Appendix 1.1 - Preliminary Scoping Report

PRELIMINARY SCOPING REPORT - PROPOSED REPLACEMENT OF RENEWABLE ENERGY PLANT AT THE MEDITE FACILITY

Site Location: Redmondstown, Clonmel, Co. Tipperary

Prepared for: Medite Europe DAC ('Medite')

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1.0 Introduction

Medite Europe DAC ('Medite') in Clonmel is a Coillte-owned company and a market-leading manufacturer of environmentally produced, sustainable timber panel boards, specifically, medium-density fibreboard (MDF). Medite is embarking on major investment programme at its facility in Clonmel, Co. Tipperary. Over the next ten years approximately €70 million will be invested for the upgrade of the existing energy systems, signalling a major long-term commitment to the future of the manufacturing capability in the Clonmel area. The existing wood biomass boilers and the wood biomass thermal fluid heater are approaching the end of their design life, making investment in replacement energy infrastructure essential for the ongoing future operation of the manufacturing plant.

Medite intends to apply for planning permission to replace the existing energy systems at the Medite factory with two new wood biomass-fired energy plants, one for each of Medite's production lines. As the existing systems are approaching the end of their design life, their replacement with substantially better technology will guarantee the continued operation of the plant, secure greater energy efficiency, and reduce environmental emissions.

The project will include the replacement of existing wood biomass-fired boilers, wood biomass-fired thermal fluid heater and gas-fired thermal fluid heater at the Medite facility on a phased basis and is expected to realise significant long-term benefits. Importantly, the project will sustain continued employment in the region. From a national perspective, the project is critical to enable Medite to maintain its competitiveness internationally. By replacing energy currently provided by the existing gas-fired thermal fluid heater, the new energy plant will allow Medite to reduce its carbon emissions, by allowing the full production heat demand to be provided from renewable wood biomass fuel. This will help Medite as it advances its sustainability objectives towards the manufacturing of carbon neutral products. Furthermore, the development will result in longer term energy efficiencies and reduce exposure to volatile energy prices with respect to natural gas, thereby contributing to the continued competitiveness of the Medite operation.

1.1 Purpose of this report

This Scoping Report has been prepared to provide a high level overview of the proposed development, to allow consultees inform themselves of the scope of the project and provide comments on information which should be included in the EIAR. The report also sets out to provide an overview of the EIAR scoping process undertaken by the applicant to date.

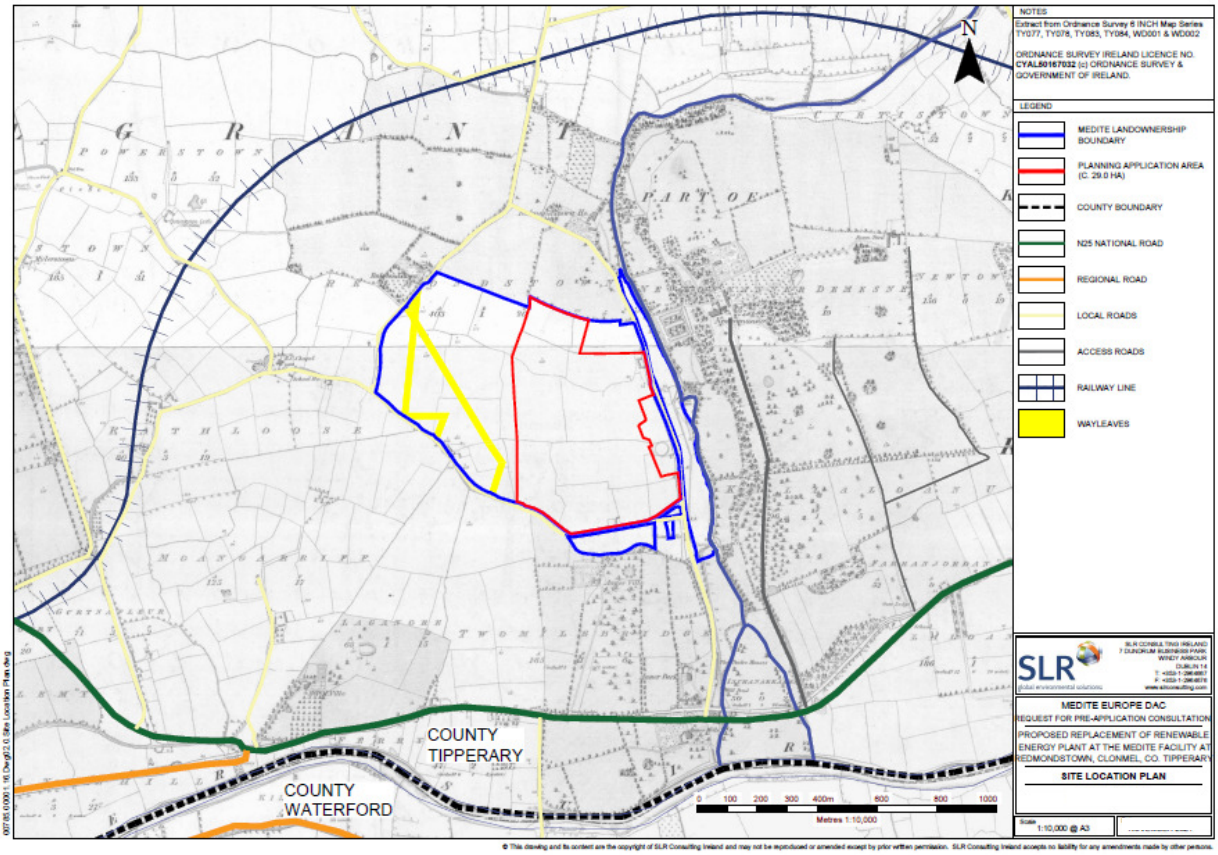


Figure 1 Site Location Plan

1.2 The Applicant

Medite at Redmondstown, Clonmel Co. Tipperary is a Coillte-owned company and market-leading manufacturer of environmentally produced, sustainable timber panel boards, specifically medium-density fibreboard (MDF). This is a wood-based sheet material assembled from wood fibre, bonded together with a synthetic resin adhesive. The two production lines at the plant can produce a maximum of 425,000m^3 of finished MDF products annually.

Medite is a successful and innovative export-driven business employing approximately 170 people directly at the Clonmel facility and supporting further employment through the supply chain across the southeast region for 40 years.

1.2.1 The Agent

SLR Consulting (SLR) have been commissioned by Medite DAC to coordinate the preparation of an Environmental Impact Assessment Report (EIAR) for the proposed development. SLR is an international planning and environmental consultancy with a network of offices in Ireland and the United Kingdom, as well as Australia, New Zealand, Canada, Namibia, Singapore, South Africa, Tanzania and USA. SLR provides a wide range of technical and professional services, including full life cycle support for projects from initial inception and feasibility through planning and on to construction.

2.0 Environmental Impact Assessment (EIA)

An Environmental Impact Assessment (herein referred to an EIA) is a process required by the European Union (EU) Environmental Impact Assessment Directive 2011/92/EU, as amended by 2014/52/EU, and transposed into Irish law by way of Part X of the Planning & Development Act 2000 (as amended).

An EIA is carried out by the relevant competent authority to ensure that projects, where the likelihood of the significant effects on the environment cannot be excluded, are subject to a comprehensive and independent examination, analysis, and evaluation of their likely significant effects on the environment. This includes the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term, and long-term, permanent, and temporary, positive and negative effects; of both their construction and operational phases prior to being granted planning permission.

Relevant statutory and non-statutory guidance documents that will be consulted during the preparation of the EIAR include:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, May 2022)
- Guidelines on the information to be contained in Environmental Impact Assessment Reports Guidance on EIA Scoping, European Commission, 2017
- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Union, 2013)
- OPR Practice Note PN02 Environmental Impact Assessment Screening (Office of the Planning Regulator, 2021);
- Environmental Assessment and Planning in Ireland: Planning Leaflet 11 (Office of the Planning Regulator, 2021);
- Draft Advice Notes for preparing Environmental Impact Statements (Project Type 33) (Environmental Protection Agency, 2015);
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Planning, Community and Local Government, 2018);
- Guidelines for Ecological Impact Assessment in the UK and Ireland (Chartered Institute of Ecology and Environmental Management, 2018);
- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Commission; 2013); and,
- Guidelines for Landscape and Visual Impact Assessment – Third Addition (Landscape Institute and Institute of Environmental Management and Assessment 2013).

2.1 EIA Screening

In accordance with the provisions of the Planning & Development Act 2000 (as amended), an EIA is mandatory when certain classes of projects exceed specific sizes and thresholds. Planning applications for such projects must be accompanied by an Environmental Impact Assessment Report (EIAR).

Projects can be placed into one of the following categories:

- those that exceed the thresholds laid down and therefore have a mandatory requirement to prepare an EIS;
- those projects that are sub-threshold and must be assessed on a case-by-case basis to determine whether or not they are likely to have significant effects on the environment; and
- projects that fall under Annex II (13) (a) of the Directive for Any change or extension of projects listed in Annex I or Annex II, already authorised, executed in the process of being executed.

These projects are listed in detail in the EIA Directive, Annex I, (85/337/EU – amended 97/11/EC, 2003/35/EC, 2009/31/EC, EC, 2014/52/EU), as well as in the Planning and Development Regulations, Schedule 5, Development for the purposes of Part 10.

Currently producing a maximum of 425,000 tonnes per annum of MDF per annum, the existing development falls in under Part 1 of Schedule 5. The relevant class of project being:

18. Industrial plants for the-
(a) production of pulp from timber or similar fibrous materials,
(b) production of paper and board with a production capacity exceeding 200 tonnes per day.

Regarding the projects referred to in Part 2 of Schedule 5, the proposed development falls under the following class of development:

11. Other projects

(b) Installations for the disposal of waste with an annual intake greater than 25,000 tonnes not included in Part 1 of this Schedule.

For Part 2 developments, in cases where thresholds are met or exceeded, or where no threshold is set, there is mandatory EIA.

The proposed development consists of two new renewable energy plants which will have rated thermal capacity of up to 60 MW and 30 MW for Line 1 and Line 2 production lines, respectively. The plants will combust up to 186,000 tonnes a year through a range of biomass fuels including by-products from the MEDITE manufacturing process and forestry residues. The proposed development therefore exceeds the mandatory threshold for EIA under Class 11 Other Projects listed in Part 2 of Schedule 5 and the proposed development would be considered development requiring EIA.

2.2 EIA Scoping

'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in the European Commission guidance[1] as:

'The process of identifying the content and extent of the information to be submitted to the Competent Authority under the EIA process'. Scoping can be carried out on a formal or informal basis.

2.2.1 Formal Scoping

Section 173(2)(a)(i) of the Act provides for a discretionary provision whereby a developer may formally request the opinion of the Planning Authority on the scope of an EIAR. In this case, however, no formal scoping was considered necessary and informal scoping was carried out, primarily through ongoing iterative dialogue and feedback processes between the EIAR Project Team and the Applicant, and through the consultation process described in Section 5 below.

2.2.2 Informal Scoping

Informal scoping is carried out through ongoing iterative dialogue and feedback processes between the EIAR Project Team and the Applicant, and through the feedback received from the consultation process. Informal scoping is considered the most appropriate means of EIAR scoping in this case, as it was envisaged from the outset that no environmental factors would be scoped out or eliminated from the EIAR. Accordingly, all

[1] Guidelines on the information to be contained in Environmental Impact Assessment Reports Guidance on EIA Scoping, European Commission, 2017.

environmental factors, as prescribed by the Planning and Development Act 2000 and Planning and Development Regulations 2001, will be fully addressed and included in the EIAR.

As part of an informal scoping process, this 'Scoping Report' has been prepared to provide a high level overview of the project context; description of the baseline environment; alternatives considered; the proposed development; its possible likely significant environmental effects; and mitigation and monitoring measures. This report will be used in the course of the consultation process, as described in Section 5 below, to allow consultees to inform themselves of the scope of the project and possible environmental effects, and to invite comments on the information which should be included in the EIAR, so that a focused and robust EIAR is produced.

2.3 Environmental Impact Assessment Report (EIAR)

An EIAR is a written statement of the likely significant effects if any, which the proposed development if carried out, will have on the environment. The EIAR consists of a systematic analysis of the continued operation of Medite DAC in relation to the existing environment. It is an iterative process carried throughout the full lifecycle of the project design and consenting process to allow for preventative and ameliorative action to anticipate, avoid and mitigate any likely significant effects foreseen.

The EIAR is the principal document that informs the EIA process and provides integral information which consenting authorities can use, amongst other considerations, in independently undertaking the EIA and informing a decision-making process.

The EIAR can also be used by third parties including members of the public concerned, as part of the public participation process, to evaluate the proposed development and its likely significant environmental effects and to inform any submissions made to the planning application process.

The EIAR will be prepared in accordance with the provisions contained within Schedule 6 of the Planning and Development Regulations 2001, as amended, which sets out the information to be contained in an EIAR. In addition, the EIAR will take account of the contents of Directive 2014/52/EU (the 2014 EIA Directive), which was adopted in the EU on 16th April 2014, amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment. The 2014 EIA Directive was transposed into Irish planning law from the 1st of September 2018 via the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

2.4 Content of the EIAR

The EPA guidelines include a 7 no. stage sequential approach in preparing an EIAR. This includes:

- Screening.
- Scoping.
- Consideration of Alternatives.
- Project Description.
- Baseline Description.
- Assessment of Likely Significant Impacts; and
- Mitigation/Monitoring.

The guidelines outline that adherence to this sequence ensures that an objective and systematic approach is achieved. Using this sequence, the environment is described through the implementation of several specific headings, and this provides for a separate section for each topic. The description of the existing environment, the likely significant effects (positive, negative, & cumulative), mitigation and monitoring measures, and residual effects are then grouped together in each section, covering each topic. This format allows for ease of investigation into each topic and for specialist studies/input to be integrated seamlessly. The structure of this EIAR is set out below:

- Introduction.
- Assessment of Project Alternatives.
- Description of the Proposed Development.
- Population and Human Health.
- Biodiversity.
- Land & Soil.
- Water.
- Air Quality & Climate.
- Landscape.
- Cultural Heritage.
- Noise & Vibration.
- Material Assets, and
- Interaction of the Foregoing.

Each chapter of the EIAR will be structured using the following format:

- Introduction.
- Description of the Existing Environment.
- Description of Likely Effects.
- Mitigation & Monitoring Measures.
- Residual Effects, and
- Conclusion.

3.0 Proposed Development

Medite operates two production lines producing up to 425,000m^3 of finished MDF product annually. MDF is produced on the site using 650,000 tonnes of product feedstock per annum. The plant has two biomass boilers and a gas-fired thermal fluid heater providing thermal energy to production line 1 and a biomass fired thermal fluid heater providing thermal energy to production line 2.

The proposed project will encompass the replacement of existing aging biomass boilers, biomass thermal fluid heater and gas fired thermal fluid heater, serving both of Medite's two production lines. The new renewable energy plants will have a rated thermal capacity of up to 60 MW and 30 MW for Line 1 and Line 2 production lines respectively. The new renewable energy plants will take the form of biomass fired thermal fluid heaters, providing energy to the manufacturing process in three forms:

- Treated flue gas to fibre dryers.
- Heated thermal fluid to the press.
- Steam (generated by heated thermal fluid) to multiple steam users.

Energy will be generated from the combustion of up to 186,000 tonnes a year from a range of biomass fuels including by-products from the Medite manufacturing process and wood biomass. This increase from the existing throughput of 111,000 tonnes per annum will not result in an increase in the production of MDF but is required to reflect a change in the fuel inputs. The additional amount will replace the energy currently derived from a gas fired thermal fluid heater, which would no longer be required, and reflects the increasing variability in moisture content of biomass wood fuel which is imported to the site. The replacement of energy derived from the gas fired thermal fluid heater will also realise carbon savings are 5,800 t/y.

Of the 186,000 tonnes of proposed fuel intake, 76,000 will comprise Medite residues which are sourced on site and 110,000 tonnes will comprise biomass wood. Accounting for the existing fuel intake, the net increase will correspond to an additional 76,000 tonnes. The proposed development utilises the optimum technology and fuel menu to support the ongoing operation of the Medite facility.

The proposed development will be located within the confines of the existing Medite site and indicated on the indicative site layout Drawing 05 enclosed. They are:

- **Development Area 1** will accommodate fuel reception, storage and conveying/screening equipment for the new Line 1 and Line 2 Energy Plant. It will be located at the northern part of the site and built as required in tandem with the overall phasing of development.
- **Development Area 2** will accommodate the new Line 1 energy plant which will be located to the south of the Medite site.
- **Development Area 3** will accommodate the new Line 2 energy plant which will be located adjacent to the existing Line 2 Energy Plant.

The proposed elements of the proposed energy plant are shown on Drawing 05 and will comprise:

DEVELOPMENT AREA 1

2.1 Fuel Reception circa L16.2m x W10.7m x H5m.
2.2 Screening and Metal Removal circa L5.8m x W1.1m x H8m.
2.3 Trim Silo circa diameter 5.6m x H23m.
2.4 Hopper Infeed circa L3.0m x W2.25m x H5m.
2.5 Fuel Storage circa L21.5m x W25m x H18m.
2.6 Conveying (to Line 1 Energy Plant) circa L199m x W1m x H varies 5-18m.
2.7 Conveying (to Line 2 Energy Plant) circa L21.1m x W1m x H varies 5-18m.

DEVELOPMENT AREA 2

3.1 Line 1 Energy Plant circa L26m x W19m x H32m.
3.2 Line 1 Flue Gas Cleaning circa L32.6m x W12m x H26m.
3.3 Line 1 Start-up Stack circa diameter 3.0m x H52m.
3.4 Line 1 Flue Gas Duct circa L81.4m x W2.5m x H varies 5-14m.
3.5 Line 1 Thermal Fluid Piping circa L124.0m x W0.5m x H varies 0-15m.
3.6 Line 1 Urea Tank circa diameter 3.2m x H11m.
3.7 Line 1 Granulate Silo circa diameter 6m x H23m.
3.8 Line 1 Dust Silo circa diameter 6m x H23m.

DEVELOPMENT AREA 3

4.1 Line 2 Energy Plant circa L20.7m x W15.3m x H32m.
4.2 Line 2 Flue Gas Cleaning circa L26m x W9.3m x H24m.
4.3 Line 2 Start-up Stack circa diameter 3.0m x H52m.
4.4 Line 2 Flue Gas Duct L47.5m x W1.6m x H varies 5-14m.
4.5 Line 2 Thermal Fluid Piping L18.7m x W0.5m x H varies 0-15m.
4.6 Line 2 Urea Tank circa diameter 3.2m x H11m.4.7
4.7 Line 2 Granulate Silo circa diameter 6m x H23m.
4.8 Line 2 Dust Silo circa diameter 6m x H23m.

The above dimensions (L; length; W: width and H: Height in metres) are approximate and based on a conceptual design. The detailed layout and dimensions may be amended as the design is progressed and finalised for the project.

Heat supply infrastructure

The proposed new replacement energy plants will be connected to the heat consumers via:

- A series of pipes mounted on pipe-bridges and including expansion loops, carrying thermal fluid.
- A series of pipes mounted on pipe-bridges and including expansion loops, carrying steam.
- A series of ducts.
- On pipe-bridges carrying treated flue gas.

The exact routing has not yet been defined but will run from the energy plants to the heat consumers within the existing Medite plant buildings and along the corridors formed by the existing roadways.

Existing line 1 and line 2 Energy Systems

It is intended that decommissioning of the existing line 1 and line 2 energy systems will take place following commissioning, testing and acceptance of the new energy plants.

Surface Water Management

Surface Water Management will largely remain unchanged except for two areas of additional hard standing to facilitate the development of both energy plants. The exact area of additional hard standing is insignificant in the context of the overall site. The capacity of existing surface management measures will be reviewed as part of the hydrology chapter of the EIAR.

Biomass fuel storage

The proposed biomass fuel store, fuel reception and fuel processing area that will collectively form part of the new biomass energy plant will occupy a part of site currently used for outdoor storage and mixing of biomass fuels for the existing line 1 and line 2 energy systems. Fuel will continue to be stored in piles on site.

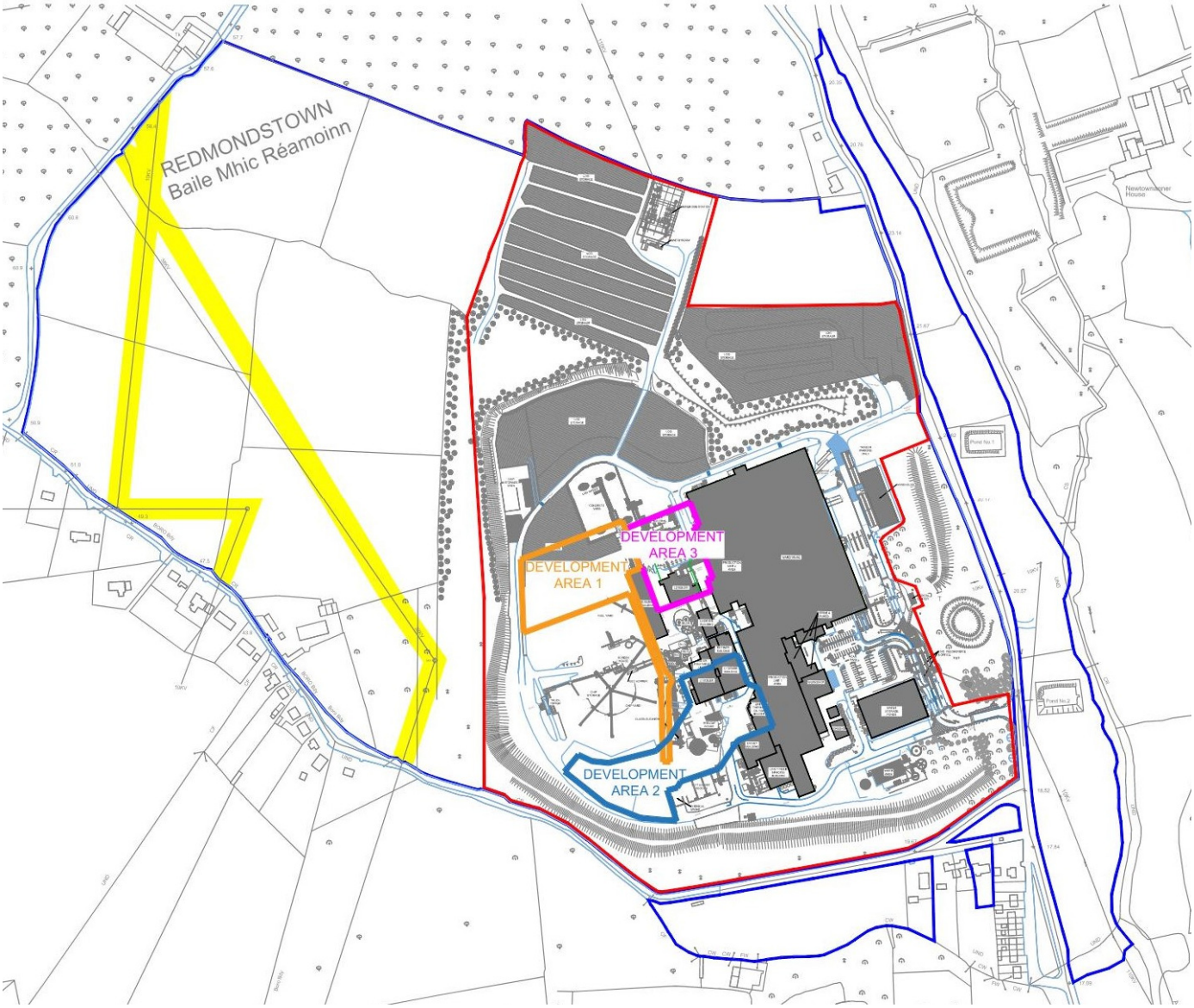


Figure 2 Proposed Site Layout

4.0 Scope of the EIAR

This section provides a brief overview of the proposed scope of the EIAR, as well as the potential effects which have been identified and the proposed methodology for further assessment in the EIAR. The EIAR will provide an assessment of the likely significant effects during the construction, operation and decommissioning of the proposed development for each the environmental topics identified in the EIA Directive. These topics are also identified in *Schedule 6 Information to be contained in EIAR* of the *Planning and Development Regulations 2001, as amended.*

4.1 A Description of the proposed development

Chapter 2 of the EIAR will include a detailed description of the proposed development including, in particular:

i. a description of the location of the proposed development,
ii. a description of the physical characteristics of the whole proposed development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases,
iii. a description of the main characteristics of the operational phase of the proposed development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used, and
iv. an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases;

4.2 Project Alternatives

In relation to project alternatives, the EIAR must set out

> *'A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the* ***main reasons for the option chosen, taking into account the effects of the proposed development on the environment'*** *Schedule 6 1(d)*

Prior to the selection of the development under consideration, Medite undertook extensive assessment of alternatives particularly in relation to the proposed energy plant technology. The assessment of alternatives ranged from the development of a singular CHP plant to serve the energy requirements of both production lines to the replacement of both existing energy plants using conventional but more efficient boiler technology.

Siting options were also considered in relation to each of the technology types and in all cases development within the existing footprint within the Medite site. Chapter 3 of the EIAR will deal with Project Alternatives studied by those preparing the EIAR.

4.3 Topic Chapters

As required by the provisions of the EIA Directive and Schedule 6 of the Planning and Development Regulations 2001, a description of the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment' in section 171A of the Act likely to be significantly affected by the proposed development must be included in the EIAR. These factors are set out below and will be addressed in chapters 4-14 of the EIAR.

Environmental Factors	EIAR Chapter
• Population	Chapter 4 Population and Human Health Chapter 10 Noise & Vibration
• Human health	Chapter 4 Population and Human Health Chapter 10 Noise & Vibration
• Biodiversity (for example fauna and flora)	Chapter 5 Biodiversity
• Land (for example land take)	Chapter 6 Land Soils and Geology
• Soil (for example organic matter, erosion, compaction, sealing)	Chapter 6 Land Soils and Geology
• Water (for example hydromorphological changes, quantity and quality),	Chapter 7 Water
• Air	Chapter 8 Air
• Climate (for example greenhouse gas emissions, impacts relevant to adaptation)	Chapter 9 Climate
• Material assets	Chapter 11 Material Assets Chapter 14 Traffic
• Cultural heritage, including architectural and archaeological aspects	Chapter 7 Cultural Heritage
• Landscape	Chapter 13 Landscape

4.4 Population & Human Health

The Population and Human Health Chapter of the EIAR will assess the likely significant effects of the proposed development on Population and Human Health with a particular reference to the topics of population, human health, employment and socio-economic activity, land-use, tourism and amenity. These are set out in Table 4-1.

Table 4-1 Population and Human Health Scope of Assessment

Population	The potential impacts of the proposed development on population trends and statistics on population (density, age) will be addressed in this chapter.
Human Health	The potential impacts on human health from the proposed development will be assessed.
Health and Safety	Details relating to health and safety arising from the proposed construction, operation and decommissioning of the proposed development will be assessed. This will also refer to relevant topic chapters within the EIAR such as Water, Noise, Climate and Air, and Traffic and Transport.

Employment and Socio-economic Activity	The potential impacts of the proposed development on employment and the main economic activities of the study area.
Land Use	The assessment will address the potential impacts of the proposed development on exiting land use.
Recreation, amenity, and tourism	The assessment will address the potential impacts of the proposed development on residential amenity, recreational facilities and tourism of the region.

Population

With the purpose of analysing population trends and statistics on the proposed area, population data from the Central Statistics Office will be obtained for the study area defined by electoral division. The statistics of this data will be compared against county and state trends.

Human health

The assessment will contain a desk study review of the impacts of the operation of the proposed development on human health with reference to relevant topic chapters within the EIAR such as Water, Noise, Climate and Air, and Traffic and Transport.

Health and Safety

The assessment will contain a desk study review of the impacts of the operation of the proposed development on health and safety using published and verified sources of information, as well as consideration of the construction methodology of the proposed development.

Employment and Socio-economic activity

Data from the Central Statistics Office will be used to define the socio-economic baseline. The likely significant effects of the proposed development on population, employment, and economic activity both directly and indirectly, will be assessed.

Land-use

The existing land uses in the area, which could potentially be affected by the proposed development, will considered with reference to the Corine 2018 land cover data.

Tourism and Amenity

All areas of scenic beauty in addition to heritage, culture and leisure facilities in the area will be identified. A review of the main recreational activities in the area likely to be affected will be conducted. Residential amenities and recreational facilities, such as forestry in public ownership, walking paths, sports facilities, will be recorded and potential impacts assessed.

An assessment will then be conducted for each element of the proposed development to ascertain any potential impacts that may arise which could directly or indirectly affect recreational activity or an amenity. This assessment will be prepared giving cognisance to other disciplines such as cultural heritage and archaeology, hydrology, and ecology.

4.4.1 Potential for Likely Significant Effects

Population

The potential for likely significant effect arising from the proposed development on population during construction are likely to be slight positive, given the opportunities for enhanced employment and manufacturing opportunities associated with the proposed development. During operational phase these impacts would likely be reduced to imperceptible. The assessment will consider the potential impacts during all phases of the proposed development.

Human Health

The potential affects arising from the proposed development that can impact human health during construction, operational and decommissioning will be considered in this chapter.

Health and Safety

If not properly designed and constructed, there is the potential for construction and operational activities associated with the proposed development to impact the health and safety of employees associated with the development as well as the public. Best practice construction and environmental management measures will be employed to prevent the potential for accidents. It is anticipated that with best practice construction and environmental management measures in place the proposed development is not likely to have a potentially significant impact on human health and safety.

Socio-Economics

The proposed development will have benefits for the local and regional economy in terms of job creation, as well as local authority commercial rate payments. These will be developed and considered in the EIAR.

Land Use

The current land uses will continue, and it is anticipated that there will be no significant impact in terms of land use as the proposed development will allow for a more efficient use of same.

Tourism and Amenity

Although considered unlikely at this stage, there may be effects on setting of walking paths within the area. However, any potential effect will be mitigated where possible. .

4.5 Biodiversity

An initial site visit was conducted in early February to establish the potential for bat roosting features, and signs of protected mammals. The area surveyed included the south-western section of Development Area 2 as identified in **Figure 1**. The presence of a small portion of Ash *Fraxinus excelsior* dominated woodland makes this the only area highlighted for development with the potential for ecological value.

No signs of badger *Meles meles*, red squirrel *Sciurus vulgaris* or pine marten *Martes martes* were observed. Evidence of fallow deer *Dama dama* was noted in the periphery of the area in the form of prints. It is likely they are crossing through the site or at least foraging at the edge of the wooded habitat. However, considering that the site is operational 24/7, this is likely to be opportunistic and not of significant value to the deer. Only two trees were noted as having low-moderate bat roosting potential, both Ash trees with light-moderate ivy cover.

It was out-of-season for recording plant species. A second visit will be conducted during the period May-August for surveying habitats and flora. However, there was an established stand of *Buddleia davidii* present at the edge of the survey area. This will need to be treated under an invasive species management plan or as part of the Ecological Impact Assessment Report (EcIA).

The Anner River forms part of the Lower River Suir Special Area of Conservation (SAC). One of the conservation objectives for the SAC is to restore the favourable conservation condition of freshwater pearl mussel *Margaritifera margaritifera*. One of the targets under this objective[2] is to restore water quality (measured by the ecological quality ratio). To assess whether the current development has potential to undermine this conservation objective, recent biological water quality data is needed. Therefore, the Anner River will be sampled on two separate occasions; one completed on 04/03/22 and the second to be completed in August 2022.

The development includes a start up stack of approx. height of 52m. There are no Special Protected Areas (SPAs) within 25 km of the development site. While parts of the Lower River Suir SAC have been identified as of ornithological importance, it is unlikely that the stack will present a major risk for bird collision due to the nature of the structure (stationary, high visibility, low reflectivity) and the distance from SPAs (i.e not along a likely migratory pathway). This will be assessed in further detail in the EIAR.

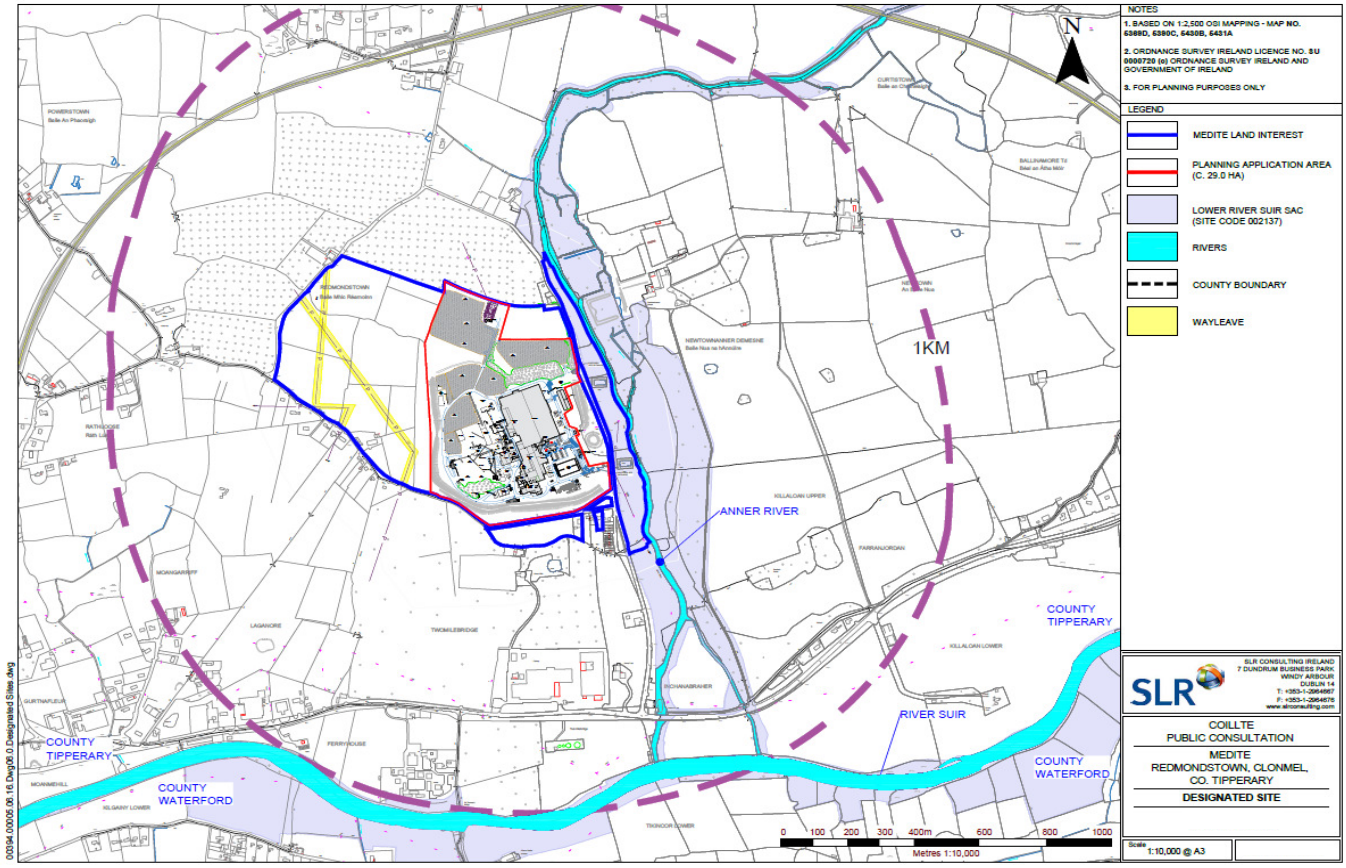


Figure 4-1 Designated Site

Land

The proposed development is within the existing industrial site. No additional land take will be required and it is therefore expected that the potential effects on land will be negligible.

Soil

Much of the soil at the site has been stripped and/or covered by the existing development. Contamination of soils at or surrounding the site could potentially arise from airborne emissions during operation; if significant

[2] Conservation Objectives.rdl (npws.ie)

runoff was generated during the construction phase; or if there was an oil or fuel spill during construction. There is a potential pathway to groundwater or surface water via soils and this will be addressed in the Water Chapter.

Subsoil

Much of the subsoil at the site has been covered by the existing development. Contamination of subsoils at or surrounding the site could potentially arise from contamination of the overlying soils or made ground. There is a potential pathway to groundwater or surface water via subsoils and this will be addressed in the Water Chapter.

4.7 Water

Surface water runoff from the northern part of the site, including internal haul roads and the log storage area, is collected and goes to a small drain before discharging to the Anner River at SW1, the Northern Discharge. This northern discharge is intermittent and dependent on rainfall and surface water runoff.

Surface water runoff from the main process yard area and from the process plant is subject to both coarse and fine screening before discharge into three settlement lagoons. The treated surface water from the lagoons goes through a hydrocarbon separator before meeting the clarified effluent from the site Wastewater Treatment Plant (WWTP); the combined flow is discharged to the River Anner at SW2, the Southern Discharge.

Regarding flooding, the items of proposed development does not give rise to any considerations in respect of flood risk, in terms of creating flood risk or being vulnerable to flooding. The development is located outside of the OPW modelled Flood Zone A and Flood Zone B for the Anner River; the proposed development will not contribute to any increase in flood risk within the surrounding area or downstream of the site along the Anner River or the River Suir.

4.8 Air

With respect to air quality, the development has the potential to cause impacts on local air quality during both the construction, operational and decommissioning phases. The air quality assessment will include the following items:

- Baseline Evaluation.
- Construction Dust Assessment.
- Road Traffic Screening Assessment.
- Biomass Combustion Emissions Assessment.
- Cumulative Assessment
- Mitigation Measures.

In the absence of any nationally recommended assessment methodologies, methodologies prescribed within other relevant international guidance documents will be utilised for the purposes of informing the assessment, where relevant.

Baseline Environment

A review of baseline air quality conditions within proximity of the Site will be undertaken with reference to the latest available air quality data in the public domain.

Monitoring data collected prior to the COVID-19 pandemic (i.e. pre-2020) will be used to characterise the baseline environment, as pollutant concentrations monitored during 2020 and 2021 are potentially atypical, and not representative of the local environment and will therefore not be considered.

Monitors associated with the Irish Environmental Protection Agency (EPA) national network will be reviewed to determine suitability. For pollutants not routinely monitored by the EPA, data from other sources (e.g. EU and

UK) will be used, where relevant. This will include the UK's Department for Environment, Food and Rural Affairs (Defra) monitoring networks.

Four air quality zones have been defined in Ireland for air quality management and assessment purposes, accounting for the differing localities across the country (Zone A, B, C and D). The Site is located within Zone D, just outside of the urban extent of Clonmel (Zone C). Analogous to the Irish EPA 'Air Dispersion Modelling from Industrial Installations Guidance Note (AG4)'[3], consideration will be given to air quality monitors located within the same zone for the purposes of characterising the baseline environment and application of suitable background concentration for the assessment of industrial installations.

A preliminary review of the Irish EPA national monitoring network indicates that the nearest monitor relative to the Site is a background particulate matter FIDAS monitor located within Clonmel (Zone 3), titled Tipperary Clonmel.

Ambient Monitoring Survey

To complement existing monitoring sources and provide an indication into localised baseline pollutant conditions at sensitive locations, an ambient monitoring survey was undertaken with use of passive non-automatic monitors ("diffusion tubes"). The initial survey spans 3 months (March – May 2022) and focusses on the following pollutants:

- Nitrogen dioxide (NO_2);
- Oxides of nitrogen (NO_x);
- Sulphur dioxide (SO_2); and
- Ammonia (NH_3).

Monitoring will be undertaken at nine locations representative of worst-case human and ecological receptor locations (subject to the availability of on-street furniture) in relation to the Site. The outputs will be used to characterise baseline pollutant conditions of relevance to the dispersion modelling assessment (Section 0). The details of these locations are provided in Table 4.2 and illustrated in Figure 4-2.

Table 4.2 Air Quality Survey: Details

Site ID	GPS Coordinates		Receptor / Focus
	Latitude	Longitude	
AQ1	52.366068	-7.645351	Lower River Suir SAC
AQ2	52.367133	-7.654209	Residential Dwellings (Roadside of N24)
AQ3	52.360504	-7.654062	Residential Dwellings (Roadside of N24)
AQ4	52.373817	-7.647575	Lower River Suir SAC
AQ5	52.370277	-7.645338	Lower River Suir SAC
AQ6	52.371960	-7.664598	Powerstown National School
AQ8	52.362631	-7.663894	Residential Dwellings
AQ9	52.378490	-7.651359	Residential Dwellings
AQ10	52.360275	-7.671484	Residential Dwellings (Roadside of N24)

[3] Irish EPA, Air Dispersion Modelling from Industrial Installations Guidance Note.

Figure 4-2 Monitoring Survey Indicative Locations

Pollutants monitored at human receptors will be used to inform background concentrations in relation to the relevant air quality assessment levels (AQALs). AQ2, AQ3, AQ4, AQ6, AQ8, AQ9 and AQ10 represent human receptor locations at a series of differing environments (roadside of arterial and minor roads) to appropriately capture localised conditions and any possible variances.

Pollutants monitored at the Lower River Suir Special Area of Conservation (SAC) will be used to facilitate the ecological impact assessment via the characterisation of relevant baseline concentrations and deposition loads. In the absence of any existing information, baseline deposition loads in relation to nutrient nitrogen and acidification at the Lower River Suir SAC will derive from the ambient monitoring survey outputs for the relevant pollutants, following application of empirical methods. AQ1, AQ4 and AQ5 are all located adjacent to the western boundary of the Lower River Suir SAC – nearest to the Site, at roadside locations. Application of these datasets for the whole of the Lower River Suir SAC is likely to be conservative as they represent roadside environments, where there is a greater influence from road traffic emissions. However, this approach will ensure worst-case impacts are understood.

Ratification and adjustment of the monitoring data will be undertaken as per Defra's LAQM.TG(16)[4] guidance. Provision and analysis of the passive non-automatic monitors will be co-ordinated by Gradko International - a UKAS accredited laboratory.

A photography of the tubes deployed at one of the monitoring locations is provided in Figure 4-3.

[4] Local Air Quality Management Technical Guidance 16, Published by Defra in partnership with the Scottish Government, Welsh Assembly Government and Department of the Environment Northern Ireland. April 2021.

Figure 4-3 Monitoring Location

Construction Dust Assessment

Potential air quality effects associated with dust generated from construction activities will be assessed qualitatively in accordance with guidance[5] provided by the Institute of Air Quality Management (IAQM).

The IAQM construction dust assessment methodology provides a framework to establish the unmitigated risk of construction dust impacts associated with a development at both human and ecological receptors.

The likely unmitigated dust emission magnitude associated with four activities (demolition, earthworks, construction and track out) is initially defined and used in conjunction with the sensitivity of the surrounding area to determine the risk of impact for each activity. These sensitivities are:

- Annoyance due to dust soiling.
- The risk of health effects due to an increase in exposure to particulate matter (PM_{10}), and
- Harm to ecological receptors.

Following determination of these risks, proportionate mitigation is recommended, with the aim of rendering residual effects as not significant – following effective application.

[5] Highways England, Design Manual for Roads and Bridges: LA 105.

Road Traffic Screening Assessment

Potential road traffic impacts associated with the proposed development on both sensitive human and ecological receptors will be screened initially to determine whether further detailed assessment is required.

The assessment procedure outlined within the LA 105 Design Manual for Roads and Bridges[6] (DMRB) guidance document will be used in relation to the road traffic assessment. A previous iteration of this document is referenced within the National Roads Authority (NRA) 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' guidance document.

This initially comprises a screening assessment to indicate whether any sensitive receptors (both human and qualifying ecological features) are located within 200m of a road link projected to experience >1,000 and/or >200 HDV annual average daily traffic (AADT) movements. If the above criteria are not met, then a detailed impact assessment is consequently not required. Effects are therefore believed to be insignificant. However, should these criteria be met, a further detailed assessment with use of dispersion modelling will be undertaken and communicated to statutory consultees – however this is considered unlikely, at present.

For the purposes of assessing impacts on sensitive qualifying internationally designated ecological sites (e.g., SAC, SPA and Ramsar), screening will be undertaken in-combination with other projects and plans, prior to establishing whether impacts can be scoped out. This will primarily involve the consideration of road traffic volumes generated by relevant committed developments on affected road links, where located within 200m of a sensitive qualifying international feature.

Biomass Combustion Emissions Modelling

The operation of the facility would give rise to emissions to atmosphere that will be regulated by the Irish EPA under the relevant European Directive. Potential impacts arising from biomass-fired combustion emissions generated during the operational phase of the Proposed Development will be assessed quantitatively with use of the US EPA AERMOD dispersion model. The technical approach to the dispersion modelling assessment will be informed by AG4.

The dispersion modelling assessment will consider the phased replacement of both Line 1 and Line 2, and associated emission configurations. Model sensitivity analysis will be performed, consistent with AG4.

Impacts upon surrounding sensitive receptors, including both human and ecological designations will be assessed for an array of pollutants relevant to the combustion process and corresponding regulatory framework.

The modelling assessment will use a nested receptor grid for receptors outside of the Site boundary (i.e. receptor grids plotted at a series of defined spatial densities with distance from the Site). This method will allow the maximum ground level concentration outside the Site boundary to be considered. Furthermore, discrete human receptors will be considered in the assessment, representative of worst-case relevant exposure relative to the Site, in accordance with Defra's LAQM.TG (16). Consideration will be given to land uses with sensitive populations for inclusion within the model (e.g., elderly care home, schools etc.).

As per the UK Environment Agency's (EA) guidance[7], the assessment will focus on the following ecological designations:

- SPAs, SACs and Ramsar Sites (protected wetlands) within 10km of the Site; and
- SSSIs and local nature sites (AW, LWS, NNR and LNR) within 2km of the Site.

[6] IAQM, Guidance on the Assessment of Dust from Demolition and Construction, v1.1 2016.
[7] https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

Five years of meteorological data will be used within the dispersion modelling assessment. The nearest synoptic meteorological station relative to the Site is located approximately 73km away. Given this, preference is to utilise numerical weather prediction meteorological data which is reflective of Site predicted meteorological conditions.

Background datasets used within the dispersion modelling assessment will either derive from existing relevant sources (e.g. monitors affiliated with the Irish EPA national network), or, alternatively from the project-specific monitoring survey discussed in Section 0.

Critical Loads for the relevant ecological designations will be established with use of available literature and consultation with the project ecologist. In the absence of any information, assumptions will be made based upon professional judgement.

To determine significance in relation to human health, criteria provided within the Environmental Protection UK (EPUK)/IAQM 'Land-Use Planning and Development Control: Planning for Air Quality' guidance document[8] will be used. The UK EA's guidance will be used to determine potential impacts on ecological sites, in relation to relevant Critical Loads and Critical Levels.

Due consideration will be given to cumulative impacts arising from other relevant existing emission releases within proximity of the Site and affected receptors, in accordance with AG4. This will initially involve establishing an impact area, defined as a circular area with a radius extending from the source to the most distance point where process contributions are predicted to be >5% of the corresponding AQAL. Relevant installations (>100 tonnes/annum of any regulated pollutant) located within this impact area will be considered. Conservative assumptions will be made in the absence of emission release characteristics for any relevant plant.

Cumulative Assessment

Consideration will be given to potential cumulative impacts for the above assessments arising from existing and/or committed projects/facilities, where relevant i.e., in accordance with guidance.

Mitigation Measures

The above assessments will identify the nature and significance of potential air quality effects that may arise because of the construction and operational phases of the development. If required, we therefore will:

- Identify the relevant mitigation requirements, proportionate to the development's nature, scale and potential effect(s).
- Discuss/collate any relevant embedded mitigation already integrated as part of the scheme; and
- Describe the nature and significance of any residual effects following application.

4.9 Climate

As the existing MEDITE boilers are approaching the end of their design life, their replacement with substantially better technology will guarantee the continued operation of the plant, secure greater energy efficiency, and reduce environmental emissions.

This investment in new renewable energy systems will bring several benefits to Medite both in terms of competitiveness and efficiency as a manufacturing facility but also in respect of its ability to meet new environmental targets for carbon emissions reductions. The benefits include:

- Reduced carbon emissions by reducing natural gas consumption and use of production residue as fuel
- Energy savings via improved thermal efficiency
- Reduced energy costs

[8] EPUK and IAQM, Land-Use Planning and Development Control: Planning for Air Quality, v1.2 2017.

As set out in Directive 2011/92/EU, the list of environmental factors which need to be addressed includes climate. The vulnerability of a project to climate change should also be addressed, particularly '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'.

The Climate chapter will assess greenhouse gas emissions associated with the proposed development in addition to the vulnerability of a project to climate change. In the context of the latter consideration it should be noted that the proposed development does not give rise to any considerations in respect of flood risk, in terms of creating flood risk or being vulnerable to flooding. The development is located outside of the OPW modelled Flood Zone A and Flood Zone B for the Anner River; the proposed development will not contribute to any increase in flood risk within the surrounding area or downstream of the site along the Anner River or the River Suir.

4.10 Material Assets

4.10.1 Scope of Assessment

The Material Assets Chapter of the EIAR will assess the likely significant effects of the proposed development on Material Assets within the study area. The chapter will consider the impact of the proposed development on physical infrastructure including renewable and non-renewable resources as well as utility infrastructure. It will consider the following:

- Energy and Fuel Supply.
- Major Utilities.
- Ownership and Access.

4.10.2 Assessment Methodology

To inform this chapter a desk-based assessment will be undertaken with consideration for the location of the project, publicly available information, the detailed development description of the project and the construction methodology of the proposed development.

4.10.3 Potential Effects

This section will consider and assesses the impact of the proposed development with regards to material assets for construction, operational and decommissioning phases.

Energy and Fuel Supply

In terms of non-renewable resources, concrete and steel will be required to construct the proposed development. The impact on these non-renewable resources will be considered and assessed as part of this chapter.

The proposed development represents a rational use of existing infrastructure. The continued operation of the manufacturing facility has demonstrable positive effects associated with the continued production and manufacture of quality MDF and its supply to the market. By replacing energy currently provided by the existing gas thermal fluid heater, the new energy plant will allow the applicant to reduce its carbon emissions, due to the full production of heat demand to be provided from renewable wood biomass fuel. The energy plant will use biomass fuels produced on the proposed development site from the MDF production process and will also use a range of other biomass fuel materials delivered by road. With reference to the detailed project description, the potential impacts of the proposed with respect to energy and fuel supply will be assessed within this chapter.

Major Utilities

It is not considered that major utilities such as overhead power lines or telephone lines or underground services require diversion or will be temporarily disrupted during the construction of the proposed development. The EIAR will consider the impact of same and with respect to nearby dwellings and commercial / industrial activities. All potential impacts will be considered in this chapter.

Ownership and Access

Traffic and transport infrastructure will be dealt with in the Traffic and Transport chapter of the EIAR. It is likely that most of the development work will take place on lands within the ownership of the applicant. Road access arrangements and impact on the public road network will be assessed in this chapter. Any potential impact to the Irish Rail network to the north of the proposed development site will also be assessed.

4.11 Traffic

4.11.1 Scope of Assessment

This section considers the scope of work required to assess potential significant effects associated with access, traffic and transport during the construction and operational phases of the proposed development. The proposals include for an increase in fuel material inputs for the continued operation of MDF production, and additional amounts of by-products (bottom ash and fly ash) as a result. This is anticipated to generate an increase in HGV movements by approximately 6 arrivals per day and 6 departures per day, however this will be calculated in full and set out within the Transport Chapter.

4.11.2 Assessment Methodology

The Transport Assessment will be prepared as an EIA Chapter and will include a detailed assessment of the current conditions and will focus on the potential effects during the operational phase, as this is anticipated to generate the most vehicular trips and thus cause the most potential impact. The types of vehicles to be used during both the construction and operational phases will be described with an estimation of the number of trips anticipated to be generated by HGVs, LGVs and other vehicles. Mitigation measures to deal with the known local traffic issues arising from the operational phase of the proposed development will be identified, with the aim of reducing the significance of the environmental impacts.

An initial desk top review of the development site and the proposals has been completed. From this, the following data collection and analysis will be undertaken:

- Establish a full understanding of the local highway network within the study area and identify any potential sensitive receptors;
- Determine the existing situation, in traffic generation and distribution terms, of the fuel inputs, MDF outputs and bottom/ fly ash outputs;
- Forecast the traffic generation and distribution associated with the importation of additional fuels for MDF production as per the development proposals;
- Forecast the traffic generation and distribution associated with the workforce at the plant, where applicable;
- Predict the resulting impact in terms of traffic flows and capacity along the L2506; and
- Consider the construction phase traffic impacts and environmental effects.

The results of the environmental impact assessment will be presented in a transport chapter for inclusion within the ES. A review of site layout, access provision and internal circulation to accommodate operational needs is

not considered to be required as the site is already operational with the proposals for upgrades only, however these details will be described.

4.11.3 Legislation, Planning Policy and Guidance

The Transport Chapter will assess the proposed development in accordance with the Guidelines for the Environmental Assessment of Road Traffic (IEMA, 1993), herein referred to as the IEMA Guidelines. In addition, the access, traffic and transport assessment will be carried out in accordance with the following policy and guidance documents:

- The Chartered Institute of Highways and Transportation (CIHT) Ireland relevant publications;
- National Roads Authority "Design Manual for Roads and Bridges (DMRB); and
- Any relevant local policies which will be identified.

4.11.4 Baseline Environment

Traffic surveys have been commissioned from March to April within the study area in the form of an automatic traffic count (ATC) situated along the L2506, south of the development site, and a junction turning count (JTC) at the L2506/ N24 junction, further south of the development site. The locations of the surveys are shown in Figure 4.3.

Figure 4-4 Traffic Survey Locations (Image Taken from GoogleEarth©)

These surveys will be used to inform the existing baseline situation across the local road network with classified vehicle data, average speeds recorded to the 85th %ile and peak AM and PM hours identified.

The base traffic flows will be used to determine the capacity level at which the local road network is operating at present. The assessment will determine the impact upon capacity the increase in vehicles from the proposed development will have.

Personal Injury Collision data (PIC) for the most recent five-year period will also be obtained from the appropriate authority which will be used to determine if there are any existing road safety issues or deficiencies with the condition or layout of the local highway network within the study area.

4.11.5 Potential Impacts

The potential sources of impacts have been divided into two development phases: construction and operation. The impacts associated with each of these phases are discussed in further detail below. In summary, the main potential sources of impact are likely to relate to the impact of operational vehicles on the highway network, in the form of heavy goods vehicles (HGVs).

Construction Phase

The construction phase will not undergo a full assessment as it is temporary in nature and not anticipated to generate as many trips as the operational phase. Full details of the construction phase will be set out and described, looking into vehicle types, expected vehicle routing and any abnormal loads (where applicable).

Operational Phase

A full assessment into the operational phase will be undertaken which will consider the impacts the additional trips from all vehicles and HGVs will have upon the local highway network in respect of capacity and highway safety, as well as the potential effects and magnitude upon identified sensitive receptors.

4.11.6 Impact Significance Criteria

The likely significance of the potential effects from the proposed development that relate to site traffic and transport will be determined by considering the magnitude of change in traffic movements and the sensitivity of the receptors which would be affected by these changes. This will be undertaken in accordance with the IEMA Guidelines and standard good practice, based on the experience of the assessor.

The IEMA Guidelines suggest that a day-to-day traffic flow variation of + or -10% is to be expected in the baseline situation, and that projected traffic flow increases of less than 10% would be imperceptible to the general public and would create no discernible environmental impact. Therefore, increases in traffic levels below 10% are considered insignificant.

Based on the IEMA Guidelines, the following factors have been identified as being the most discernible potential environmental effects likely to arise from changes in traffic movements. These will therefore be considered in the assessment as potential effects which may arise from changes in traffic flows resulting from the proposed development:

- driver severance and delay – the potential delays to existing drivers and their potential severance from other areas;
- community severance and delay – the potential severance to communities and the delays to movements between communities;
- noise and vibration – the potential effect caused by additional traffic on sensitive receptors, which in this case relate to residential properties near to the road (this will be assessed in full within a proposed Noise Chapter);
- vulnerable road users and road safety – the potential effect on vulnerable users of the road (e.g. pedestrians/ cyclists);
- hazardous and dangerous loads – the potential effect on road users and local residents caused by the movement of materials; and
- dust and dirt – the potential effect of dust, dirt and other detritus being brought onto the road.

In addition to the effects listed above, human health effects are considered in transport terms with reference to pedestrians within the vulnerable road user and road safety effects.

The significance of the likely effect will be determined by consideration of the sensitivity of receptors to change, taking account of the specific issues relating to the study area, and then the magnitude of that change.

Sensitivity of Receptor

The potential sensitivity of receptors to change in traffic levels has been determined by considering the study area and the presence of receptors in relation to each potential impact.

The IEMA Guidelines provide two thresholds when considering predicted increases in traffic, whereby a full assessment of the impact is required where:

- the total traffic would increase by 30% or more (10% in sensitive areas); and/ or
- the HGV traffic would increase by 30% or more (10% in sensitive areas).

In this context, the IEMA Guidelines do not define a sensitive area, and therefore the assessor will make a judgement based on experience and the nature of the study area. Each receptor will be assessed individually to determine its sensitivity, and the assessment criteria chosen are shown in Table 4.4.

Table 4-3 Receptor Sensitivity

Impact	Low Sensitivity	Medium Sensitivity	High Sensitivity
Driver severance and delay	Road network not affected	Road network not experiencing congestion at peak times	Road network experiencing congestion at peak times
Road safety	High sensitivity receptor		
Community severance and delay	No presence of existing communities severed by road	Presence of existing communities with a moderate level of existing severance (subjective assessment)	Presence of existing communities with existing severance (subjective assessment)
Noise	No sensitive receptors	Presence of sensitive receptors near to the road	Presence of sensitive receptors adjacent to the road
Vulnerable road users	High sensitivity receptor		
Wider disruption due to dangerous loads	No hazardous or dangerous loads on the road network	Some hazardous or dangerous loads on the road network. Loads are legally permitted on UK roads	Abnormal and oversized loads to use road network
Dust and dirt	Limited presence of sensitive receptors (subjective assessment)	Low to medium presence of sensitive receptors (subjective assessment)	High presence of sensitive receptors (subjective assessment)

Magnitude of Impact

The magnitude of impact or change will be considered according to the criteria defined in Table 4.5.

Table 4-4 Magnitude Criteria

	Negligible	Minor	Moderate	Major
Driver severance and delay	<10% increase in traffic	Quantitative assessment of road capacity based on existing traffic flows and predicted future traffic levels		
Community severance and delay	<10% increase in traffic	<30% increase in traffic	<60% increase in traffic	>60% increase in traffic
Noise	<25% increase in traffic	>25% increase in traffic. Quantitative assessment based on predicted increase in traffic against measured baseline (set out in Noise Chapter)		
Vulnerable road users	<10% increase in traffic	Qualitative assessment of existing accident records and predicted increases in traffic		
Dangerous loads	0% increase in traffic	<30% increase in traffic	<60% increase in traffic	>60% increase in traffic
Dust and dirt	<10% increase in traffic	<30% increase in traffic	<60% increase in traffic	>60% increase in traffic

Significance of Effect (Potential Effects)

Sensitivity and magnitude of change, as will be assessed under the detailed criteria, will then be considered collectively to determine the potential effects and their significance. The collective assessment will be a considered assessment by the assessor, based on the likely sensitivity of the receptor to change (e.g. is a receptor present which would be affected by the change), and then the magnitude of that change. Effects of 'major' and 'moderate' significance are considered to be 'significant' in terms of the EIA Regulations.

The assessment will also look into the effects from any relevant cumulative development nearby which may also impact the local highway network and study area.

4.12 Cultural Heritage

Following a desk-based review of the National Inventory of Architectural Heritage, the National Monuments Service and the Record of Monuments and Places, it is concluded that no protected structures or recorded monuments are located within the application area.

However, it should be noted that there is a feature near the proposed development site, east of application area and west of the local road. This feature recorded under record number TS083-010 is classified as a Ringfort – rath. Due to its location, size and nature the elements of proposed development will not result in an adverse environmental effect on this feature.

In addition to the Ringfort feature, there is also a Demense Landscape, associated with Newtownanner House, located to the east of the proposed development site. At the centre of this landscape lies Newtownanner House, itself a protected structure as well as several associated structures which are recorded on the National Inventory of Architectural Heritage.

4.13 Landscape

A landscape and visual impact assessment (LVIA) will be carried out, following the principles of the 3rd edition of the Guidelines for Landscape and Visual Impact assessment (GLVIA3; Landscape Institute and Institute of Environmental Management and Assessment, 2013). As part of this, a Zone of Theoretical Visibility (ZTV) Map will be produced. Based on the ZTV mapping, available paper mapping and online satellite photography, a study area will be defined for the purpose of capturing potential significant effects.

In preparation of this scoping document a desktop review of the relevant current and upcoming Development Plans was carried out, to identify landscape and visual designations and planning policies for the site and surrounding area. Relevant designations and policies in relation to protected views, scenic routes, development management guidelines, the landscape, primary and secondary amenity areas, and visually vulnerable & sensitive areas were identified. While none of these were identified as having particular relevance to the proposed development (e.g., none of the protected views are directed at the Medite site), all will be given consideration in the assessment of landscape and visual effects (refer to Figure 7).

Further to the desktop review, a site survey was carried out to investigate the existing landscape character of the site and surrounding area, as well as the visibility of the existing Medite facility. Nine viewpoint locations from different distances and directions were identified to be included in the LVIA (refer to Figure 7). Following consultation with An Bord Pleanála, a tenth viewpoint along the greenway following the River Suir will be added.

Considering the location of the proposed development within the existing Medite site which is of industrial character, the effects on landscape character will be minimal. Similarly, due to the proximity of the replacement energy plant to the existing facility, the visual changes in views are not expected to result in significant visual effects. Nevertheless, it is proposed to produce photomontages for all ten selected viewpoints, to illustrate and assess the visual effects of the proposed development, including two 52m tall stacks, in detail.

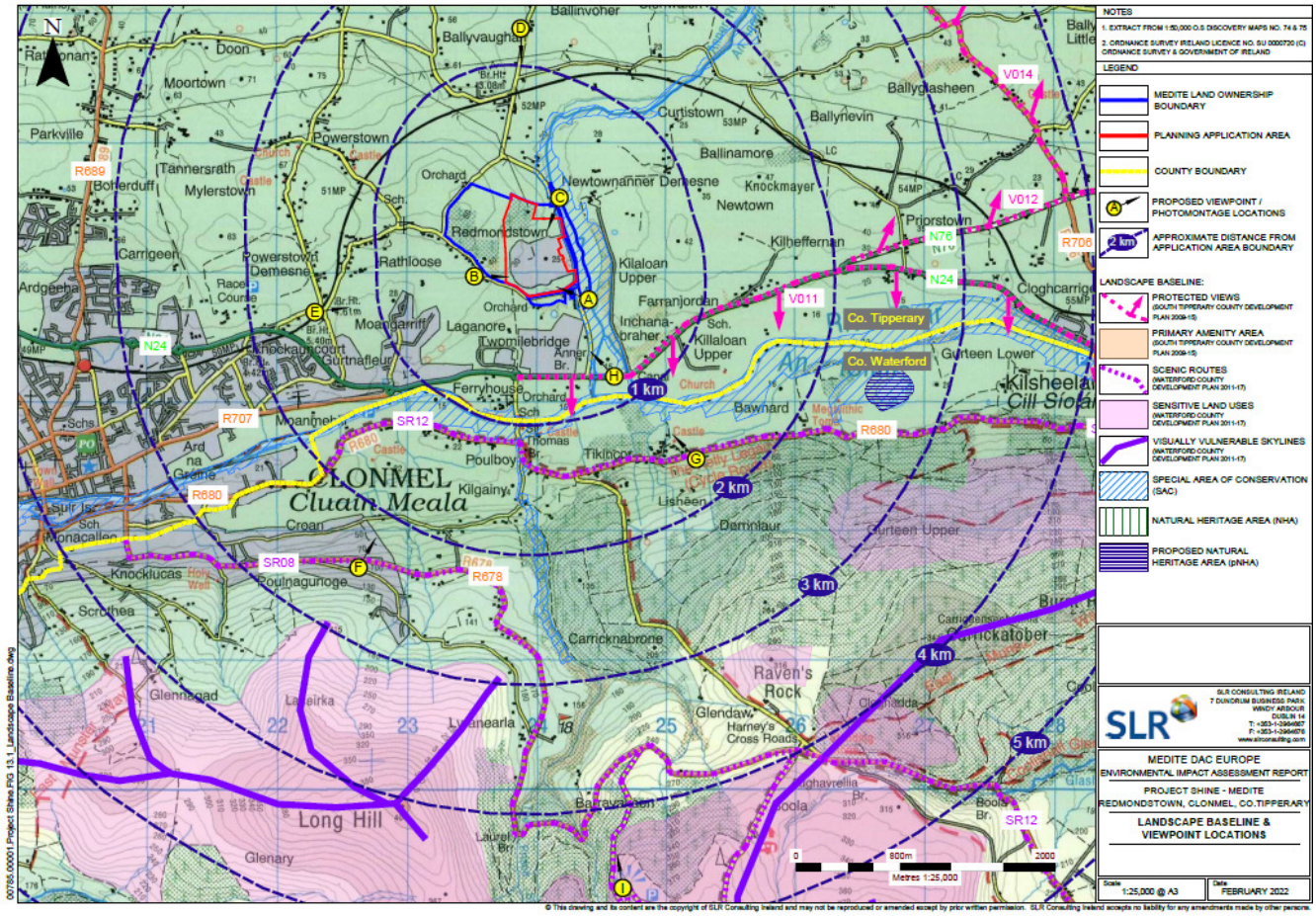


Figure 4-5 Landscape Baseline and Viewpoint Locations

4.14 Noise & Vibration

This section of the report describes the approach to the assessment of noise and vibration effects on sensitive receptor locations in the vicinity of the site. The development has the potential to give rise to noise and vibration impacts during both the construction and operational phases, through on-site activities and vehicle movements on the surrounding road network.

The assessment will include the following, principal elements:

- Assessment of Construction Phase noise and vibration impacts arising from construction related activities within the site.
- Assessment of noise impacts associated with Construction Phase vehicle movements on the local road network.
- Assessment of operational noise and vibration impacts associated with typical operations at the proposed facility; and,
- Assessment of the potential noise impacts associated with operational phase vehicle movements including those from staff vehicles and fuel stock deliveries.

The assessments, at all stages, will be informed by a baseline noise monitoring survey undertaken between March and April 2022.

4.14.1 Baseline Noise Environment

Ahead of this scoping report, a baseline noise monitoring survey was undertaken between March and April 2022, at a number of locations in the vicinity of the site. The locations identified were representative of the nearest noise sensitive receptors and are detailed below:

- **Location1:** Within a field behind the house, beside the local road.
- **Location 2:** Within the front garden of the cottage. The road to the east is used by trucks for deliveries of wood to the site. Some commercial businesses are located to the south of this location.
- **Location 3:** Set up within the boundary of the unused farm. A local road is located to the south of the location.
- **Location 4:** - Within a field. A local road is located to the north and a farm to the north.

The survey locations are presented on Figure 4.9-1 below:

Figure 4-6 Monitoring Locations

At all monitoring locations the microphone was placed 1.5m above the local ground level in free-field conditions, i.e., at least 3.5m from the nearest vertical, reflecting surface. The following noise level indices were recorded:

- $L_{Aeq,T}$: The A-weighted equivalent continuous noise level over the measurement period.

- L_{A90}: The A-weighted noise level exceeded for 90% of the measurement period. This parameter is often used to describe background noise.
- L_{A10}: The A-weighted noise level exceeded for 10% of the measurement period. This parameter is often used to describe road traffic noise.
- L_{Amax}: The maximum A-weighted noise level during the measurement period.

The general noise climate in the area included traffic noise on the local roads, farm activities and animals noises, natural noises such as birds songs and wind in the trees. Activities at the Medite site audible when other noise abated.

The baseline noise survey results are to be reported in full in the proposed assessment and the resultant noise levels used to inform the calculations and impact assessments.

Noise Sensitive Receptor Locations

Receptors, sensitive to changes in noise level include (but is not limited to): residential properties; schools; places of worship and offices.

A review of the mapping indicates the following receptor locations would be included in the assessment:

- Properties to the west of the development site, towards Powerstown. This area appears to be residential in nature;
- Properties to the south-east of the site, Redmondstown Cottages; and,
- Dispersed dwellings to the north of the site, towards Kilscanlan.

4.14.2 Legislation, Planning Policy and Guidance

The assessment of noise and vibration impacts will be undertaken in accordance with appropriate European, National and Local legislation and planning policy and with reference to appropriate guidance. This will include:

- S.I. No. 140/2006 - Environmental Noise Regulations 2006
- ISO 9613-2:1996 Acoustics – Attenuation of Sound during Propagation Outdoors– Part 2: General Method of Calculation.
- British Standard 5228:2009 + A1:2014. Parts 1 & 2
- Environmental Protection Agency (EPA). Office of Environmental Enforcement. Guidance Note for Noise (NG4)
- Design Manual for Roads and Bridges (DMRB). LA111 Noise and Vibration
- Institute of Environmental Management & Assessment (IEMA). Draft Guidelines for Environmental Noise Impact Assessment. 2014

Full details of the standards used will be included in the assessment document.

4.14.3 Construction Phase Assessment

The assessment of noise and vibration impacts during the construction phase would be undertaken in line with British Standard 5228. While this is a British Standard, there is not a comparable statutory Irish guidance document on construction phase effects.

The assessment will consider the proposed method/phasing of construction works and include details of any proposed static/mobile plant items envisaged for construction operations alongside any associated routing of construction traffic. Any mitigation measures considered necessary would be suggested to protect the amenity of the residents of the nearby noise and vibration-sensitive properties and the anticipated residual effect will be presented.

At this stage it is anticipated that construction operations would not generate significant amounts of vibration. Therefore, it is suggested that a construction vibration assessment is scoped out.

BS5228 does not give any specific noise limits for construction activities though does give a number of example threshold criteria. The simplest of which being an absolute, fixed noise limit of 70dB for rural settings. Further example threshold criteria are detailed in section E.3 of the standard. These threshold values are based on a change in ambient noise levels as a result of the construction activity.

In all instances, It is noted that the threshold values are typically higher than the prevailing ambient noise level on the premise that construction works are generally shorter or limited duration activities.

4.14.4 Operational Phase Assessment

Noise impacts during the operational phase would be assessed against the EPA's NG4 guidance. The guidance is part of the Integrated Pollution Prevention Control (IPPC) and waste licensing systems and may specify limits or control measures through conditions attached to licenses etc. The guidance promotes the use of Best Available Techniques (BAT) to control noise emissions from sites. In section 4.3of the guidance, it states:

'All reasonably practicable measures should be adopted at licensed facilities to minimise the noise impact of the activity, and BAT should be used in the selection and implementation of appropriate noise mitigation measures and controls'.

The guidance goes on to give typical limit values from licensed sites:

- Daytime (07:00 to 19:00hrs) – 55dB $L_{Ar,T}$;
- Evening (19:00to 23:00hrs) – 50dB $L_{Ar,T}$;
- Night-time (23:00 to 07:00hrs) – 45dB $L_{Aeq,T}$.

It is noted that the daytime and evening limits are expressed as Rating noise levels, including corrections for tonal or impulsive characteristics of the noise source. The night-time limit is expressed as an L_{Aeq} due to the stipulation that there should be no tonal or impulsive noise during the night-time period.

In accordance with NG4 it is necessary to designate the noise environment at each sensitive receptor location as one of the following:

- A 'Quiet Area',
- A 'Low Background Noise Area' or
- 'Not an Area of Low Background Noise'.

The guidance criteria for 'quiet areas based on distances to population centres. The 'low background areas' are defined by their measured background sound levels.

The preliminary results of the baseline noise survey would put the site and the nearest receptors above the level of 'low background noise area' and would afford the facility noise limits detailed above.

The assessment will consider noise levels generated by operational activities at the site, including any fixed plant and / or any delivery vehicles etc, with the development. Calculations would be made using the proprietary software-based noise model, Cadna/A, which implements the full range of prediction methodologies including ISO 9613-2.

The predicted sound levels would be assessed against the limits based on the guidance of NG4 and the resultant noise impact reported. Consideration would be given to the nature of the noise sources and any tonal or impulsive elements identified and appropriately weighted in the calculations.

The results of the assessment would be used to determine whether noise levels generated by operational activities at the site would lead to adverse impacts at the nearest existing or proposed noise-sensitive receptors.

The assessment would indicate whether additional mitigation is required to reduce any identified impacts; the scope of this study includes consideration of generic mitigation measures but does not include detailed design of such measures.

The impact, and the significance of any effect during the operational phase would be assessed against appropriate impact significance criteria.

4.14.5 Offsite Traffic Noise Assessment

Road traffic noise impacts could occur, as with other impacts, during both the construction and operational phases of a development. As no new roads are proposed as a function of the development, road traffic impacts are likely to arise from changes in traffic flow, composition and potentially speed, with the most significant impacts a result of HGV and delivery vehicle movements on the existing road network.

The impacts associated with road traffic changes would be assessed against the criteria detailed in the DMRB which, while a UK guidance document, relate changes in road traffic noise level to impact magnitude criteria for both the construction and operational phases of the development. The changes bandings employed in the also accord well with the bandings detailed in the IEMA guidelines.

4.14.6 Impact Significance Criteria

The IEMA Guidelines for Environmental Noise Impact Assessment address the key principles of noise impact assessment and are applicable to all development proposals where noise effects are likely to occur. In accordance with the Guidelines the following will be determined:

- The noise impact;
- The noise effect; and
- The significance of the effect.

Noise Impact

Noise impacts will be deemed to have occurred if the predicted, residual noise levels, including any mitigation measures, exceed the limits, derived from the relevant assessment methodology, are exceeded.

Noise Effect

Generic noise effects are detailed in Table 7-7 of the Guidelines for Environmental Noise Impact Assessment. Where an adverse impact is identified the Guidelines present the following generic relationship between noise impact and noise effect:

- *Negligible {or no impact] Impact Noise Effect: "Noise impacts can be heard, but do not cause any change in behaviour or attitude, e.g. turning up volume on television; speaking more loudly; closing windows. Can slightly affect the character of the area but not such that there is perceived change in the quality of life";*
- *Minor Impact Noise Effect: "Noise impact can be heard and causes small changes in behaviour and/ or attitude, e.g. turning up volume of television; speaking more loudly; closing windows. Potential for non-awakening sleep disturbance. Affects the character of the area such that there is a perceived change in the quality of life";*
- *Moderate Impact Noise Effect: "Causes a material change in behaviour and/or attitude, e.g. voiding certain activities during periods of intrusion. Potential for sleep disturbance resulting in difficulty getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in character of the area"; and*
- *Major Impact Noise Effect: "Significant changes in behaviour and/or inability to mitigate effect of noise leading to psychological stress or physiological effects e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory".*

Significance of Effects

The significance of the noise effect will depend on the receptor type and its sensitivity to the noise impact. The proposed sensitivity criteria for the receiving environment is shown in Table 4.9-1.

Table 4-5
Sensitivity Criteria for Acoustic Receptors

Sensitivity	Definition
Very High	Residential properties (night-time), Schools and healthcare building (daytime)
High	Residential properties (daytime), SAC, SPA, SSSI (or similar areas of special interest)
Medium	Offices and other non-noise producing employment areas
Low	Industrial areas

The sensitivity of the receiving environment together with the impact defines the level of effect as shown in Table 4.9-2.

Table 4-6
Level of Effect Matrix

Impact	Sensitivity			
	Very High	High	Medium	Low
Major	Major	Major	Major	Moderate
Moderate	Major	Moderate	Moderate	Minor
Minor	Moderate	Minor	Minor	None
None	None	None	None	None

It is considered by SLR that an effect would be significant should the level of effect be Moderate or above. Where an effect is classified as Moderate, this may be considered to represent a 'significant effect' but would be subject to professional judgement and interpretation, particularly where the sensitivity or impact magnitude levels are not clear or are borderline between categories or the impact is intermittent

5.0 Consultation

5.1 Statutory Consultation

A variety of statutory and non-statutory organisations have been and will continue to be consulted during the scoping process to gather their views on the likelihood of significant environmental effects arising from the continued operation of the proposed development.

5.2 Public Consultation

A non-statutory public consultation with local residents, community groups and other interested stakeholders will commence shortly. To facilitate this public consultation, information on the proposed development will be provided by means of a leaflet delivered to residents in close proximity to the proposed development site as well as an information website https://mediteenergy.ie/. Submissions and comments will be invited for a period of 4 weeks from 27th June to 24th July 2022. A further opportunity for the public to comment on proposals will commence once the application was submitted as part of the statutory requirements as set out in the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended).

Appendix 1.2 - Scoping/Consultation Request Letter

ADDRESS

27 June 2022

RE: EIA SCOPING: REPLACEMENT OF EXISTING ENERGY PLANT AT MEDITE

To whom it may concern,

MEDITE at Redmondstown, Clonmel Co. Tipperary is part of Coillte, Ireland's largest producer of certified wood panels; a natural, renewable, and sustainable resource. MEDITE manufactures engineered wood-based panels and is committed to producing products that contribute to healthier, environmentally conscious building solutions.

The thermal energy required to produce MDF by MEDITE is currently provided by three biomass boilers/heaters and one gas fired heater and MEDITE is proposing to replace the existing and aging energy systems serving the production process with two new state-of-the-art biomass-fired energy plants, one for each of MEDITE's production lines.

The new energy systems will see the introduction of modern combustion and air filtration systems in line with European emissions performance for the best available technology. This investment in renewable energy systems will increase the competitiveness and efficiency of the MEDITE manufacturing plant. The new energy plants will also allow MEDITE to reduce its carbon emissions by meeting 100% of the heat demand using renewable wood biomass fuel reinforcing MEDITE's commitment to being a sustainable business. The proposed development will replace the existing energy systems at the MEDITE factory with two new biomass-fired energy plants, one for each of MEDITE's production lines.

SLR Consulting (SLR) has commenced the preparation of a planning application including Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) with respect to the proposed development and is initiating this informal scoping process to assess and confirm the scope of the Environmental Impact Assessment Report (EIAR). A Preliminary Scoping Report is enclosed in **Annex 1** and includes a full description of the proposed development and a set of site location and layout drawings.

As part of this informal scoping process, SLR Consulting Ireland wish to engage all statutory and non statutory bodies at an early stage to allow for a more focused consideration of any likely significant environmental effects. Should you have any comments on the proposed development in respect of your specific area of competence, we would be grateful if you could send them to us by the 25th July 2022. Feedback can be sent by post to Paula McCarthy at the above address (SLR Consulting) or by email to pmccarthy@slrconsulting.com.

Should you have any queries relating to the proposed development, please do not hesitate to contact us.

SLR Consulting

Appendix 1.3 - Scoping Consultees List

Scoping Consultees
An Taisce
Bat Conservation Ireland
Birdwatch Ireland
Commission for Regulation of Utilities
Department of Environment, Climate and Communications
Department of the Environment, Climate and Communications Environmental Protection Division - Corporate Support Unit
Department of Housing, Local Government & Heritage
Department of Tourism, Culture, Arts, Gaeltacht, Sport & Media
Department of Transport
Environmental Protection Agency
ESB Networks
Fáilte Ireland
Gas Networks Ireland
Health and Safety Authority
Health Service Executive - Environmental Health Department
Inland Fisheries Ireland
Irish Aviation Authority
Irish Water
Irish Wildlife Trust
National Parks and Wildlife Service
Office of Public Works
Regional Design Office

Scoping Consultees
Southern Region Waste Management Office,
Southern Regional Assembly
The Arts Council
The Heritage Council
Tipperary County Council
Transport Infrastructure Ireland
Waterford County Council
Waterways Ireland

Appendix 1.4 - Community Consultation Information Leaflet

REPLACEMENT OF EXISTING ENERGY PLANT AT MEDITE

MEDITE® SMARTPLY®
NNOVATIVE TIMBER PRODUCTS

Medite at Redmondstown, Clonmel Co. Tipperary is a Coillte-owned company and market-leading manufacturer of environmentally produced, sustainable timber panel boards, specifically known as medium-density fibreboard (MDF). This is a wood-based sheet material assembled from wood fiber, bonded together with a synthetic resin adhesive. The two production lines at the plant produce up to 425,000m³ of finished MDF products annually.

Medite is a successful and innovative export-driven business employing approximately 170 people directly at the Clonmel facility and supporting further employment through the supply chain across the south east region for 40 years.

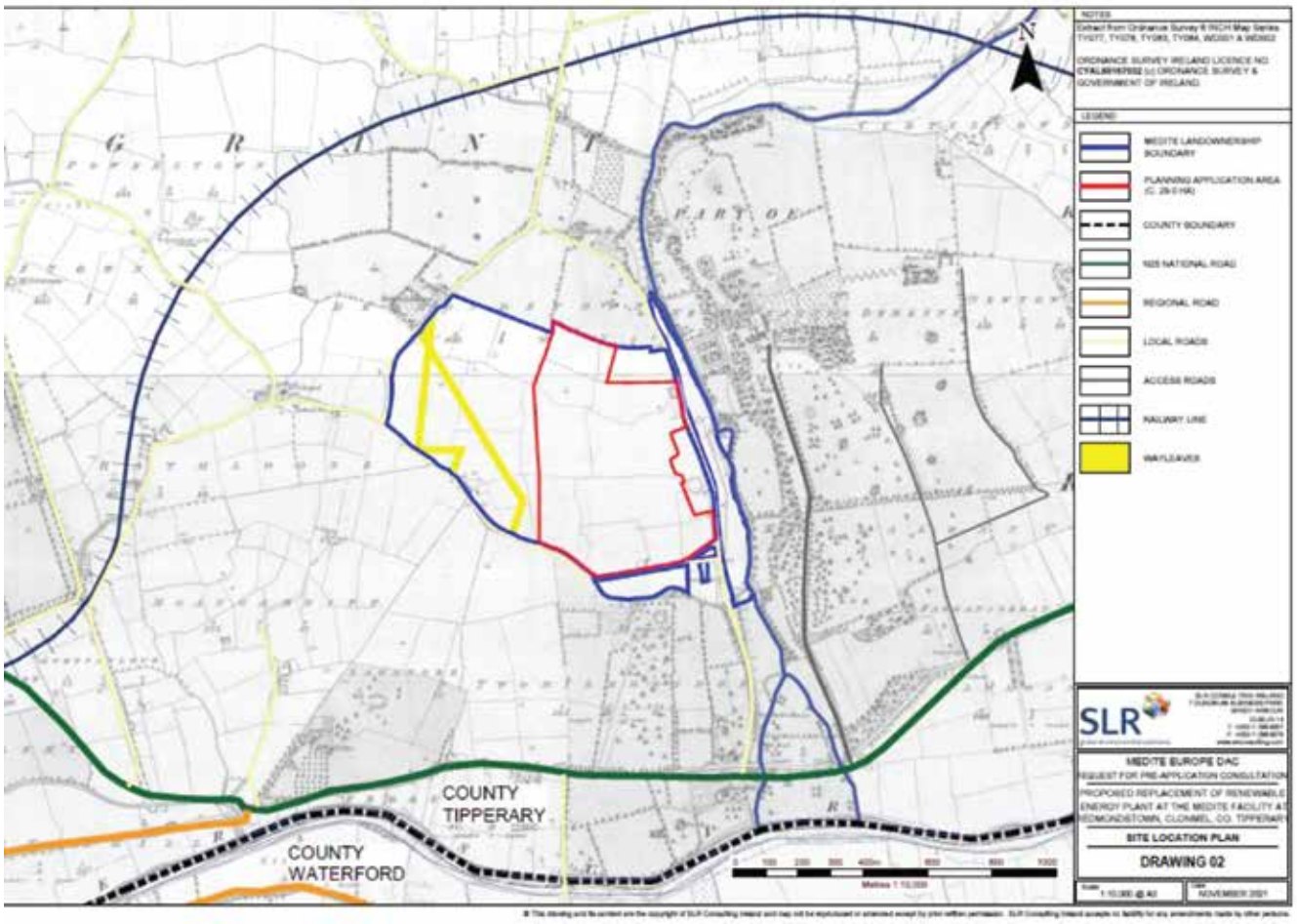


Figure 1 Medite Site Location Plan

Figure 2 Proposed Site Layout

Strategic Infrastructure Development – Planning Application

Due to the nature of the proposed development, the development proposed at Medite may be considered strategic infrastructure and this would require a planning application to be submitted directly to An Bord Pleanála under the 37E of the Planning and Development Act 2000. Pre application consultation is already underway with An Bord Pleanala to consider whether the development should be considered strategic infrastructure and if this is considered the case, the planning application will be lodged with An Bord Pleanala instead of Tipperary County Council.

The planning application will be submitted alongside an Environmental Impact Assessment Report.

Replacement of Existing Energy Plant

Medite is intending to replace its existing energy plant at the facility and this replacement development will comprise two biomass-fired boilers, a biomass-fired thermal fluid heater, and a gas-fired thermal fluid heater. The proposed development replaces the existing and aging energy systems at the Medite factory with two new biomass-fired energy plants, one for each of Medite's production lines.

The new energy system will see the introduction of modernised combustion, air filtration, and treatment systems in line with European emissions performance for the best available technology. This investment in renewable energy systems will increase competitiveness and efficiency of the Medite manufacturing plant. The new energy plant will also allow Medite to reduce its carbon emissions by allowing the full production of heat demand to be provided from renewable biomass fuel.

Community Consultation on Proposed Development

Before the planning application is submitted, information on the proposed development and an opportunity to comment on the proposed development is being provided at https://mediteenergy.ie/. The consultation period will extend over a period of 4 weeks from xxx to xxx.

We are keen to keep the community informed as the project progresses and to hear your thoughts during this community consultation. Please submit any queries or comments to: [INSERT CONTACT EMAIL ADDRESS] One to one meetings will also be facilitated upon request.

Next Steps

The https://mediteenergy.ie/ website will be updated as the project progresses. Formal submission of the application will be made in Q3 2022 to either Tipperary County Council or An Bord Pleanála, in the case of strategic infrastructure. A further statutory consultation period will then also be facilitated.

MEDITE®
SMARTPLY®
INNOVATIVE TIMBER PRODUCTS

Appendix 1.5 - Cumulative Development List and Map

Cumulative effects:

Tipperary Co Co. Planning

Applicant	Planning Register Reference	Distance	Integrated Pollution Control (IPC) or Industrial Emissions Directive (IED) License	Development Description	Status
UNDECIDED					
Tipperary County Council townlands of Burgagery-Lands West, Old Bridge and Raheen in Clonmel County Tipperary	ABP-318093	4.0km SW		The proposed development is located within the townlands of Burgagery-Lands West, Old Bridge and Raheen in Clonmel County Tipperary. The development is located at The Quay, Quay Street, Suir Island and Raheen Road in Clonmel. The project consists of: • Two pedestrian bridges, • New public open spaces, • Bus stop • A pedestrian path on the existing embankment in Suir Island, • Pedestrian/bicycle ramps and steps, • A new foul pumping station, • Ancillary site development works.	Case is due to be decided by 02/05/2024
Springmount Solar Farm Limited Townlands of Jamestown, Kilmolash Upper, and Rathkeevin, Co. Tipperary	P. Ref. 23172	9.7km W		a 10 year planning permission for development at lands to the north of the N24 National Road in the townlands of Jamestown, Kilmolash Upper, and Rathkeevin County Tipperary. The development will consist of: - Construction and operation of a c. 60MW solar PV farm consisting of solar arrays on ground mounted steel frames, with a maximum overall height of 2.6 metres; - Internal underground electrical cabling and ducting; - Up to 20 no. transformers; 2 no. temporary construction compounds; - Security fencing and cameras; - 2 no. new gated site entrances from the R687 local road; - New internal access tracks; - Site drainage; - Landscaping; - All ancillary works. Planning permission is sought for a period of 10 years with an operational life of 40 years from the date of commissioning. A Natura Impact Statement accompanies the planning application	Decision Due Date 04/01/2024

Cumulative effects:

DECIDED					
Hotel Minella Limited Club Minella Leisure Centre,, Hotel Minella, Coleville Road, Clonmel,, Co. Tipperary, E91HE30	P. Ref. 2360777	3.0km SW		a structure to house biomass boiler system, a woodchip fuel store and all associated site development works at Club Minella Leisure Centre, Hotel Minella, Coleville Rd, Clonmel, Co. Tipperary (Eircode: E91HE30). Hotel Minella is a protected structure	Decision Date: 17/11/2023
MSD Ireland (Ballydine)	P. Ref. 23196	9.3km E		the existing temporary carpark (contractor carpark facility) and associated existing service roadway and existing compound area, comprising a mix of existing stone base and also tarmac surface treatment, and including existing site lighting installations, existing fencing, existing smoking shelter and existing bicycle rack. We also wish to apply for permission to extend the existing carpark by circa 2m to the east to accommodate the construction of 178 no permanent carparking spaces (which includes for the designation of 17 no. new e-car charging carparking spaces and 1 no. new combined disabled/e-car charging carparking space), upgrade of the existing surface finish to a tarmac finish as applicable throughout, installation of line markings and kerbing, drainage works including the installation of a petrol/oil interceptor and attenuation system, adaption of existing site lighting as required (including the replacement of all existing site lighting fixtures), the alterations of existing tree line, adaptation of existing compound area to form a secure delivery drop-off/short-term storage area, and all necessary alterations to accommodate the above works, complete with all associated site works and ancillary accommodation. The planning application is accompanied by a Natura Impact Statement (NIS). This application refers to a development on a site that carries out activity for which an industrial Emissions Licence under Part IV of the Environmental Protection Agency Act 1992 (as amended) is required and where the major accident directive applies	Decision Date 10/11/2023
Allez Farms Sladagh, Lisronagh, Clonmel, CO. Tipperary	P. Ref. 22505	7.7km N		1. a stable building consisting of 48 no. stables, foaling boxes, internal corridors and ancillary storage areas 2. A single storey building consisting of reception, staff office & facilities along with a security staff and employee accommodation quarters 3. Ancillary building consisting of saw dust store, hay barn and covered dungstead area 4. 2 no. roofed horse walker 5. 1 no. roofed lunging ring 6.Demolition of existing derelict	Decision Date: 27/09/2022 Third Party Appeal

Cumulative effects:

				/disused building/stable/shed/structure and construction of new 6 no. stables with two-storey section containing storage and staff welfare facilities 7. Reclad existing shed to existing yard 8. Modification of the existing entrance yard to the northern boundary and the creating of a new entrance to the western boundary 9. All associated site development works including loading ramp, internal roads, car-parking, effluent tank, treatment systems with associated and percolation areas, yards and all associated site works above and below ground. This application is accompanied by Natura impact statement.	Lodged on 11/10/2022 ABP-314803-22
Eric Martin Two Mile Bridge, Clonmel, Co. Tipperary, E91R271	P. Ref. 2360806	0.6km SE		1) an extension to existing warehouse consisting of warehouse storage use with open canopy to the North facing elevation with internal roadway around the new extension and carparking area and boundary fencing, 2) a machine store/lift store with electrical charging points and 3) RETENTION PERMISSION for an open canopy constructed to the rear of the premises (West facing) with all associated siteworks	FI Requested 24/11/2023
Joe Holohan Twomilebridge, Clonmel, Co Tipperary	P. Ref. 22401	0.9km S		(1) alterations to the dwelling including demolition of existing single storey extension, and elevational changes including rendering, replacement roof, installation of windows, and alteration to chimney and flue, erection of sky and broadband dishes, and installations of rainwater goods. (2) alterations to the existing boundary walls enclosing the curtilage of the dwelling including the alteration of the site entrances serving the property from the public road L2506, and removal of rear boundary wall and replacement with low wall. (3) development of a deck and slipway with metal framing adjoining the Anner river. (4) the alterations of ground levels and construction of steps within the curtilage. (5) the clearing of a yard area and laying of hardcore. (6) the erection of a CCTV pole and associated service manholes (6) the erection of a soil berm to enclose the yard area. (7) the laying of concrete kerbs and flexible bollards along the L2506 roadside adjacent to the dwelling.	Grant Date: 29/03/2023
MSD Ireland (Ballydine)	P. Ref. 211365	9.1km E		development on this site of circa c.7.48 hectares. The development will consist of a 10-year permission for the construction of a Solar PV Energy Development comprising installation of Solar Photovoltaic (PV) panels on ground mounted frames/support structures within existing field boundaries, underground cabling and ducting, 1 no. customer control building, 1 no. switchgear and transformer building, site perimeter (stock proof) security fence and associated access gates, maintenance track,	Grant Date: 08/02/2022

Cumulative effects:

				landscaping and all associated site development works. A temporary construction compound will be provided and vehicular access is via the existing access route from N24 serving the Ballydine 110kv substation to south-west of the site. This application relates to development for the purposes of an acitivity requiring a licence under the Industrial Emissions Directive. A Natura Impact Statement (NIS) will be submitted to the Planning Authority with the application.	
ABO Wind Ireland Limited Knockroe, Kilnagranagh, Newtowndrangan, Tullowcussaun, Ballyvadlea, Ballyhomuck, Kilburry West, Milestown, Bannixtown, Quartercross, Clare More, Killusty North, Killusty South, Kiltinan, Loughcapple, Grange Beg, Miltown Britton, Mullenranky, Kilmore,, Ballinvoher, Redmondstown and Ballyvaughan, Co. Tipperary	P. Ref. 211502 EIA Portal Ref. 2021214	2.0km N		a ten-year permission of a wind farm project. The development will consist of: Construction of up to 7 no. wind turbines with a maximum overall tip height of 150m, comprising a tower of between 75-95m high, to which three blades of between 55-70m in length will be attached; Associated hard stand areas at each turbine; 1 no. 30m permanent meteorological mast and all associated infrastructure and works; 1 no. 38kV electrical substation and all associated infrastructure and works; 20kV underground cables facilitating the connection of turbines to 38kV electrical substation and all associated infrastructure and works; Circa 19km of 38kV underground cabling and all associated works along public roads to facilitate the connection of the proposed 38kV wind farm electrical substation to the existing 38/110kV Doon substation in the townland of Ballyvaughan; Provision of a new site entrance on the L2035; Upgrading of existing agricultural tracks and construction of new site tracks and all associated works as required; A temporary site compound and all associated works; Demolition of 2 no. derelict buildings; Provision of 2 no. cattle underpasses circa 400m and circa 580m to the east of the new site entrance; and all associated infrastructure and site development works. The proposed underground cabling works located within the public road corridor cross Protected Structure RPS S121 (Loughcapple Bridge). An Environmental Impact Assessment Report (EIAR) and Natura Impact Statement (NIS) have been prepared in respect of the proposed development and will be submitted with the application	Decision Date: 27/10/2022
Powerstown Park Ltd Powerstown Demesne, Clonmel, Co. Tipperary	P. Ref. 211597	2.3km W		construct a new stable building and all associated site development works	Grant Date: 05/01/2022
Michael O'Neill	P. REF. 211535	2.0km E		Fill the existing gravel pit and reinstate to levels, including all associated site development works at Ballinamore, Clonmel, Co. Tipperary	Grant Date: 22/01/2022

Cumulative effects:

Ballinamore, Clonmel, Co. Tipperary					
Grian PV Ballyboe Ltd Ballyboe, Clonmel, Co. Tipperary	P. Ref. 21403	4.0km NE		amend the design of the approved development (Planning Ref: 19/600239) which comprises consent for the development of a temporary (30 years) solar farm with an export capacity of 12 MW comprising of photovoltaic panels on ground mounted frames with associated infrastructure including 4 no. inverter housing cabins, 1 no. control building, 1 no. customer cabin (substation), 1 no. DNO substation, temporary construction compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks subject to 16 conditions. Amendments proposed are: - - Although the height of the solar panels is increased from 2.7m to a maximum 3.2m, the glint and glare impacts will reduce due to advancements in the assessment and software used. The panel tilt angle will change from between 15 and 25 degrees to 15 and 30 degrees; - The number of solar modules will reduce from 39,168 to 30,060 and the number of pile driven poles installed will increase from 2,548 to 4,258; - Although there will be an increase in the number of Inverter Substations from 4 to 6, these have a lower noise output and will therefore result in lower noise impacts; - An increase in CCTV cameras along the perimeter fence from 8 to 12; - Although the road will remain at a width of 3.5m, the point where it connects from the southern to northern lands is moved to use the existing access; - An almost identical footprint which will increase by 0.03% to 4.08%; and – Increase the output from 12MW to 16MW	Grant Date: 24/06/2021
S.O.D. Produce Limited Ballynaraha, Kilsheelan, Clonmel, Co. Tipperary	P. Ref. 21475	5.9km E		construction of (i) Potato storage shed (ii) Potato grading/processing shed (iii) Concrete yard and all associated site works	03/06/2021
Michael and Breda O'Neill Ballyknockane, Clonmel, Co. Tipperary	P. Ref. 211449	5.2km NE		filling the remaining void in the existing quarry and reinstate to levels (Extension of Duration of P. Ref. 16600603)	24/11/2021
Grian PV Ltd Horsepasture/Doon, Clonmel, Co. Tipperary	P. Ref. 211051	2.8km NW		to amend the design of the substation of the approved development (Planning Reference 16601136) which comprises consent for the development of a solar farm with an export capacity of 11.188 MW comprising of photovoltaic panels on ground mounted frames with	Decision Date: 08/12/2021

Cumulative effects:

				associated infrastructure including 7 no. invertor housing cabins, 1 no. control building, 1 no. customer cabin (substation), 1 no. DNO substation, temporary construction compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks	
MSD Ireland Ballydine, Kilsheelan, Clonmel, Co. Tipperary	P. REF. 21407 EIA Portal Ref. 2021056	9.5km E	Chemicals Act (Control of Major Accident Hazards involving dangerous Substances) Regulations 2015 (S.I. 209 of 2015) applies	construction of a proposed three-storey pilot plant manufacturing facility sized approximately 3,266 square metres and approximately 20.75 metres high and located and linked to the existing factory 03 manufacturing building and located south of the O.S.D. manufacturing facility, currently under construction (ref. 20/693). The project development also includes the following: a) An equipment yard housing plant, equipment and abatement system, vents and equipment housings including a covered waste tank, b) Roof mounted equipment and vents, c) Modifications to existing underground utilities including a surface water attenuation tank, underground storage tanks and miscellaneous works, d) The extension of the temporary contractors' compound, currently under construction and additional local temporary contractor parking together with a second compound directly adjacent to the proposed facility, e) Revised landscaping and site-works, f) Modifications to the existing internal roads layouts, site lighting, pipe bridges, links, bunded tanks and supporting structures, and a truck staging area, g) Modifications to the existing car park layout to allow for the inclusion of additional accessible car parking spaces and electrical charge points, h) Alterations to the elevations of Factory 03 to accommodate the proposed development. This application consists of a development for an activity for which a licence under Part IV of the Environmental Protection Agency Act 1992 (as amended by the Protection of the Environment Act 2003) is required. An Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) accompany this planning application.	Grant Date: 05/09/2021
Bulmers Limited, Annerville, Clonmel, Co. Tipperary	P. Ref 21364	0.6km S		erection of 10,058.00 m2 of photovoltaic panels on the roof of the manufacturing building and warehouse building in our factory with all associated site works	Grant Date: 16/06/2021
Clonmel Oil Company Limited	P. Ref 19600729	1.1km SW		(1) Redevelopment of their existing lands to provide: (a) new crossover arrangement at eastern end of site to provide access for service station and access/egress for oil depot; (b) dedicated HGV parking, fuelling and marshalling area including relocation of oil tanker offloading point and	Grant Date: 27/06//2020

Cumulative effects:

Ferryhouse, Waterford Road, Clonmel, Co. Tipperary				HGV hi-speed fuel pump; (c) car/LCV parking areas for service station; (d) relocation of drive-thru automatic brush wash with associated screens; (e) demolition of existing canopy, pump islands and underground tanks; (f) provision of 4 no. fuel pump islands with canopy over and link-back to forecourt building and new underground fuel storage tanks; (g) construction of extension to existing forecourt building to provide a store (54.48 sq.m) and deli/cafe prep area (17.76 sq.m); (h) revised internal layout including change of use from office, stores and welfare facilities to provide new deli/cafe seating area, office, stores and welfare facilities; (i) sale of specially prepared hot and cold food for consumption both on and off the premises from the deli-cafe area of forecourt building; (j) provision of revised fenestration and elevational changes to existing forecourt building; (k) ancillary signage for development, both illuminated and non-illuminated; (l) all associated site works including bin compound; (m) revised road markings at east & west crossovers on Waterford Road and (2) Permission for Retention of extensions and alterations (area 31.31 sq.m) to forecourt building previously approved under Plan File No. 02/759	
Seamus Walsh Plant Hire Ltd. Ballinamore, Clonmel, Co. Tipperary	P. Ref. 19600807	2.8km NE		Fill the existing gravel pit and reinstate to levels including all associated site development works. This site is within the attendant grounds of Anner Castle, Ballinamore, a Protected Structure R.P.S. 2/N.I.A.H. Ref. 22207713	Grant Date: 09/10/2019
Grian PV Ballyboe Ltd Ballyboe, Clonmel, Co. Tipperary	P. Ref. 19600239	4.0km NE		a 10 year permission. The development will consist of a solar farm with an export capacity of 12 MW compositing of photovoltaic panels on ground mounted frames with associated infrastructure including 4 No. Inverter Housing cabins, 1 No. control building, 1 No. customer cabin (substation), 1 No. DNO substation, temporary construction compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks. The planning application will be accompanied by a Natura Impact Statement	Grant Date: 30/10/2019

Cumulative effects:

Grian PV Ltd Horsepasture/Doon, Clonmel, Co. Tipperary	P. Ref. 16601136	2.8km NW		application is for a 10 year permission. The development will consist of a solar farm with an export capacity of 11.188 MW comprising of photovoltaic panels on ground mounted frames with associated infrastructure including 7 no. invertor housing cabins, 1 no. control building, 1 no. customer cabin (substation), 1 no. DNO substation, temporary construction compound, ducting and electrical cabling, perimeter agricultural fencing, mounted CCTV cameras and internal access tracks	Decision Date: 25/04/2017
Greater than 10km					
Miltown Composting Systems Ltd.	22/60121	12.45km		The proposed development is for an increase in throughput of organic material from 50,000 tonnes per annum to 75,000 tonnes per annum. It will also include for the reconstruction and extension of old agricultural sheds as organic material maturation sheds	Decision Date: 20/09/2022

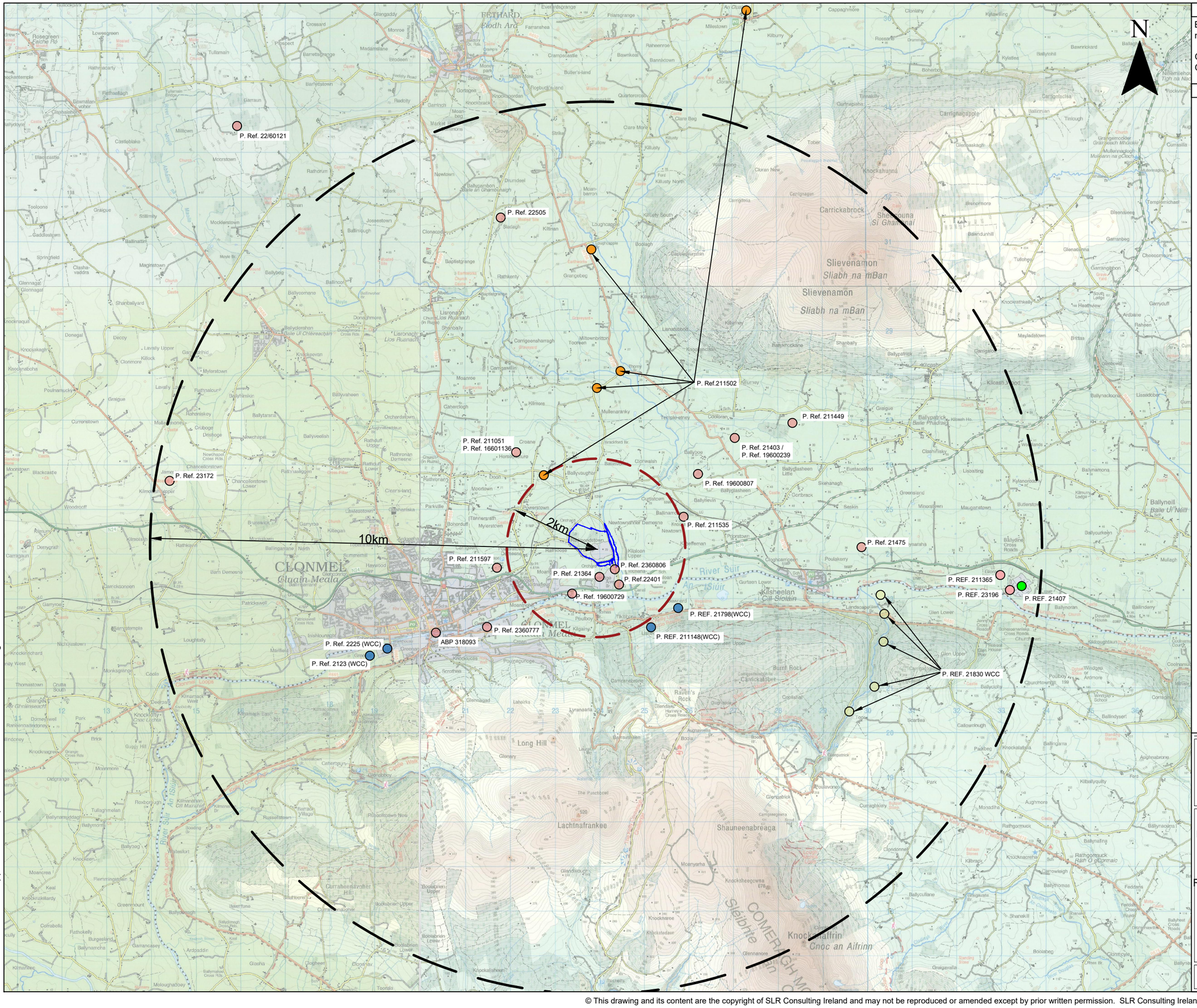
Cumulative effects:

Waterford Co. Co. Planning

Development	Planning Register Reference	Distance	Integrated Pollution Control (IPC) or Industrial Emissions Directive (IED) License	Development Description	Status
DECIDED					
Board of Management Presentation Secondary School Clonmel. Presentation Secondary School Clonmel, Dungarvan Rd, Greenan, Clonmel, Co. Waterford	P. Ref. 2123	5.6km SW		to redevelop the All-Weather Pitch, including excavation, filling and regrading, fencing and lighting and new All-Weather Surface	Decision Date: 27/07/2021 Third Party Appeal Lodged on 23/08/2021 ABP- 311202-21 Granted on 12/08/2022
Board of Management Presentation Secondary School Clonmel. Presentation Secondary School Clonmel, Dungarvan Rd, Greenan, Clonmel, Co. Waterford	P. Ref. 2225	5.2km SW		the installation of 6kWp (28 SQM) of photo-voltaic panels on the roof of an existing building	Decision Date: 08/03/2022

Cumulative effects:

National Broadband Ireland DA 034 Clonmel, Comeragh MD	P. Ref. 211148	2.1kmSE		Section 254 Licence for overground electronic communications infrastructure and associated physical infrastructure (MD T1 2021WD0576)	Grant Date: 09/03/2022
National Broadband Ireland Comeragh MD	P. Ref. 21798	2.2km SE		Section 254 Licence Application - for the erection of overground telecommunications infrastructure comprising the erection of 31.454 km of new overground fibre optic cables on existing timber poles and the erection of 23 new poles (2021WD0309)	Grant Date: 07/10/2021
Withdrawn					
Hydrotricity Ltd., Toor, Glen Upper and Glen Lower Co Waterford	P. Ref. 21830 EIA Portal Ref. 2021177	6.4km E		a 7 year planning permission for a hydro electric scheme on the Glasha River at Toor, Glen Upper and Glen Lower, Co. Waterford. The scheme will comprise the installation of a water extraction structure and fish pass, 2.92 km of pipeline, a turbine house, a transformer building, an ESB substation and a three phase overhead line connection (150m long) from an existing ESB pole to the new ESB substation including all associated site works. A Natura Impact Statement (NIS) and an Environmental Impact Assessment Report (EIAR) will accompany this Application	Deemed withdrawn 15/08/2022
Greater than 10km					
Dyrick Hill Wind Farm Limited	ABP-317265-23	19.4km S		Construction of 12 number wind turbines with an overall tip height of 185m and associated works, including a 110kV substation and 110kV grid connection to Dungarvan 110kV substation.	Due to be decided by 05/12/2023
Coumnagappul Wind Farm Limited	P. Ref. ABP-318446-23	13.5km S		Windfarm of 10 no. turbines, tip height of 185 m, hub height of 104 m and rotor diameter of 162 m and connection to National Grid	Recently lodged



NOTES

Extract from Ordnance Survey Discovery Map Series Sheets no. 66, 67, 74 & 75

Ordnance Survey Ireland Licence No. CYAL50316488
Ordnance Survey Ireland and Government of Ireland

LEGEND

- MEDITE LANDOWNERSHIP BOUNDARY
- 10KM DEVELOPMENT STUDY AREA
- 2KM DEVELOPMENT STUDY AREA
- PLANNING APPLICATIONS WITH TIPPERARY CO. CO.
- PLANNING APPLICATIONS WITH WATERFORD CO. CO.

EIA DEVELOPMENT

- ABO WIND IRELAND LTD. CONSTRUCTION OF UP TO 7 NO. WIND TURBINES WITH A MAX. OVERALL TIP HEIGHT OF 150M, MET MAST & 38kV ELECTRICAL SUBSTATION
- MSD IRELAND - BALLYDINE CONSTRUCTION OF NEW PHARA PILOT PLANT MANUFACTURING FACILITY
- HYDROTRCITY LTD. (DEEMED WITHDRAWN) A 7 YEAR PERMISSION FOR A HYDRO ELECTRIC SCHEME ON THE GLASHA RIVER AT TOOR, GLEN UPPER AND GLEN LOWER, CO. WATERFORD

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MEDITE EUROPE DAC

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

PROPOSED ENERGY PROJECT
AT THE MEDITE FACILITY,
REDMONDSTOWN, CLONMEL, CO. TIPPERARY

MAP OF CUMULATIVE ASSESSMENT DEVELOPMENT

APPENDIX 1.5

Scale: 1:125,000 @ A3

Date: DECEMBER 2023

ABP-311991-21.EIAR Appendix 1.5 Map of Cumulative Assessment Dev.dwg

Appendix 1.6 - Schedule of Mitigation Measures

CONTENTS

INTRODUCTION

16.1 This document summarises the undertakings and environmental commitments made in the EIAR in respect of the Proposed Development at the Medite Europe DAC factory in Redmondstown, Clonmel, with two new biomass-fired energy plants, one for each of Medite's production lines.

Population and Human Health

16.2 The following measures are proposed to mitigate potential impacts on population and human health:

- To maintain safety and avoid health impacts on construction workers and the general public, best practice site safety and environmental management will be maintained. The Proposed Development will be designed, constructed, operated, and decommissioned in accordance with the following:
    - Safety, Health & Welfare at Work (Construction) Regulations 2013
    - Safety, Health & Welfare at Work Act 2005
    - Safety, Health & Welfare at Work (General Applications) Regulations 2007
- All construction staff will be adequately trained in health and safety and will be informed and aware of potential hazards. Furthermore, a Construction and Environmental Management Plan **(CEMP)** is included in **Appendix 2-1**, will be circulated to all construction workers which will detail safety protocol and methodology. Site investigations have previously been completed at the site as detailed in Chapter 6: Lands, Soils and Geology. The information from these investigations has enabled an appropriate understanding for implementing the appropriate infrastructure suited to ground conditions at the site.
- For operation and maintenance staff working at the Proposed Development, appropriate site safety measures will be utilised during the operational phase by all permitted employees.
- All personnel undertaking works will be fully trained and will use appropriate Personal Protective Equipment (PPE) to prevent injury.
- Rigorous statutory and engineering safety checks imposed on the manufacturing plant during design, construction, commissioning, and operation will ensure the risks posed to humans are negligible.
- All maintenance work will only be carried out by people with the appropriate training and qualifications for the task at hand.
- All maintenance and operations work will be carried out in accordance with the relevant health and safety legislation with the appropriate planning and preparation.
- Regular visual inspections and testing of the manufacturing plant to be incorporated into the project's operation and maintenance schedule.
- In line with the Health Service Executive's Emergency Planning recommendations, any incident which may occur at the site which requires emergency services, incident information will be provided in the 'ETHANE' format.
    - Exact location
    - Type of incident
    - Hazards
    - Access and egress

- Number of casualties (if any) and condition
- Emergency services present and required.

16.3 As there will be no significant effects on population trends, density, household size or age structure, no mitigation measures are required.

16.4 Additionally, given that the potential impacts of the Proposed Development at construction, operation and decommissioning phases are predominantly positive in respect of socioeconomics, employment and economic activity, no other mitigation measures are considered necessary.

16.5 Finally, given that no significant effects of the Proposed Development at construction, operation and decommissioning phases are not considered to have any significant impact on land use, and tourism, amenity and services, no mitigation measures are considered necessary in this regard.

Biodiversity

16.6 The habitats within the application site are commonly occurring, widespread and resilient. There will be a loss of broadleaved woodland as a result of the Proposed Development. These habitats will be restored over the medium to long term as part of the proposed replanting proposals included as part of the Proposed Development.

16.7 The following measures are proposed to mitigate potential impacts on biodiversity;

- Compensation will be provided to ensure that the removal of 0.42ha of broadleaved woodland will result in no residual effects on the ecology of the Site. It is proposed to plant a 0.42ha area within the northern section of the application area with a diverse native woodland mix. As the current land is arable land and no current hedgerows present in the area are to be removed, the ecology of the Site is likely to improve as a result of the proposed mitigation measures.
- Vegetation removal should not take place within the bird nesting season, between the 1st of March and the 31st August. Compensatory habitat will be put in place to replace the 0.42ha of Broadleaved Woodland, creating a new opportunity for breeding birds.
- The development includes a stack of approximately 34m height. Although it is unlikely that the stack will present a major risk for bird collision due to the nature of the structure, appropriate design of the stack should be undertaken to reduce the risk of aviation collision. For example, the stack will be stationary, of low reflectivity and high visibility. Light emissions from the stack will be reduced at night to further reduce the risk of bird collision.
- To prevent any harm becoming of any bat that could be potentially using roosting in the area of vegetation to be removed, a precautionary approach to tree felling should be adopted. Soft felling of the trees identified as having PRFs is advised and should follow the methodology as outlined below;
    - The trees should be soft felled using an appropriately qualified tree surgeon and in the presence of a qualified ecologist.
    - In order to ensure the optimum warning for any roosting bats that may be present, the tree will be nudged lightly two to three times with a machine bucket, with a pause of approximately 30 seconds between each nudge to allow bats to become active and leave the tree. The tree should then be sawn at the base and pushed to the ground slowly.
    - Trees will not be sawn up or mulched immediately. A period of at least 24 hours, and preferably 48 hours, will elapse prior to such operations to allow bats to escape.

- Felling will be carried out in suitable weather conditions (i.e., dry and 7°C or higher).

- Bat boxes will be erected nearby to accommodate for any displaced bats.

Land, Soil and Geology

16.8 The following measures are proposed to mitigate potential adverse impacts of the proposed development on the receiving soil and subsoil environment:

- No refuelling or plant/machinery maintenance/repairs will take place in the proposed development areas to prevent accidental leakage/spillages reaching the land, soil and geology or being washed off by surface water run-off.
- Any extensive / non-routine maintenance of plant and machinery will take place on a hard stand area within the overall land holding.
- All plant will be regularly maintained and inspected daily for leaks of fuels, lubricating oil or other contaminating liquids.
- A spill kit and drip trays will be kept on site and will be deployed if there is an accidental leak from any plant/machinery
- No petroleum-based products (lubricating oils, waste oils, greases etc.) will be stored within the construction area at the site thereby eliminating any associated pollution risk arising from accidental leakages/spillages.
- Plant operators will be briefed during 'toolbox' talks and site induction on where the spill kit is kept and how and when it should be deployed
- A site construction traffic management system will be put in place to reduce the potential accidents between vehicles and the potential for fuel leaks/spills.
- During the operation of the site the existing mitigation measures which form part of the development and are included under IE Licence P0027-04 will continue to be implemented at the site.

Water

16.9 There are existing environmental management measures in place at the site to manage and treat storm surface water runoff and process water at the site. The existing measures are designed to reduce the potential impacts associated with the operation of the site to acceptable levels, presenting a low risk to the receiving environment, are identified in this section. These measures are designed to either reduce the likelihood of an event occurring or the magnitude of the consequences should the event occur. These include measures in place to manage and reduce Suspended Solids discharged at SW1 to comply with the licence limit value.

16.10 The existing mitigation measures will remain in place during the installation and operation of the proposed new boilers at the site.

16.11 In order to mitigate against the risk of pollution to groundwater and surface water occurring during construction stage at the site the following management measures have been implemented:

- Fuel is stored in bunded tanks.
- There are hard standing areas for refuelling and surface water runoff from these hard stands is directed to the surface water management systems and WWTP on-site.
- All chemicals, oils and lubricants are stored in drums including waste oils are kept on spill trays undercover inside the existing storage area.

- All plant and machinery is regularly maintained and inspected daily for leaks of fuels, lubricating oil or other contaminating liquids/liquors.
- A spill kit is kept on-site to stop the migration of any accidental spillages, should they occur;
- All wastewater generated on site is collected and passed through the on-site WWTP before being discharged from site via a licenced and monitored discharge point at the Anner River.
- The company Environmental Management System (EMS) is implemented at the site and which facilitates the management of the environmental impacts of their activities at the site.

Air Quality

16.12 Following the outcomes of the construction dust assessment, mitigation measures, as identified by IAQM guidance (IAQM, 2023), are required to ensure that any potential impacts arising from the construction phase of the proposed development are reduced and, where possible, completely removed.

16.13 The following measures are recommended to mitigate potential development impacts on air quality:

- Develop and implement a stakeholder communications plan that includes community engagement before work commences on site.
- Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager.
- Display the head or regional office contact information.
- Develop and implement a Dust Management Plan (DMP), which may include measures to control other emissions, approved by the Local Authority. The level of detail will depend on the risk and should include as a minimum the highly recommended measures in this document. The desirable measures should be included as appropriate for the site.
- Ensure effective water suppression is used during demolition operations. Handheld sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition, high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
- Avoid explosive blasting, using appropriate manual or mechanical alternatives.
- Bag and remove any biological debris or damp down such material before demolition.
- Carry out regular site inspections to monitor compliance with the DMP, record inspection results, and make an inspection log available to the local authority when asked.
- Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
- Agree dust deposition, dust flux, or real-time PM10 continuous monitoring locations with the Local Authority. Where possible commence baseline monitoring at least three months before work commences on site or, if it a large site, before work on a phase commences. Further guidance is provided by IAQM on monitoring during demolition, earthworks, and construction.
- Ensure all vehicles switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel- or petrol-powered generators and use mains electricity or battery powered equipment where practicable.
- Produce a Construction Logistics Plan to manage the sustainable delivery of goods and materials.

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g., suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.
- Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
- Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
- Avoid site runoff of water or mud.
- Keep site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site cover as described below.
- Cover, seed or fence stockpiles to prevent wind whipping.
- Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.
- Make the complaints log available to the local authority when asked.
- Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the logbook.
- Hold regular liaison meetings with other high risk construction sites within 500m of the site boundary, to ensure plans are co-ordinated and dust and particulate matter emissions are minimised. It is important to understand the interactions of the off-site transport deliveries which might be using the same strategic road network routes.
- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
- Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

- Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits.
- Access gates to be located at least 10m from receptors where possible.
- Avoid bonfires and burning of waste materials.

16.14 The following measures are desirable to mitigate potential development impacts on air quality:

- Avoid scabbling (roughening of concrete surfaces) if possible.
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
- Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and windowsills within 100m of site boundary, with cleaning to be provided if necessary.
- Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on unsurfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided, subject to the approval of the nominated undertaker and with the agreement of the local authority, where appropriate).
- Implement a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

Climate

16.15 The following measures are proposed to mitigate potential impacts on climate :

- In the future there may be new technology that will allow the Medite site to improve its energy efficiencies and reduce the quantity of energy required. This will be constantly monitored by Medite to ensure cost effective and reliable technology is being used.
- Medite operates under the guidance of its Environmental Management System Manual. The management system operates to the internationally recognised standard of ISO 14001:2015. Medite has particular focus on the promotion of natural resources, energy efficiency and continued sustainable forestry practices. Management systems in themselves do not improve environmental and climate change performance but support the maintenance of methods and standards used to support climate change control.
- With the completion of the biomass boilers Medite will be able to use a waste product from the forestry industry to provide a renewable form of energy. Medite will ensure the feedstock remains renewable by supplying from areas which meet sustainability criteria.
- Emissions from transportation are likely to increase in the short term but with the republic of Irelands carbon action plan it is likely transportation will move towards lower emission technologies such as a shift to biofuels or electrification.
- Medite will review the opportunities in its supply chain to ensure where reasonably practical lower emission vehicles are used to transport forest biomass residue. There is also expected to be movements towards lower emission vehicles as the department of transport begins to support alternatives to fossil fuels expecting one-third of vehicles to be electric by 2030.

Noise

16.16 The following measures are proposed to mitigate potential noise impacts from construction;

- Ensure that the various EC Directives that limit noise emissions of a variety of construction plant, as well as the guidance set out in BS5228-1:2009+A1:2014, that covers noise control on construction and open sites are followed.
- Adoption of the Best Practicable Means, as defined in The Environment Protection Agency Act 1992.
- Within the constraints of efficient site operations and the requirements of the relevant Standards, the following is advisable:
    - Limit the use of particularly noise plant, i.e. do not use particularly noisy plant early in the morning;
    - Limit the number of plant items in use at any one time;
    - Plant maintenance operations should be undertaken as far away from noise-sensitive receptors as possible;
    - Phasing the works to maximise the benefit from perimeter structures;
    - Any compressors brought on to site should be silenced or sound reduced models fitted with acoustic enclosures;
    - Control vehicle movements: reduce the speed, avoid reversing and un-necessary revving of engines;
    - All pneumatic tools should be fitted with silencers or mufflers;
    - Ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors where practicable;
    - When replacing older plant, ensure that the quietest plant available is considered wherever possible; any deliveries/spoil removal vehicles should be programmed to arrive and depart during daytime hours only;
    - Drop heights must be minimised when loading vehicles with rubble;
    - Care should be taken when loading vehicles to minimise disturbance to local residents.
    - Vehicles should be prohibited from waiting within the site with their engines running;
    - All plant items should be properly maintained and operated according to the manufacturers' recommendations in such a manner as to avoid causing excessive noise. It is recommended that a weekly inspection of all plant should be made to ensure that any repairs or maintenance can be identified and undertaken as quickly as possible;
    - All plant should be sited so that the noise impact at nearby noise-sensitive properties is minimised;
    - Ensure that all proposed conveyors are belt conveyors with sound power of 77dB(A)
    - Local hoarding, screens or barriers should be erected as necessary to shield particularly noisy activities; and
    - Works should not be undertaken outside of the hours agreed with the local authority.

Material Assets

16.17 It is not considered that any additional mitigation measures, over and above those proposed for environmental emissions, are required in respect of Material Assets.

Cultural Heritage

16.18 The following mitigation measures are proposed in respect of potential impacts on cultural heritage:

- Due to the possibility of the survival of previously unknown subsurface archaeological deposits or finds within undeveloped wooded part of Area 2 and replant area to the north, topsoil-stripping in this area should be archaeologically monitored.

Landscape

16.19 The following mitigation measures are proposed in respect of potential impacts on landscape:

- The design of the Proposed Development includes a number of elements, which ensure that the landscape and visual impacts associated with it are minimal. These elements include:
  - The location of the proposed development within the application area;
  - The similarity to and integration with the existing Medite facility;
  - The painting of all proposed structures in a grey colour similar to that of the existing structures; and
  - The retention of all existing screening vegetation along the application area boundary.
- To compensate the loss of a small area of trees (0.42ha) , it is proposed to plant a similar size area within the northern section of the application area with a diverse native woodland mix. The woodland area will be kept close to the existing boundary hedgerow, in order to maximise the distance to the nearby residential property and local road. The proposed mix only includes shrub and small tree species (growing to a maximum height of 20m). Both will ensure that there will be no shading experienced in the property or along the road, due to the proposed planting, even when this matures.

Traffic

16.20 The assessment has been undertaken under the assumption that general good construction practice would be deployed during both the construction and operational phases. The following measures are proposed to avoid, remediate or mitigate potential traffic impacts:

- All HGVs delivering materials to the site would be roadworthy, adequately maintained and sheeted as required.
- Adequate traffic management, such as scheduling of deliveries, and banksmen would be deployed for the movement of HGVs.
  - Most deliveries of material will take place between the hours of 06:00 and 22:00. Any deliveries/ HGV movements outside of these hours will be as quiet as possible with drivers briefed to keep music down and not to accelerate hard.
- Ensure all drivers are made aware of the 60km/h speed restriction along the L2506.
- Provide driver training to ensure all drivers are aware they are not to access the layby area adjacent the Redmondstown Cottages. Provide training in other languages as needed and information on location of nearby laybys or rest stops.
- HGV loads would be maximised to ensure that part load deliveries would be minimised.

- Wheel washing of HGVs, where appropriate, prior to leaving the site.

Major Accidents and Natural Disasters

16.21 The following mitigation measures are proposed in respect of potential major accidents and natural disasters:

- Ensure that the Construction Environmental Management Plan (CEMP) is followed, as it specifies the Emergency Response Procedure to be followed in case of emergencies, encompassing contamination, health and safety, and environmental protection. It provides detailed information on all mitigation and monitoring measures to be implemented throughout the various phases of construction, operation, and decommissioning.
- Ensure that the CEMP undergoes regular reviews through environmental audits and site inspections to ensure the effectiveness and implementation of all mitigation measures and commitments outlined in the application.
- Ensure that the Emergency Response Plan (ERP) within the CEMP is followed in the event of emergencies related to health and safety or environmental protection. The site ERP delineates the required response actions and the responsibilities of all personnel during emergency situations.
- Operational monitoring measures relating to each of the environmental issues have also been identified within each of the respective chapters and will provide early warning systems to identify any corrective actions required to reduce risks in the unlikely event that risks would be raised.