



### Submission

|                           |                                 |
|---------------------------|---------------------------------|
| Submitter:                | Mr Thomas Mangan                |
| Organisation Name:        | HSE                             |
| Submission Title:         | Environmental Health Submission |
| Submission Reference No.: | S010157                         |
| Submission Received:      | 24 November 2021                |

### Application

|            |                                   |
|------------|-----------------------------------|
| Applicant: | Noel Lawler Sand & Gravel Limited |
| Reg. No.:  | W0310-01                          |

See below for Submission details.

Attachments are displayed on the following page(s).

*For inspection purposes only.  
Consent of copyright owner required for any other use.*



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

The Crossings  
Dublin Road  
Naas  
Co. Kildare

Tel: (045) 920208

Tel: (045) 920267

Fax:(045) 871864

**Date:** 23<sup>rd</sup> November 2021

**Our reference:** 2023

**Report to:** Environmental Licensing Programme  
Office of Environmental Sustainability  
Environmental Protection Agency  
Johnstown Castle Estate  
Co. Wexford

**EPA reference:** W0310-01

**Type of Consultation:** Waste

**Applicant:** Noel Lawler Sand & Gravel Limited, Portersize, Ballitore, Co  
Kildare, R14 RK35, Ballitore, Kildare

Dear Sir/Madam

Please find enclosed the HSE consultation reports in relation to the above licence application. If you have any queries regarding any of these reports the initial contact is Mr Derek Bauer, Principal Environmental Health Officer, who will refer your query to the appropriate person

Yours faithfully,

(pp)Derek Bauer  
Principal Environmental Health Officer



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

The Crossings  
Dublin Road  
Naas  
Co. Kildare

Tel: (045) 920208

Tel: (045) 920267

Fax:(045) 871864

**Date:** 23<sup>rd</sup> November 2021

**Our reference:** 2023

**Report to:** Environmental Licensing Programme  
Office of Environmental Sustainability  
Environmental Protection Agency  
Johnstown Castle Estate  
Co. Wexford

**EPA reference:** W0310-01

**Type of Consultation:** Waste

**Applicant:** Noel Lawler Sand & Gravel Limited, Portersize, Ballitore, Co  
Kildare, R14 RK35, Ballitore, Kildare

**Nature of Activity:**

| <b><u>Classes and Nature of Activity in accordance with the Waste Management Act 1996 as amended</u></b> |                           |  |
|--|---------------------------|--|
| <b>Class of Activity</b>   | <b>Principal Activity</b> | <b>Class of Activity Description</b>   |
| R05  | Yes                       | Recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials   |
| R13  | No                        | Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)". |

**Introduction:**

The following HSE departments were notified of the consultation request for the licence application on 27<sup>th</sup> October 2021

- Emergency Planning – Brendan Lawlor
- Estates – Helen Maher
- Assistant National Director for Health Protection – Kevin Kelleher / Helen Mulcahy
- CHO – Ann O’Shea

This report only comments on Environmental Health impacts of the licence application.

**Environmental Health Submission****Description of the project:**

The area of the proposed development comprises lands previously used as a quarry for sand and gravel extraction. It is proposed to fill the void left by the quarry with inert soil and stone which will be a soil recovery facility and will require a waste management licence. This will also provide additional void space for soils and stones in the Kildare area with the benefit of restoring an existing sand and gravel pit to beneficial after use.

The proposed development also includes the following restoration measures:

- Infill, grading and restoration of two settlement ponds, totalling 1.065 ha (two settlement pond areas in northwest of site approx. 0.788 and 0.277 ha).
- Restoration of three smaller ponds, totalling 0.44 ha, in order to provide an area of aquatic habitat (three ponds are approx. 0.321, 0.0835 and 0.0358 ha).
- Planting of a raised soil bund with native tree species, along northern site boundary (planting area approx. 0.48 ha).
- Grading of a pre-existing soil mound at the site entrance (approx. 1.11 ha).
- Development and management of an artificial sand martin nesting site, to replace the existing nesting location identified in the soil mound at site entrance.
- Construction of a soil quarantine shed (approx. 180m<sup>2</sup> in area, 15m height), inspection area and re-fuelling area (hardstanding) located north of the existing site office (approx. 400m<sup>2</sup> hardstanding area).
- Associated minor works to include site access road improvements (resurfacing), upgrade of drainage infrastructure including new fuel/oil interceptor and surface drains on hardstanding, refurbishment/repair of existing site office and weighbridge.

**Site Location:**

The proposed development site is located in the townland of Portersize, which is approximately 1.5 kilometres (km) to the southeast of Ballitore, Co. Kildare.

## Chapter 6: Land, Soils & Geology:

The Environmental Health Service (EHS) reviewed the assessment carried out on the potential impacts on Land, soils & geology during the operation of the development. Section 6.4.3 address the Construction/Operational Stages of the proposed development and the likely significant effects and mitigation measures under the following headings:

- Reinstatement of the Quarry Ground Profile and Land use Change.
- Contamination of Soils and Bedrock due to Oil and Fuel Spillages.
- Contamination of Soils and Bedrock due to Unsuitable Imported Soil and Stone by-product Material.
- Final Restoration/Decommissioning and Aftercare - Likely Significant Effects and Mitigation Measures.

**The EHS are satisfied that the proposed development will not have in any effects on land, soils & geology. EHS are satisfied with the statement in the EIAR that that *“The inert nature of the proposed material for importation means no negative effects on land, soils, geology or human health will occur. Once restoration works are completed, the site will be reinstated to deliver high quality restoration and long-term agricultural benefits.”***

## Chapter 7: Hydrology & Hydrogeology:

The Environmental Health Service reviewed the assessment carried out on the potential impacts on Hydrology & Hydrogeology during the operation of the development.

The site is bordered by grassland to the east, west and south where the natural ground elevation varies between 130m and 135mOD. The northern site boundary is defined by the Crookstown Stream. The northern extent of the extraction area is set back at least 100m from the Crookstown Stream and much of the site in between is tree covered natural ground. A manmade earthen berm, which is approximately 6-7m high, runs along the bank of the Crookstown Stream, close to the northern boundary.

Regionally the proposed site is located in the Barrow River surface water catchment. On a more local scale, the proposed site is located in Greese River surface water catchment. The Greese River flows in a southerly direction approximately 500m to the west of the site. The site itself drains to the Crookstown Stream which flows westerly along the northern boundary of the site prior to merging with the Greese River approximately 600m downstream of the site.

There are no natural drainage features or manmade drains within the site. The majority of the rainfall landing on the site infiltrates into the underlying sand and gravel deposits. There are no surface water discharges from the site.

### Groundwater:

The EIAR states that the GSI mapping has identified the groundwater in the area of the site has mainly a 'High' groundwater vulnerability rating. This does not account for the extraction at the site which has reduced the thickness of sand and gravel within the extraction footprint. Based on the drilling undertaken at the site, a High rating is applicable to the south of the extraction area and an Extreme vulnerability rating is applicable to the north of the extraction area. The EIAR states that backfilling the site with inert material could be viewed as a good approach to lowering the vulnerability rating, i.e. provide better aquifer protection in the long term.

Groundwater quality monitoring was completed at four on-site monitoring wells (MW01 to MW04). The only exceedances with regard to groundwater/drinking water regulation values were nitrate and orthophosphate. Nitrate was elevated in MW01 and MW03. The EIA states that given that nitrate is elevated in both an up gradient well and down-gradient well suggests the source is not on-site and is likely to be agriculture related. Orthophosphate is elevated above the groundwater regulation value in MW02 which is also likely to be agricultural related. The EIA further states that there was no exceedance with regard to heavy metals or hydrocarbons. Hydrocarbons would be the primary potential pollutant from an active quarry site, as a result of long-term machinery operation.

Section 7.4 address the Likely and Significant Effects and Mitigation Measures during both the construction and operational phases of the proposed development under the following headings;

Construction Phase:

- Earthworks (Removal of Vegetation Cover) Resulting in Suspended Solids Entrainment in Surface Waters.
- Potential Release of Hydrocarbons during Construction Stage.

Operational Phase:

- Potential Impacts on Groundwater Quality due to Imported Fill Material.
- Potential Impacts on Groundwater Levels and Local Well Supplies.
- Impacts on Groundwater Vulnerability.
- Impacts on Receiving Surface Water Quality.
- Potential Release of Hydrocarbons.
- Potential Hydrological Impacts on Designated Sites.

**The EHS are satisfied that once the mitigation measures outlined in section 7.4 are implemented in full there will be no significant effects on surface water or ground water.**

**In addition the EHS welcomes the inclusion of Groundwater quality monitoring to be completed on a quarterly basis for 1 year following closure of the infill site.**

#### **Chapter 8 Air & Climate:**

The Environmental Health Service reviewed the assessment carried out on the potential impacts on air and climate during the operation of the development.

The EIA states that dust monitoring was carried out at three locations on the site. The results show that total depositional dust levels measured were below the 350 mg/m<sup>2</sup> /day limit value over the monitoring period. The maximum reported value for total dust was 28.39 mg/m<sup>2</sup> /day at DM02. The reported inorganic particulate fraction (that fraction representative of site quarry activity) was 4.94 mg/m<sup>2</sup> /day at DM02.

The EHS notes that the inorganic particulate fraction from all three samples was reported significantly below the 350 mg/m<sup>2</sup> /day limit value.

Section 8.4 address the Likely and Significant Effects and Mitigation Measures during both the construction and operational phases of the proposed development under the following headings;

Construction Phase:

- General Air Quality
- Dust Emissions

Operation Phase:

- General Air Quality
- Dust Emissions
- Dust Monitoring

**The EHS are satisfied that once the mitigation measures outlined in section 8.4 are implemented in full there will be no significant from dust.**

**In addition the EHS welcomes the inclusion of dust deposition monitoring that will be carried out in line with the existing monitoring requirements for the quarry operation.**

### **Chapter 9 Noise & Vibration:**

The Environmental Health Service reviewed the assessment carried out on the potential impacts on noise and vibration during the operation of the development.

The EIAR states that the infilling and restoration works will occur during the following working hours in line with the existing operational conditions of the quarry: 07:00 – 18:00 Monday to Friday; and 07:00 - 14:00 Saturdays. Closed Sundays, Bank Holidays and other Public Holidays.

The EIAR states that there are no noise receptors on the proposed development site itself. The nearest receptors are as follows:

- Two dwellings lie immediately adjacent to the site access road, one of which lies adjacent to its junction with the R747. A number of one-off dwellings lie to the south and west of the junction.
- Portersize Cross lies 350 m south of the above junction. From the cross, a local secondary road runs northeast. A number of dwellings are situated along this road, the nearest of which lies 200 m from the pit perimeter.
- An access road off the local secondary road serves two dwellings 230 m and 300 m east of the pit.
- There are fewer receptors to the north and northeast. The nearest dwelling here lies 870 m north of the pit.
- A farmhouse to the northwest lies 500 m from the pit.

There are 19 detached dwellings within 500 m of the pit. The nearest settlements are Ballitore 1500m northwest of the pit, and Timolin to the southwest. Ribbon development at Timolin approaches to within 1200m of the site.

A baseline noise survey was carried out at the proposed development site on 5th March 2020. Monitoring was carried out at four stations representing the nearest receptors, the results of which are shown in tale 9-7.

The EIAR states that the dominant noise source at N1 and N2 throughout the survey was R448 traffic, with R747 traffic also audible at N2. Sporadic traffic on the access road to the existing pit dominated at N2 when present. Washing plant operations were not audible at N1 or N2.

Local and distant traffic dominated at N3 and N4 when the washing plant was shut down. When operating, washing plant emissions were continuously slightly audible at N3, and clearly audible at N4. LAF90 15 min levels fell to 33 dB at these stations when the washing plant shut down. The EIAR further acknowledges that the applicant's existing quarry is expected to cease operating in 2021

when the current planning permission expires. Noise emissions from the washing plant will therefore cease, resulting in a slight reduction in ambient noise levels at properties to the south and east of the pit. Truck movements on the access road will also terminate, and noise levels at the dwelling immediately adjacent to the access road will reduce.

Section 9.4 outlines the noise mitigation measure to be adopted during the operational phase, which are as follows:

- Plant used on-site will be maintained in accordance with manufacturer specifications. In particular, exhaust silencers will be maintained in a satisfactory condition.
- Communication through plant horns will be prohibited.
- Unnecessary revving of truck engines will be prohibited.

Specific mitigation is warranted with respect to potential impulsive emissions, and two measures are proposed here by the applicant:

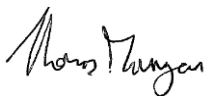
- Site haul roads will be maintained in a satisfactory condition, and free from surface defects that may generate rattles in empty truck bodies.
- Tailgate slap during tipping events will be prevented by using rubber stops or powered tailgates.

**The EHS are satisfied that noise emissions from the site will be inaudible or slightly audible due to masking by road traffic noise.**

## Conclusion

**The Environmental Health Service makes the following recommendations in respect of this licence application**

- Noise due to the normal operation of the proposed development, expressed as  $L_{Aeq}$  over 1 hour at the façade of a noise sensitive location, should not exceed the daytime background level by more than 10 dB(A) and should not exceed the background level for evening and night time. Clearly audible and impulsive tones at noise sensitive locations during evening and night shall be avoided irrespective of the noise level.



Thomas Mangan  
Environmental Health Officer  
Environment Operational Unit



Derek Bauer  
Principal Environmental Health Officer



For inspection purposes only.  
Consent of copyright owner required for any other use.