

ENVIRONMENTAL SOLUTIONS LTD ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT

# CARLOW CO CO DEPOT, POWERSTOWN, CO. CARLOW

2023

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# **Declaration**

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# **1.0 INTRODUCTION**

# 1.1 **PROJECT BRIEF**

Panther Environmental Solutions Ltd (PES Ltd) were commissioned to carry out an environmental impact assessment screening report for Carlow County Council. Carlow County Council are seeking planning permission to construct an equipment storage building, truck storage building, wire mesh boundary fence, concrete yards, salt silo, new surface water drainage system including a fuel/oil interceptor and a new foul water drainage system at Carlow County Council's existing 0.282 ha depot, located in Powerstown, Co. Carlow.

This EIA Screening assessment document has been prepared by PES on behalf of and for the exclusive use of the applicant with respect to an application for planning permission. This EIA Screening has been prepared with reference to Schedules 5 and 7 of the Planning and Development Regulations 2001, as amended.

# **1.2 DESCRIPTION OF THE DEVELOPMENT**

#### 1.2.1 Site Location

The development is located within the townland of Powerstown, Co. Carlow. The site is located at Irish Grid Reference (270533 E, 168846 N) or Irish Transverse Mercator (670477 E, 668876 N).

The development is located 7.96km south from Carlow town centre and would be considered rural in nature, with agricultural grazing land, a landfill, a civic amenity site, a quarry and one-off residences located within the vicinity of the site.

The site is accessed via the R448 regional road, which connects to the M9 motorway approximately 350m to the north-east. The R448 road also provides direct access to the centre of Carlow town.

The buildings in the locality consist of a mixture of residential dwellings and commercial buildings scattered along the public roads, with various activities provided.

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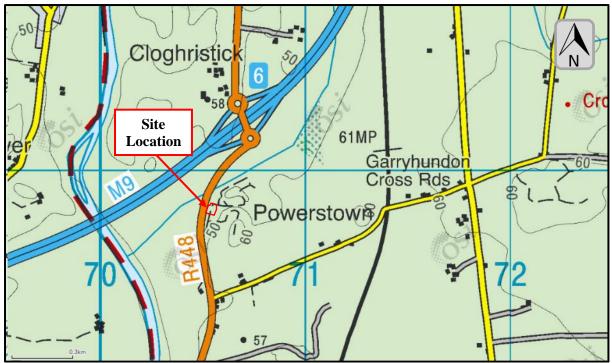


Figure 1.1: Site Location (Discovery Maps)



Figure 1.2: Aerial Image (Google)

# **1.2.2** Description of the Development

The site is currently occupied by a road salt storage building, a concrete and macadam yard, a gate, wire fences, vegetation in the eastern boundary, earth mounds in the western boundary. lighting and CCTV systems.

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Should the planning application be granted permission as per this proposal, it would be expected to be complete in 8-12 weeks. No construction works have been carried out or are currently being carried out at the proposed development site. Construction works would be confined to the development footprint and would not necessitate any works within a watercourse or drainage ditch.

The development consists of the construction of an equipment storage building, truck storage building, wire mesh boundary fence, concrete yards, salt silo, new surface water drainage system including a fuel/oil interceptor and a new foul water drainage system at Carlow County Council's existing 0.282 ha depot, located in Powerstown, Co. Carlow. Associated boundary treatments and all ancillary works would be required to complete the development.

The new truck storage building would have a total area of 224m<sup>2</sup> with the capacity to store 3 no. trucks. The new building would comprise reinforced concrete floor, concrete walls, steel pillars fixed to foundation, galvanised steel frame fixed to pillars, galvanised steel purlins, insulated roof claddings, galvanised roller doors and personnel door. As per the proposed site layout plan, the building will be located on a new concrete yard north of the existing storage building on the opposite side of the macadam yard. To the east of the truck storage building, there will be a salt silo and brine mixing and storage bunded tanks surrounded by bollards for protection.

The new equipment storage building would have a total area of 90.8m<sup>2</sup> and would comprise of reinforced concrete floor, insulated side and roof claddings, galvanised steel frame, concrete footpath, concrete walls, galvanised roller door and personal door. As per the proposed site layout, the building will be located immediately south of the existing storage building on a new concrete yard. Next to the existing gates that provide access to the landfill in the eastern boundary of the site, there will be a bunded fuel tank placed over a new concrete yard with a capacity of 5,000L that will be surrounded by bollards for protection.

The site is accessed via the R448 regional road, which connects to the M9 motorway approximately 350m to the north-east. The R448 road also provides direct access to the centre of Carlow town.

The new buildings will not have access to municipal water supply, as only the existing canteen and bathroom will continue to be serviced by water mains.

Stormwater from hard surfaces will be attenuated onsite and a new oil interceptor would be installed before being released to the Powerstown watercourse via an existing outfall pipe. It will also include an ACO drain with ductile iron cover. The storm water system has been designed to Sustainable Urban Drainage Systems (SuDS) specifications. The system would include a rainwater harvesting tank with a volume capacity of 5000 litres.

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on the landfill site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to any watercourse. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA.

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No landscaping will be undertaken as part of this development. The proposed development will retain the boundary hedgerows and treeline, however, this will be trimmed to 2.5m high. New 1.5 - 2m high earth mounds with topsoil and grass finish are proposed along the southern boundary and northern boundary also. An existing PVC coated mesh fence surrounds the southern section of the proposed development with the addition of a new 2.5m high PVC coated mesh wire fence which will encompass the northern proposed development area. New concrete yards would be laid to the north and south of the development, approximately 15m from the nearest watercourse and shuttering will be used as is standard practice.

The site will be used as a collect/drop off depot and staff presence will be minimal. The existing and proposed buildings will not be heated, as workers would be onsite for short durations (approximately 30 minutes max.) to use welfare facilities.

During excavation works, soils would be temporarily stored onsite. Any excess soils would be used for landscaping or exported offsite via a licenced contractor. The proposed development will require the removal of, and importation of, materials for the foundations measuring 20m<sup>3</sup>. Any topsoil imported will be screened from a certified supplier. There is no hazardous material within the site boundary.

All construction activities would take place during normal working hours between 7:00am and 19:00pm, Monday to Friday and 7:00am and 13:00pm Saturday.

# 2.0 PES LTD - COMPETENCY & EXPERIENCE

PES is a leading environmental consulting firm based in Carlow, Ireland. PES was formed in 2005 by environmental consultant Mr. Mike Fraher who has over two decades of experience working in the environmental consultancy industry, both in Ireland and in the United Kingdom.

The PES team are competent and experienced in preparing environmental planning documents. PES has completed environmental works in a wide range of industries including construction, waste management, industrial and intensive agriculture.

This Environmental Impact Assessment Report Screening has been prepared by experienced environmental consultants within PES Ltd.

Mr Mike Fraher has over 25 years of consultancy experience and has a B.Sc. Degree in Environmental Sciences from the University of Glamorgan, Cardiff in Wales and a Diploma in Food Sciences from Cork Institute of Technology.

Mr. Martin O'Looney has over nine years' consultancy experience and has a B.Sc. Degree in Environmental Science and Technology from Sligo Institute of Technology.

Mr. Nial Ryan has over six years' consultancy experience and has a BSc. in Applied Physics from Dublin City University, an MSc. in Medical Device Regulatory Affairs, a Certificate in Introduction to AutoCAD, and a Certificate in Environmental, Health & Safety Management all from Institute of Technology Carlow.

Mr. Luis Soares has a BSc. in Aquatic Sciences and a MSc in Environmental Sciences and Technology from University of Porto.

This screening report has been prepared having regard to the following documents:

The Irish Planning and Development Regulations 2001 to 2018 as amended (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018).

Directive 2014/52/EU of the European Parliament and of the Council (2014) On the Assessment of the Effects of Certain Public and Private Projects on the Environment. Luxembourg: Office for Official Publications of the European Communities.

Environmental Protection Agency's (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Dublin 14, EPA Publications.

European Commission (2001). Guidance on EIA Screening. Luxembourg: Office for Official Publications of the European Communities.

# 3.0 LEGISLATIVE CONTEXT & MANDATORY EIA REVIEW

#### **3.1 RELEVANT LEGISLATION**

The requirements for Environmental Impact Assessment (EIA) are derived from Council Directive 85/337/EEC (as amended by Directives 97/11/EC, 2003/35/EC, and 2009/31/EC) and as codified and replaced by Directive 2011/92/EU of the European Parliament and the Council on the assessment of the effects of certain public and private projects on the environment (amended in turn by Directive 2014/52/EU).

This EIAR Screening is drafted based on the requirements of EU Directive 2014/52/EU. Under the Directive, 2014/52/EU of the European Parliament and of the Council of 16<sup>th</sup> April 2014 "*The assessment of the effects of certain public and private projects on the environment*" Annex I and Annex II class activities are described.

EIA Directives were transposed into Irish law under the Planning and Development Regulations 2001, as amended.

This EIAR Screening has been prepared with reference to Schedules 5, 7 and 7A of the Planning and Development Regulations.

The first step in screening is to determine whether a project is listed in either Part 1 or Part 2 of Schedule 5, which describes the thresholds of Part 1 projects, which require a mandatory Environmental Impact Assessment Report (EIAR), or Part 2 projects which may have the potential to pose a risk to the environment and require screening to determine if an EIAR is required.

Schedule 7 is to be used in the case of screening determination (i.e. information to be provided by the developer on projects listed in Part 2). Schedule 7A details the criteria for determining whether a sub-threshold development would, or would not be likely to have significant effects on the environment.

#### 3.2 SCHEDULE 5 OF THE IRISH STATUTORY INSTRUMENT (S.I. NO. 296 OF 2018).

Schedule 5, of the Planning and Development Regulations 2001 refers to development for the purposes of Part 10 (Environmental Impact Assessment Report) of the planning regulations.

An EIAR is required to accompany a planning application for development of a class set out in Schedule 5 of the Planning and Development Regulations 2001 which exceeds a limit, quantity or threshold set for that class of development. An EIAR will also be required by the planning authority in respect of sub-threshold development where the authority considers that the development would be likely to have significant effects on the environment (article 103).

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#### 3.3 SCHEDULE 7 OF THE IRISH STATUTORY INSTRUMENT (S.I. NO. 296 OF 2018)

The Annex III EIAR screening criteria of Directive 2014/52/EU are transposed into Irish law as Schedule 7, (parts 1 to 3) of the Irish Planning and Development Regulations 2001.

Schedule 7 sets out the Irish Member States criteria used for determining the likelihood of significant impacts from a development on the environment.

#### **Part 1: Characteristics of the Proposed Development**

The characteristics of proposed development, in particular;

- (a) the size and design of the whole of the proposed development,
- (b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,
- (c) the nature of any associated demolition works,
- (d) the use of natural resources, in particular land, soil, water and biodiversity,
- (e) the production of waste,
- (f) pollution and nuisances,
- (g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and
- (h) the risks to human health (for example, due to water contamination or air pollution).

#### Part 2: Location of the Proposed Development

The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to;

- (a) the existing and approved land use,
- (b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,
- (c) the absorption capacity of the natural environment, paying particular attention to the following areas:
  - (i) wetlands, riparian areas, river mouths;
  - (ii) coastal zones and the marine environment;
  - (iii) mountain and forest areas;
  - (iv) nature reserves and parks;
  - (v) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;
  - (vi) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;
  - (vii) densely populated areas;
  - (viii) landscapes and sites of historical, cultural or archaeological significance.

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#### Part 3: Characteristics of the Potential Impacts

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account;

- a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);
- b) the nature of the impact;
- c) the transboundary nature of the impact;
- d) the intensity and complexity of the impact;
- e) the probability of the impact;
- f) the expected onset, duration, frequency and reversibility of the impact;
- g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and;
- h) the possibility of effectively reducing the impact.

The flow chart below describes the EIAR Screening process. This infographic is commonly referred to in EIAR Screening reports and is taken from the Environmental Protection Agency's 2022 "*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*" (see Figure 3.1).

Schedule 7A, sets out the Irish Member States criteria used for determining the likelihood of significant impacts from a sub-threshold development on the environment.

- 1. A description of the proposed development, including in particular;
  - (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and
  - (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
- 2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
- 3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from;
  - (a) the expected residues and emissions and the production of waste, where relevant, and
  - (b) the use of natural resources, in particular soil, land, water and biodiversity.
- 4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

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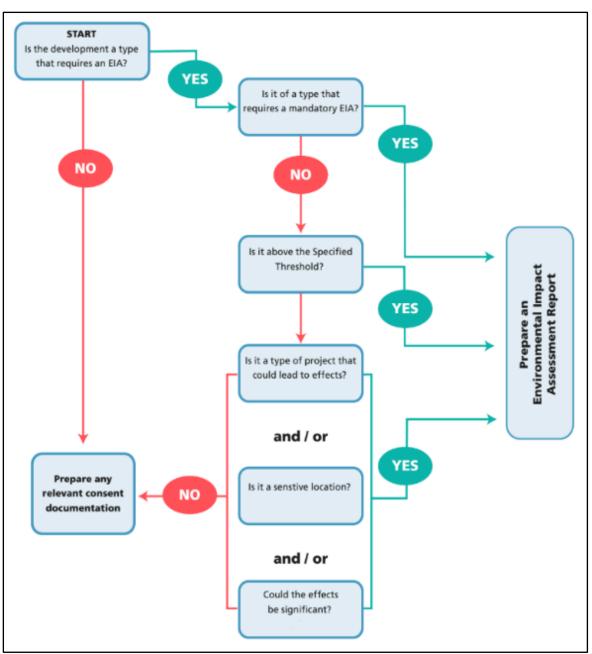


Figure 3.1: E.I.A. Screening Process Flow Chart

The overall purpose of this Screening Report is to identify and detail the findings of desktop and available field studies using the precautionary principle undertaken to analyse the impacts, if any, of the proposed development on the receiving environment and, based on the results, decide whether or not an EIAR is required.

#### 3.4 PROPOSED DEVELOPMENT AND PLANNING THRESHOLDS

The storage of salt is not included as a "class of development" within Schedule 5 of the Planning and Development Regulations. There are no thresholds stipulated in Schedule 5 which would require an EIAR to be completed for this project. However, the County Council may consider the proposed development to have the potential to pose a risk of significant impact to the environment and require screening to determine if an EIAR is required.

# 4.0 PART I – CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

This section assesses the potential impacts of the development due to the scale and characteristics of the activities proposed to be carried out.

## 4.1 SIZE AND DESIGN OF THE PROJECT

The overall development consists of the construction of an equipment storage building, truck storage building, wire mesh boundary fence, concrete yards, salt silo, new surface water drainage system including a fuel/oil interceptor and a new foul water drainage system at Carlow County Council's existing 0.282 ha depot, located in Powerstown, Co. Carlow.

The new buildings will not have access to municipal water supply, as only the existing canteen and bathroom will continue to be serviced by water mains.

Stormwater from hard surfaces will be attenuated onsite and a new oil interceptor would be installed before being released to the Powerstown watercourse via an existing outfall pipe. It will also include an ACO drain with ductile iron cover. The storm water system has been designed to Sustainable Urban Drainage Systems (SuDS) specifications. The system would include a rainwater harvesting tank with a volume capacity of 5000 litres.

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to any watercourse. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA.

The development does not fall within any development zoning category in the Carlow County Development Plan 2022–2028.

The proposed development applies accepted building standards and design for industrial, office, warehousing and business park projects, as outlined in submitted planning drawings and it is not considered that an EIAR would be required due to the size or design of the project.

# 4.2 CUMULATION WITH OTHER DEVELOPMENTS

The following figure and table provide information from the EIA portal of proposed developments requiring Environmental Impact Assessment (EIA) within 10 kilometres of the proposed development.

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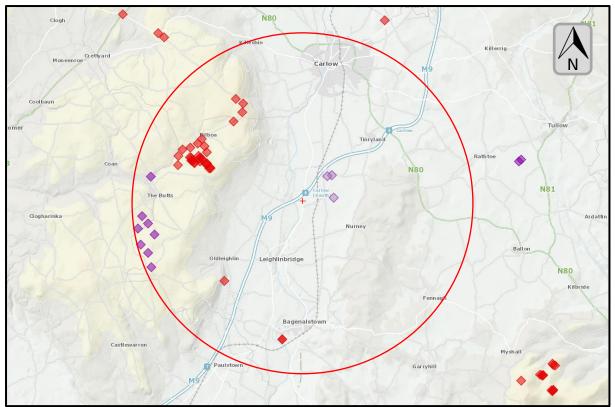


Figure 4.1: EIA developments within 10km (EIA Portal)

1 able 4.1.1	Table 4.1: EIA developments within 10km.				
Competent Authority Reference	Description	Decision Date	Location, Distance / Orientation		
Carlow Co Co PL20.180 / Laois Co Co PL20.281	Installation of up to 38 kV underground cable to connect the consented Bilboa Wind Farm to the electricity grid, erection of a new substation and road streghtening and widening along an updated turbine delivery route.	Granted – Conditional 13/08/2021	Boolyvannanan, Coolnakisha, Boolyrathornan, Ballinabranagh, Tomard Upper, Tomard Lower, Craanlusky, Rossmore and Clogrennan, Co. Carlow / Co. Laois 5.58km NW		
Carlow Co Co PL21.15	Increasing the maximum blade diameter of the consented Bilboa Wind Farm from 93m up to 120m, increasing crane hardstanding at 4 turbines to 30m x 62.5m, felling of an additional 6.3 hectares of forestry, and increased length of permission from to 30 years.	Granted – Conditional 18/03/2022	Boolyvannanan & Coolnakisha Co. Carlow 5.63km NW		
Carlow Co Co PL22.340	Five wind turbines (overall tip height of 136.5m), met mast, tracks, sub-station, temporary compound, hardstanding, laydown area, control building, cabling, up to 18 hectares of forestry, and associated works with an operational lifetime of 30 years.	Appealed 19/10/2023	Boolyvannanan & Coolnakisha Co. Carlow 6.29km NW		
Carlow Co Co PL23.60042	Demolition of existing disused buildings & the development of a dimension stone quarry with a projected lifetime of c. 14 years (12 13 years operational with an additional 1-year to allow for the implementation of a restoration plan).	Requested Further Information 19/05/2023	Bannagagole, Old Leighlin, Co. Carlow 6.50km SW		

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Competent Authority Reference	Description	Decision Date	Location, Distance / Orientation
Carlow Co Co PL19.313	Construction of 4 industrial buildings, with footprints of 8,283m2, 8,584m2, 3,399m2 and 3,594m2. Other works include: new access road continuing from existing access road; connection to services; landscaping; boundary treatment; and all associated works.	Granted – Conditional 16/10/2020	Bagenalstown, Co. Carlow 8.13km S
ABP-315365- 22	Construction and operation of a 7 turbine wind farm and all associated ancillary infrastructure and developments.	Due to be decided by 26/06/2023	Ridge, Knocknabranagh and Knockbaun, Baunreagh, and Agharue, Co. Carlow; and Coolcullen, Cloneen and Coan East, Co. Kilkenny c. 8.75km west

Local planning files were assessed to identify plans or projects in the area which would have the potential to commence during the construction phase of the project:

Planning Ref No.	Description	Decision Date	Location, Distance / Orientation
2152	Permission for the conversion of existing outbuilding to rear of dwelling for habitable use, including renovations and raised ridge height. Permission is also sought for the construction of a single storey annex link from dwelling to converted outbuildings, upgrade the on-site wastewater treatment system and all associated ancillary works.	Granted - Conditional 15/10/2021	Powerstown, Co. Carlow 453m S
2067	The erection of a slatted cattle shed, unroofed silage pit, cattle handling area, concrete yards and ancillary work.	Granted - Conditional 08/07/2020	Tomard Upper, Co. Carlow c. 740m SW

Table 4.2: Other developm	ents within 1 km gra	inted permission.
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#### 4.2.1 Cumulation with Construction Projects

As shown above, there are three approved EIA scale developments located within 10km from the proposed development. The nearest approved EIA scale development is the installation of up to 38 kV underground cable to connect a wind farm to the electricity grid together with the erection of a new substation and road widening along an updated turbine delivery route. This development would be approximately 5.6km from the proposed development. There are only two sub-EIA scale approved developments within 1km of the site, which comprise of construction and modification of buildings for residential and animal husbandry purposes.

While it is not known at this time if the identified approved developments within the area will commence or carry on construction during the project construction phase, there is a potential for in combination construction effects.

Potential in-combination construction phase impacts would include nuisance (noise, dust, vibration etc.), use of resources and construction traffic. However, the construction phase of each project would be temporary.

The adoption of standard construction management practices would prevent significant environmental impacts or nuisance from the proposed development and reduce the potential for in-combination effects. Individual potential construction phase impacts are discussed in more detail within this report.

Therefore, it is not considered that cumulative environmental effects from the proposed development requires further investigation within an EIAR.

# 4.2.2 Operational Cumulative Effects

The development is located along a rural area with agricultural grazing land, a landfill, a civic amenity site, a quarry and one-off residences located within the vicinity of the site. The buildings in the locality consist of a mixture of residential dwellings and commercial buildings scattered along the public roads, with various activities provided.

These sites, and surrounding agricultural activities, in combination with the development have potential to have an impact on a number of environmental elements and municipal services.

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to any watercourse. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA. The existing and proposed development would not act in combination with residential wastewater treatment systems in the area.

The new buildings will not have access to municipal water supply, as only the existing canteen and bathroom will continue to be serviced by water mains. It is not anticipated that the proposed development would result in any notable increases in demand on the municipal water supply. The development includes for rainwater harvesting, which would offset municipal water consumption at the site.

Stored road salt and grit could become airborne or enter a water body via runoff and, in combination with other developments, contribute to a deterioration in air/water quality. These risks will be discussed in further detail below.

Therefore, it is not considered that cumulative environmental effects from the proposed development requires further investigation within an EIAR.

# 4.3 USE OF NATURAL RESOURCES

Natural resources are considered to be the physical resources in the environment, which may be either of human or natural origin. These include land, soil, water and biodiversity.

The construction process would include the use of various raw materials and should not require excessive levels of any one natural resource. Resources required for the development include concrete, stone fill material, sand, concrete blocks and timber, which would be sourced from

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local suppliers and quarries. There would be expected to be no uncommon use of natural resources for construction of the development.

The development does not fall within any development zoning category in the Carlow County Development Plan 2022-2028. The development is taking place within a small sized area with existing buildings and concrete and macadam yards. Therefore, there would be no significant land take as a result of the proposed development. Additionally, these modified habitats are of low ecological value.

The site will be used as a collect/drop off depot and staff presence will be minimal. During the operational phase, the new buildings will not have access to municipal water supply, as only the existing canteen and bathroom will continue to be serviced by water mains. It is not anticipated that the proposed development would result in any notable increases in demand on the municipal water supply. The development includes for rainwater harvesting, which would offset municipal water consumption at the site. Additionally, it is not proposed to heat the existing or the proposed buildings.

It is not anticipated that both the construction and operational phases of the proposed development would produce a significant impact on the sustainable availability of these resources, by itself or in combination with other projects.

It is not considered that the use of natural resources by the proposed development would require further investigation within an EIAR.

#### 4.4 GENERATION OF WASTES AND BY-PRODUCTS

The management of waste is regulated under the Waste Management Acts, 1996–2011, and associated regulations.

The principal wastes which would be generated during the construction phase of the project would be excess soil, stone and C&D waste. In so far as is possible, this material would be reused to reinstate excavated ground and for landscaping purposed once the developments have been completed. Other potential construction wastes may include general waste from workers, waste concrete etc. These wastes would be appropriately segregated and recycled or disposed, as appropriate. C&D waste would be disposed of to an appropriately licenced waste facility via a suitably permitted waste contractor.

Wastes generated at the site during the operational phase would consist of small volumes of general and recyclable wastes which would be recycled or disposed of appropriately by the site staff.

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to any watercourse. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA.

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As waste volumes generated on-site are anticipated to be relatively small and continue to be appropriately managed, it is not considered that this would require an EIAR for further investigation of potential impacts.

#### 4.5 **POLLUTION AND NUISANCE**

#### 4.5.1 Pollution

#### 4.5.1.1 Air Pollution

Air quality in the region would be expected to be principally influenced by agricultural activities, traffic and industries locally. The main potential sources of air pollutants from the construction of the proposed development would be combustion by-products from the operation of machinery and dust generated from excavations.

The development site is located in the Air Zone D (Rural Ireland) and has a current Air Quality Index status of '3-Good'. The nearest currently active Air Monitoring Site is Carlow Town (Zone C: Other Cities and Large Towns) in Carlow townland approximately 8.32km north of the site. Carlow Town measures Particulate Matter ( $PM_{10}$  and  $PM_{2.5}$ ) and has a Current Index for Health of 1 - Good.

Air emissions from construction machinery would be expected to be minor in a regional context. During the operational phase, there is a risk that stored road salt and grit could become airborne and contribute to particulate matter. Other air emissions during operation may include vehicle combustion. No heating system is proposed for either the existing or the new buildings, which would minimise air emissions. The potential for dust emissions are discussed under Nuisances in this report in **Section 4.5.2**.

Potential air impacts to human health would not be anticipated to require an EIAR for further assessment.

#### 4.5.1.2 Water Pollution

The existing storage facility is located within the Barrow\_SC\_100 sub-catchment, which belongs to the Barrow catchment (Catchment ID: 14). The Powerstown 14 stream (EPA Code: 14P33 - Order 3) is the nearest mapped watercourse to the proposed development located approximately 25m to the north of the site. Other watercourses in the area include the River Barrow (EPA Code: 14B01 - Order 5) and the Garryhundon stream (EPA Code: 14G29 - Order 3) located c. 482m to the south-west and 1.03km to the south, respectively. The proposed development is also located within the Athy-Bagnelstown Gravels groundwater body, which is classified as a Regionally Important Aquifer - Karstified (diffuse) (Rkd).

During the construction phase of projects, a deterioration in water quality can arise through the release of suspended solids during soil disturbance works, the release of uncured concrete and the release of hydrocarbons (fuels and oils). There are no mapped watercourses within the red line boundary. The development would not require any construction works within the Powerstown stream or riparian zone that could potentially lead to water pollution. A partial wall is located over the Powerstown stream culvert. This wall is adjoined by a wooden fence and steel mesh fence along the north-eastern boundary. The proposed development includes a

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new concrete yard to the north and south within the red line boundary. The area north is closest to the watercourse however, with a buffer distance of approximately 15m to the watercourse and the works to be undertaken on level ground, it is not expected that the proposed development would impact upon water quality in terms of run-off from concrete. There would be no significant volumes of fuels, oils or other chemicals stored for construction. The development also includes a new earth mound with grass finish to the northern boundary. The grass finish will stabilise the mound reducing any risk of suspended solids being released into the nearby watercourse.

With the implementation of standard construction control measures, there would not be anticipated to be a significant risk to water quality during construction works.

The risks of water pollution during construction would not be anticipated to require an EIAR for further assessment.

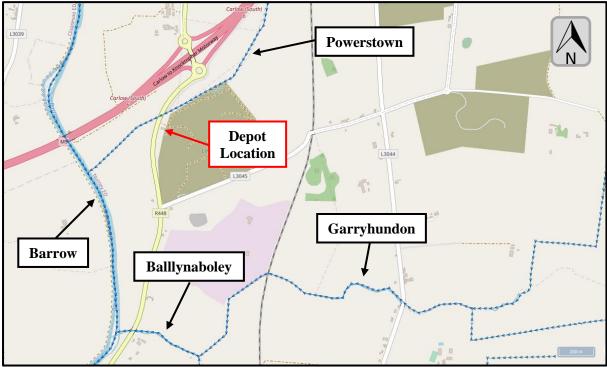


Figure 4.2: Surface Water Features (EPA Maps)

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to the Powerstown stream or to the River Barrow and River Nore SAC. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA.

Stormwater from hard surfaces will be attenuated onsite and a new oil interceptor would be installed before being released to the Powerstown watercourse via an existing outfall pipe. It will also include an ACO drain with ductile iron cover. The storm water system has been designed to Sustainable Urban Drainage Systems (SuDS) specifications. The system would include a rainwater harvesting tank with a volume capacity of 5,000 litres. Rainfall falling

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outside drained areas would percolate to groundwater, which is expected to move according to any existing fissures and to the topography. The movement of groundwater would generally lead towards the River Barrow to the west.

There will be a bunded fuel tank on site with a capacity of 5,000L that will be surrounded by bollards for protection. The stormwater system will include a hydrocarbon interceptor to prevent pollution of the receiving waters by capturing oils and fuels that may be present in surface water, which could result from any accidental spillage within the site premises. Spill kits will be available onsite. It is not considered that surface water run-off would pose any significant risk to the absorption capacity of underlying groundwaters.

To the east of the truck storage building, there will be a salt silo and brine mixing and storage bunded tanks surrounded by bollards for protection. These are strategically placed to minimise the probability of a vehicle collision. Any spills of road salt and grit that may occur during the filling of trucks, would be removed from the yard back into the main salt store, as soon as possible.

Salt and fuel would be appropriately stored at the site. Thus, and considering control measures, it is not considered that contamination of waters would be likely during the operational phase.

Therefore, the risks of water pollution during operation would not be anticipated to require an EIAR for further assessment.

#### 4.5.2 Nuisances

Nuisances can be defined as activities or emissions which are of a nature which can reasonably be expected to cause annoyance. As nuisances are defined on the basis of annoyance and infringement upon amenity, sensitive receptors are typically residences, service or amenity areas.

Residential properties can be found along the local roads in both directions, as is typical of the Irish countryside. The proposed development would generally be remote from sensitive receptors. The closest residential property is located approximately 55m to the north of the proposed development on the opposite side of the R448 regional road. See **Figure 4.3** below.

Typical nuisances which may occur from similar projects would include noise and dust during construction. There are no proposed activities which would be likely to cause nuisance odours. Impacts associated with odour would not be likely to be significant and would not be considered to require and EIAR.

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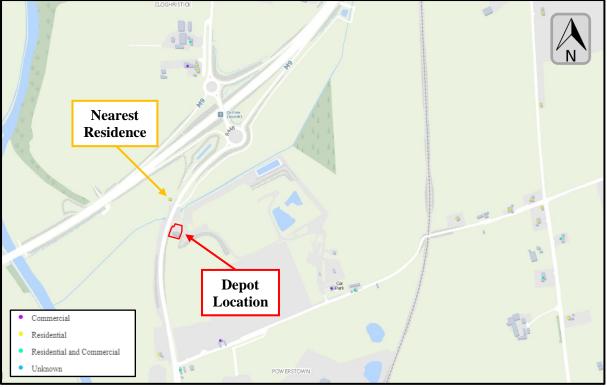


Figure 4.3: Residential and Commercial Distribution (MyPlan.ie)

# 4.5.2.1 Noise

#### **Operational**

Operational noise associated with the proposed development would be limited to that generated by trucks entering and exiting the site, personnel speaking within the site and occasional grass/hedge trimming. This noise environment would be characteristic of the existing rural noise environment and noise nuisance would not be anticipated.

The proposed development is in a rural area and background noise levels would be influenced principally by traffic on the M9 motorway to the north, R448 regional road to the west and natural noise sources. Noise levels would also be influenced locally around industrial units. See strategic noise mapping of the M9 motorway in Figures 4.4 and 4.5 below, which represent the annual average  $L_{DEN}$  (24 hour period) and  $L_N$  (night time) indicator values in decibels.

The proposed site is located within an area with an  $L_{DEN}$  indicator value of between 55dB and 64dB and an  $L_N$  indicator value of between 45dB and 54dB. The strategic noise maps should not be relied upon in the context of planning applications for noise sensitive developments in the vicinity of the mapped sources. However, for the purposes of a desktop-based noise screening, it is clearly indicated that noise generated by traffic in the M9 motorway has a significant influence on background noise levels of the surrounding area of the proposed development. This would be exacerbated by noise generated by traffic in the R448 regional road immediately to the west of the site.

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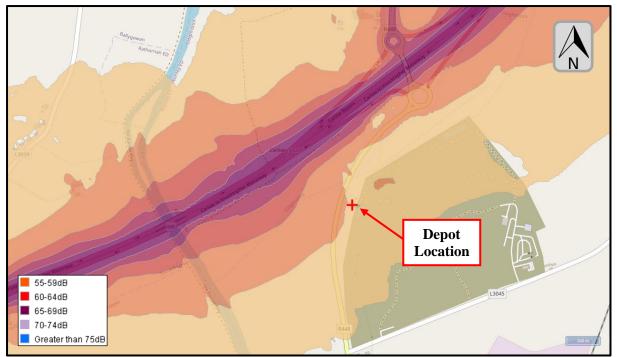


Figure 4.4: Strategic Noise (L<sub>DEN</sub>) mapping of the M9 motorway

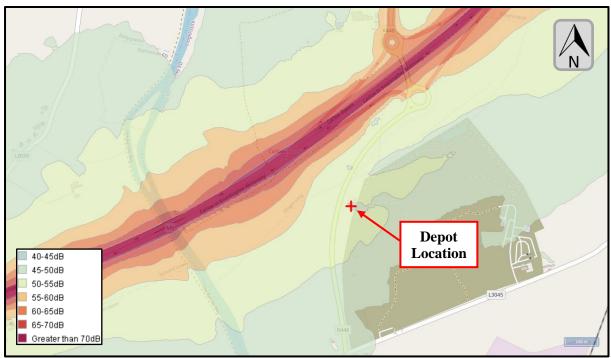


Figure 4.5: Strategic Noise (L<sub>N</sub>) mapping of the M9 motorway

# **Construction**

The only significant noise expected from the development would occur during the construction of the proposed buildings at the existing site.

This assessment has analysed the potential impacts of the noise generated during the construction phase of the proposed development on local sensitive receptors.

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#### **Relevant Noise Legislation & Guidance**

#### Planning and Development Act 2000 (S.I. No. 30 of 2000), as amended

Local authorities are responsible for the planning and environmental regulation of any proposed developments. The current planning and environmental regulatory framework require these developments to comply with the Planning and Development Act (2000) and related regulations.

The local authorities and An Bord Pleanála attach conditions relating to environmental management of these developments to planning permissions granted. Local authorities consider the land use and planning issues associated with the proposed developments in their County Development Plans.

#### The EPA Act (Noise) Regulations 1994 (S.I. No. 179 of 1994)

The relevant part of the Environmental Protection Agency Act 1992 dealing with noise is Part VI, Sections 106 to 108. These Sections deal with the control of noise, the power of local authorities to prevent or limit noise and the issue of noise as a nuisance.

The 1994 Regulations came into effect in July 1994 and outline the procedures for dealing with noise nuisance. The Regulations allow affected individuals, local authorities or the EPA to take action against an activity causing a noise nuisance.

These Regulations replaced the procedures for noise complaints contained in the Local Government (Planning & Development) Act 1963. Companies must show that reasonable care was taken to prevent or limit the noise from their activities. If the courts decide that a company is responsible for causing a noise nuisance, they can order the company to take measures to reduce, prevent or limit it.

#### BS 5228:2014 Methodology

There is currently no statutory guidance relating to the maximum permissible noise level for a project's construction phase. Current guidance on permissible noise levels is therefore considered somewhat limited. In the absence of any statutory guidance or other specific limits prescribed by local authorities, an appropriate best practice measure has been adopted as the standard for this project.

Best practice guidelines are taken from the British Standard BS 5228 – 1: 2009 (+A1 2014): '*Code of Practice For Noise And Vibration Control On Construction And Open Sites – Noise*'. BS 5228 sets out an approach for setting appropriate construction noise limits for residential dwellings, but it does not provide guidance for commercial or office buildings.

The BS 5228 '*ABC Method*' calls for the designation of a noise sensitive location into a specific category (A, B or C) based on existing ambient noise levels in the absence of construction noise. This then sets a threshold noise value that, if exceeded, indicates a significant noise impact is associated with the construction activities as summarised in **Table 4.3** below.

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Table 4.3: Infeshold of Potential Significant Effect at Dwellings (BS 5228)					
Assessment category and	Threshold	Threshold value, in decibels (LAeq, T)			
threshold value period	Category A <sup>(a)</sup>	Category B <sup>(b)</sup>	Category C <sup>(c)</sup>		
Night-time (23.00-07.00)	45	50	55		
Evenings and weekends <sup>(d)</sup>	55	60	65		
Daytime (07.00–19.00) and Saturdays (07.00–13.00)	65	70	75		

# Table 4.3: Threshold of Potential Significant Effect at Dwellings (BS 5228)

NOTE 1: A potential significant effect is indicated if the LAeq, T noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level. NOTE 2: If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a potential significant effect is indicated if the total LAeq, T noise level for the period increases by more than 3 dB due to site noise.

NOTE 3: Applied to residential receptors only.

- a) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.
- b) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.
- c) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.
- d) 19.00–23.00 weekdays, 13.00–23.00 Saturdays and 07.00–23.00 Sundays.

#### **Construction Source Noise**

As part of these construction works, noise will likely be generated during phases when activities requiring heavy plant machine is required, such as site excavation and the laying of underground pipework.

Delivery of materials would likely occur during Phases 2 - 4, while on-site machinery movement is expected during Phases 1 - 3.

Depending upon the ground conditions encountered during construction and the contractor appointed, the methodology for the construction programme may vary. A review of standard noise values for various construction plant and equipment from the British Standard 5228-1:2009(+A1:2014) has therefore been undertaken.

The construction plant and machinery will change as the project develops, with plant and equipment only operating within any particular section of the site for a relatively short period of time.

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**Table 4.4** below contains a breakdown of the likely construction phases.

Phases	Description of works
Phase 1 – Site Preparation	<ul><li>Stockpiling of excavated topsoil;</li><li>Cut and fill activities.</li></ul>
Phase 2 – Foundation Works	<ul><li>Digging out of foundations.</li><li>The pouring of concrete footings.</li></ul>
Phase 3 – Main Structure Framework	• Installation of main structure I-beam/girder framework.
Phase 4 – Internal Concrete	<ul> <li>The import and rolling of hardcore material.</li> <li>The import, screeding and planning/ finishing of concrete floor.</li> </ul>
Phase 5 – Wall and Roof Works	<ul> <li>Installation of pre-cast concrete walls.</li> <li>Installation of purlins/framing members;</li> <li>Installation of insulated cladding walls/roof.</li> </ul>
Phase 6 – External Finishing	<ul> <li>The import and rolling of hardcore material.</li> <li>The import, screeding and planning/ finishing of concrete yard.</li> <li>Time impost and rolling of asphalt.</li> </ul>
Phase 7 – Internal Finishing and Commissioning	• Specialist trades – no likely external plant or machinery required (i.e. electrical).

**Table 4.4:** Construction Phases

**Table 4.5** contains typical noise levels from various construction plant that would be used during the construction phase. These standard noise emission data, recalculated from 10m to 1m, will be used for the purposes of the worst-case noise assessment of the proposed works.

Phase	Activity/Equipment	Sound Pressure at 10m LAeq	Sound Pressure at 1m LAeq
	C2.7 Tracked Excavator (14t)	70	90
1	C2.28 Wheeled Loader (loading lorries)	76	96
	C2.34 Lorry (4-axle wagon)	80	100
	C4.14 Wheeled backhoe loader (9T)	67	87
2	C4.18 Cement Mixer Truck (discharging) (Mixing Concrete)	75	95
3	C2.35 Telescopic Handler	71	91

 Table 4.5: Noise Levels from Construction Phase (Ref: BS5228:2009)

	C4.46 Mobile telescopic crane (50T)	67	87
	C4.59 Diesel Scissors Lift	78	98
	C2.37 Roller (rolling fill)	79	99
4	C4.3 Dumper (7T)	76	96
	C4.18 Cement Mixer Truck (discharging) (Mixing Concrete)	75	95
-	C2.35 Telescopic Handler	71	91
5	C4.59 Diesel Scissors Lift	78	98
	C5.20 Vibratory roller	75	95
-	C4.3 Dumper (7T)	76	96
6	C4.18 Cement Mixer Truck (discharging) (Mixing Concrete)	75	95
	C5.30 Asphalt paver (+ tipper lorry)	75	95

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#### **Construction Noise Discussion**

In order to ensure that no noise nuisance occurs during the construction phase, it is recommended that the following measures be followed.

All construction activities should take place between 7:00am and 19:00pm, Monday to Friday and 7:00am and 13:00pm Saturday. Any works that, by necessity, are required to be carried out outside of these times should be notified to any potentially effected local residents in good time and prior to specified works commencing.

It is recommended that guidance on control of noise, as per The National Roads Authority's '*Guidelines for the Treatment of noise and vibration in National Road Schemes*' (2004) and British Standard 5228-1 '*Code of practice for Noise Control on Construction and Open Sites*' be followed during the construction phase. Where noise levels are anticipated to exceed the guidance limit, as indicated above, it is recommended that these guidance documents be followed for the provision of noise mitigation measures, such as temporary noise barriers. This is particularly the case for any high noise works within 50m of the façade of any existing residence.

Inform on-site workers, hauliers and contractors of noise considerations on-site and on public access roads.

Timely and adequate maintenance of all construction equipment, including preventative maintenance, to ensure efficient operation and minimisation of potential noise.

Noise monitoring should be conducted at the site boundary during expected high noise activity, to confirm whether construction noise is resulting in a nuisance and to determine the need for additional mitigation.

The closest residential property would be considered the closest noise sensitive receptor and is located approximately 55m to the north of the proposed development on the opposite side of the R448 road and approximately 100m from the M9 motorway. The noise environment is mainly influenced by traffic on these two roads.

The site has been designated as *Category C* and a daytime noise level threshold of 75dB has been applied. Construction activities would be limited to a small-sized area within site boundaries and would be transient in nature. It is not expected that construction activities would exceed these limits at the nearest receptors. It is not expected that the construction phase of the proposed development would significantly alter the noise environment of the surrounding area or have a significant impact on the nearest residential property. There are no other noise sensitive receptors in the vicinity of the site which could potentially be impacted by the proposed development. Should these thresholds be exceeded, an investigation will be carried out and remedial action taken to rectify the situation.

Therefore, it is not considered that further assessment within an EIAR would be required for nuisance noise risk.

# 4.5.2.2 Dust

# <u>Operational</u>

Road grit / road salt is composed of a mixture of rock salt and sand. Improper storage of road salt during the operational phase of the development could potentially lead to dust generation. However, it is planned to implement all appropriate measures to guarantee that particles will not be dispersed. Dust mitigation measures implemented during the operational phase would be similar to those applied during construction phase and would include the use of water bowsers, sprays or vapour mists in very dry weather. Any spills of road salt and grit that may occur during the filling of trucks, would be removed from the yard back into the main salt store, as soon as possible. Road salt and grit would be appropriately stored within the storage building and bunded tanks surrounded by protecting bollards.

There is no indication that the development could potentially be impacted by dusts arising from surrounding areas.

# **Construction**

Dust may arise from loose excavated soils and imported aggregate material. The potential for dust emissions during the project would be expected to be minimised given the transient nature of construction works and the scale of the development. Therefore, the quantities of materials available to generate dust would be small.

The development has the potential to generate dust during the construction phase. The majority of dust would be generated during site excavation works. The introduction of Clause 804 and other gravels, sands and silts on to the site for the creation of hardcore surfaces will also increase the potential for dust to become a nuisance issue. The potential for construction dust

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dispersion depends on the local meteorological conditions such as rainfall, wind speed and wind direction.

The impact that dust from the site may have on the surrounding area was assessed with the use of **Table 4.** below.

The closest buildings within the vicinity of the site were identified and these will be the most likely receptors of any impacts from dust dispersal as a result of construction activities at the development site.

Source		Potential Distance for Significant Effects from the Source (meters)		
Scale	Description	Soiling	PM10*	Vegetation
Major	Large construction sites, with high use of haul roads	100m	25m	25m
Moderate	Moderate sized construction sites, with moderate use of haul roads	50m	15m	15m
Minor	Minor construction sites, with limited use of haul roads	25m	10m	10m

<b>Table 4.6:</b>	Assessing the Criteria for the Impact of Dust from Construction with Standard
	Mitigation in place. (National Road Authority)

\* Significance based on the 2005 standard, which allows 35 daily exceedances/year of 50 µg/m<sup>3</sup>

The remaining proposed development phase would be of minor scale, with limited use of haul roads. Therefore, receptors within 25m of the site boundaries would be at risks of effects due to soiling. The main potential for dust creation at this site will come from excavation works, handling of gravels/sands and the transportation of the above materials to and from the site.

There are no surfaces, including residential and commercial buildings, where soiling within 25m could cause nuisance.

The likelihood of residences being impacted by  $PM_{10}$  particulates would be low, as there are no works that would occur within 10m of receptor locations.

The habitats and vegetation found in the area is mainly in the form of built land, bounded by treeline / hedgerows. Vegetation occurs along the boundaries of the site, and therefore would be within 10m works. Impacts on the vegetation in this area as a result of construction activities at the site are expected to be minimal and temporary as a result of the short duration of relevant works. Excavations in close proximity to the hedgerows / treelines will be minimal and will only be carried out for a short period of time.

The potential effects of dust would be lessened by the short duration that excavation works will take in the vicinity of the properties. Topsoil, sand, silt or gravel stockpiles should be stored away from existing receptors in so far as is possible with site constraints. The use of a road sweeper on appropriate roads and dust suppression techniques such as water misting during dry weather periods would also be recommended.

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It is noted that the site visit for this assessment occurred on 9<sup>th</sup> November 2023 with no construction works taking place at the time. The effectiveness of dust control measures for future construction activities will need to be assessed, once construction works commence.

Dust dispersal from the site could be mitigated against by implementing typical dust control methods such as using water bowsers, sprays or vapour mists in very dry weather and covering any stockpiles of sand, gravel or silt on site.

Therefore, it is expected that soiling or  $PM_{10}$  particulates will not be an issue during the construction phase of this project.

Once the hardcore surfaces have been installed and seeding has become established, the likelihood of dust impacting the nearby road network would be very low.

Construction dust control is a common part of construction management practices. The effect of construction activities on air quality, in particular construction dust, would not be significant due to the limited construction timeframes and following the implementation of standard working practices and the standard mitigation measures which are highlighted below.

The construction works contractor will implement the following dust control measures for the duration of the proposed development:

- Cognisance would be taken of the guidelines published by the Institute of Air Quality Management (IAQM), "Assessment of dust from demolition and construction 2014";
- Material handling systems and site stockpiling of materials would be designed and laid out to minimise exposure to wind;
- Prolonged storage of materials onsite would be avoided;
- When transporting materials to and from the site, vehicles would be fitted with covers where possible to prevent material loss;
- Public roads outside the site would be regularly inspected for cleanliness and cleaned as necessary. A road sweeper would be used if required on the appropriately surfaced roads;
- While the natural recolonization of exposed areas of soil during reinstatement activities is preferred, re-seeding would be undertaken where required to promote the rapid stabilisation of soils;
- Regular visual inspections would be undertaken around the proposed site boundary to monitor the effectiveness of dust control measures.

Impacts associated with dust during construction would not be likely to be significant and would not be considered to require further assessment through EIAR.

#### 4.6 **RISKS OF MAJOR ACCIDENTS AND RISKS TO HUMAN HEALTH**

As noted in the EIA Directive 2014/52/EU, precautionary actions need to be put in place for certain projects which, "due to their vulnerability to major accidents and/or natural disasters (such as flooding, sea level rise or earthquakes) are likely to have significant adverse effects on the environment".

# Environmental Impact Assessment Report Screening

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It is not anticipated that there would be a significant risk of environmental impacts as a result of accidents during the operational phase due to the nature of activities that will be taking place (warehouse/store/depot).

The scale of construction occurring at any one time would be small, with minor quantities of materials present as the development of the site progresses. Typical construction methods and practices would be anticipated to adequately mitigate against accidents or risks to human health.

The site does not fall within the Seveso III Regulations or European Communities (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015, as no dangerous substances are being used at the site.

All potentially polluting substances, including chemicals and fuels, will be appropriately stored and bunded within the site.

It is not considered that the site is at a significant risk of natural disasters. OPW National Catchment Flood Risk Assessment and Management (CFRAM) and National Indicative Fluvial flood mapping shows the site is not located within any fluvial, pluvial or groundwater flood zones. The nearest flood event was recorded in the Powerstown stream c. 50m north of the site (www.floodinfo.ie). However, local knowledge indicates no history of flooding incidents at the site.

The proposed site is in an area with low/moderately low susceptibility to landslides, as per GSI mapping

(https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2 aaac3c228). The nearest recorded landslide event occurred at Maidenhead townland, Co. Laois, approximately 16.4 km north of the development site.

Several boreholes have been recorded in the vicinity of the site, mainly comprising of monitoring boreholes for the landfill EPA licence. There would be expected to be no significant volumes of materials at the site during construction or operation that would pose a risk to drinking water. In general, the development would not cause significant emissions. Risks to human health would not be expected to change significantly as a result of the construction or operational phase of the development.

Therefore, risks associated with major accidents or human health would not be considered to require an EIAR for further assessment.

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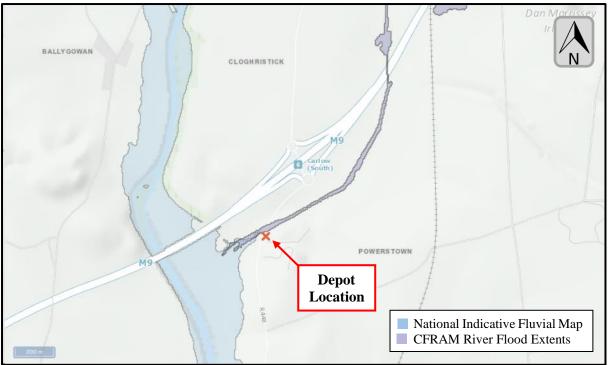


Figure 4.4: National Indicative Fluvial Map and CFRAM River Flood Extents (Medium Probability)

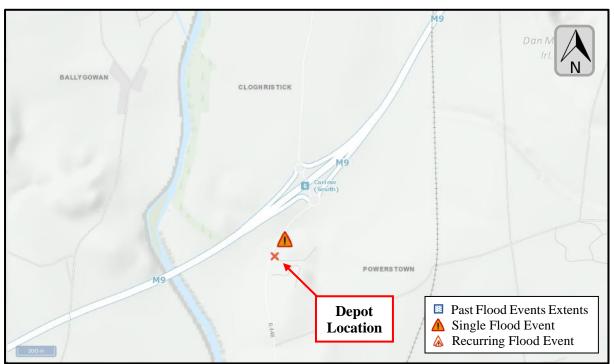


Figure 4.5: OPW Historical Flood Map

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# 5.0 PART II – LOCATION OF THE DEVELOPMENT

This section assesses the potential impacts of the development due to the sensitivities of the proposed location.

#### 5.1 EXISTING AND APPROVED LAND USE

The development is located 7.96km south from Carlow town centre and would be considered rural in nature, with agricultural grazing land, a landfill, a civic amenity site, a quarry and one-off residences located within the vicinity of the site.

The development does not fall within any development zoning category in the Carlow County Development Plan 2022-2028.

The CORINE 2018 data series shows that the land within the development boundary is 231: *Pastures* (Agricultural Areas), as per **Figure 5.2**. The surrounding area also includes 112: *Discontinuous urban fabric* (Artificial Surfaces), 122: *Road and rail network* (Artificial Surfaces), 131: *Mineral extraction sites* (Artificial Surfaces), 132: *Dump* (Artificial Surfaces) and 211: *Non-irrigated arable land* (Agricultural Areas).

The land in the immediate vicinity of the site and surrounding area is mainly in use as a municipal landfill & bring centre, a quarry and agricultural land with scattered one-off housing along the R448 regional road.

The site is already in use as a storage facility and the proposed development would not result in a significant land use change in the area.

Therefore, it is not considered that an EIAR would be required in order to further assess potential impacts on land use.

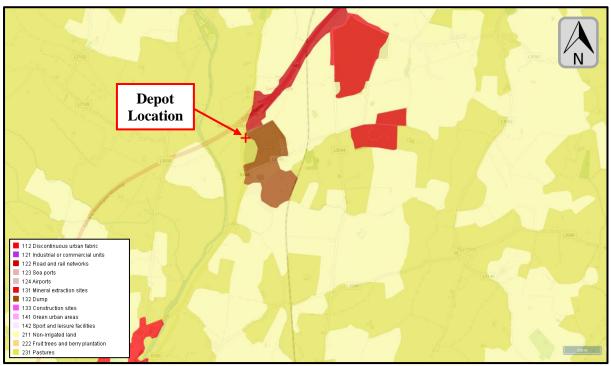


Figure 5.1: CORINE 2018, Land Use Map of The Region (EPA Maps)

# 5.2 NATURAL RESOURCES

This section assesses the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground.

The proposed development would result in a continuation of existing uses of natural resources in the area.

# 5.2.1 Soil & Bedrock

Topsoil and overburden excavated at the site would be stored on-site during the construction phase. Once the construction phase has been completed, this topsoil would be used to landscape and level areas around the development site.

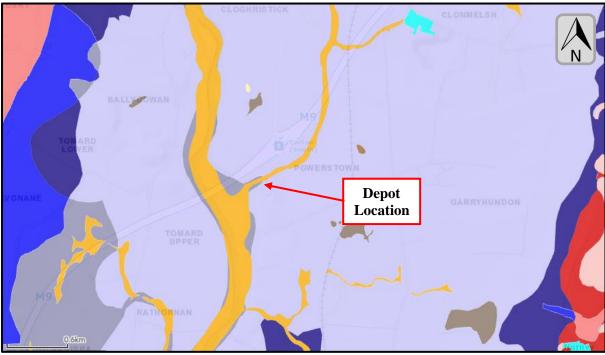


Figure 5.2: Teagasc Soils (GIS Maps)

As per **Figure 5.2**, the subject property is located on an area which contains a soil described as BminSW - Shallow well drained mineral (Mainly basic) and the area bordering River Barrow contains a soil rich in alluvial minerals.

As per **Figure 5.3**, the subject property and the area near River Barrow have a permeability designation of high.

The bedrock geology (100k) within the Milford Formation (CDMILFdo) which the subject property is located is described as *Dolomitised peloidal calcarenitic limestone*.

The groundwater rock or hydro-stratigraphic rock is described as *Dinantian Dolomitised Limestones* (DDL).



Figure 5.3: Soil Permeability (GIS Maps)



Figure 5.4: Bedrock Geology 100k (GIS Maps)

There would be expected to be no significant impact to bedrock as any excavations that take place at the site will not penetrate deep enough to cause adverse effects. Aggregate fill material and precast concrete structures would be sourced from local quarries in the area. Where excess soil or stone is generated, this would be disposed of to an appropriately licenced waste facility.

Therefore, it is considered that there is no significant risk to soils and bedrock as a result of the proposed project and further assessment in an EIAR would not be required.

# 5.2.2 Water

Small quantities of water may be used during the construction phase of the proposed development. This would be supplied via the municipal mains to the existing canteen and bathroom, as well as during the operational phase of the development. The stormwater drainage system includes a rainwater harvesting tank that would offset demand on the municipal water supply.

It is considered that there is no significant risk to water resources as a result of the proposed project and further assessment in an EIAR would not be required.

# 5.3 ABSORPTION CAPACITY OF THE NATURAL ENVIRONMENT

#### 5.3.1 Surface Water Environment

The existing storage facility is located within the Barrow\_SC\_100 subcatchment, which belongs to the Barrow catchment (Catchment ID: 14). The Powerstown 14 stream (EPA Code: 14P33 - Order 3) is the nearest mapped watercourse to the proposed development located approximately 25m to the north of the site. Other watercourses in the area include the River Barrow (EPA Code: 14B01 - Order 5) and the Garryhundon stream (EPA Code: 14G29 - Order 3) located c. 482m to the south-west and 1.03km to the south, respectively. From its nearest point to the proposed site, the Powerstown stream flows for c. 545m to the south-west, where it confluences with River Barrow and enters the River Barrow and River Nore SAC.

There are no monitoring stations along the Powerstown watercourse. The Environmental Protection Agency (EPA) however, do undertake surface water monitoring along the River Barrow. The results for the nearest monitoring stations (as per Table 5.1) with available monitoring results for the period 2003 - 2020 are summarised in Figure 5.5 below for indicative purposes.

STATION NO.	STATION LOCATION	EASTING	NORTHING	APPROX. LOCATION RELATIVE TO SITE
RS14B012600	Milford Br	269975	170430	2.6km Upstream
RS14B012680	Cardinal Moran Br	269489	166360	3km Downstream
RS14B012900	Royal Oak Br	268957	161462	9.9km Downstream

**Table 5.1:** Active Monitoring Stations of the River Barrow

As can be seen in **Figure 5.6** below, the River Barrow is mainly achieving a water quality status of between Q3.5 (Moderate) and Q4 (Good) in number of years with water quality maintaining a Moderate status at least. EPA comments on the most recent monitoring results for the River Barrow are as follows: "Both of the stations assessed in 2021, one upstream of Portarlington storm water overflow and one downstream of the Portarlington WWTP primary discharge, were in Poor ecological condition, which is lower than any rating recorded in the

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Barrow since 2009. The dissolved oxygen levels recorded in evening sampling at both of these sites was very high, indicating excessive primary production."

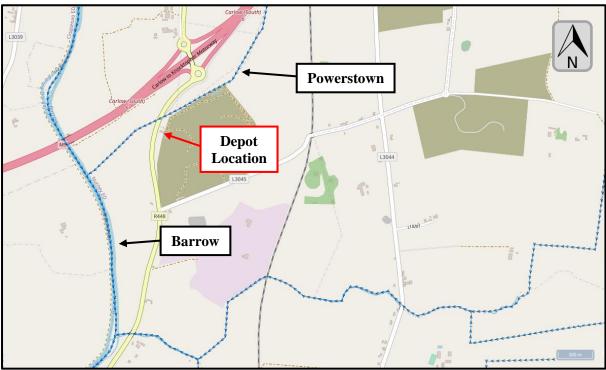


Figure 5.5: Surface Water Features (EPA Maps)

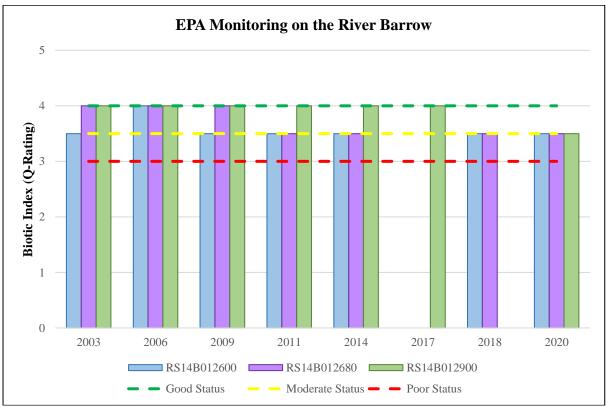


Figure 5.6: EPA Ecological Monitoring of the River Barrow 2003 – 2020

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As described in **section 4.5.1.2**, standard construction control measures would be adopted to ensure no significant impact from works to the water environment.

Construction works would be confined to the proposed development footprint, with no works taking place within a watercourse. Risk materials are bunded where necessary, spill kits will be available onsite and workers are required to inform the authority responsible for overseeing operations and address spills as soon as they occur. The northern area of the site is closest to the Powerstown stream, however, with a buffer distance of approximately 15m to the watercourse and the works to be undertaken on level ground, it is not expected that the proposed development would impact upon water quality in terms of run-off from concrete. There would be no significant volumes of fuels, oils or other chemicals stored for construction. The development also includes a new earth mound with grass finish to the northern boundary. The grass finish will stabilise the mound reducing any risk of suspended solids being released into the nearby watercourse. External pavement and road areas are kept clean of dust and debris.

Stormwater from hard surfaces will be attenuated onsite and a new oil interceptor would be installed before being released to the Powerstown watercourse via an existing outfall pipe. It will also include an ACO drain with ductile iron cover. The storm water system has been designed to Sustainable Urban Drainage Systems (SuDS) specifications. The system would include a rainwater harvesting tank with a volume capacity of 5000 litres.

High concentrations of chloride ions from salt may be toxic to aquatic life and lead to the leaching of heavy metals into the water, thus impacting water quality. Chemistry Data from the River Barrow indicates that there is no significant deviations in chloride upstream or downstream from the site. It is considered that the proposed control measures would be appropriate for the operation phase of the project and there would be no significant impact upon the existing quality and absorption capacity of the surrounding water environment.

Wastewater generated by the sanitary facilities at the existing building is currently discharged into the leachate lagoon at the landfill. This discharge is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA (W0025-04). There are no process emissions to the Powerstown stream or to the River Barrow and River Nore SAC. It is proposed to maintain this wastewater drainage system with a repositioning of the pipeline and sump pump. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA.

Therefore, it is not considered that sanitary drainage from the proposed development would have a significant impact on the existing absorption capacity of the local surface-water environment.

It is considered that there is no significant risk to the absorption capacity of the surface water environment as a result of the proposed project and further assessment in an EIAR would not be required.

# 5.3.2 Groundwater Environment

The proposed development is located within the Athy-Bagnelstown Gravels groundwater body, which is classified as a Regionally Important Aquifer - Karstified (diffuse) (Rkd). This GWB

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is designated to have "*Poor*" overall WFD water quality status for the 2016-2021 period and the overall risk status is currently "*at risk*".

Groundwater vulnerability is classified as follows: Rock near surface or karst (X) Extreme (E) High (H) Moderate (M) Low (L). Assessing the risk of contamination to groundwater is complex. It is assessed by the aquifer category, the proximity to down-gradient targets such as a well or ecosystem and the preventive measures taken. These measures will be dependent on the land-use practices and potential for pollution.

The site is located within an area which has a groundwater vulnerability classification of High (H). See Figure 5.8.

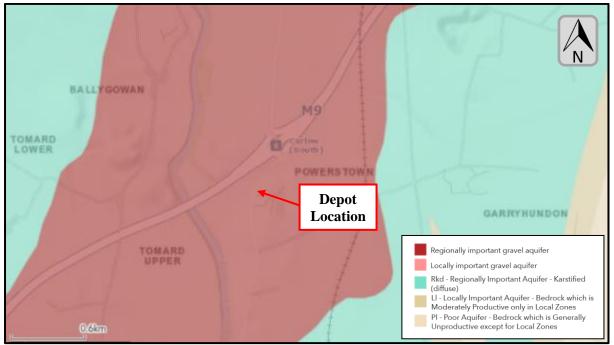


Figure 5.7: Bedrock Aquifer & Gravel Aquifer (GIS Maps)

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Figure 5.8: Groundwater Vulnerability (EPA Maps)

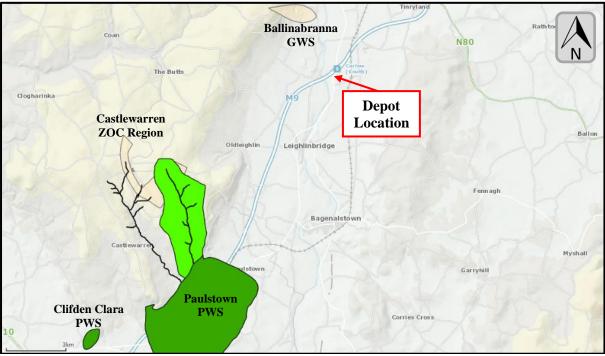


Figure 5.9: Groundwater Source Protection Areas (GSI Maps)

The nearest groundwater source protection zone is the Ballinabranna GWS, which is located c. 2.95 km to the north-west. Other source protection zones in the area include the Paulstown PWS, Clifden Clara PWS and Castlewarren ZOC Region. None of these groundwater protection zones would be directly downstream from the proposed development. However,

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Paulstown PWS may be hydrologically connected to the site via surface water and groundwater abstractions. See **Figure 5.9**.

Several boreholes have been recorded in the vicinity of the site, mainly comprising of monitoring boreholes for the landfill EPA licence. No groundwater abstraction has been recorded within site boundaries. See **Figure 5.10**.

There would be no significant volumes of fuels, oils or other chemicals stored for construction. It is not anticipated that there would be a significant risk to groundwater during the construction phase.

During the operational phase, rainfall falling outside drained areas would percolate to groundwater, which is expected to move according to any existing fissures and to the topography. The movement of groundwater would generally lead towards the River Barrow to the west. There will be a bunded fuel tank on site with a capacity of 5,000L that will be surrounded by bollards for protection. Spill kits will be available onsite. It is not considered that surface water run-off would pose any significant risk to the absorption capacity of underlying groundwaters.

It is not considered that the proposed development would require further assessment within an EIAR in terms of groundwater resource vulnerability and absorption capacity.

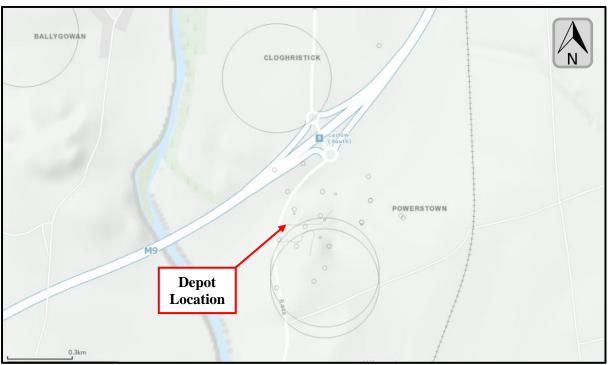


Figure 5.10: Groundwater Wells, Springs and Karst Data (GSI Maps)

# 5.3.3 **Bio-Diversity and Designated Sites**

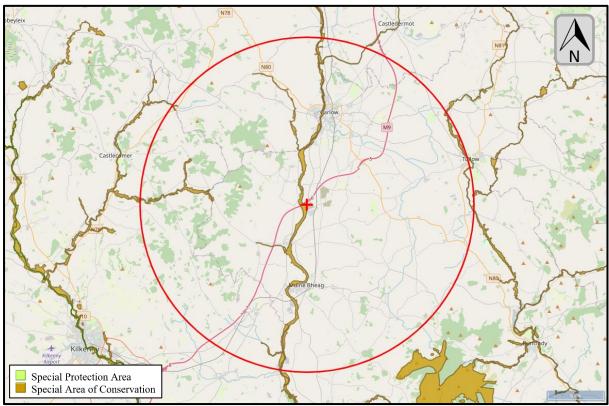


Figure 5.11: Special Area of Conservations and Special Protected Area

The location of the site in relation to Natura 2000 sites is shown in **Figure 5.11**. The project impact sources, environmental pathways and protected site characteristics were screened to identify European sites potentially within the zone of influence of the project and are detailed within **Table 5.2** below.

### **Table 5.2:** Special Areas of Conservation

SITE NAME	DESIGNATION	SITE CODE	DISTANCE FROM PROPOSED SITE
River Barrow And River Nore	SAC	002162	Adjacent W
Slaney River Valley	SAC	000781	14.3 km E

There are no Special Protection Areas within the potential zone of influence of the proposed development site.

There is one proposed Natural Heritage Areas (pNHA) within 5.0 km of the proposed site as shown in **Table 5.3**. There are no designated NHA within 5.0 km of the proposed site.

<b>Table 5.3</b> :	proposed	Natural	Heritage	Areas
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SITE NAME	DESIGNATION	SITE CODE	DISTANCE FROM PROPOSED SITE
Cloghristick Wood	pNHA	000806	255m W

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An onsite assessment of existing habitats and species was carried out on 27<sup>th</sup> June 2023 as part of an Appropriate Assessment Screening (Report Ref: PE\_AA\_10090) on the risks to Natura 2000 sites. Buildings and artificial surfaces (BL3) is the dominant habitat located mainly to the south and throughout; consisting of hardcore surfaces, walled boundaries, buildings and gates. Plant species include Bramble (Rubus fructicosus) and Moss (Bryophyta). Recolonising bare ground (ED3) dominates the northern area of the proposed development. The plant species composition comprised of Horsetail (*Equisetum* spp.), Bent Grass (*Agrostis* spp.), Soft Rush (Juncus effusus), Creeping Cinquefoil (Potentilla reptans), Pyramidal Orchid (Anacamptis pyramidalis), Yorkshire Fog (Holcus lanatus), Cocksfoot Grass (Dactylis glomerata), Vetch (Vicia spp.), Moss (Bryophyta), White Clover (Trifolium repens), Black Medick (Medicago lupulina), Perforate St John's-Wort (Hypericum perforatum), Mullein (Verbascum Thapsus), Selfheal (Prunella vulgaris), Hawkbit (Leontondon spp.), Fescues (Festuca spp.), Bindweed (Convolvulus spp.), Yellow Flag Iris (Iris pseudacorus). Around the perimeter but within the red line boundary is dry meadows and grassy verges habitat (GS2). It comprised of Clover (Trifolium repens), Rosebay Willowherb (Chamaenerion angustifolium), Herb Robert (Geranium robertianum), Oatgrass (Arrhenatherum spp.), Bent Grass (Agrostis spp.), Dandelion (Taraxacum spp.), Crane's-bill (Geranium spp.), Perforate St John's-Wort (Hypericum perforatum), Vetch (Vicia spp.), Hogweed (Heracleum sphondylium), Creeping Cinquefoil (Potentilla reptans), Cocksfoot grass (Dactylis glomerata), Black Medick (Potentilla reptans), Bramble (Rubus fructicosus), Creeping Buttercup (Ranunculus repens), Ragwort (Jacobaea vulgaris) and Pyramidal Orchid (Anacamptis pyramidalis). Along the eastern boundary is a treeline/hedgerow habitat (WL2/WL1) consisting of Lime (Tilia spp.), Cypress (Cupressus), Holly (Ilex spp.), Whitebeam (Sorbus aria), Beech (Betula spp.), Bramble (Rubus fructicosus), Hogweed (Heracleum sphondylium), Crab Apple (Malus sylvestris), Rowan (Sorbus spp.), Ash (Fraxinus spp.), Field Rose (Rosa arvensis), Hawthorn (Crataegus monogyna), Sycamore (Acer pseudoplatanus), Hazel (Corvlus spp.), Willow (Salix spp.) and Nettle (Urtica dioica). A small area of scrub is found to the north comprised of Bramble (*Rubus fructicosus*), Willow (*Salix* spp.) and Buddleia (*Buddleja* spp.).

Habitats of note outside the red line boundary included the depositing/lowland river to the north. This river is culverted under the R488 regional road and flows in a westerly direction. During the day of assessment, the river had a regular flow and was approximately 2-4m in width with a muddy substrate. Plants within and on the banks of the river included Watercress, Duckweed (*Lemnoideae* spp.), Reed Canary Grass (*Phalaris arundinacea*) and Bramble (*Rubus fructicosus*). This watercourse was not accessible.

HABITAT CLASSIFICATION HIERARCHY			
LEVEL 1	LEVEL 2 LEVEL 3		
$\mathbf{B}$ – Cultivated and built land	<b>BL</b> – Built land	<b>BL3</b> – Buildings and artificial surfaces	
<b>E</b> – Exposed rock and disturbed ground	<b>ED</b> – Disturbed ground	<b>ED3</b> – Recolonising bare ground	
$\mathbf{F}$ – Freshwater	<b>FW</b> – Watercourses	FW2 – Depositing / lowland rivers	

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HABITAT CLASSIFICATION HIERARCHY			
LEVEL 1	LEVEL 2	LEVEL 3	
G – Grassland and marsh	GS – Semi-natural grassland	<b>GS2</b> – Dry meadows and grassy verges	
$\mathbf{W}$ – Woodland and scrub	WL – Linear woodland/scrub	WL1/WL2 – Hedgerows/treelines	

There were no protected flora or Third Schedule invasive species found within the site boundary.

Bird species noted during the site walkover included Wren (*Troglodytes troglodytes*), Swallow (*Hirundo rustica*), Woodpigeon (*Columba palumbus*), House Sparrow (*Passer domesticus*), Magpie (*Pica pica*), Skylark (*Alauda arvensis*), Swallow (*Hirundo rustica*), Goldfinch (*Carduelis carduelis*), Dunnock (*Prunella modularis*). No species is red listed under the BoCCI classification. Swallow, Skylark and House Sparrow are amber listed. None of the bird species recorded are listed under Annex I of the E.U. Birds Directive. An animal burrow was observed within the dry meadows and grassy verges habitat; however, there were cobwebs over the entrance indicating it had not been inhabited recently. There was also no evidence of scat/droppings or footprints. There was no evidence of other fauna noted during the survey. However, fauna, typical of that found throughout the rest of Ireland, which would be expected to be found in the area include Bat species, Badger (*Meles meles*), Fox (*Vulpes vulpes*), Otter (*Lutra lutra*), Wood Mouse (*Apodemus sylvaticus*), Rabbit (*Oryctalagus cuniculus*), Pine Marten (*Martes martes*), Stoat (*Mustela erminea hibernica*), American Mink (*Mustela vison*), Deer, Irish Hare (*Lepus timidus hibernicus*), Hedgehog (*Erinus europaeus*), Red Squirrel (*Sciurus vulgaris*), Grey Squirrel (*Sciurus carolinensis*) and Brown Rat (*Rattus norvegicus*).

In addition to the site walkover, flora and fauna records were reviewed on the National Biodiversity Data Centre (NBDC) website for the proposed development site and vicinity. No protected plant species under the Flora (Protection) Order, 2022 (S.I. No. 235 of 2022) were recorded within the 10km square (Tetrad – S76) in which the proposed development site is located. Endangered or threatened flora within this tetrad are: Blue Fleabane (*Erigeron acer*). Six invasive plant species listed in the Third Schedule of the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) were recorded within the 10km square (Tetrad – S76): Water Fern (*Azolla filiculoides*), Canadian Waterweed (*Elodea canadensis*), Giant Hogweed (*Heracleum mantegazzianum*), Indian Balsam (*Impatiens glandulifera*), Japanese Knotweed (*Fallopia japonica*), Rhododendron ponticum and Three-cornered Garlic (*Allium triquetrum*).

Protected fauna species of note recorded within the NBDC 10km square (Tetrad – S76) include the protected species, Common Frog (*Rana temporaria*), Freshwater White-clawed Crayfish (*Austropotamobius pallipes*), Brown Long-eared Bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Badger (*Meles meles*), Pygmy Shrew (*Sorex minutus*), European Otter (*Lutra lutra*), Lesser Noctule (*Nyctalus leisleri*), Nathusius's Pipistrelle (*Pipistrellus nathusii*), Natterer's Bat (*Myotis nattereri*), Pipistrelle (*Pipistrellus pipistrellus sensu lato*), Whiskered Bat (*Myotis mystacinus*) and European Hedgehog (*Erinaceus europaeus*). High impact invasive species listed in the Third Schedule of the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) include American Mink (*Mustela vison*), Brown Rat (*Rattus norvegicus*), Grey Squirrel (*Sciurus carolinensis*), Fallow Deer (*Dama dama*), Canada Goose (*Branta canadensis*).

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Bird species of note include Barn Owl (*Tyto alba*), Swallow (*Hirundo rustica*), Black-headed Gull (*Larus ridibundus*), Common Coot (*Fulica atra*), Kestrel (*Falco tinnunculus*), Kingfisher (*Alcedo atthis*), Linnet (*Carduelis cannabina*), Pheasant (*Phasianus colchicus*), Common Sandpiper (*Actitis hypoleucos*), Snipe (*Gallinago gallinago*), Starling (*Sturnus vulgaris*), Wood Pigeon (*Columba palumbus*), Curlew (*Numenius arquata*), Eurasian Teal (*Anas crecca*), Great Cormorant (*Phalacrocorax carbo*), Greylag Goose (*Anser anser*), Herring Gull (*Larus argentatus*), House Martin (*Delichon urbicum*), House Sparrow (*Passer domesticus*), Lesser Black-backed Gull (*Larus fuscus*), Little Egret (*Egretta garzetta*), Little Grebe (*Tachybaptus ruficollis*), Mallard (*Anas platyrhynchos*), Mute Swan (*Cygnus olor*), Northern Lapwing (*Vanellus vanellus*), Peregrine Falcon (*Falco peregrinus*), Rock Pigeon (*Columba livia*), Sand Martin (*Riparia riparia*), Sky Lark (*Alauda arvensis*), Spotted Flycatcher (*Muscicapa striata*), Pigeon (*Columba oenas*) and the Yellowhammer (*Emberiza citrinella*).

The majority of the habitats noted within the development site are modified and of low ecological value therefore, the loss of such habitats would not be significant. Some areas of recolonising vegetation and dry meadows and grassy verges will be removed for the installation of a concrete yard however, these habitats are on modified ground and would not be considered of significant ecological value given the small area of these habitats within a larger rural environment. In addition, there were no protected fauna or recent evidence of their presence noted during the site assessment.

On the basis of information provided in this report, it is considered that there would be no significant impact on any protected habitats or species within the vicinity of the development site. While low impact invasive species were noted outside the site boundary, no invasives were noted within the construction area or boundaries.

It is not considered that the proposed extension of duration would require further assessment within an EIAR in terms of biodiversity vulnerability and absorption capacity.

# 5.3.4 Landscapes & Visual Impact

The Carlow County Development Plan is the statutory development control and forward planning document pertaining to the project area. The Landscape Character Assessment (LCA) of County Carlow was published by Carlow County Council as part of the Carlow County Development Plan 2022-2028. The LCA for County Carlow identifies and describes the landscape character of each part of the County (Landscape Character Areas and Landscape Types) and views, prospects and scenic routes.

The LCA for Carlow identified 4 distinctive Landscape Character Areas within the County as follows:

- Blackstairs and Mount Leinster Uplands
- Central Lowlands
- River Slaney/East Rolling Farmland
- Killeshin Hills

The LCA also identified the following 7 Landscape Types

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- Broad River Valley
- Narrow River Valley
- Built Up Areas

- Farmed Lowland
- Farmed Ridges
- Rolling Rough Grazing

• Uplands

The development would be located in Landscape Character Areas "Central Lowlands" bordering the "Killeshin Hills". The development would also be located within Landscape Type "Farmed lowland" bordering the "Broad River Valley".

The landscape is predominantly rural, characterized by fields of moderate to large size, typically bordered by low hedges and sporadic hedgerow trees. A comprehensive network of local roads connect the region, in addition to the M9 and N80. The Central lowlands can accommodate a wide range of development projects, provided that suitable mitigation measures are implemented. The region includes river valleys and ridges that are more susceptible to development impacts compared to other parts of the area. Notable among these are the Barrow, Slaney, and Douglas River Valleys.

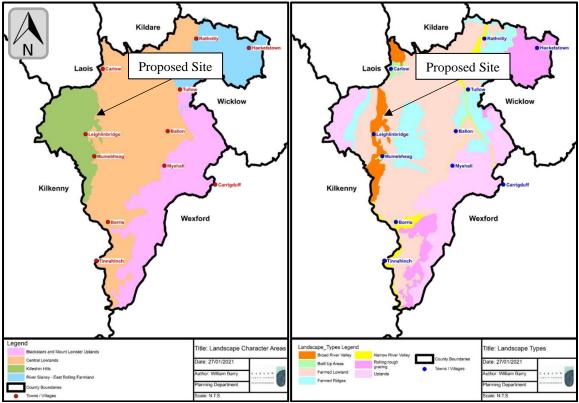


Figure 5.12: Landscape Character Areas and Types Maps [Carlow CDP 2022-2028]

The development is located 7.96km south from Carlow town centre and the landscape would be considered rural in nature, with agricultural grazing land, a landfill, a civic amenity site, a quarry and one-off residences located within the vicinity of the site.

The Carlow County Development Plan 2022-2028 includes the following objectives:

• LA. P1 - Protect and maintain the overall integrity of the County's landscape, by recognising its capacity to sustainably integrate and absorb appropriate development, and by ensuring that development protects, retains and, where necessary, enhances the appearance and character of the landscape, and does not unduly damage or detract from

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those features which contribute to its value, character, distinctiveness and sensitivity e.g. landform, habitats, scenic quality, settlement pattern, historic heritage, amenity, land use and tranquillity.

- LA. P2 Ensure that development will not have a disproportionate landscape or visual impact in sensitive upland areas of the County (due to siting, layout, design or excessive scale, height and bulk) and will not significantly interfere with or detract from scenic upland vistas, when viewed from the surrounding environment, including nearby areas, scenic views and routes, and from settlements.
- LA. P5 Protect and maintain the landscape quality and visual integrity of river valleys and river corridors, and to ensure development in these sensitive landscape areas does not adversely affect or detract from scenic views, including views from bridges, or from distinct linear sections such as open floodplains.
- LA. P6 Require all developments, having regard to their landscape setting, to be appropriate in siting, layout, design and scale, in order to ensure any potential adverse or landscape and visual impacts are minimised and/or removed where necessary, and that natural site features and characteristics are retained and maintained.
- LA. P11 Protect and preserve the established appearance and aesthetic attributes of views and prospects that contribute to the inherent quality of the County's landscape, including views, prospects and scenic routes and particularly views to and from mountains, hills, river valleys and river corridors, and views of historical or cultural value (including buildings and townscapes) and views of natural beauty.

As per **Figure 5.13** below, the site is located in a regional route near a main river corridor. There are no views and prospects or scenic routes that would be negatively impacted by the proposed development during construction and operational phases.

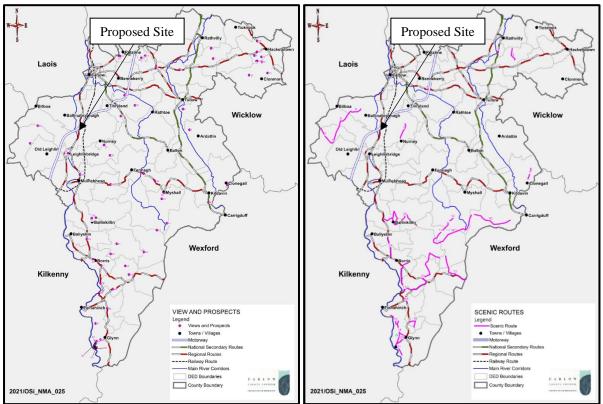


Figure 5.13: View & Prospects and Scenic Routes Maps [Carlow CDP 2022-2028]

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In 09<sup>th</sup> November 2023, a visual assessment of the site was carried out. For this assessment, a total of four viewpoints were utilised, which was outlined in **Figure 5.14**. Views from the viewpoints selected for this assessment are represented in **Plate 5.1** to **Plate 5.6** below.

Viewpoint No.1 represents the viewpoint from the R448 regional road north of the site. An earth mound blocks the view to the existing macadam and concrete yards at the site and the lower sections of the existing building. The new truck storage building would be located in the northern section of the site and the proposed new 2m earth mound would produce the same effect as the existing mound. It is not anticipated that there would be any significant visual impacts from the proposed development at this location.

Viewpoint No.2 represents the viewpoint from the site entrance and includes two different plates (Plate 5.2 and Plate 5.3). The new equipment store would not be visible from this point, as it would be blocked from view by the existing building structures at the site. The existing and proposed new 1.25m high earth mound at the west of the site along the R448 road, would block the views to the lower sections of the buildings from public areas. It is not anticipated that there would be any significant visual impacts from the proposed development at this location.

Viewpoint No.3 represents the viewpoint from the existing macadam yard at the site and includes two different plates (Plate 5.4 and Plate 5.5). The entrance gate is the location within the site that provides the most significant visibility to public areas, which are otherwise concealed from earth mounds. The site does not offer any views of the River Barrow and River Nore SAC. It is not anticipated that there would be any significant visual impacts from the proposed development.

Viewpoint No.4 represents the viewpoint from the R448 south of the site. The proposed new 1.5m earth mound at the south of the site would block the new concrete yard and would limit the views to the existing and proposed buildings. It is not anticipated that there would be any significant visual impact on the visual environment at this location.

The topography of the area is defined by a gradient that inclines to the west towards the River Barrow. The site is publicly visible mostly along the R448 road to the west of the site. However, the site would be partially screened from view by grassed earth mounds to the north, west and south. Hence, this visibility is limited to the middle and upper sections of the buildings due to the existing and proposed earth mounds. The earth mounds will be grassed to further help the visual blending of the development with its surroundings. The proposed site entrance would also allow for limited views to the development from the R448 road.

The proposed development is a warehousing project and would conform to the existing building at the site. The materials and finishes, consisting of steel frames, roof and side metal claddings would be similar to those used in modern agricultural buildings. Therefore, the design of the site would not interfere with the character of the wider landscape. Additionally, the apex of the new truck storage building will be of a similar height to that of the existing building, while the apex of the new equipment store will be at a lower level. This will ensure that the proposed development will not have a distinctive character. Once completed, the proposed development will have a similar visual impact as the existing development at the site and other commercial developments in the direct vicinity of the site. Subject to the agreement with the planning department, the visual impact of the site may be further reduced by including dark cladding, or similar, in the design.

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Figure 5.14: Viewpoint Location Map

It is considered that additional investigation within an EIAR for visual and landscape impacts from the development would not be required.

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**Plate 5.1:** Viewpoint No. 1 – R448 looking south



**Plate 5.3:** Viewpoint No. 2.2 – Site entrance looking south



Plate 5.2: Viewpoint No. 2 – Site entrance looking south-east



Plate 5.4: Viewpoint No. 3.1 – Macadam yard looking south-west

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**Plate 5.5:** Viewpoint No. 3.2 – Macadam yard looking west



Plate 5.6: Viewpoint No.6 – R448 looking north-east

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### 5.3.5 Archaeological and Cultural Heritage

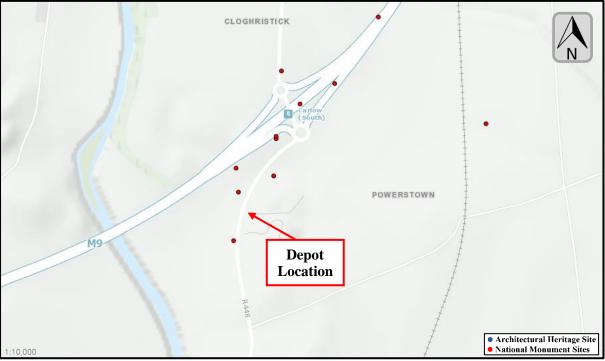


Figure 5.15: National Monument and Architectural Heritage Sites

The following tables summarise the recorded archaeological heritage sites and protected buildings as per the National Inventory of Architectural Heritage database within 1km of the site:

Record No.	Classification	Townland	Distance
CW012-129	Redundant record	Cloghristick	69m NW
CW012-128	Excavation - miscellaneous	Powerstown	100m S
CW012-094	Ring-ditch	Cloghristick	154m NE
CW012-089	Fulacht fia	Cloghristick	159m N
CW012-119	Burial	Cloghristick	293m N
CW012-120	Excavation - miscellaneous	Cloghristick	302m N
CW012-121	Redundant record	Cloghristick	455m NE
CW012-122	Metalworking site	Cloghristick	559m N
CW012-134	Redundant record	Cloghristick	594m NE
CW012-132	Water mill - unclassified	Cloghristick	912m NE
CW012-023	Moated site	Powerstown	985m NE

**Table 5.5:** Archaeological Heritage Sites within 1km of the Site

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According to the National Inventory of Architectural Heritage, there is no built heritage recorded within 1 km of the proposed site. The nearest national monument to the site is the Milford canal lock, which dates to the late 18<sup>th</sup> century, located in Ballygowan townland, approximately 1.25 km north-west.

Excavations.ie have records for multiple projects within 1km of the site. The closest sites were recorded at: ITM E 670431m, N 668953m, approximately 65m north of the depot facility. These excavations were carried out as part of the N9/N10 Kilcullen to Waterford road scheme. Prehistoric artefacts were found, including pottery and worked flint, but no contextualised prehistoric activity could be discerned. It is possible that these findings are associated with a prehistoric settlement in the vicinity of the site, as suggested by the recorded ring-ditch (CW012-094) and fulacht fia (CW012-089).

The historical maps provided in **Figure 5.16**, **Figure 5.17** and **Figure 5.18**, ranging from 1829 - 2023 indicate that the development site has always been located within a rural environment with agricultural fields and scattered residential dwellings along the public road. The trajectory of a section of the R448 road, along which the proposed depot would be located, has been recently adjusted. The site shows no evidence of containing historical structures.



Figure 5.16: Aerial Image – 2023 (Google)

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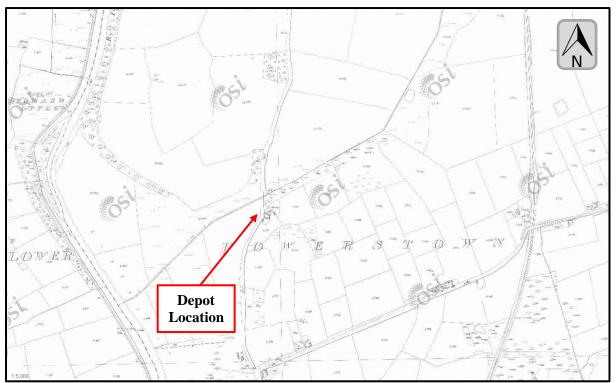
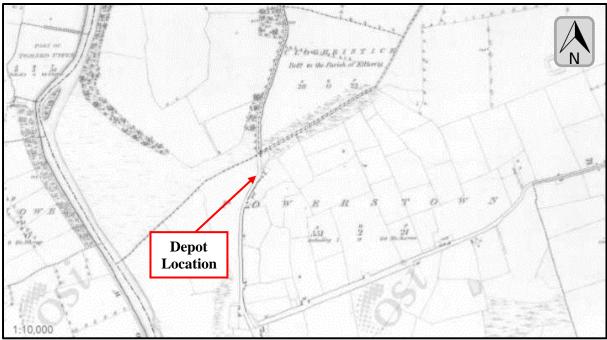


Figure 5.17: 25 Inch Historical Map (1897-1913)



**Figure 5.18:** 6 Inch B&W (1829-41)

The proposed development site is disturbed ground with the general area having been developed previously, and covered with tarmacadam. The proposed development would not involve extensive or deep excavations. While there is a possibility of archaeological features within this area, the development history of the site would suggest a low likelihood of undiscovered archaeological, architectural or cultural heritage finds within the proposed development site.

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# Environmental Impact Assessment Report Screening

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Following a desk study, it is considered that there would be a low likelihood of impacting upon archaeological, architectural or cultural heritage sites within the proposed development site or within its immediate environs as identified in the Sites and Monuments Database of the Archaeological Inventory of Ireland.

Therefore, it is considered that additional investigation within an EIAR for archaeological and cultural heritage impacts from the development would not be required.

# 5.3.6 Traffic & Transportation

This section will address the aspects of the project having regard to traffic and transportation, including the potential for traffic generation. The likelihood of impact would be discussed in the context of the existing urban traffic environment.

### **Construction**

Construction sites invariably involve a certain amount of HGV movements. These movements are primarily associated with the importation of supply materials, machinery and other plant equipment on to the site.

Traffic impacts may arise via the following:

- Delivery of construction plant and equipment to the site;
- Delivery of raw materials to the site;
- Vehicle movements from staff, sub-contractors and site visitors travelling to and from the site;
- Vehicle movements associated with waste removal at the site.

The site is accessed via the R448 regional road, which connects to the M9 motorway approximately 350m to the north-east. The R448 road also provides direct access to the centre of Carlow town.

Construction works have the potential to impact upon traffic volumes in the area, which may subsequently impact upon the generation of noise and dust emissions.

The majority of the HGV movements would take place during the initial demolition and construction phases as machinery would have to be brought to the site along with other supplies and site infrastructure. In-fill such as gravel, sands and cement will also be brought on to the site.

This is a small sized development. The surrounding road network is well laid out and capable of carrying increased construction traffic.

The construction works contractor should ensure the following:

- Deliveries to the site would be via suitably contained vehicles, with sheeting and covers where required;
- Deliveries to the site would be scheduled during the construction hours of 7:00am to 7:00pm Monday to Friday, and 7:00am to 1:00pm on Saturdays;

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- Where possible, large volumes of traffic or traffic movements associated with the site would be timed to occur outside peak hours on the local road network to reduce the potential for traffic congestion.
- The contractor shall provide for the safe passage of pedestrian and vehicular traffic and measures to keep the impact of the works on local roads, and local communities to a minimum
- Local roads would be inspected and cleaned as necessary to ensure that access roads are kept clear of mud and debris,
- Advise haulage contractors on the appropriate routes to and from the site and to adhere to good traffic management principles;
- Delivery of materials to the site would be timed to ensure efficiency and to reduce traffic on the local road network.

Cognisance should also be taken of recommended traffic mitigation measures within the following guidance documents:

### NRA (2008) Environmental Impact Assessment of National Road Schemes

The guidelines provide advise with regard to EIAR on road schemes. The guidance also provides consolidated legislation, general guidance on mitigation and sources of further relevant information.

### EPA (2006) Environmental Management in the Extractive Industry

Open sites (construction sites, quarrying and in-fill activities) by their nature, generate similar traffic impacts. Construction materials transported from quarries to construction sites have the potential to cause environmental impacts due to traffic at the source and destination. This guidance document provides general recommendations for the management of traffic and transport of materials.

### **Operation**

Once construction has been completed, site related traffic would consist of storage trucks related to the depot and staff's personal vehicles. Traffic volumes are anticipated to increase on the local road network as a result of the developments operational phase. However, these increases are not likely to be significant and traffic impacts associated with the development would be minimal. The local road network and new access road are anticipated to be sufficient to accommodate site related traffic.

It is not considered that further assessment within an EIAR is required for potential traffic impacts.

# 6.0 PART III – CHARACTERISATION OF THE POTENTIAL IMPACTS

### 6.1.1 Magnitude and Spatial Extent of the Impact (for example geographical area and size of the population likely to be affected)

The site is positioned within a rural area, located *c*. 7.96km south of Carlow town centre. Environmental effects from the development would generally be localised to the area of activities, within rural landscape, and potentially impacted population numbers would be small.

The total site area is 0.282 hectares and the development would comprise two new buildings, concrete yards, new surface and foul water drainage systems and ancillary works.

Environmental effects from the development would generally be localised. Potential impacts to air quality from the use of fuels would apply to a regional extent, however these impacts would be insignificant in terms of intensity. It should be noted that there will be no air emissions from the development site associated with the heating of the existing and proposed buildings. There would be expected to be no significant effects on water quality during construction or operation, considering proposed mitigation and controls.

### 6.1.2 Nature of the Impact

During the construction phase, potential environmental impacts would be common for construction projects and include:

- Potential noise impacts to sensitive receptors,
- Potential nuisance airborne dust,
- Potential contamination of groundwaters and soil,
- Potential contamination of surface waters with soil, concrete etc.,
- Potential loss of valuable habitat (hedgerow, heath, wetlands etc.),

While such environmental risk can occur from all construction activities, it is considered that these risks would be appropriately mitigated by standard construction practices. Appropriate construction noise limits and dust controls have been discussed within this report.

During the operational phase, potential environmental impacts would be common for similar projects and include:

- Potential nuisance airborne dust,
- Potential contamination of groundwaters and soil;
- Potential contamination of surface waters with salt and fuel.

While such environmental risk occurs from all such developments, it is considered that these risks would be appropriately mitigated by the small scale and design of the site, relative low impact of the activities associated with the development (salt storage) and the location of the development site, as discussed within this report.

### 6.1.3 Transboundary Nature of the Impact

The proposed development is located a significant distance from international boundaries, and it is unlikely that emissions would have any significant transboundary impacts.

6.1.4 Intensity and Complexity of the Impact

The proposed depot as a whole would be considerate small in terms of scale. Due to the scale and type of development, the potential intensity of impacts would be minor.

The project would not be considered to be complex; design principals with regard to salt storage buildings are well established and appropriate environmental mitigation during construction and operation have been proposed.

The operation of the development would comprise the storage of salt. Therefore, and given appropriate mitigation, it is not considered that the proposed development would have a significant potential to cause complex interactions with the environment.

### 6.1.5 **Probability of the Impact**

As discussed, the construction phase has the potential to cause noise, dust, surface-water and ecological impacts. It is considered that potential impacts would be unlikely, given the transient nature of the construction phase and following the implementation of standard protection measures, as outlined in this report and the Appropriate Assessment prepared as part of this application. It is not considered likely that the construction phase would have a significant impact in terms of nuisance noise or dust.

The operational phase would result in the existing depot being used for its intended purpose and any operational phase impacts, as controlled or mitigated, would be certain.

Wastewater generated by sanitary facilities is currently directed to the leachate lagoon at the adjoining landfill and is treated on-site by a wastewater treatment process, according to the Industrial Emissions Licence emitted by the EPA. It is proposed to maintain this wastewater drainage system. The proposed development site is not associated with or under the management of the adjacent landfill licenced by the EPA. Surface water will also be will be attenuated onsite and a new oil interceptor would be installed before being released to the Powerstown watercourse via an existing outfall pipe. Fuel at the site will be stored in bunded tanks surrounded by bollards for protection. Spill kits will be available onsite.

Therefore, there is no significant risk that this development would adversely impact the environment.

### 6.1.6 Expected Onset, Duration, Frequency and Reversibility of the Impact

Impacts during the construction of the development are likely to be temporary and reversible.

Impacts during the operational phase of the development are anticipated to be permanent but minimal.

The completed development would result in the existing depot in County Carlow being used for its intended purpose.

# 6.1.7 Cumulation of the Impact with the Impact of other Existing and / or Approved Projects

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There are two sub-EIA scale approved developments within 1 km of the site, which comprise the construction of a single storey annex link from a dwelling to converted and renovated outbuilding, and the construction of slatted cattle shed.

While it is not known at this time if the identified approved developments within the area will commence construction during the project construction phase, there is a potential for in combination construction effects.

Potential in-combination construction phase impacts would include nuisance (noise, dust, vibration etc.), use of resources and construction traffic. However, the construction phase of each project would be temporary.

The adoption of standard construction management practices would prevent significant environmental impacts or nuisance from the proposed development and reduce the potential for in-combination effects. Individual potential construction phase impacts are discussed in more detail within this report.

The completed development would be anticipated to have cumulative effects with existing housing and business developments in the area. However, it is considered that the proposed design and control infrastructure are such as to have no significant in-combination effect on the quality and capacities of the receiving environment. It is considered that there would be a low likelihood of significant cumulative environmental impacts.

The development would be expected to have a positive in-combination impact on the local economy and community by providing employment during the construction and operational phases and by providing a stable supply of road salt for de-icing in County Carlow.

# 6.1.8 Possibility of Effectively Reducing the Impact

There is a high likelihood of reducing potential impacts from construction activities through the implementation of standard construction practices for the protection of surface waters and the minimisation of potential dust and noise.

Beyond built infrastructural controls, potential impacts which may occur as part of the operational phase of the development are anticipated to require ongoing control. However, given the location and small scale of the development, it is considered that any potential impact would be effectively reduced. Salt and fuel would be appropriately stored at the site.

# 7.0 CONCLUSION

An EIAR Screening exercise was carried out to assess the proposed development in terms of environmental risks and location sensitivity. This exercise has been informed by a desk study of the site based on the best available information.

The project, if successful, would result in the existing depot being used for its intended purpose

The storage of salt is not included as a "*class of development*" within Schedule 5 of the Planning and Development Regulations. There are no thresholds stipulated in Schedule 5 which would require an EIAR to be completed for this project.

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The proposed development is well situated and appropriate to the area.

Provided the appropriate mitigation measures are implemented, the potential for the proposed development to cause significant adverse environmental impacts by itself or in combination with other developments during the construction and operational phases of the project are anticipated to be minimal.

While there is a possibility of impacts during the construction phases of the development, it is considered that these would be amenable to standard construction controls.

It is considered that the development, as proposed, would not significantly impact upon the sensitivities of the existing environment. It is considered that potential risks are discrete and may be assessed individually, should further information be required to clarify potential environmental impacts.

Therefore, it is not considered that an Environmental Impact Assessment Report would be required to be completed for this project.