of the original construction of the bridge. The curved steel deck plates spanning between the transverse beams also appear to be relatively newly installed.
- 6 The carriageway is narrow across the bridge and was measured to be 3.38m between the faces of the parapet upstands. There is positive drainage provided at all four corners of the bridge but at the time of the inspection these were all found to be blocked up.

8.7.2 Kileen River Bridge Inspection

The principal inspections undertaken for the Kileen River Bridge did not identify any requirement for strengthening works at this time.

The full results of the inspection for the Kileen River Bridge are provided in **Appendix F** and the summary conclusion is:

- 1 This structure was found to be in very good condition with no evidence of any structural distress in any of the elements inspected. The primary structural members (abutments, piers, arch barrel, spandrel walls, etc) were all found to have been well maintained with evidence of recent repointing works having taken place.
- 2 The bridge consists of a three span masonry arch structure. All three segmental spans were found to have approximately the same geometry, described as follows; Span 2.74m (9 ft); Pier Width 1.52m (5 ft); Midspan Rise 1.17m; Quarterspan Rise 0.97m; Arch Barrel Thickness 0.38m (15 inches); Depth of Fill varies from 0.33m (over western arch) to 0.81m (over eastern arch).
- 3 Kerbs and hard strips (approximately 300mm wide) have been provided over the full extent of the bridge on the northside of the carriageway only. There is a significant longitudinal gradient over the structure, falling from east to west.
- 4 The carriageway width was measured to be approximately 4.88m between the faces of the kerbs. The masonry parapets are significantly lower than would be anticipated for a road bridge and were measured to be approximately 600mm high on both sides.
- 5 At the time of the inspection, the majority of the flow in the river was passing through the western arch. The central arch appears to accommodate flood flows and the eastern arch appears to be permanently dry.

In conclusion, the principal inspections undertaken for the Delour Bridge and the Kileen River Bridge did not identify any requirement for strengthening works at this time.



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8.8 Item 2 (h): Road Safety Audit Stages 1 & 2

Once all the requested changes are made to the drawings the applicant shall carry out Road Safety Audit 1 & 2 from the proposed entrance arrangement to the junction with the L-1031. The applicant shall make all necessary changes to the drawings as a result of this audit showing the problem locations on the drawing.

Response

A Stage 1 & 2 (combined) Road Safety Audit for the development was carried out by PMCE Traffic Engineers, with the members of the Road Safety Audit Team being independent of the design team.

The Road Safety Audit took place during March 2025 and comprised an examination of the documents provided by the designers. In addition to examining the documents supplied, the Road Safety Audit Team visited the site of the proposed measures on the 4th March 2025. Weather conditions during the site visit were dry and the road surface was dry. Traffic volumes during the site visit were low, and no pedestrians and cyclists were noted within the extents of the scheme at the time of the site visit. Traffic speeds were considered to be generally below the posted speed limit.

The Stage 1 & 2 (combined) Road Safety Audit was carried out in accordance with the requirements of GE-STY-01024 - Road Safety Audit (December 2017), contained on the Transport Infrastructure Ireland (TII) Publications website.

The scheme was examined and the RSA report compiled in respect of the consideration of those matters that are deemed to have an adverse effect on road safety and considers the perspective of all road users.

The full updated Stage 1 & 2 (combined) Road Safety Audit report is provided in **Appendix G** and refers to the updated traffic drawings submitted with this FI submission that rectify the problems indicated in the original Stage 1 & 2 RSA report.

9.0 Item 3: Surface Water Drainage

The Planning Authority note that part of the existing access road and the existing hardstanding area at the entrance to the quarry is falling towards the public road. Therefore, the applicant is requested to provide details of the drainage arrangement at the entrance to the quarry, that shall prevent surface water flowing onto the L-10317 roadway.

Response

At the existing site entrance, the gate is set back from the edge of the public road approximately 15m, with the area between the gate and road consisting of a concrete hard surface, refer to **Drawing FI-4**. The existing internal access route from the entrance gate to the extraction area consists of a hardcore track.

As part of the improvement works proposed at the site entrance, a section of the site internal access carriageway from the gate into the site will be hard surfaced. A channel drain will be installed on the inner side of existing gate to prevent any rainfall surface water runoff over the newly hard surfaced access track from leaving the site, refer to **Drawing FI-4**. The shallow cut-off drain will direct surface water runoff away from the public road and fully contain it within the site.

The drainage channel will be regularly inspected to ensure that there is no build-up of silt or dirt to block the drain. A channel drain, similar to that shown in **Plate 9-2** below will be installed to allow easy access and maintenance. These channels can be designed to site specific



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requirements in terms of size, and are used in a wide range of settings such as industrial premises, car parks, forestry and agricultural settings.

Plate 9-2: Example of Channel Drain to be installed at the site entrance





10.0 Item 4: Refuelling, Settlement Pond and Landscape Restoration

10.1 Item 4 (a): Detail plan for refuelling area

Please submit revised site layout drawings showing the proposed designated refuelling areas, showing plans and cross sections of the proposed infrastructure, to provide the necessary environmental measures.

Response

Planning Drawings 5 & 6 showed the plan location of the proposed refuelling area within the existing pit area and Drawing 15 provided detail in plan and elevation of the bunded fuel storage and refuelling area. Please refer to Drawing FI-5 for a revised layout drawing showing the proposed designated refuelling area, in plan, with cross sections and elevations of the proposed infrastructure.

No re-fuelling (or servicing) of excavation plant will occur within the extraction area. Refuelling and any vehicle maintenance will take place adjacent to the bunded fuel storage area on a concrete pad with associated hydrocarbon interceptor attached.

The hard surface will have a slight gradient fall from the edges into a central drainage channel to direct any surface water into the channel and from there it will be routed through the hydrocarbon interceptor.

Fuel and oils will be stored in fuel tanks within the bunded area. The bund capacity will be in excess of 110% of the combined volume of the tank(s). An overflow pipe will be set c. 0.3m above the base of the floor and directly connected to the hydrocarbon interceptor to prevent any build-up of water within the bunded area.



10.2 Item 4 (b): Refuelling of mobile plant

The applicant shall indicate how the mobile plant on site will be refuelled. If mobile bowsers are proposed then revised details shall be provided outlining how this process will occur, measures to prevent spillages and actions in the event of spillage.

Response

As noted above, mobile plant (loading shovel) refuelling and maintenance will take place adjacent to the bunded fuel storage area on a concrete pad with associated hydrocarbon interceptor attached.

The Dernaseer DWP450 mobile washing plant proposed to be used at the site (and to be located within the extraction area) will be powered by an integrated diesel generator. This setup allows the plant to be fully self-contained and portable, making it ideal for use in remote locations or where a reliable power source is not readily available.

A mobile fuel dispense will be used to transport fuel from the bunded fuel storage area to the processing plant on the pit floor. A mobile diesel dispenser, such as the Cemo DT-Mobile Easy Diesel Dispenser (https://www.tanks.ie/600l-cemo-dt-mobile-easy/p22332) will be used. These diesel dispensing tanks are approved for transport under ADR¹⁴. Some of the features of the tank include:

- ADR approved;
- Single-walled 600L polyethylene;
- · with crane eyes;
- Integral dispensing nozzle holder;
- Integral filling nozzle;
- Integral filler neck;
- Filler cap with vent and breather valve;
- Integral forklift pockets and handles;
- Integral loops for ratchet straps during transport;
- Built in hose bracket to keep things tidy until you next need to fill up;
- Built-in carry handles enable to tank to be handled easily during loading;
- Hinged lid-adjustable lid mount allows to be installed either on the left or the right for the best possible access;
- Isolation valve enables the container to be sealed off completely, thus adding to safety during transportation.

Refuelling procedures are included in the company environmental management system which is accredited to ISO 14001 standard. This procedure is enclosed in **Appendix J** and the specific actions of refuelling operations are shown in Section 4.1.5 of this procedure. A site specific refuelling procedure will be compiled for the proposed development to ensure compliance with any planning consent conditions.

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¹⁴ The European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011, as amended, apply to the transport of dangerous goods by road in tanks, in bulk and in packages. This includes the consignment, packing, loading, filling and unloading of the dangerous goods in relation to their carriage. They apply the provisions contained in the technical Annexes to the "Agreement Concerning the International Carriage of Dangerous Goods by Road" (ADR).

A number of spill kits will be available on-site to stop the migration of any minor accidental leakages or spillages should they arise. Spill kits will be located at the main site office and at the mobile processing plant. Spill kit training will be provided to staff when they start first and refresher training will be provided periodically thereafter. In addition, a drip tray will be used when refuelling of the diesel generator is being carried out to further prevent any spillages within the exposed pit floor area.

Refer to **Appendix J** for extracts from the company EMS which include environmental procedures on:

- E 060: Oil Liquid Fuel and Chemical Storage Procedure
- E 130: Oil Interceptor Management
- EWI 02: Spill Response
- EWI 04: Storage and use of Fuels Oils Paints and Chemicals
- EWI 17: Fuel Delivery Procedure

10.3 Item 4 (c): Lining of proposed settlement ponds

The Planning Authority notes that the applicant proposes to provide settlement pond to recycle the water used for washing. The applicant shall provide revised details of how they propose to line the settlement ponds.

Response

It is proposed to line the ponds with a geomembrane liner. The liner shall consist of 2mm thick, high density polyethylene (HDPE) unlaminated material, textured on both sides. The material will be produced from pure (non-recycled) resins and contain no fillers, plasticisers or additives of any kind with the exception of carbon black.

It is proposed that the double textured geomembrane should be used on the base and sidewalls of the settlement lagoon. Breedon have used this technology on other sites and have experience with its installation, use and maintenance.

The Liner Protection System shall incorporate granular protection layers and geotextiles. Protective geotextile may be incorporated beneath the geomembrane where required.

The proposed works will include:

- Installation of a geotextile protector immediately above the formation (if required);
- Installation of a welded 2mm thick HDPE geomembrane liner textured on both sides;
- Installation of a geotextile protector immediately above the formation / regulating layer;
- Installation of a 150mm thick lower fine granular protection layer;
- Installation of a geotextile marker layer;
- Installation of a 150mm thick upper coarse granular protection layer;



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11.0 Item 5: An Taisce

11.1 **Proximity to SPA**

The subject site is in close proximity to the Slieve Bloom Mountains SPA (site code: 004160), which contains the Annex I Hen Harrier species as a special conservation interest. This site is considered to be one of the national strongholds for the Hen Harrier, and of particular significance with regard to the subject proposal is that the species is known to forage up to 5km from nest sites, which may extend their activity beyond the strictly delineated functional area of the SPA.

Given that the proposed extraction area of 8ha overlays native hedgerows, naturally regenerating scrub and emerging broadleaved woodland, the Hen Harrier and other ground-dwelling bird species could utilise this area as potential habitat and for breeding, foraging and nesting purposes. For example, as outlined in the Hen Harrier Threat Response Plan, "Areas of abandoned land with scrub, though not considered extensive at a landscape-scale, can be utilised by nesting and/or roosting hen harrier in particular".

The removal of hedges, scrub. etc, as envisaged within the subject proposal, is categorised as a medium-level threat to the Hen Harrier.

Therefore, the retention of native hedgerows and naturally regenerating scrubland in particular should be prioritised in the first instance.

Furthermore, the area could be restored as an important upland open habitat type for the benefit of these types of bird species, to tackle the urgent and rapid decline of these species' population numbers. Strikingly, the Hen Harrier has experienced a 59% decline since 2000, and a 30% decline in the last ten years. The Merlin has been categorised as amber-listed due to breeding range declines of 8% and 49% over the past 20 and 40 years respectively. A Red Grouse Survey conducted between 2006-2008 found that the species had lost 50% of its former historical breeding range, prompting it to be red-listed.

Therefore, we advise that close consideration to the potential for this site to act as habitat for nationally and regionally significant bird species whose population numbers are experiencing a rapid decline, such as the Hen Harrier, the amber-listed Merlin and the red-listed Red Grouse.

As noted by the NPWS Site Synopsis report for the SPA, "The Slieve Bloom Mountains SPA is of ornithological importance because it provides excellent nesting and foraging habitat for breeding Hen Harrier and is one of the top sites in the country for the species. The presence of three species, Hen Harrier, Merlin and Peregrine, which are listed on Annex I of the E.U. Birds Directive is of note."

Therefore, the bird surveys conducted by the applicant's ecologists are sufficiently rigorous in method and frequency of survey days to ensure that a robust bird survey has been carried out. A longer survey period may need to be carried out due to the known occurrence of Merlin and Red Grouse populations within the SPA, and the likelihood that they would frequently move beyond the confines of the SPA.

The Biodiversity: Part 1 chapter of the EIAR notes the occurrence of Hen Harrier on site, as observed during one survey, which indicates that the site is ornithologically significant. In light of this, we would query the conclusion of the survey that "it was reasonably concluded that breeding hen harrier are not present on the site and the need for additional surveys was not necessary". Given the abundance of Sitka spruce afforested areas throughout the SPA, it is likely that areas of scrubland such as that contained within the subject site would be frequented by Hen Harrier or other ground-dwelling bird species.



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Article 27 (4) and (5) of the European Communities (Birds and Natural Hapitats) Regulations 2011 to 2021 which emphasise non-deterioration of bird habitat outside of the Natura 2000 network:

- (4) Public authorities, in the exercise of their functions, insofar as the requirements of the Birds Directive and the Habitats Directive are relevant to those functions, shall—
- (a) take the appropriate steps to avoid, in candidate special protection areas, pollution and deterioration of habitats and any disturbances affecting the birds insofar as these would be significant in relation to the objectives of Article 4 of the Birds Directive,
- (b) outside those areas, strive to avoid pollution or deterioration of habitats, and
- (c) take appropriate enforcement action.
- (5) Without prejudice to paragraphs (2), (3) and (4), every public authority in the exercise of any of its functions or responsibilities, shall—
- (a) comply with the requirements of the Habitats Directive, the Birds Directive and these Regulations insofar as they may arise for consideration in the exercise of those functions,
- (b) take the appropriate steps to avoid damage to European Sites through activities that may cause deterioration of natural habitats or to the conservation status of the species for which the sites have been designated, including such activities that take place outside the boundaries of the sites.
- (c) take the appropriate steps to avoid disturbance of the species for which European Sites have been established, in so far as such disturbance could be significant in relation to the objectives of the Birds Directive or the Habitats Directive,
- (d) outside special protection areas, strive to avoid pollution or deterioration of habitats within the meaning of the second sentence of Article 4(4) of the Birds Directive" [An Taisce emphasis] The applicant is requested to respond to the above matters in detail.

Response

A total of six hen harrier surveys have been undertaken on the site across 2024 and 2025. Whilst hen harrier were the target species of these surveys, any sightings of other important species such as peregrine, merlin or red grouse would have been recorded as incidental species.

Other than one hen harrier survey (Survey 1), which recorded one female hen harrier flying to the north of the site (i.e., offsite) in a south-westerly direction from the north-east. No other sightings of hen harrier or other protected species (including peregrine, merlin or red grouse) were recorded during the surveys.

In addition, no incidental sightings of peregrine, merlin or red grouse were observed during the various other surveys conducted on the site across 2024 - 2025 (e.g., the four breeding bird surveys in 2024). Merlin often use agricultural fence posts as feeding spots and pellets and other feeding remains can often be found in these locations. Evidence of such activity was surveyed for during various site surveys and no evidence of merlin presence was recorded on or near the site.

In summary, there have been no incidental sightings of merlin, red grouse, or any other protected birds (other than those recorded in the EIAR) were identified on the site and there has only been one sighting of hen harrier passing the site and not using the site for foraging or roosting purposes.

Following the completion of the four additional hen harrier surveys (totalling six across 2024 – 2025), it has been concluded, following reasonably survey effort, that hen harrier do not use



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the site for roosting purposes and the site is also of low importance for foreging hen harrier, despite its proximity to the Slieve Bloom Mountains SPA.

Moreover, based on the breeding bird and hen harrier surveys conducted over winter, the site does not support red grouse or merlin.

It should also be noted that the sitka spruce plantations, which did provide suitable habitat for hen harrier, and were located to the north-west (ITM coordinates E626395 N698174) and west of the site (ITM E626413 N698016) have since been clear felled (in March 2025) and now no longer have any potential to support hen harrier (see Photograph 11).

It is noted that An Taisce have identified that "the bird surveys conducted by the applicant's ecologists are sufficiently rigorous in method and frequency of survey days to ensure that a robust bird survey has been carried out."

12.0 Item 6: Department of Housing, Local Government and Heritage (DHLGH) / Nature Conservation

12.1 Item 6 (1): Badger Sett / Additional survey required

The Environmental Impact Assessment Report (EIAR) identifies one disused outlier badger sett within the hazel woodland and this is highlighted in the Habitat Map Figure 5-3. Upon site inspection further badger setts were identified on the site boundary and some are in frequent use. Therefore, a badger survey should be carried out by a suitably qualified ecologist to identify any further badger setts prior to a decision being made on planning. A copy of the survey report must be forwarded by Laois County Council to this Department for comment before any decision is made on the works.

Response

Badger sett monitoring was undertaken following the guidance set out under *Ecological* surveying techniques for protected flora and fauna during the planning of national road schemes (NRA, 2008a) and Guidelines for the treatment of badgers prior to the construction of national road schemes (NRA 2008c)¹⁵.

In summary, five badger sett entrances and one Stoat/Fox den were recorded on site surveys conducted between 22/01/2025 and 18/03/2025 by SLR Senior Ecologist Jake Matthews, the locations are shown on **Drawing FI-2a**. None of the locations comprise a main sett confirming that badger breeding does not take place onsite. The badger setts identified onsite comprise only outlier setts.

Results

Monitoring of these sett entrances found the following:

• **Sett 1** was located at ITM coordinates E 626635, N 698146. It comprised a single entrance and was found to be disused (see **Appendix I** Photographs 1 and 2).

Therefore, Sett 1 was assessed to comprise a disused outlier sett.

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¹⁵ National Roads Authority (2008c). Guidelines for the treatment of badgers prior to the construction of national road schemes. Available online: https://www.tii.ie/media/dv2dnea4/guidelines-for-the-treatment-of-badgers-prior-to-the-construction-of-a-national-road-scheme.pdf. Accessed: April 2025.

Sett 2 was located at ITM coordinates E 626645 N 698126. It comprised a single entrance and was found to be active by a single badger (see Appendix I Photograph 3)

Therefore, Sett 2 was assessed to comprise an active outlier sett.

Sett 3 was located at ITM coordinates E 626591 N 698020. It comprised two entrances
and was found to be active by a single badger (see Appendix I Photograph 5). In
addition, a latrine was recorded in close proximity to this sett.

Therefore, Sett 3 was assessed to comprise an active outlier sett.

• **Sett 4** was located at ITM coordinates E 626629 N 698019. It comprised a single entrance and was found to be active by a single badger (see **Appendix I** Photograph 7).

Therefore, Sett 5 was assessed to comprise an active outlier sett.

Sett 5 was located at ITM coordinates E 626614 N 698026. It comprised a single entrance and was found to be active by a single badger (see Appendix I Photograph 8).

Therefore, Sett 5 was assessed to comprise an active outlier sett.

Location 6 was located at ITM coordinates E 626660 N 698039. It comprised a single entrance; however, this appeared to be too narrow to comprise a badger sett (see Appendix I Photograph 9). Monitoring found evidence of a badger investigating the entrance but did not enter the sett.

Therefore, **Location 6 was discounted as being a badger sett** at present and is most likely a disused fox den.

Assessment

The woodland / scrub habitat in which the five outlier setts were located was searched as thoroughly as possibly; four of which are actively used by badgers. None of these setts are considered main setts and furthermore, a main sett could not be found on the site. **Drawing FI-2b** shows the accessible route that was possible through this habitat.

The woodland / scrub habitat is to be lost under the current proposals, which would cause the destruction of the five confirmed badger setts. The unmitigated destruction of the four active setts may directly harm or kill badgers, which would cause an offence under the Wildlife Acts. The proposed development will also cause the loss of four active resting places for badgers and the loss of potential sett creating and foraging habitat. This is likely to cause a reduction in the local badger population for the duration of the construction and operational phases of the development.

Proposed Mitigation

All six locations, including the disused Sett 1, Four no. active setts, and Location 6 (which likely comprises a disused fox den), will undergo sett exclusion operations whereby one-way gates are positioned over all sett entrances. These gates will allow any badgers located inside a sett to exit the sett but will prevent any badgers from entering the sett.

Note that it may also be necessary to place mesh on the ground also to prevent the digging of new entrances.

Following the positioning of the one-way gates, a monitoring period of each sett for a minimum of 21 days will be undertaken by suitably qualified ecologists with the aim to monitor that no badgers re-enter the setts. There must be 21 consecutive days of no badger entry into a given sett before sett destruction can occur. Monitoring will comprise the use of trail cameras (for



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which, an NPWS licence would be required), and/or the use of sticks positioned over sett entrances.

Once the 21-day period has elapsed with no badgers entering a sett, it can be reasonably concluded that all badgers have vacated the sett and no badgers remain inside. Following which, the sett can be removed with no risk of harming badgers. Sett removal will be undertaken under the supervision of a qualified ecologist.

Sett removal activities will be undertaken outside the badger breeding season (i.e., between 1st July and 1st December) to have the fewest and least severe impacts on potentially breeding badgers. Although it should be noted that the presence of only outlier setts and the absence of a main sett on the site indicates that no badger breeding takes place on the site.

Since only outlier setts will be affected and no main or breeding sett will be lost, there is no requirement to construct an artificial sett. The affected badgers will be able to move to and use areas of the site, including retained areas that do not currently support any badger setts.

The removal of each badger sett will be undertaken using a mechanical excavator. The sett will be removed from several directions, commencing approximately 25m distance from the entrance to a sett, working towards the centre of the sett, cutting 0.5, slices in a trench to a depth of 2m. Exposed tunnels will be checked by the ecologist for recent badger activity and to ensure no badgers are present. Exposed tunnels and chambers will be back-filled with the excavated material. Sett excavation will be completed within one working day to ensure no badgers re-enter exposed tunnels and entrances.

Upon the completion of the badger sett closure, a report detailing evacuation procedures, sett excavation and removal, and any other relevant issues should be submitted to the local authority.

Note that derogation licences for badger sett removal is no longer provided by the NPWS and no licence is required for the removal of a badger sett. Rather, granted planning permission provides lawful authority for a proposed development and permission to carry out the sett removal activities.

12.2 Item 6 (2): Woodland, wet grassland, scrub habitat near SPA

An area of woodland, wet grassland, scrub and potential foraging habitat which is close to the Slieve Bloom Mountains Special Protection Area (SPA) (Site Code: 004160) will be lost due to this development. Breeding numbers of hen harriers in the Slieve Blooms are in decline and productivity or breeding success is also declining. While there are a range of reasons for this decline, the impact of disturbance is a contributing factor. The impacts of scrub removal on biodiversity must be assessed as a cumulative impact.

Response

The proposed development will require the loss of c. 1.89 ha of scrub habitat, which is likely to have the greatest impact on the site to the local bird assemblage (as detailed in the breeding bird surveys of the EIAR). This may also have a knock-on effect to hen harrier through reduced prey availability and foraging availability.

However, it has been assessed through the six hen harrier surveys that the site is of low importance to foraging hen harrier. Therefore, the loss of the scrub will not have a significant impact on hen harrier.

The loss of scrub for the proposed development alone will not result in a significant effect on hen harrier. However, when considered in combination with other developments, the loss of scrub habitat may cause a reduction in prey availability to a level that becomes significant.



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The cumulative assessment assessed the impacts of the site in combination with three other CENED. OZ developments detailed in Table 12-1.

Table 12-1: Granted planning applications between 2018 – 2023

(extracted from Table 5-28 of the EAIR – Biodiversity chapter)

Planning ref	Brief description	Approximate distance from site	Approximate size of development	Planning status
20154	Construction of: 1. A slatted cattle house, 2. The conversion of an existing hayshed to a slatted cattle house, (3) a cattle handling area and all ancillary works and services.	Adjacent	0.72 ha	Permission granted 27/07/2020
Unknown	Quarry - <u>Located here</u> (ITM: X 625207 Y 697926)	c.1.2 km south-west	c. 0.5 ha	N/A
22740	New single storey National Mountain Bike Trail Head Building consisting of a Café, Bike Hire Facility, Toilets, car park and all associated site works, demolition of an existing building at Baunreagh, Co. Laois.			Permission granted 14/02/2023

None of the listed other developments have an EIAR in which to assess their respective scrub loss in order to assess the proposed developments cumulative loss of scrub. However, all three developments are small in scale and will have likely localized impacts; and only 22740 has an NIS.

There may be some minor loss of scrub in each of the other developments listed in **Table 12-1**, which alone are likely to have negligible impacts on biodiversity.

- 20154 comprised an area of 0.72 ha (see Figure C in Appendix I). Due to the lack of an NIS or EIAR for this development, it is unknown what habitats were present originally. However, a review of older aerial imagery shows that existing structures were present within this site prior to the 2020 planning application and the other habitats within the site seem to comprise treelines and bare ground, with very little scrub habitat visible. As such, it is considered that there is a negligible quantity of scrub habitat within this application boundary.
- The unknown quarry comprised an area of c. 0.5 ha. However, a review of older aerial imagery shows that this area comprised only grassland habitat (likely agricultural grassland) prior to the construction of the development there. As such, no scrub habitat was lost to facilitate this development
- A review of the NIS for 22740 shows that this development comprised an area of c. 2.1 ha. The habitat map (shown in Figure 4.1 of the NIS and included as Figure D in Appendix I) of this report) shows that no scrub habitat was present in the baseline of this habitat. As such, there is no in-combination effect of the loss of scrub with this development.

Given the lack of scrub habitats present and lost within the other developments listed in Table 12-1 there will be no significant cumulative effect to the loss of c.1.89 ha of scrub within the site.



12.3 Item 6 (3): Retention of boundary hedgerows / native species

Any native trees species, such as willow, rowan, birch etc. along the boundaries of the site should be left in-situ, so too should the remnants of old field boundaries (hedgerous).

Response

The EIAR Landscape Plan (Figure 2-5) and Tree Removal Plan (Figure 2-8) shows the full extent of habitats to be retained in the proposed development. As shown on EIAR Figure 2-8, the majority of mature and semi-mature trees along the boundaries of the site are the be retained, with only the loss of three mature beech tree being necessary.

Hedgerows have been retained where possible, with c. 400 m of Hedgerow 2 being retained; c. 110 m of the Hedgerow 3 being retained; and the full extent of Hedgerow 4 being retained. However, the loss of c. 310 m of hedgerows are required to facilitate the development. This will be compensated for through the planting of new hedgerows in the restoration phase, ensuring that there will be an overall net gain of 375m of hedgerows in the long-term. The reduction of hedgerow quantity on the site will be limited to the construction and operational phases (i.e., medium-term) only.

12.4 Item 6 (4): Traffic volume increases

The proposed development will lead to increased traffic movements to this ecologically sensitive area. No details on predicted numbers to the site have been provided. The surrounding road network is insufficient to cater for increased traffic volumes. Again any increase in traffic within the Slieve Blooms may lead to increased pressure, particularly through disturbance on the Qualifying Interest, the hen harrier.

Response

Chapter 14 of the EIAR – Traffic predicts that there will be 12 daily loads (i.e., 24 return trips daily) during the operational phase. In addition, the site will employ one full-time staff member and two contractors, with staff movements generating an anticipated six peak hour trips (three inbound trips in the morning and three outbound in the evening peak). These will contribute to light vehicle movements. A total of six trips have been assumed to occur daily to cater for possible miscellaneous trips associated with the site (e.g., deliveries). **Table 12-2** summarises the predicted daily trips in the opening year and beyond (operational phase).

Table 12-2: Summary of predicted daily trips in opening year and beyond

(extracted from Table 14-2 of the EIAR)

Development	Type Of Traffic	Daily Trips			
Development	Type Of Traille	Arrivals	Departures		
2	Transportation of Material (HGVs)	12	12		
Quarry	Staff (LVs)	3	3		
	Misc (LVs)	3	3		
Total		18	18		



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The EIAR – Traffic chapter concludes that the development will have a negligible impact on traffic flows on the existing road network due to the low volumes of traffic being generated by the development.

Vehicle movements and activity on the site will occur during normal working hours and will be limited during the early morning and evening when hen harrier foraging peaks. This will limit any potential disturbance to hen harrier foraging near the site. This will ensure noise levels and potential disturbance caused by traffic are not caused during the most sensitive foraging times for hen harrier.

Increases in traffic, especially the heavy good vehicles will potentially cause increased disturbance pressure on hen harrier. However, the predicted increase in traffic associated with the proposed development will be low and undertaken during the least sensitive foraging times for this species. As such, the increase in traffic is unlikely to cause a significant effect to this species or undermine the conservation objectives for the QI species hen harrier associated with the Slieve Bloom Mountains SPA.

12.5 Item 6 (5): NIS cumulative impacts

The proposed development is located approximately 2.4 kilometres <u>downstream</u> of the River Barrow and River Nore Special Area of Conservation (SAC) (Site Code: 002162), with hydrological link via a stream on site that flows directly into the Killeen and Delour Rivers.

The Natura Impact Statement (NIS) states that as there are no potential risks to the integrity of the Natura 2000 network as a result of the proposed works, it is not possible for the proposed project to act in combination with any other proposed or consented projects. However, this does not take into account <u>synergistic impacts</u>. In addition EU Guidance 1 advises that where different components of the same development are implemented and assessed separately, that the cumulative impacts from these components should also be subject to a cumulative impact assessment.

Therefore, the cumulative impacts of wastewater treatment and sand and gravel manufacturing must be considered.

The applicant is requested to respond to the above matters in detail

Response

The River Barrow and River Nore SAC is located approximately 2.4 km east of the site when measured in a straight line. The site is hydrologically connected to the River Barrow and River Nore SAC via the Killeen (Delour) River (010), which is located c. 140 m east of the site; and a tributary of which is located immediately south of the site. The closest hydrologically linked area of the River Barrow and River Nore SAC is located 3.44 km downstream of this site when measuring the length of the linked watercourse.

The NIS stated the following:

The risk of pollution events entering the streams is considered negligible due to a c. 25m buffer which will be maintained between the proposed extraction area and the stream located adjacent (south) of the Site. Existing woodland, scrub and grassland vegetation located within this buffer will further reduce the risk of pollutants from entering the stream. Moreover, the water management system has been designed as a closed loop system and any leakage / spillage would be accidental only and of limited volume. This risk becomes greater when considering the impacts in-combination with other projects. Whilst the risk of accidental spillages being low for each site, the risk is increased for all developments hydrologically connected to the site.



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Furthermore, several of the QI species, in particular, are highly sensitive to vater pollution and the conservation objectives of these species would be undermined. Therefore, without

appropriate mitigation measures, the impact would affect the integrity of the site

Description of Works

Wastewater treatment

Wastewater will be created from the on-site toilet, office, welfare facilities, wheelwash and the washing and screening of the extracted sand and gravel using a mobile processing plant (refer to Figure 2-3 of the EIAR). This will be located centrally within the proposed extraction area, approximately 230m from the nearest watercourse. Processed water will be directed to the settlement lagoons, which are located to the north of the site, approximately 300m from the nearest watercourse. The wheelwash, office and welfare facilities will be located approximately 215m from the nearest watercourse. This will comprise a closed system and there will be no direct discharge into the watercourses. There will be no septic tank on the site and only a portaloo that will be managed by a separate contractor will be implemented on the site.

Sand and gravel manufacturing

According to Chapter 2 – Project description of the EIAR, the sand and gravel processing methods will consist primarily of washing and screening, using a mobile processing plant, to produce a range of aggregates for sale and distribution by the company. The processing plant will operate in a closed loop water circuit with silt disposal lagoons to minimise the need for excessive take of groundwater and to eliminate the need to discharge process water from the site. Once washed and screened, the aggregate will be stockpiled on the pit floor to await transportation off site for use in concrete / asphalt production, or for direct sale to the market.

The processing plant will operate in a closed loop water circuit and there will be no discharge from the processing of sand and gravel into the River Killeen. Impacts to the river will be limited to accidental spillages of hydrocarbons and/or sediments entering the river through runoff. However, this will be limited to small quantities due to the proposed mitigation detailed in the EIAR – Water chapter and will be quickly dispersed due to the transient nature of the habitat. This was assessed as not significant for the project alone.

The Dernaseer DWP450 mobile washing plant proposed to be used at the site is typically powered by an integrated diesel generator. This setup allows the plant to be fully self-contained and portable, making it ideal for use in remote locations or where a reliable power source is not readily available.

Details of the site activities that may lead to spillages that could enter the nearby Killeen River are detailed below:

A mobile fuel dispense will be used to transport fuel from the bunded fuel storage area to the processing plant on the pit floor. A mobile diesel dispenser, such as the Cemo DT-Mobile Easy Diesel Dispenser (https://www.tanks.ie/600l-cemo-dt-mobile-easy/p22332) will be used. These diesel dispensing tanks are approved for transport under ADR¹⁶. Some of the features of the tank include:

- ADR approved;
- Single-walled 600L polyethylene;

¹⁶ The European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011, as amended, apply to the transport of dangerous goods by road in tanks, in bulk and in packages. This includes the consignment, packing, loading, filling and unloading of the dangerous goods in relation to their carriage. They apply the provisions contained in the technical Annexes to the "Agreement Concerning the International Carriage of Dangerous Goods by Road" (ADR).

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- with crane eyes;
- Integral dispensing nozzle holder;
- Integral filling nozzle;
- Integral filler neck;
- Filler cap with vent and breather valve;
- Integral forklift pockets and handles;
- Integral loops for ratchet straps during transport;
- Built in hose bracket to keep things tidy until you next need to fill up;
- Built-in carry handles enable to tank to be handled easily during loading;
- Hinged lid-adjustable lid mount allows to be installed either on the left or the right for the best possible access;
- Isolation valve enables the container to be sealed off completely, thus adding to safety during transportation.

A number of spill kits will be available on-site to stop the migration of any minor accidental leakages or spillages should they arise. Spill kits will be located at the main site office and at the mobile processing plant. Spill kit training will be provided to staff when they start first and refresher training will be provided periodically thereafter. In addition, a drip tray will be used when refuelling of the diesel generator is being carried out to further prevent any spillages within the exposed pit floor area.

The proposed settlement ponds will be lined with a geomembrane liner consisting of 2mm thick, high density polyethylene (HDPE) unlaminated material, textured on both sides. The material will be produced from pure (non-recycled) resins and contain no fillers, plasticisers or additives of any kind with the exception of carbon black.

It is proposed that the double textured geomembrane should be used on the base and sidewalls of the settlement lagoon. Breedon have used this technology on other sites and have experience with its installation, use and maintenance.

The Liner Protection System shall incorporate granular protection layers and geotextiles. Protective geotextile may be incorporated beneath the geomembrane where required.

The proposed works will include:

- Installation of a geotextile protector immediately above the formation (if required);
- Installation of a welded 2mm thick HDPE geomembrane liner textured on both sides;
- Installation of a geotextile protector immediately above the formation / regulating layer;
- Installation of a 150mm thick lower fine granular protection layer;
- Installation of a geotextile marker layer;
- Installation of a 150mm thick upper coarse granular protection layer;

This will prevent any contaminated water from leaching through the ground water and potentially entering the Killeen River.





Likely Significant Effects

Likely significant effects to the River Barrow and River Nore SAC could be caused from dust and surface run-off entering the linked watercourses carrying sediments, hydrocarbons, and wastewater.

The individual effects of these include the following:

- Hydrocarbons caused from oil or fuel spills from machinery, are toxic to aquatic floa and fauna and will harm or kill invertebrates and fish as a result. This would have a knock-on effect to other fauna that predate on such species, such as otters.
- Dust deposited into the water can alter the pH and nutrient levels.
- Wastewater that enters the watercourses may introduce and cause increased levels
 of nutrients, which may cause eutrophication, oxygen depletion, or toxic effects to flora
 and fauna.
- Sedimentation will reduce light penetration into the watercourses and may smother benthic habitats. It may also cause increase nutrients into the watercourses, causing eutrophication.

When combined (i.e., synergistic effects), these pollutants can lower dissolved oxygen, increase turbidity, and create toxic conditions, which will affect sensitive species (including QI species) such as lamprey, white-clawed crayfish, Atlantic salmon, and otter. Without appropriate mitigation measures (provided in the NIS and additional measures provided below) the effects arising from these impacts may undermine the conservation objectives of the River Barrow and River Nore SAC.

Cumulative Assessment

An additional search was conducted to identify other relevant developments within 25m of the River Nore catchment area that might contribute to cumulative effects to the River Barrow and River Nore SAC along with the site. Other developments identified are provided in Table 13-3 (**Appendix I**).

All developments that were granted permission greater than five years' ago (unless clearly operational at present) were screened out; as were any developments that were refused planning, had withdrawn applications or consisted of minor developments (i.e., single households or changes of building use).

In total, 56 other developments were screened into the cumulative assessment that may contribute to additional suspended sediments entering the River Barrow and River Nore SAC via suspended surface water run-off or direct discharge; and the release of hydrocarbons and other chemicals through accidental spillages. There were no other sand and gravel pits or quarries identified in the search.

Wastewater, dust and sediment-laden run-off may be created and enter watercourses with hydrological connectivity to the River Barrow and River Nore SAC for each of the other developments listed in Table 13-3. In isolation, the effects arising to the SAC from these impacts (including those of the proposed development) may not be undermine the conservation objectives of the SAC. However, in-combination, the effect caused may become more significant and meet thresholds that undermine the conservation objectives of the SAC by negatively affecting the QI for this SAC and the synergistic effects of these individual impacts will increase the significance, leading to an even greater detrimental effect on the QI of the SAC.

It should be noted that for those developments where an NIS was provided (refer to Table 13-3), appropriate water management and other control of potential emission sources are incorporated to these developments through standard planning and building control measures. The relevant mitigation measures of the other developments are listed in Table 13-3. It is



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assessed that these mitigation measures are appropriate and sufficient to minimise and avoid the cumulative effects of the other developments to the SAC so that they will not undermine

the conservation objectives of the River Barrow and River Nore SAC.

Similar mitigation measures have been provided in the NIS for this project and additional mitigation measures have been provided below to provide a greater level of protection to the River Barrow and River Nore SAC and ensure that its conservation objectives are not undermined when considered in-combination with the other development.

Additional Mitigation Measures

The following additional mitigation measures have been provided (in line with other developments listed in **Table 13-3** in **Appendix I**) to minimise potential impacts to the nearby watercourses and the River Barrow and River Nore SAC:

- A self-contained portaloo system with an integrated waste holding tank will be used on site for toilet facilities. This will be maintained by the service contractor as required and will be removed from the site on completion of the construction phase.
- The portaloo will be inspected on a regular basis and emptied by a licensed contractor and the material disposed at an authorised facility.
- Attenuation ponds will ensure sediment laden process water is treated prior to reuse onsite in a closed loop system.
- Washing of any plant or machinery will occur only on the concrete pad, located c. 270m to the nearest watercourse.
- All plant will be stored as far as practically possibly from watercourses.
- All material proposed for the works will be stored on elevated platforms to minimise the risk of causing sediment-laden run-off entering the watercourses.
- During periods of dry weather stockpiles of processed and unprocessed sand and gravel will be dampened where required.
- All plant will be inspected prior to use. Defective plant shall not be used until the defect is satisfactorily fixed. All major repair and maintenance operations will take place off site.
- All fuels, lubricants and hydraulic fluids will be kept in secure bunded areas away from watercourses. The bunded area will accommodate 110% of the total capacity of the containers within it.
- Fuelling and lubrication will only occur in the designated concrete pad, located approximately 270m from the nearest watercourse (see Figure 2-3 of the EIAR). No fuelling or lubrication will occur in any other areas of the site.
- The concrete pad used for fuelling will be fitted with a hydrocarbon interceptor.
- Spill kits will be provided on the site and periodic spill kit training will be provided to all staff.
- Drip trays will be fitted to all plant machinery and a drip tray will be used beneath the fill point during refuelling operations in order to contain any spillages that may occur.
- A silt fence will be installed at the south of the site prior to the construction phase commencing and will stay in place throughout the operation phase of the site. The fence will extend for the full length of the proposed extraction area and the adjacent stream to the south. This fence will extend beyond the proposed extraction area for any area downgradient and at risk of run-off entering the watercourse.



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- The silt fence will be inspected weekly for damage and will be replaced or repaired, where necessary.
- Any site roads with the potential to give rise to dust will be watered at least once daily during dry and/or windy conditions.

Conclusion

The potential impact is appropriately mitigated and, when considered in-combination with the other developments listed in Table 13-3 in Appendix I, these will not undermine the conservation objectives of the River Barrow and River Nore SAC.

Item 7: Third Party Representations 13.0

38 no. third-party submissions have been received in relation to the proposed development. You are invited to comment on the issues raised within these submissions

Response

A summary outline of the issues raised by the 38 no. third party submissions is provided in **Table 13-1** below with a detailed response provided in **Appendix K**.

Table 13-1: Summary of Third Party Submissions

Submission Name	Topic of Concern	Submission Items Summary
Mai Culleton	Proximity to home	Quarry entrance will be close to their back door.
	Noise	Cites old age and is concerned noise will be a major issue.
Peter Sweetman	Appropriate Assessment	States that the development is within the Zone of Influence of the Slieve Bloom Mountains SAC and possibly within the Slieve Bloom Mountains SPA, and thus an Appropriate Assessment under Article 6.3 of the Habitats Directive is required.
		States that it is not possible for the Planning Authority to carry out an Appropriate Assessment which will comply with this decision.
Department of the Environment, Climate and Communications (Geological Survey Ireland)	Request for inclusion in conditions	 Appropriate scientists be allowed access to quarry faces during quarrying to check for new stratigraphies/ relationships to establish if the quarry site is worthy of recognition post extraction.
		If deemed appropriate, a representative section of the quarry face would be left at the end of the quarry life or information panels to promote geology to the public be erected.
Olive Phelan	Dust	Is concerned that the quarry will be closer to residents' homes and will bring about greater dust pollution leading to health problems.
		Is concerned about carcinogenic silica dust affecting health and wellbeing.
	Air quality	Air quality will be impacted by diesel lorries and increased traffic.





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Submission Name	Topic of Concern	Submission Items Summary
	Impact on resources	Believes the proposed development will compromise resources such as the Slieve Bloom Mountains, good farmland and mineral resources.
Leslie Hogan	Impact on elderly and additional needs population	 additional needs located 75 metres from proposed development. They will have to deal with noise, dust and passage of HGV five and a half days a week. Believes acoustic fence is inadequate to deal with these effects. Believes development will ruin their surroundings and way of life. Believes the proposed development will make even walking to their residence not feasible.
	Increased scale of quarry	States that the area has experienced problems in the past with the quarry when it was operating on a smaller scale and the proposed expansion will exacerbate this.
	Impact on wider community	 States there are approximately 50 homes within 1km radius. Asks that the effects on their living conditions and mental and physical wellbeing must be taken into consideration.
		Feels that the applicant will be the only one benefitting from the proposed development, while the community and environment will suffer.
	Road capacity	Narrow roads and unsuitable infrastructure inadequate for heavy goods vehicles.
		Roads already serving agricultural vehicles and timber lorries.
		 States that the metal bridge crossing the Delour River is unfit for heavy goods vehicles, claiming that vehicles have entered the river at this point before.
	Impact on primary schools	 Is concerned by an increase in heavy goods vehicles on the approach road to their children's primary school, Killanure National School. Is concerned by the proposed route that passes
		Paddock National School.
	Impact on wildlife and nature	 Comments on the richness of the nature and biodiversity in the Glendine area. Is concerned that the proposed development could cause irreversible damage over the proposed time.
	Water	Questions who will regulate this proposed development to ensure that the area's water supply remains uncontaminated.



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"Ground water vulnerability moderate to high".

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Is concerned private wells will get contaminated.

Believes road infrastructure would be unable to handle an increase in HGV traffic, given the

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Teresa Murphy-Carolan | Road capacity

Submission Name	Topic of Concern	Submission Items Summary
		existing heavy goods vehicle traffic on local roads from forestry activities. States roads are narrow and not designed for the traffic the proposed development would generate.
	Road safety	 12 daily truck movements will create safety risks for all road users. Believes risk of accidents and injury will rise significantly.
Kathleen Keyes	Proximity to dwellings	 Proposed development would affect the quality of life of residents. Proposed scale of development is disproportionate to the residential nature of the area.
	Water	 Claims their private well is in the affected zone and was not assessed as part of the planning process. Is concerned about the potential impact of the proposed development on the quality and
		 quantity of their drinking water. Claims quarry activities could disrupt natural water flow leading to a reduction in groundwater recharge thus affecting the availability of safe drinking water.
		 Is concerned by the Water Report noting that groundwater vulnerability in the area is "high to moderate".
	Air quality and dust	References the EIAR that states "airborne dust may have significant impacts on sensitive receptors".
		Concerned about the dust generated by the quarry and the potential health impacts.
		Observes exposure to quarry dust has been shown to cause health conditions such as Silicosis and cancer.
		Claims mitigations in the planning application does not sufficiently address this issue.
		Personally concerned about her daughter who has asthma.
	Public consultation	States no proper consultation on health concerns was carried out.
	Traffic	Claims quarry activities would cause constant heavy traffic.
	Noise	Claims quarry activities would cause noise pollution.
Noreen Ui Laighin	Exact same as Murphy Carolan	



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and 12 daily Light Vehicle trips stated in the EIAR

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water that the development would require.



exposure and property depreciation will have

profound effect on residents.

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been carried prior to the application being made.

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Assessment







Local roads inadequate to handle heavy truck

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movements.

Cheyanne Ryan





Submission Name	Topic of Concern	Submission Items Summary
	Archaeology	Suggest that an archaeological investigation is carried out before the application is granted permission.
NPWS	Exact same as Department of Housing, Local Government and Heritage	

Archaeological Investigations (An Taisce submission)

In the An Taisce submission dated 23 October 2024, the following was noted in respect of Cultural Heritage:

Archaeological Impact Assessment

We note the proximity of the subject site to an archaeological site described as "A flat topped circular mound (diam. C. 22m; H c. 1.75m) with slight dome in the centre" and would like to highlight the importance of ensuring maximum protection of our national monuments under the National Monuments (Amendment) Act 1994. We suggest that an archaeological investigation and test is carried out before the application is granted permission. This should not be left as a condition after the permission due to monitoring and enforcement constraints within local authorities. We also emphasise the importance of a 20m buffer zone between the development site and the archaeological site.

An Archaeological Impact Assessment (AIA) was undertaken as part of the EIAR and was contained within EIAR Chapter 12.

The application area extends partly within the zone of notification of a barrow – unclassified in Cummer townland. These is described in the RMP as:

LA011-008---- Cummer Barrow – unclassified A flat topped circular mound (diam. c. 22m; H c. 1.75m) with slight dome in the centre.

The barrow is located c.100m east of the extraction area and will not be directly impact by the proposal. The potential of the proposal to negatively affect the setting of the Barrow unclassified LA011-008---- will be mitigated by the construction of a grassed 2m high screening berm.

13.1.1.1 Geophysical Survey

A high resolution magnetometry survey was conducted by AMS in April 2024 (NMS Licence No. 24R0247) on 9.8 Ha¹⁷ (out of c.11 ha¹⁸). There were 25 anomalies identified and numbered in the report, details of which were provided in EIAR Chapter 12 / paragraph 12.61 and Table 12-3. The complete geophysics survey report was provided in EIAR Appendix 12-B.



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¹⁷ Agricultural lands accessible for survey

¹⁸ Lands still under agriculture

13.1.1.2 Archaeological Test Trenching

Subsequent to the geophysics survey, a programme of archaeological test trenching was carried out by Rubicon Heritage Services Ltd under Licence No. 24E1093 in early December 2024. Forty-two trenches, totalling 1,800 linear metres (approximately 3% of the Lands Made Available), were opened and checked for archaeological features.

The final report from Rubicon Heritage Services on the results of the test trenching is provided in **Appendix H**.

A Summary Finds letter from the consulting archaeologist, Dr. Charles Mount is also provided in **Appendix H**, with the following recommendations included:

'A dozen features of archaeological or possible archaeological significance including four pits, two possible postholes, three ditches, a burnt mound deposit, a possible charcoal production pit and possible iron furnace have been identified. These features are spread around the application area, are isolated and don't form a coherent complex that would indicate a settlement. The features are all sub-surface with no above ground expression.

As there are only a dozen significant or possibly significant features that are isolated and have no coherent pattern or surface expression it would not be reasonable to preserve the features in situ as this would make the proposed development impossible. Therefore it is recommended, in line with the ICF Code of Practice agreed with the Minister Actions, No. 6, that the archaeological features be preserved by record in advance of development under licence from the National Monuments Service.'



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Further Information Drawings

SLR Drawings

PRICEINED: OTOSIRORS Drawing FI-1 (FI Item 1a) (Original Planning Drawing 5 / EIAR Fig 2-2)

Revised Proposed Phased Extraction Design Layout

Drawing FI-2a (FI Item 1d)

Badger & Stoat Survey Results

Drawing FI-2b (FI Item 1d)

Badger & Stoat Accessibility Survey Results

Drawing FI-3 (FI Item 1e)

Domestic Well Survey

Drawing FI-4 (FI Item 1e)

Updated Cross Sections showing Groundwater Levels

Drawing FI-5 (FI Item 3)

Proposed Entrance Drainage Details

Drawing FI-6 (FI Item 4a)

Proposed Refuelling Details

PMCE Drawings

Drawing P23199-PMCE-XX-01—DG-CR-3_0001 (FI Item 2a)

Proposed Road Markings (at the site entrance)

Drawing P23199-PMCE-XX-01—DG-CR-3 0002 (FI Item 2a)

Proposed Road Markings (at the junction of the L10317 / L1031 local roads)

Drawing P23199-PMCE-XX-01—DG-CR-3_0003 (FI Item 2a)

Proposed Road Signage Details (at the site entrance and the approaches along the L10317 local road)

P23199-PMCE-XX-01—DG-TR-3_0001 (FI Item 2b)

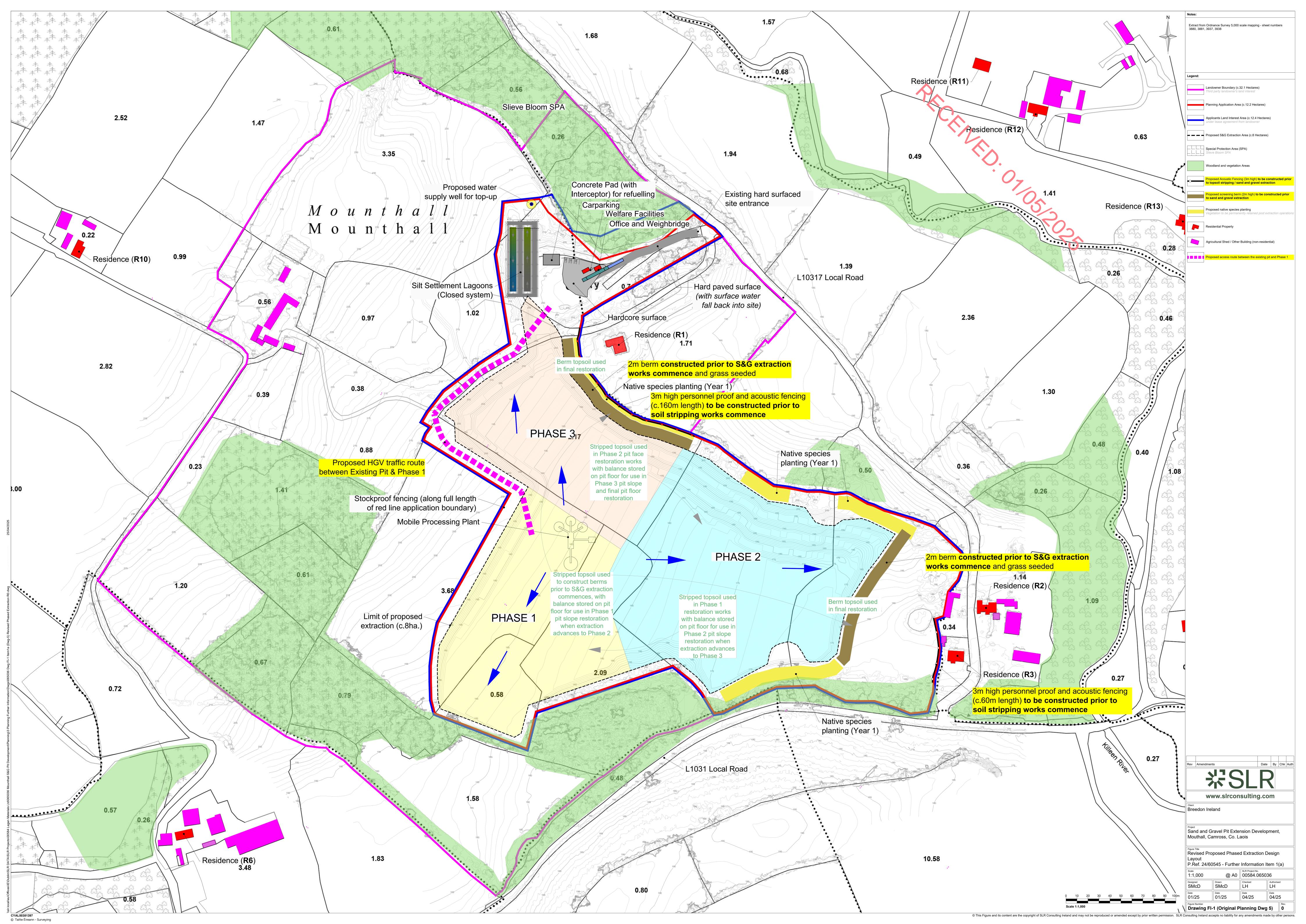
Proposed HGV Haulage Route

Drawing P23199-PMCE-XX-01—DG-CR-3 0004 (FI Item 2f)

Proposed Sightline Details (at the site entrance)

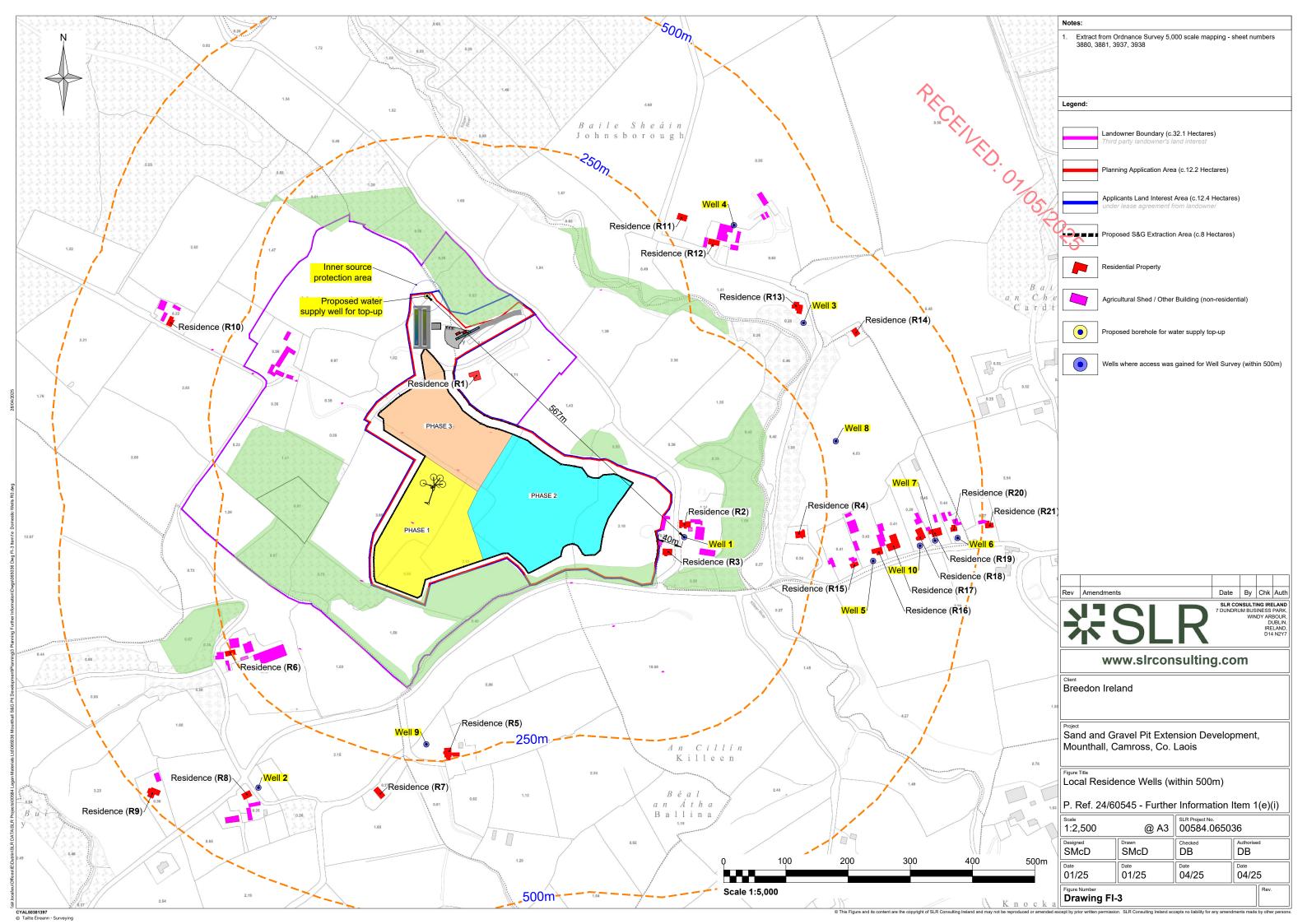


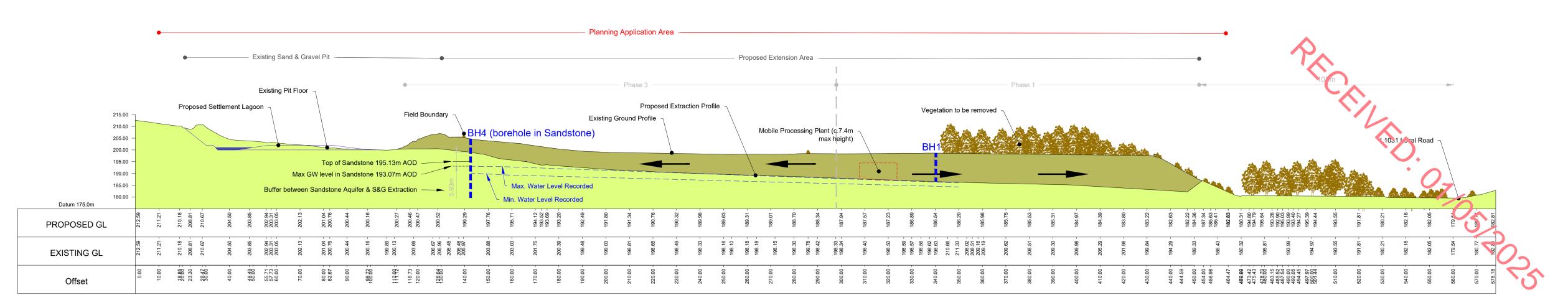
1 May 2025



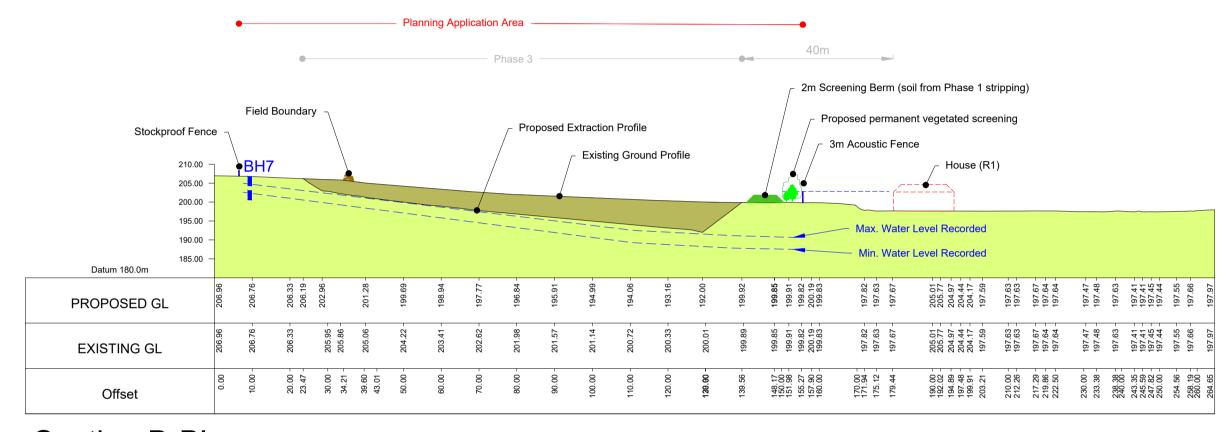




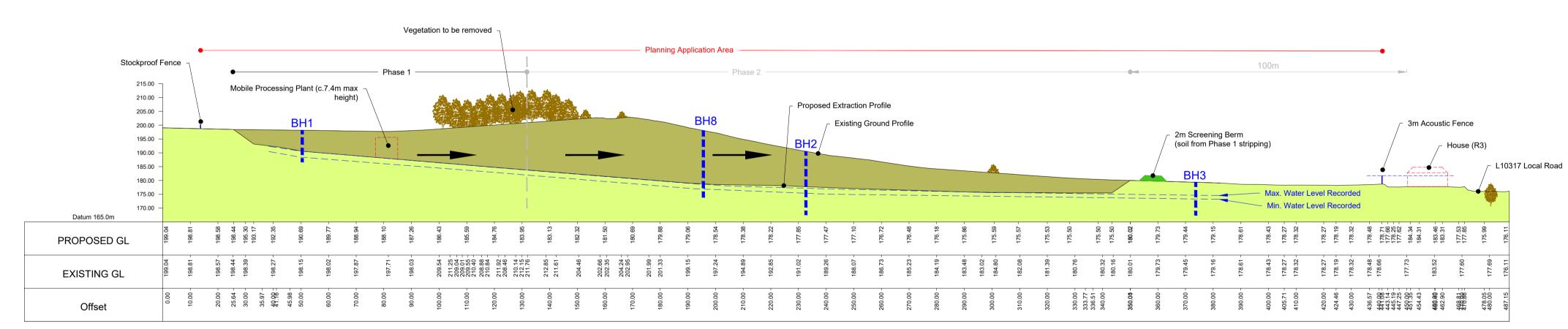




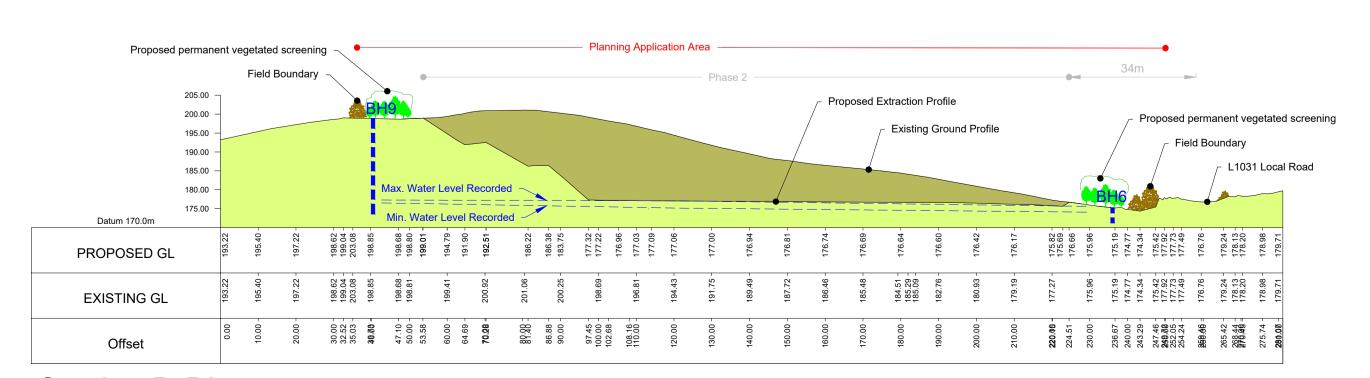
Section A-A'



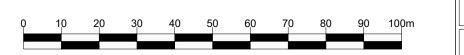
Section B-B'



Section C-C'



Section D-D'



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Legend:

Maximum & Minimum Groundwater Levels over the period February 2024 - March 2025

groundwater level every hour.

Manual groundwater levels were taken fortnightly from February 2024 to August 2024 by Breedon Ireland and monthly by SLR personnel from April 2024 to July 2024.

Five water level loggers were placed in BH02, BH03, BH04

BH05 and BH06 in April 2024 and set to record a

Rev Amendments Date By Chk Auth

www.slrconsulting.com

Breedon Ireland

Sand and Gravel Pit Extension Development,
Mouthall, Camross, Co. Laois

Revised Existing & Proposed Cross Sections showing Groundwater Levels (Max & Min)
P. Ref. 24/60545 - Further Information Item 1(e)(iii)

 Scale
 SLR Project No.

 1:1,000
 @ A1

 Designed DB
 Drawn SMcD

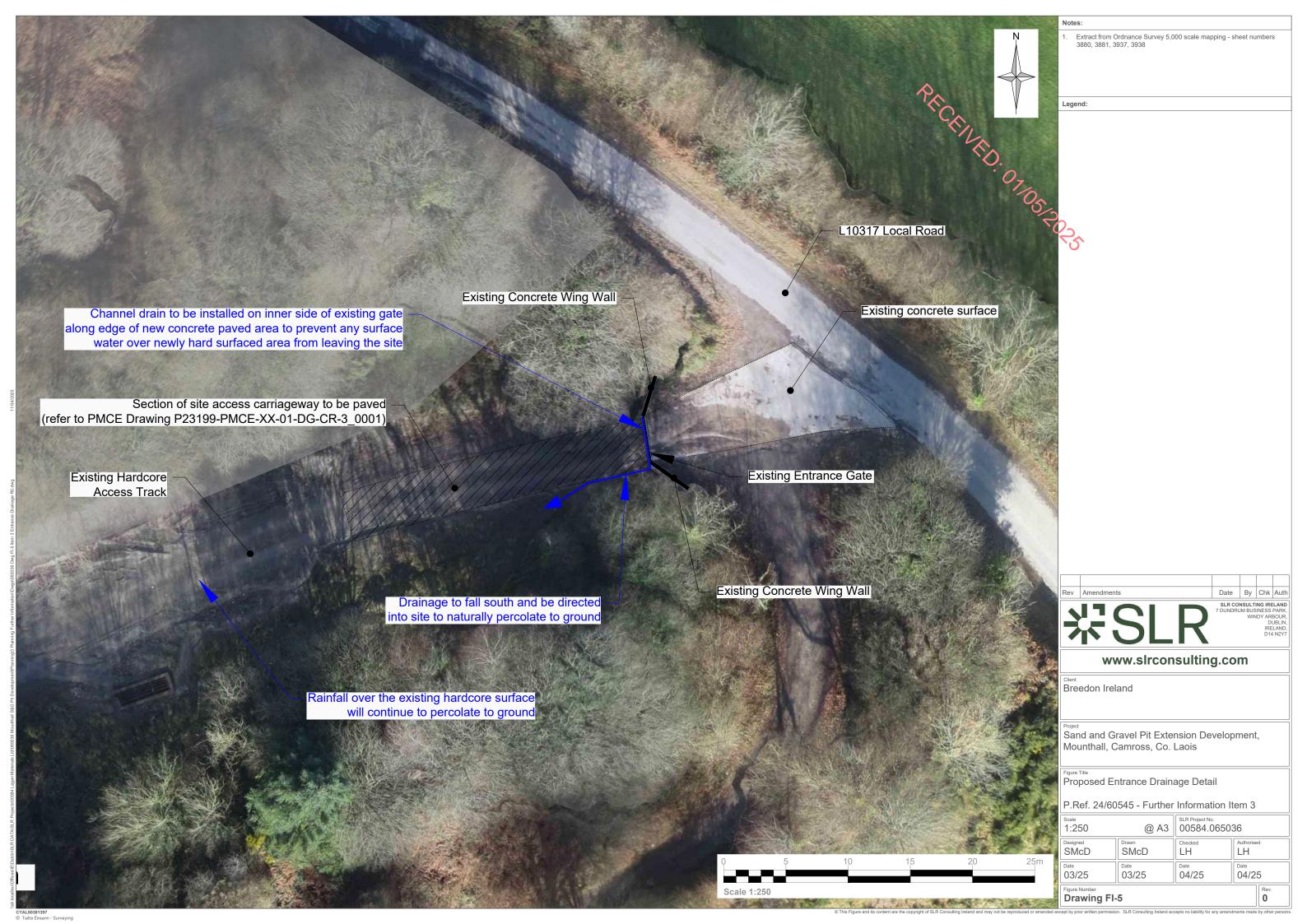
 Checked DB
 LH

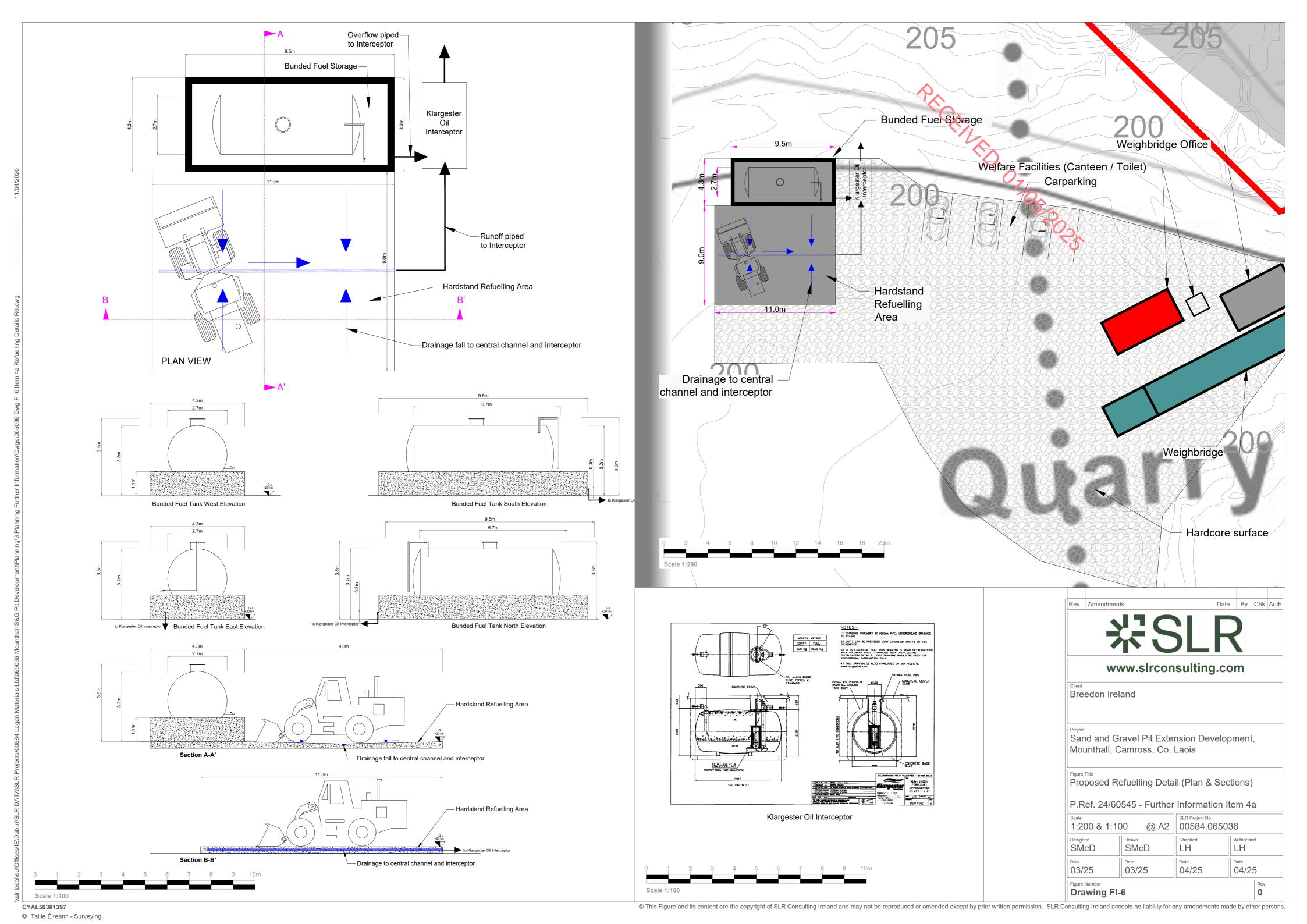
 Date 03/25
 Date 04/25

 Date 04/25

Prigure Number

Drawing FI-4





PECENED. OTOS RORS