

## **15.0 MATERIAL ASSETS – NATURAL AND OTHER RESOURCES**

### **15.1 INTRODUCTION**

This section outlines the potential impacts on natural and other resources of the proposed development at Banagher, Co. Offaly, comprising of an upgrade and construction of an extension to an existing beef abattoir plant, which would include the construction of stormwater and effluent drainage systems, water treatment plant, electrical sub-station, truck wash, security hut, waste and by-product area and gas compound, site access roads and all ancillary development including internal road surfacing, the provision of outdoor artificial lighting, an extension to the existing lairage facility and site landscaping.

### **15.2 METHODOLOGY**

A desktop study was undertaken to assess the potential impact of the proposed development on the natural and other resources of the area. This included a review of available data on the Geological Survey Ireland Spatial Resources, Teagasc Subsoil Mapping and EPA Envision Online Mapping websites.

### **15.3 DESCRIPTION OF EXISTING RESOURCES**

The area in the immediate vicinity of the proposed development is rural in nature, with much of the land in agricultural use. However, a network of utilities associated with residential houses, agricultural and commercial operations are all available in the general hinterland.

#### **15.3.1 LAND USE AND SOIL**

The proposed extension to the existing facility, including all ancillary works such as lairage facilities and hardstanding, would cover approximately 46,800 m<sup>2</sup>, while the proposed ICW system would cover approximately 55,400m<sup>2</sup>.

As discussed in Section 11, the proposed development site is dominated by peat along the north of the site, with the remainder of the site covered in a ‘fine loamy’ drift with limestone clasts (a poorly drained basic soil). The subsoils underlying the site are mapped as till derived from limestones with peat present in the north-west and along the northern boundary of the site. A detailed description of the existing soil environment is provided in Section 11.

#### **15.3.2 TRANSPORT NETWORK**

The proposed development would be located within the townlands of Meenwaun and Boheradurrow. The nearest settlement to the existing facility is the town of Banagher, located approximately 2.4km north-west of the site. The towns of Birr and Portumna are located approximately 8km and 20km respectively from the facility. Tullamore is the closest large-size town and is located approximately 31.5km to the north-east of the site.

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The site is accessed via the L3010, a local road linking to the R438 road. The R438 road connects to the N62 National Primary Road approximately 7km to the north-east and the N65 National Primary Road some 21.5km to the south-west.

### **15.3.3 ECONOMIC MINERALS**

There are no operational quarries within the immediate vicinity of the site. Five operational quarries are located within 10km of the proposed development site, as detailed in the table below.

**Table 15.1:** Operational Quarries within 10km of the Proposed Development

QUARRY NAME	QUARRY TYPE	APPROX. DISTANCE FROM PROPOSED DEVELOPMENT
Lusmagh Quarry	Crushed Rock	4.7km South-West
Birr Pit	Sand and Gravel	5km South-East
Boolinarig Pit	Sand and Gravel	5.6km South-East
Ballinaguilsha Quarry	Crushed Rock	6km South-East
Ballywilliam Pit	Sand and Gravel	7.7km South-East

GSI online webmapping indicates the following mineral localities within the vicinity of the proposed development:

- Area of limestone (pale grey compact variegated marble), 5.3km west of the site;
- Area of clay, 5.4km north of the site;
- Area of tufa, 5.6km south of the site;
- Area of dimension stone, 6.6km south-east of the site;
- Area of clay / brick, 6.7km north-west of the site;
- Infilled limestone quarry, 6.7km south-east of the site.

## **15.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT**

The proposed development would comprise of the proposed upgrade and extension of an existing abattoir facility within the townlands of Meenwaun and Boheradurrow, at Banagher, Co. Offaly. The proposed development would also include the construction of stormwater and effluent drainage systems, water treatment plant, electrical sub-station, truck wash, security hut, waste and by-product area and gas compound, site access roads and all ancillary development including internal road surfacing, the provision of outdoor artificial lighting, an extension to the existing lairage facility and site landscaping.

**ENVIRONMENTAL IMPACT ASSESSMENT REPORT**  
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Slaughtering activities at the proposed facility would typically operate Monday to Friday. However, slaughtering may be undertaken at weekends for reasons such as casualty animals and demand.

Two steam boilers, to be located within the plant room, are proposed as part of the development, each with a capacity of approximately 900kgs per hour.

Artificial outdoor lighting would be installed along the internal access network and within the main site yard. The lighting design for the development would be determined at a detailed design stage.

Should conditions allow, it is proposed that the site's water requirement would be sourced via water abstraction onsite. It is estimated that water consumption at the site would be 150 – 200 m<sup>3</sup>/day. Water conservation measures have been included as part of the proposed development design. Rainwater harvesting would be implemented, with all roof water collected for use in staff sanitary facilities and site landscaping. The final WWTP design includes for the capture of treated effluent water in a holding tank (grey water tank) to be used in lairage and lorry wash-out.

New stormwater and effluent drainage systems would be constructed. Stormwater from clean-yard areas and car parking areas would pass through a silt trap and Class 1 By-Pass Separator before being directed to a modular underground attenuation system. From here, stormwater would be pumped to a manhole prior to discharge to the Feeghroe Stream.

All process drains, domestic drains and dirty yard surface water drains would be directed to the site's new WWTP, which would comprise of an inlet sump, meva screen, drum screen, balancing tank, dissolved air flotation (DAF) unit, sludge tank, anoxic tank, two aeration tanks, clarifier, sand filters and an outlet sump. From here, the treated final effluent would be directed to the proposed integrated constructed wetlands (ICWs), comprising of a five-treatment cell system, prior to discharge to the Feeghroe Stream.

The proposed upgrade and extension of the existing abattoir facility would result in a loss of agricultural grassland, disturbed ground (including a section of previously tilled land), sections of hedgerows and drainage ditches and a limited area of bog woodland.

The expected construction timeframe would be approximately 18 months, with hours of operation from 7am to 7pm Monday to Friday, and 8am to 2pm on Saturdays. A temporary site compound would be established and would house the temporary offices, equipment and materials storage and construction staff welfare facilities. The temporary site compound would also be used for the storage of fuels and oils required for the various construction plant, in addition to housing waste receptacles.

## **15.5 POTENTIAL IMPACTS AND MITIGATION MEASURES**

### **15.5.1 LAND USE AND SOIL**

In total, the proposed development would occupy a 102,200m<sup>2</sup> (approximate) footprint, which would result in a land take of mainly agricultural grassland, disturbed ground (including a section of previously tilled land), sections of hedgerows and drainage ditches and a small section of bog woodland. All of the land take would take place within the applicant's landholding.

As noted in Section 16.6, it is estimated that 804 tonnes of excavated materials would be generated from the proposed extension to the existing abattoir facility and associated structures, with an estimated 58,000 tonnes of excavated materials generated from the construction of the ICW system. However, as noted in Section 16.6, these figures are estimates only.

Excavated soils would be stockpiled for use in reinstatement and landscaping activities where possible. For the ICW system, excavated soils would be used to construct the enclosing embankments around each pond and for use in cell lining where suitable. Any excess soils remaining following reinstatement and landscaping works would be collected by a licenced waste contractor and either reused for reinstatement / landscaping activities at other sites if suitable or disposed of as appropriate.

Therefore, it is considered that there would be no significant impact on land or soil material assets. Impacts on the agricultural use of land are discussed in Section 13 Material Assets – Agriculture.

### **15.5.2 TRANSPORT NETWORK**

During the construction stage, the presence of HGVs and small commercial vehicles for deliveries of construction materials and transport of construction workers would be noted.

As discussed in Section 8 and Attachment 8.1, during the operational phase of the proposed development, the total traffic generated by the development comprises an AADT of 283 PCUs within a 24 hour period. The Transportation Assessment report notes that while the local roads within the vicinity of the development are lightly trafficked, the increase in traffic movements due to the development can be considered small. The traffic assessment notes that the local road network can easily accommodate the traffic generated, and notes that the access junction and adjacent established road junctions would operate without any issues arising during the selected year of opening and the design year 15 years after opening. The report concludes that there would be no traffic/transportation capacity, traffic safety or operational issues associated with the proposed development.

### **15.5.3 ECONOMIC MINERALS**

It is considered that the proposed development would have no significant impact on mineral resources in the vicinity of the area.

#### **15.5.4 RAW MATERIALS REQUIRED**

Construction material, when needed, would be brought in from nearby sources such as local quarries where practical.

#### **15.6 RESIDUAL IMPACTS**

No significant residual impacts are predicted.

#### **15.7 DIFFICULTIES ENCOUNTERED IN COMPILING INFORMATION**

No difficulties were encountered during the assessment of potential impacts of the proposed development on natural or other resources.

#### **15.8 REFERENCES**

Environmental Protection Agency Licence public access information, Available at:  
<http://www.epa.ie/licensing/iedipcse/>

EPA Envision Online Mapping, Available at: <http://gis.epa.ie/Envision/>

Myplan.ie Viewer. Available at: <http://www.myplan.ie/viewer/>

Teagasc Subsoil Mapping. Available at: <http://gis.teagasc.ie/soils/map.php>