Natura Impact Statement

in support of the Appropriate Assessment Process

Ormonde Organics, Co. Waterford.

Expansion of Existing Development

Prepared for:

Tom Phillips & Associates on behalf of Ormonde Organics Ltd.

Prepared by:

Ecology Ireland Wildlife Consultants Ltd.

ecologyireland

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Appendix A - Proposed Site Plan [Existing, Permitted and Proposed Elements]

Executive Summary

This Natura Impact Statement (NIS), in support of the Appropriate Assessment (AA) process includes the Screening for AA, in relation to the Ormonde Organics site near Portlaw, Co. Waterford. The report was prepared in order to inform a decision by Waterford City and County Council in relation to the proposed expansion of the existing Ormonde Organics anaerobic digestion and renewable energy facility.

It was determined at the Screening Stage that likely significant effects could arise that, in the absence of adequate mitigation, could adversely impact upon one Natura 2000 site, namely the Lower River Suir SAC. No likely significant effects were identified in relation to other Natura 2000 sites in the wider hinterland and therefore potential impacts upon these sites and their conservation objectives were not further considered at Stage 2, NIS.

The likely significant effects identified were primarily related to the risks associated with run-off of contaminants during construction and/or operation of the expanded facility. In the absence of mitigation there was an appreciable risk of such run-off impacting upon the water quality of the Lower River Suir SAC. However, following the application of mitigation measures, it is objectively concluded that there is no potential for significant residual impacts upon the Lower River Suir SAC as a result of the proposed development.

1 Introduction

Ecology Ireland Wildlife Consultants Ltd. were commissioned by Tom Phillips & Associates on behalf of Ormonde Organics, to prepare a Screening for Appropriate Assessment (AA) and if necessary a Natura Impact Statement (NIS) in relation to the proposed expansion of the existing Ormonde Organics anaerobic digestion and renewable energy facility near Portlaw, Co. Waterford. Ecology Ireland also prepared the Biodiversity Chapter (Chapter 9) of the Environmental Impact Assessment Report (EIAR) that accompanies the planning application.

The existing facility is located at Killowen, approximately 3km north of Portlaw (Figure A1). The River Suir is approximately 350 metres from the north-eastern site boundary. The regional route R680 runs along the western boundary of the site and links Portlaw village to the south with Carrick-on-Suir to the north-west.

Lands surrounding the site are used for agricultural purposes and the immediate east and south of the site are planted with a commercial crop of deciduous woodland. The nearest dwellings in the vicinity of the site are located along the R680 and there are no dwellings within 250 metres. The nearest domestic resident is more than 250 metres from the north-west boundary.

As described in Chapter 9 (Biodiversity) of the EIAR, no Annex I habitats listed under the EU Habitats Directive are present within the study site. The dominant habitats present are primarily of moderate or low ecological value. No botanical species protected under the Flora (Protection) Order 2015, listed in Annex II or IV of the EU Habitats Directive (92/43/EEC), or Red listed in Ireland were recorded.

1.1 Description of Existing Facility

The existing facility operates under a waste license issued by the EPA in 2016 (W0287-01). The current site layout is shown on Drawing No. 20P1390-02 D1 in the accompanying EIAR.

1.1.1 Waste Types & Volumes

The installation is authorised to accept 40,000 tonnes of organic waste annually, which includes:

- Municipal wastewater treatment sludge
- Off specification food and beverage waste
- Other biodegradable waste
- Non-hazardous industrial and water treatment sludge.

1.1.2 Existing Infrastructure and Facilities

The site cover 5.7ha and comprises:

- Building 1 Composting, comprising waste reception areas, enclosed forced aeration composting bays, maturation bay, screening area and offices
- Building 2 AD, comprising an organic waste reception area, waste food debagging plant, digester feed line and digestate pasteurisation tank
- Building 3, staff welfare facilities, office and hot water header room
- 3 No. above ground fully enclosed AD digesters
- 4 No fully enclosed tanks (each 100m^3) at the northern end of Building 2 for storage of incoming organic waste for the AD plant

- 2 No. liquid waste storage tanks at the southern end of Building 2 for the storage of incoming liquid waste for the AD plan
- Combined Heat and Power (CHP) plant comprising 2 No gas engines and gas flare in north-east corner of the site
- Maintenance Workshop and Stores at north-eastern side of Building 1
- 2 No. Odour Abatement Systems (1 No. bio-filter and 1 No. woodchip filter) located to the south east of Building 1
- 1 No. Odour Abatement System (woodchip filter) to the east of Building 2
- Tank farm comprising 13 No tanks of which 5 No. fully enclosed tanks are used to store digestate over the winter period; 2 No. fully enclosed tanks provide quarantine storage and 1 No. is used to store firefighting water. Tank farm surrounded by concrete bund
- 2 No. Weighbridges
- Security Fencing
- Paved open yards provided with perimeter kerbs
- Bunded fuel storage areas and landscaped areas.

1.1.3 Drainage

Wastewater

The processes do not generate wastewater that requires either on or off-site treatment. Effluent is treated as a resource, rather than a waste, during the anaerobic digestion process. Liquid waste or Effluent, where it occurs, is contained and fed back into the process. Leachate does not enter the surface water containment and treatment system.

Sanitary wastewater is collected in an underground tank and is processed through the AD Facility.

Surface Water

Run-off from the building roofs and impermeable areas is collected and directed via a hydrocarbon interceptor into a storm water retention tank (224m^3 capacity) fitted with a flow restrictor at the outlet to limit the flow. The outfall connects to a storm water sump located in the north-west corner of the tank farm. The sump that is fitted with a shut-off valve which when closed contains storm water within the site. The sump discharges to a drain that flows north to join the River Suir. The discharge is monitored at quarterly intervals for the range of parameters specified in the EPA licence (pH, electrical conductivity, BOD, COD, ammonia and suspended solids). In the absence of limits set out in the EPA license, the results are compared environmental quality standards (EQS) for a river water body assigned 'Good Status' in the European Union Environmental Objectives (Surface Waters) (Amendment) Regulations 2019 (SI 77 of 2019). Monitoring has confirmed the site discharge is compliant with these water quality standards and is of good quality (e.g. O'Callaghan, Moran & Assoc., 2019, O'Callaghan, Moran & Assoc., 2020a).

1.1.4 Waste Acceptance & Handling Procedures

Ormonde Organics has a documented waste acceptance and handling procedure that ensures only suitable wastes are accepted and processed in a manner to produce a good quality product.

Unless otherwise agreed by the EPA wastes are only accepted and compost and digestate dispatched from the facility between 07:00 and 19:00 Monday to Saturday inclusive. Except for the biological treatment processes which may operate continuously, or as otherwise agreed with the EPA, the

installation is operated only during 07:00 and 19:00 Monday to Saturday inclusive with the exception of construction activities which shall cease by 17:00 on Saturdays.

1.1.5 Waste Treatment

Composting

Wastes intended for composting are off-loaded from the delivery vehicles inside Building 1. The waste is inspected and then mixed with woodchip. Once mixed the material is loaded into one of 12 dedicated concrete walled forced aeration compost bays where it stays for a minimum of two weeks to complete the composting process.

The temperature is monitored until each batch has reached a temperature higher than 55^0C (thermophilic) for more than three consecutive days. Upon completion of the thermophilic stage, the material is screened, with the oversize sent back to the reception area for reuse and the finished product sent off-site for land application.

Anaerobic Digestion

The fully enclosed digesters have the capacity to process up to 20,000 tonnes per annum of non-hazardous organic waste. Liquid wastes are stored in the 4 No. above ground, fully enclosed storage tanks located at the northern side of the building, from where the contents are pumped to the digesters. Packaged solid food wastes are debagged inside Building 2 and the contents mixed with water/liquid waste to facilitate transfer to the digesters. The liquid waste/water used in the process is stored in 2 No. bins adjacent to the southern side of the building.

The contents of the digesters are continuously agitated and maintained at an optimum temperature of 37 to 40^0C. It takes approximately 60 days for each batch to complete the digestion and post digestion stages and the end products are biogas and digestate.

The biogas consists largely of methane and carbon dioxide, but also contains a small amount of hydrogen sulphide and ammonia, as well as traces of other gases. The biogas is treated to reduce the levels of ammonia and hydrogen sulphide before being used as a fuel in the two gas engines in CHP plant. A gas flare is be provided as a back–up for when the gas engines are shut down for routine servicing.

Nutrient Recycling

The digestate has a significant nutrient and soil enhancement value and, after pasteurisation depending on the time of the year, is either immediately sent off site for application of agricultural lands, or stored in a number of the converted wastewater treatment tanks in the tank farm until ground/weather conditions allow land application. Spreading of digestate on agricultural lands displaces the use of artificial fertilisers.

1.1.6 Odour Control System

Building 1 and Building 2 are fully enclosed with roller shutter doors at the entrances. Both buildings are fitted with air extraction systems to achieve negative air pressure inside the buildings in order to prevent fugitive odour emissions. The extracted air is initially treated in wet (sulphuric acid/water) scrubbers to reduce the ammonia levels and then in the biofilters.

The air extraction system, wet scrubbers and the biofilters are routinely checked to ensure they are functioning properly. The wood chip biofilter is replaced as required, while the lightweight clay aggregate (LECA) medium does not have to be replaced.

1.1.7 Oil & Chemical Storage Areas

Diesel for the mobile plant is stored in 1,500 litre above-ground bunded storage tank located beneath a canopy adjoining the Workshop and in a 1,000 litre bunded tank inside Building 2. A second oil storage tank is located in a bund on the western side of Building 1, but this is empty and not in use. Lubricating and hydraulic oils and coolants used in plant maintenance are stored at the rear of the Compost Building. The sulphuric acid used in the odour control system is stored in a bunded storage tank adjacent to the biofilters.

1.1.8 Emission Monitoring

The EPA licence requires monitoring of the surface water discharge to the river, emissions from the biofilters and the CHP engines, dust deposition, aerosols, groundwater and noise. The results are submitted to the EPA.

1.2 Statement of Authority

Report preparation and Peer Review were carried out by Mr. Tom O'Donnell and Dr. Gavin Fennessy (BSc PhD MCIEEM) of Ecology Ireland Ltd. Tom is a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management. He was awarded a B.Sc. in Environmental and Earth System Science [Applied Ecology] from UCC in 2007 and an M.Sc. from UCC in Ecological Assessment in 2009. Dr. Gavin Fennessy, Managing Director of Ecology Ireland, is an ecologist with over 20 years of experience in professional consultancy. Dr. Fennessy is a member of the Irish Policy Group of the Chartered Institute of Ecology and Environmental Management. He also lectures on environmental impact assessment and appropriate assessment at University College Cork.

1.3 Background to AA Process

The aim of the 'appropriate assessment' process is to identify whether a plan or project, in view of best scientific knowledge and in light of the conservation objectives of any relevant European sites, when considered as an individual project or in combination with other plans and projects, is likely to have a significant effect on the integrity of a Natura 2000 site.

The 'appropriate assessment' process consists of up to four consecutive stages. In Stage 1, a screening process is undertaken to identify whether significant[1] effects on a Natura 2000 site are likely to arise from the project or plan in question, in view of best scientific knowledge and in light of the conservation objectives of any relevant European sites, when considered as an individual project or in combination with other plans and projects. If significant effects are likely to occur or if it is unclear whether significant effects are likely to occur, then the process moves onto stage 2 where the project is subject to an 'appropriate assessment' to determine whether the plan or project would directly affect the integrity of a European site.

[1] A European Court of Justice ruling in 2013 (Case C-258/11) has stated the following regarding significant effect: "Where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site."

In Stage 2 the potential for mitigation measures to eliminate or reduce the significance of potential adverse impacts is considered. If it is considered that mitigation measures will not be able to adequately minimise potential adverse impact on a Natura 2000 site, then an assessment of alternative solutions is considered in Stage 3. This may then be followed by Stage 4 of the process in the event that adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered. The outcome of a Stage 2 and higher assessment is presented in a report known as a Natura Impact Statement (NIS).

If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in stage 3 of the assessment process. If adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), the final assessment step permits consideration of permission for development with consideration of compensatory measures.

It is important to emphasise that a screening assessment does not have to ascertain the existence of a significant effect or impact on a Natura 2000 site as such; it only has to establish whether a significant effect or impact is possible or may occur (as per judgement by Ms. Justice Finlay Geoghegan; see guidelines below).

While a screening assessment appraisal or NIS may be provided by the advocate of the plan or project in question, the AA itself is undertaken by the competent authority (*e.g.* the planning authority and An Bord Pleanála). So, in this case, the Appropriate Assessment for the project, described herein, is undertaken by Waterford Country Council; informed by this Screening for AA and NIS and any other relevant information provided or available to the statutory body.

1.4 Methodology

1.4.1 Guidance

Documents associated with the proposed development and relevant ecology databases were consulted as part of this assessment. Baseline ecological field studies of the site (see Chapter 9 of the EIAR) were also drawn upon to inform this assessment. The following guidelines and legal judgements were used in the completion of this assessment;

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – European Commission Methodical Guidance on the provisions of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (European Commission 2001)
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG 2009)
- Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner's Manual (EPA 2013)

- European Court of Justice Ruling 11th April 2013 Case C‑258/11 Peter Sweetman and Others v An Bord Pleanála - Criteria to be applied when assessing the likelihood that N6 Galway City Outer Bypass road scheme will adversely affect the integrity of Lough Corrib SAC
- High Court Ruling 25th July 2014 by Ms. Justice Finlay Geoghegan; Neutral Citation [2014] IEHC 400; High Court Record No. 2013 802 JR; Kelly -v- An Bord Pleanála – Judicial review of grant of planning by An Bord Pleanála for two wind farm phases in County Roscommon
- High Court Ruling 24th November 2014 by Mr. Justice Hedigan; Neutral Citation [2014] IEHC 557; High Court Record No. 2014 320 JR; Rossmore Properties Limited & Anor -v- An Bord Pleanála
- High Court Ruling 25th February 2016 by Mr. Justice Barton. Neutral Citation [2016] IEHC 134; High Court Record No. 2013 450 JR; Balz & Anor -v- An Bord Pleanála.
- European Court of Justice ruling 12th April 2018 in respect of Case C-323/17 (People Over Wind & Sweetman) - it is not appropriate for the purposes of Appropriate Assessment (AA), at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of a plan or project.
- European Court of Justice ruling 19th April 2018 in respect of Case C-164/17, Compensation vs Mitigation, Grace & Sweetman Vs ABP.
- High Court Ruling 8th February 2019 by Justice Barniville in respect of Kelly -v- An Bord Pleanála & anor. The Court concludes "*as a matter of fact and law, that SUDS are not mitigation measures which a competent authority is precluded from considering at the stage 1 screening stage*". The Irish High Court ([2019] IEHC 84)
- Heather Hill Management Company CLG v An Bord Pleanála (Burkeway Homes Limited as Notice Party) [2019] IEHC 450. Mr. Justice Garrett Simons granted an order of certiorari setting aside the decision of the BoÁrd to grant permission for a residential development of 197 units at Bearna Co. Galway, on the basis that it was a material contravention of the Galway County Development Plan (the CDP), it failed to carry out a 'justification test' as required and failed to carry out proper Appropriate Assessment screening.
- European Commission. Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, (21-11-18) C (2018) 7261 Final. Commission Notice Brussels.

In addition, the previous planning history and associated ecological reports from this site were reviewed to better understand the nature of the receiving environment and existing infrastructure.

1.4.2 Information Consulted for this Report

Consideration of potential impacts on Natura 2000 sites as a result of the proposed facility development have been informed by the desktop review and ecological surveys carried out by Ecology Ireland and presented in the Biodiversity Chapter of the EIAR (Chapter 9).

The conservation objectives of Natura 2000 sites have been compiled by the National Parks & Wildlife Service (NPWS) in relation to the habitats and species (*i.e.* qualifying interests) for which the sites are selected. These conservation objectives are referred to when carrying out appropriate assessments for plans and projects that might impact on these sites.

Client Name:
Ormonde Organics

Project Title:
Proposed Extension to existing facility

Figure Name:
Site location Map

A1

Date:
30/08/2020

Rev: A

Drawn by: GF

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2 Proposed Development

The proposed development will consist of the expansion of the footprint of an existing facility, in combination with some new structures within the existing facility footprint. These modifications are required to increase the capacity of the anaerobic digestion and sustainable energy production facility.

The facility will continue to operate as described in Section 1.1 above, including in relation to ongoing monitoring which is a condition of the EPA license, but the capacity of the system will increase from It is intended to increase the annual waste intake from 40,000 tonnes to 80,000 tonnes.

The proposed layout is shown on Drawing No. 20P1390-03 D2 (see Chapter 4). The new infrastructure It will facilitate an increase in the annual waste intake from 40,000 tonnes to 80,000 tonnes. Specifically, this proposal involves:

- A feedstock bunker building (ca 120m^2) in the yard to the south of Building 2 and the relocation of an existing liquid feed tank;
- A new digester (490m^2) to the east of the existing digesters
- A new digestate storage tank (c960m^2) in the south-east corner of the site
- An additional odour abatement woodchip filter (ca 100m^2) to the east of Building 2;
- A maturation building and canopy (1,450m^2) to the south of Building 1;
- Widening of internal access road to anaerobic digestion area and extension of existing bund wall and 2.4m high perimeter fence around the facility;
- Paving of approximately 250m ^{2}of ground as part of the construction of the new digestate storage tank, new maturation building and the new biofilter, and
- Additional storm water attenuation capacity

Permission has already been granted for the paving in the north of the site. This has not yet been installed but will form part of the overall development.

The extension of the paved areas will result in an increase in the volume of rainwater run-off but will have no effect on water quality. A proposed 600m^3 additional attenuation pond will be provided (which connects to the existing attenuation pond) to deal with additional surface water. The proposed attenuation pond is designed to accommodate a 1 in 100-year rainfall event for the overall hardstanding area of 17,88m^2. Water received in the proposed attenuation pond will next flow to the existing 400m3 attenuation pond before being discharged via the existing Class 1 interceptor and flow control manhole which restricts flow to 10.9m/s. There will be no emissions to groundwater.

The new biofilter will be an additional emission point to atmosphere. It will be designed and constructed to remain within the emission limits set in the EPA licence, which will ensure it will not be a source of odour nuisance to the wider area.

The plant, equipment and method of operation of the feed stock bunker will be similar to those already in use and will not be significant new sources of noise emissions. There will be no changes to the waste acceptance and operational hours.

3 Description of the Natura 2000 Sites

The potential for the proposed development to impact upon the designated Natura 2000 sites in the wider hinterland was considered. The proposed extension site at Ormonde Organics is not located within or directly adjacent to any Natura 2000 site (Figure A2).

In all, three Natura 2000 sites are located within 15km of the Ormonde Organics site. The closest of these is the Lower River Suir SAC which is situated 200m to the east of the site boundary (Table 3.1). One additional site, located outside the nominal 15km search area, is also considered further due to potential hydrological connectivity. The qualifying interests/special conservation interests and conservation objectives of the relevant Natura 2000 sites are summarised in Table 3.2.

Table 3.1. Designated Natura 2000 sites which are relevant to this Screening for AA.

Site Name	Site Code	Minimum Distance (km)
Lower River Suir SAC	002137	0.2
Hugginstown Fen SAC	000404	12.9
Comeragh Mts. SAC	001952	14.0
River Barrow and River Nore SAC	002162	29.5 (D/S)

There is no hydrological connection between the site and Hugginstown Fen SAC and Comeragh Mts. SAC. These two sites are relatively distant from the proposed development and there is no likelihood of significant effects on these sites (direct or indirect) due to the nature of the proposed development site and facility operations and the lack of an obvious pathway with these Natura 2000 sites. As there is no likelihood of significant effects on these sites arising from the proposed works, these sites are not considered further in this report.

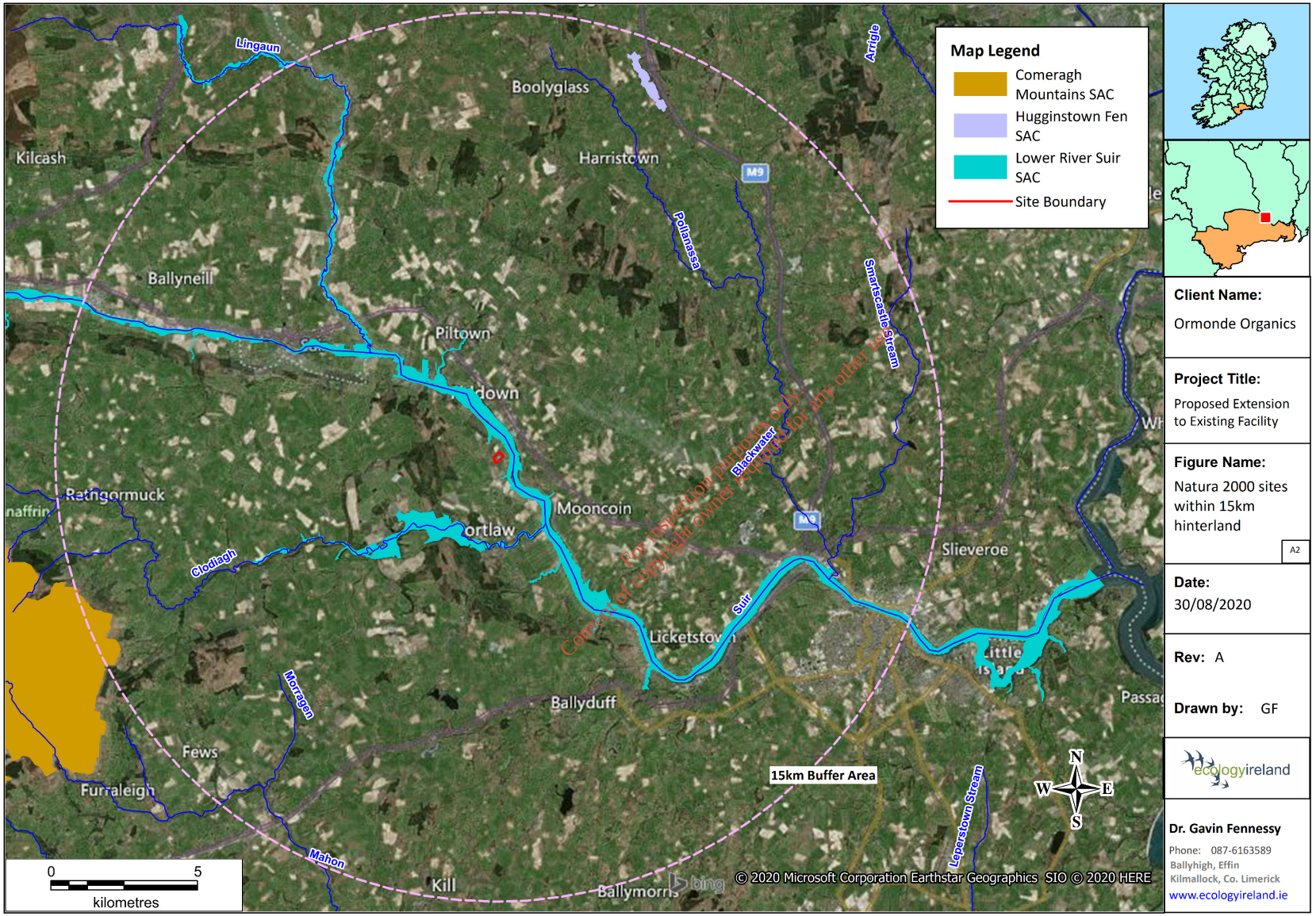
3.1 Hydrological Context

The proposed site is located in Hydrometric Area 16, Suir and the Suir sub-catchment (Suir_SC_14). Surface drainage from the proposed site will continue to be discharged to the River Suir, albeit in somewhat greater volumes. EPA do not currently carry out biological water quality sampling downstream of the sites discharge point. The EPA undertakes surveys of the water quality of estuaries and near shore coastal waters and based on these surveys they have categorised the water quality of the Middle Suir Estuary (IE_SE_100_0550) as 'Poor' (Transitional Waterbody WFD Status (2013-2018)).

Table 3.2: Natura 2000 Site Details.

Site Name & Code	Conservation Summary	Minimum Distance from Site (km)
Lower River Suir SAC (002137)	The conservation objective of this site is to restore the favourable conservation condition of the followings qualifying interests: • Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Taxus baccata* woods of the British Isles [91J0] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] • *Austropotamobius pallipes* (White-clawed Crayfish) [1092] • *Petromyzon marinus* (Sea Lamprey) [1095] • *Lampetra planeri* (Brook Lamprey) [1096] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Alosa fallax fallax* (Twaite Shad) [1103] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355]	0.2
Hugginstown Fen SAC (000404)	The conservation objective of this site is to restore the favourable conservation condition of the followings qualifying interest: • *Alkaline fens [7230]*	12.9
Comeragh Mts. SAC (001952)	The conservation objective of this site is to restore the favourable conservation condition of the followings qualifying interest: • Oligotrophic waters containing very few minerals of sandy plains *(Littorelletalia uniflorae)* [3110] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260] • Northern Atlantic wet heaths with *Erica tetralix* [4010] • European dry heaths [4030] • Alpine and Boreal heaths [4060] • Siliceous scree of the montane to snow levels *(Androsacetalia alpinae and Galeopsietalia ladani)* [8110] • Calcareous rocky slopes with chasmophytic vegetation [8210] • Siliceous rocky slopes with chasmophytic vegetation [8220]	14.0

Site Name & Code	Conservation Summary	Minimum Distance from Site (km)
	• *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216]	
River Barrow and River Nore SAC (002162)	The conservation objective of this site is to restore the favourable conservation condition of the followings qualifying interest: • Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Reefs [1170] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (*Juncetalia maritimi*) [1410] • Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260] • European dry heaths [4030] • Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] • Petrifying springs with tufa formation (*Cratoneurion*) [7220] • Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] • Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] • *Vertigo moulinsiana* (Desmoulin's Whorl Snail) [1016] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] • *Austropotamobius pallipes* (White-clawed Crayfish) [1092] • *Petromyzon marinus* (Sea Lamprey) [1095] • *Lampetra planeri* (Brook Lamprey) [1096] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Alosa fallax fallax* (Twaite Shad) [1103] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355] • *Trichomanes speciosum* (Killarney Fern) [1421] • *Margaritifera durrovensis* (Nore Pearl Mussel) [1990].	29.5 (D/S)



4 Stage 1: Assessment Criteria

4.1 Elements of the Project Likely to Impact on the Natura 2000 Sites

Elements of the project which are likely to give rise to both direct and indirect impacts are discussed below.

4.1.1 Likely Impacts as a Result of Direct Habitat Loss

Direct effects on a Natura 2000 site will not occur as a result of the proposed development. The proposed development site is not located within the boundaries of any Natura 2000 site, does not include any habitats relating to the conservation objectives of the designated sites in question, and will not require any resources from any Natura 2000 site. Potential direct impacts on a Natura 2000 site are not considered further in this report.

4.1.2 Potential for Indirect Impacts as a Result of Water Quality Deterioration

Indirect habitat loss or deterioration of designated sites within the surrounding area could occur through a number of means including from the effects of run-off or discharge into receiving aquatic environments (e.g. through impacts such as increased siltation and/or contamination), alteration of water chemistry, disturbance through alteration of groundwater flows, through the introduction of or invasive plant species etc. Indirect habitat loss or deterioration requires a connection between the site and the designated site in question, i.e. a source-receptor pathway. Potential issues of relevance to the proposed development are discussed in the following sections.

Process-water/Effluent

An escape of process water, or effluent such that it reaches the Lower River Suir SAC would represent a threat to the designated site. Effluent is treated as a resource, rather than a waste, during the anaerobic digestion process. Liquid waste or Effluent, where it occurs, is contained and fed back into the process. Leachate does not enter the surface water containment and treatment system.

Surface-water

Surface drainage from the proposed site is ultimately discharged to the Lower River Suir SAC via the existing surface water drainage outlet. There is therefore direct hydrological connection (potential source-receptor pathways) between the proposed development site and the Lower River Suir SAC. The River Suir flows into the River Barrow and River Nore SAC approximately 29.5km downstream of the proposed development, and therefore remote hydrological connectivity with this site is also present.

As detailed in Section 1.1, there are currently in operation a series of measures to ensure that surface water discharge is of appropriate quality, and this is confirmed by regular monitoring and reported to the EPA. It is proposed that the expanded site will continue to use this same process, with an additional attenuation pond. However, in the event that attenuation ponds or hydrocarbon interceptors were not correctly installed or maintained, for example, there exists a likelihood that

contaminated surface water could reach the Lower River Suir SAC and River Barrow and River Nore SAC.

Groundwater

Industrial operations have the potential to impact on the quality of groundwater draining to the Natura 2000 sites. Potential pollutants include hydrocarbons from the operation of machinery, organic leachate etc. The potential for groundwater transmission to the River Suir is addressed in the Hydrology Report (see Chapter 8 of EIAR).

The report states that there likely to be is hydraulic connectivity between the bedrock aquifer and the River Suir. However, there is no indication of any groundwater pollution associated with the existing operation. The GSI assigned aquifer vulnerability rating, (which indicates the potential susceptibility to contamination from pollution sources at the ground surface) is "Low". The River Basin Management Plan (RBMP) for Ireland 2018–2021 indicates the status of aquifer beneath the existing site is "Good". Bi-annual monitoring of two on-site well confirm that the groundwater quality is "Good" (see Chapter 8 of EIAR).

Habitats and botanical

The proposed site does not contain habitats or botanical communities linked with the qualifying interests of any of the other Natura 2000 sites in the wider area.

The spread of non-native invasive plant species to habitats within Natura 2000 sites is a potential threat to their conservation status. Such species can be spread through the movement of contaminated soils, or through hydrological links between sites. As outlined in Chapter 9 of the EIAR, no invasive plant species have been recorded at the site. The proposed works do not involve the importation of organic material such as soil. Given the absence of invasive species from the site at the time of survey, and the lack of requirement for soil importation on the project, the spread of alien invasive species such that an impact could occur at a Natura 2000 site is unlikely. The potential for effects on a Natura 2000 site as a result of the transmission of alien invasive species from the site is not considered further in this report.

Conservation Objectives documents are available on the NPWS website which shows the location of the habitats and species which are listed as qualifying interests of the Lower River Suir SAC[2] and River Barrow and River Nore SAC[3] Natura 2000 sites. This mapping illustrates the principal distribution of the qualifying interests of these SACs, although it is understood that for several of the qualifying interests (particularly the mobile species) the distribution is only indicative.

'Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)' is the most proximal known qualifying interest habitat to the Ormonde Organics site, being located at Fiddown Marsh, c. 300m upstream of the existing surface water discharge point. The Annex I habitat 'Hydrophilous tall herb fringe communities of plains and of the montane to alpine

[2] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002137.pdf
[3] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf

levels' has not been mapped in detail for Lower River Suir SAC but is considered to occur in association with the various areas of alluvial forest notably at Fiddown, described above.

Areas of Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) (and potential areas) are present approximately 24km downstream of the proposed works. Salt Marsh habitats are associated with brackish and coastal habitats and therefore will not be present in the freshwater parts of the River Suir.

'Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles' (91A0). This and other Annex I habitats are also located in a number of locations upstream of the proposed development, well outside of the zone of influence of the proposed works.

'*Taxus baccata* woods of the British Isles' has not been mapped in detail for Lower River Suir SAC, but is known to occur at Cahir Park, which is upstream and outside of the zone of influence of the proposed works.

Annex I marine habitats which are qualifying interests of the River Barrow and River Nore SAC, are located at and below the confluence of The River Suir and the Nore/Barrow Rivers. Annex I habitats occurring in this area include 'Estuaries' and 'Mudflats and sandflats not covered by seawater at low tide'. Given the nature and scale of the proposed works, the distribution of the qualifying habitats and the considerable dilution effects available, there is no likely impact on the marine habitats listed as qualifying interests of the Lower River Suir SAC and River Barrow and River Nore SAC. The potential for effects on marine habitats are not considered further in this report.

Other habitats which are qualifying interests of River Barrow and River Nore SAC occur upstream of the confluence of the River Suir and River Barrow and are therefore outside of the zone of influence of the proposed works.

Killarney Fern is qualifying interest plant species relevant to the River Barrow and River Nore SAC, but is located upstream of the confluence of the River Barrow and River Suir, and is therefore considered to be outside the potential zone of influence of the proposed development.

4.1.3 Potential for Indirect Impacts as a Result of Air Quality Deterioration

Wind-blown contamination could have a potential impact on the qualifying interests of a Natura 2000 site, should the material reach the site. Given the distance between the proposed facility and surrounding Natura 2000 sites, the scale of the proposed construction works and considering the results of ongoing air quality monitoring (see Chapter 10 of EIAR), it is considered that there is no likelihood of significant airborne contamination impacting on the qualifying interests of any Natura 2000 sites. The potential for effects on a Natura 2000 site as a result of airborne transmission of contaminants is not considered further in this report.

4.1.4 Disturbance / Displacement of Fauna

Of the species relevant to the Lower River Suir SAC (see Table 3.2), only Otter has the potential to occur on the proposed site. There are no watercourses present within or directly adjacent to the site. The settlement pond does not contain any natural habitat and is unlikely to provide attractive

foraging habitat for Otters. During site surveys carried out for the current assessment, and in previous ecological investigations (Dixon Brosnan 2012, 2018, 2019), there was no evidence of Otter occurring at the site, including the proposed development areas. However, it is possible that Otters may occur on the site occasionally. Disturbance and/or displacement of Otters could potentially be caused through noise or visual cues for example.

Impacts on other aquatic species within a Natura 2000 site could occur as a result of the proposed works, in the event that contaminants are transported downstream via the surface water discharge to the Lower River Suir. The relevant Annex II species which occur (at least occasionally) downstream of the proposed works include Sea, River and Brook Lamprey, Twaite Shad and Salmon (Table 3.2).

Freshwater Pearl Mussel are a qualifying interest of the Lower River Suir SAC. They are present in the Clodiagh Catchment, which is not hydrologically linked with the proposed works. White Clawed Crayfish also occur in the Clodiagh Catchment, and elsewhere in various locations significantly upstream of the proposed works (the closest recorded population being approximately 15km upstream) although the potentially devastating Crayfish Plague has been recorded on the river in recent times (www.biodiversityireland.ie). There is no likelihood of impact on either of these Annex II species.

Regarding populations of Annex II species associated with the River Barrow and River Nore SAC, Desmoulin's Whorl Snail, White-clawed Crayfish and Nore Freshwater Pearl Mussel, these populations are located upstream of the confluence of the River Barrow and River Suir, and is therefore outside the potential zone of influence of the proposed works. For impacts in a Natura 2000 site to occur there must be connectivity between the proposed site and the relevant qualifying interest (source receptor pathway). Impacts may be direct or indirect. There is no direct or indirect connectivity between the proposed site and the qualifying interests of the River Barrow and River Nore SAC, Hugginstown Fen SAC or Comeragh Mountains SAC, or any other Natura 2000 site and therefore no likelihood of significant impacts occurring.

The potential for significant impacts on the relevant qualifying features of the Lower River Suir SAC cannot be ruled out in the absence of mitigation measures. Specifically, potential issues are impact on water quality and on Otters. The proposed development therefore cannot be 'screened out' and is considered in greater detail in a Natura Impact Statement below.

4.2 Likely Impacts of the Project on the Natura 2000 Sites

As outlined in above, it is deemed that the extension and continued operation of the Ormonde Organics facility has the potential to impact the Lower River Suir SAC via hydrological connectivity without the implementation of adequate mitigation and environmental control measures.

4.2.1 Size, Scale & Land-take

The proposed facility, including the existing operation, is c. 6.8 hectares in area. There will be no direct impacts on any Natura 2000 site.

4.2.2 Distance from or Key Features of the Natura 2000 Sites

As described in Table 3.1 and shown in Figure A2.

4.2.3 Resource Requirements (water abstraction *etc.*)

There will be no resource requirements (including water abstraction) from Natura 2000 sites as a result of the proposed works.

4.2.4 Excavation Requirements

Not Applicable.

4.2.5 Emission (disposal to land, water or air)

Without adequate mitigation measures in place it is considered that the extension and continued operation of the facility has the potential to impact the Lower River Suir SAC (specifically potential downstream effects as a result of waterborne contamination). The potential for such impacts cannot be discounted without site-specific mitigation and environmental control measures being put in place during the construction and operation periods.

4.2.6 Transportation Requirements

Transport requirements during facility operations will use existing infrastructure and will not occur within the boundaries of any Natura 2000 sites.

The increase in capacity of the proposed facility from 40,000 to 80,000 tonnes of organic waste (annually) will increase the number of HGV trips by double from 41 to 82 (see Chapter 6). Currently HGV movement is associated with the delivery of material to the facility, and the export of solid waste for use as agricultural fertiliser (which displaces artificial fertiliser application which would otherwise occur). Therefore, there will be increases in the levels of HGV traffic associated with the proposed continuation and extension of the facility. As no additional staff are required, there will be no change to non-HGV traffic movements.

4.2.7 Duration of Operations

For the purposes of environmental assessment, the duration of operations at the proposed facility is assumed to be permanent.

4.2.8 Cumulative and In-combination Effects

Previously permitted works will be carried out at the Ormonde Organics site, concurrently with the proposed works. Appendix A shows the proposed site plan and identifies the existing, permitted and currently proposed elements of the project. The cumulative impact considers the potential impact of the currently proposed works in combination with the previously permitted but not yet implemented elements.

A review was undertaken of significant planning applications proximal to the study area and no planning applications which are relevant to the assessment of in-combination effects were found.

4.3 Likely Changes to the Natura 2000 Sites

As outlined above, it is deemed that the extension and continued operation of facility at the development site, without the implementation of adequate mitigation measures, could potentially result in indirect significant negative effects to the Lower River Suir SAC. A precautionary approach is taken in this assessment.

The likely changes which may occur, in the absence of adequate mitigation measures, are outlined below.

4.3.1 Reduction of Habitat Area

Without adequate mitigation measures in place, there is potential for a reduction in habitat area of relevant Annex I habitats within Lower River Suir SAC from the effects of run-off or discharge into the aquatic environment.

4.3.2 Disturbance to Key Species

As outlined in this report, disturbance (morbidity/mortality effects) to key species such as aquatic species e.g. Otter and Salmon could occur in the absence of mitigation.

4.3.3 Habitat or Species Fragmentation

Not applicable.

4.3.4 Reduction in Species Density

Damaging run-off could result in morbidity or mortality effects of aquatic species. This could lead directly to loss of individuals or indirectly impact the population through impacts on recruitment.

4.3.5 Changes in Key Indicators of Conservation Value (water quality *etc.*)

Without adequate mitigation measures in place, there is the potential for changes in water quality within the Lower River Suir SAC from the effects of run-off or discharge into the aquatic environment during the extension and continued operation of facility at the development site.

4.4 Likely Impacts on the Natura 2000 Sites as a Whole

Without the implementation of best practice environmental controls during construction, and adequate site-specific mitigation measures, there is some likelihood of significant effects on water quality within the Lower River Suir SAC, such that it may impact on certain aquatic species and habitats listed as qualifying interests of the site.

4.4.1 Interference with the Key Relationships that Define the Structure and Function of the Natura 2000 Sites

In the absence of adequate site-specific mitigation measures, it is considered that the extension and continued operation of facility at the development site has the potential to contribute towards likely negative effects that could potentially interfere with the structure and function of the Lower River Suir SAC.

4.5 Indicators of Significance as a Result of the Identification of Effects Set Out Above

As outlined in in the above sections, it is considered that significant effects could occur as a result of the extension and continued operation of the facility at this site which have the potential to impact on the Lower River Suir SAC. From this screening exercise the principal means by which such effects could occur would be by run-off or discharge of contaminants into the aquatic environment, This

could occur in the absence of or incorrect application of mitigation, including best practice environmental management measures.

4.5.1 Loss

Not applicable.

4.5.2 Fragmentation

Not applicable.

4.5.3 Disruption

Not applicable.

4.5.4 Disturbance

There is potential for temporary disturbance to habitats and key species as a result of water-quality deterioration in the absence of mitigation including best practice environmental management measures.

4.5.5 Change to Key Elements of the Site

Not applicable.

4.6 Elements of the Project Likely to Significantly Impact on the Natura 2000 Sites or where the Scale or Magnitude of Impacts are Unknown

The facility is hydrologically connected with the Lower River Suir SAC through an existing drainage outfall. We have adopted a precautionary approach in concluding that in the absence of any mitigation, that there is an appreciable potential for surface water contamination effects on the Lower River Suir SAC.

4.7 AA Screening Conclusion

It cannot be concluded that the proposed project, individually or in combination with other plans or projects, will not have a significant effect on the Lower River Suir SAC, without the consideration and analysis of further information.

Taking the above into consideration, it is considered that the following elements of the project may result in significant impacts the conservation objectives of the Lower River Suir SAC:

- Loss or deterioration of relevant habitats downstream
- Disturbance of relevant species locally and/or downstream.

Therefore a Stage 2 NIS is required and this is presented in Section 5 of this report.

5 Stage 2: Natura Impact Statement

This NIS provides the relevant scientific information to enable the competent authority (Waterford City and County Council) in carrying out its AA to determine whether or not the development would adversely affect the integrity of Natura 2000 sites.

A total of three Natura 2000 sites occur within 15km of the proposed facility extension site at Ormonde Organics (Tables 3.2, Figure A2) and one of these designated sites has been identified as having some potential to be impacted (indirectly) by the proposed facility development.

The potential for significant effects on the above identified qualifying interests and conservation objectives of the Lower River Suir SAC will be assessed in this NIS. The Lower River Suir SAC is designated for a diverse range of qualifying interests including Annex I habitats and Annex II aquatic species sensitive to water quality impacts.

As outlined in the Screening Assessment the proposed development site has an existing drainage outfall into the Lower River Suir SAC. The Conservation Objectives of this Natura 2000 site is to maintain or restore the favourable conservation condition of the qualifying interests for which the site has been designated. As discussed in the Screening Assessment, not all of these qualifying interests will be relevant in terms of potential impacts from the proposed development site. For example, there are many habitats located in estuarine and coastal environments only and which are considered to be outside the potential zone of influence given the large distances involved and the nature and scale of the proposed development. Similarly, some qualifying habitats or species of the SACs are not located downstream of the proposed development site, as they occur in different (sub) catchments within the SAC boundary. Other habitats are terrestrial in nature and therefore not subject to potential indirect hydrological impacts from the proposed development.

Only the qualifying interest species indicated as having a potential impact-receptor pathway to the proposed development site are relevant to this assessment. Many of these species require good water quality (minimum Q3-4) and are highly sensitive to siltation and vulnerable to pollution incidents. For example, the delicate gills of White-clawed crayfish are easily clogged by sediment and this may cause physio-pathological changes in the long term (Peay, 2000 in Reynolds 2010). Suspended solids also have the potential to physically abrade and mechanically disrupt the respiratory epithelia of larvae (Reynolds 2010).

Table 5.1 lists evaluates the impact-receptor pathway for each of the qualifying interests.

Table 5.1 Summary of the impact-receptor pathway for each of the qualifying interests.

Qualifying Interest	Potential impact-receptor pathway
• Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330]	Unlikely - distant (coastal distribution)
• Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	Unlikely - distant (coastal distribution)
• Water courses of plain to montane levels with the *Ranunculion fluitantis* and Callitricho-Batrachion vegetation [3260]	Possible - distribution poorly understood within the SAC
• Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	Possible - distribution poorly understood within the SAC, probably occurs upstream at Fiddown
• Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	No - this habitat does not occur in the vicinity and known distribution is upstream of the site
• Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0]	Unlikely - Occurs c. 300m upstream. No likelihood of significant impacts.
• *Taxus baccata* woods of the British Isles [91J0]	No - this habitat does not occur in the vicinity and known distribution is upstream of the site
• *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]	No - SAC population occurs on the Clodiagh River.
• *Austropotamobius pallipes* (White-clawed Crayfish) [1092]	Unlikely. White Clawed Crayfish known to occur in the Clodiagh Catchment, and elsewhere in various locations significantly upstream of the proposed development site (the closest recorded population being approximately 15km upstream). The potentially devastating Crayfish Plague has been recorded on the river in recent times (www.biodiversityireland.ie).
• *Petromyzon marinus* (Sea Lamprey) [1095]	Possible - water quality impacts could negatively impact the species
• *Lampetra planeri* (Brook Lamprey) [1096]	Possible - water quality impacts could negatively impact the species
• *Lampetra fluviatilis* (River Lamprey) [1099]	Possible - water quality impacts could negatively impact the species
• *Alosa fallax fallax* (Twaite Shad) [1103]	Possible - water quality impacts could negatively impact the species
• *Salmo salar* (Salmon) [1106]	Possible - water quality impacts could negatively impact the species
• *Lutra lutra* (Otter) [1355]	Possible - No evidence that the species occurs on site but this is a highly mobile, predominantly nocturnal species and it is possible that individuals occur on site from time-to-time. Wide diet, includes some species which could be potentially impacted by a pollution event.

5.1 Conservation Objectives

Conservation objectives are set to measure progress towards stated conservation targets for each qualifying interest of an SAC. These can be generic or site-specific in nature and draw upon the scientific knowledge on the distribution, area, conservation status etc. of a particular qualifying interest.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site. Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.
- The favourable conservation status of a species is achieved when:
    - population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
    - the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
    - there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The site-specific conservation objectives for the Lower River Suir SAC are available at:
https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002137.pdf

5.2 Impact Assessment

5.2.1 Characterising Impacts

The methodology for the assessment of impacts is derived from the Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites (EC, 2002). When describing changes/activities and impacts on ecosystem structure and function, the types of impacts that are commonly presented include the following:

- direct and indirect effects,
- short- and long-term effects,
- construction, operational and deconstruction / demolition effects, and
- isolated, interactive and cumulative effects.

Impacts that could potentially occur through the implementation of the project can be categorised under a number of impact categories as outlined in the EC 2002 document as follows:

- Loss/Reduction of habitat area,
- Disturbance to key species,
- Habitat or species fragmentation,
- Reduction in species density, and
- Changes in key indicators of conservation value such as decrease in water quality and quantity.

5.2.2 Meaning of 'Adversely Affect the Integrity of the Site'

The concept of the 'integrity of the site' is explained in the EU publication Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, as follows;

'It is clear from the context and from the purpose of the directive that the 'integrity of the site' relates to the site's conservation objectives. For example, it is possible that a plan or project will adversely affect the integrity of a site only in a visual sense or only habitat types or species other than those listed in Annex I or Annex II. In such cases, the effects do not amount to an adverse effect for purposes of Article 6(3), provided that the coherence of the network is not affected. On the other hand, the expression 'integrity of the site' shows that focus is here on the specific site. Thus, it is not allowed to destroy a site or part of it on the basis that the conservation status of the habitat types and species it hosts will anyway remain favourable within the European territory of the Member State.

As regards the connotation or meaning of 'integrity', this can be considered as a quality or condition of being whole or complete. In a dynamic ecological context, it can also be considered as having the sense of resilience and ability to evolve in ways that are favourable to conservation. The 'integrity of the site' has been usefully defined as 'the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified'

A site can be described as having a high degree of integrity where the inherent potential for meeting site conservation objectives is realised, the capacity for self-repair and self-renewal under dynamic conditions is maintained, and a minimum of external management support is required. When looking at the 'integrity of the site', it is therefore important to take into account a range of factors, including the possibility of effects manifesting themselves in the short, medium and long-term.

The integrity of the site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives.

5.2.3 Potential Effects from the Proposed Development to Qualifying Habitats and Species of Natura 2000 Sites within the Project Zone of Influence

Potential effects associated with the facility extension and continuation to the qualifying interests of the Lower River Suir SAC consist of the emissions of contaminated or silt-laden run-off from the via surface discharge. Such effects can result in indirect habitat deterioration and disturbance of key species of this Natura 2000 site as described above.

5.3 Mitigation Measures

The standard environmental control measures outlined below will be implemented during the construction phase to ensure that any impacts on the receiving environment will be avoided. This section should be read in conjunction with the mitigation commitments presented in the accompanying EIAR for the proposed development. The preliminary Construction Environment Management Plan (pCMEP) (O'Callaghan, Moran & Assoc., 2020b) provides information on the proposed construction methodology and collates all proposed mitigation measures for the construction phase. All mitigation committed to as part of the EIAR will be fully implemented. Specific measures related to the maintenance of surface water quality are outlined below.

5.3.1 Construction Phase

Surface-water Quality

Measures will be implemented to contain and treat all surface water during the construction phase and to treat this water so that it is discharged from the site at an appropriate level of quality. Measures will at a minimum include all relevant best practice measures contained within Control of Water Pollution from Construction Sites, Good Practice Guidelines (CIRIA, 2001). Measures will include the following:

- All machinery will be regularly inspected and maintained and all vehicles will carry mobile spill kits. Staff will be instructed in the proper use and disposal of spill kits.
- Through all stages of the construction phase the contractor will ensure that good housekeeping is maintained at all times and that all site personnel are made aware of the importance of the nearby aquatic environments and the requirement to avoid pollution of all types.
- Sufficient on-site cleaning of vehicles prior to arrival at, and upon leaving the site and on nearby roads, will be carried out, particularly during groundworks and works in vicinity of drains and watercourses.
- The Site Manager will be responsible for the pollution prevention programme and will ensure that at least daily checks are carried out to ensure compliance. A record of these checks will be maintained.

Disturbance/Displacement of Otters

Measures to avoid or minimise disturbance effects on Otters during construction works will include the following:

- Lighting design will ensure no light spill from the site to the nearby SAC. Lights near the site facilities are on a motion sensor and the rear of the site (closest to the SAC) remains mostly in darkness throughout the night-time period.
- During construction, deep excavations or areas of pooled water will be assessed on an ongoing basis to either provide escape ramps for fauna or adequate mammal-proof fencing of a minimum of 1.2m in height. Any temporary excavations will be checked on a daily basis during working periods to minimise the risk of animals becoming trapped.
- All edible and putrescible wastes will be stored and disposed of in an appropriate manner. Similarly, all construction materials will be stored and stockpiled at planned locations.

5.3.2 Operational Phase

During the operation phase, existing surface water capture, treatment and monitoring systems (described above and with an additional attenuation pond) will continue in operation. The system is considered to be robust and has been shown to have functioned well in the EPA mandated monitoring. This monitoring programme will continue into the operational phase of the expanded facility.

5.4 NIS Summary and Conclusion

5.4.1 Integrity of the Natura 2000 Sites within the Project Zone of Influence

Potential for any significant adverse effects will be resolved through the implementation of the mitigation commitments outlined in Section 5.3 above and as described in detail in the accompanying EIAR and pCEMP.

An 'Integrity of Site Checklist for Natura 2000 sites' considered in this Natura Impact Statement is presented in Table 5.2 below. This assessment includes consideration of the above mitigation measures.

Table 5.2: Integrity of Site Checklist for Natura 2000 Sites within the Project Zone of Influence

Conservation Objectives		
Does the project have the potential to:	**Yes or No**	**Comment**
Cause delays in progress towards achieving the conservation objectives of the site?	No	With the application of the proposed mitigation there will be no direct impacts to the QIs of the Natura 2000 site located within the project ZoI and considered in this NIS.
Interrupt progress towards achieving the conservation objectives of the site?	No	With the application of the mitigation measures the proposed development will not interrupt the achievement the site's Conservation Objectives or those factors that help maintain the favourable conditions of the site or interfere with the balance, distribution and density of key indicator species.
Disrupt those factors that help to maintain the favourable conditions of the site?	No	
Interfere with the balance, distribution and density of key species that are the indicators of the favourable condition of the site?	No	
Other Objectives: Does the project have the potential to:	**Yes or No**	**Comment**
Cause changes to the vital defining aspects (e.g. nutrient balance) that determine how the site functions as a habitat or ecosystem?	No	With the application of the mitigation measures the proposed development will not cause changes to the defining aspects or the dynamics of key relationships associated with the Lower River Suir SAC.
Change the dynamics of the relationships (between, for example, soil and water or plants and animals) that define the structure and/or function of the site?	No	
Interfere with predicted or expected natural changes to the site (such as water dynamics or chemical composition)?	No	Following application of the recommended mitigation measures the proposed development will not interfere with predicted or expected natural changes to the Lower River Suir SAC.
Reduce the area of key habitats?	No	With the application of the mitigation measures the proposed development will not result in the loss, reduction or change of key features associated with the Lower River Suir SAC, or reduce the diversity of the site.
Reduce the population of key species?	No	
Change the balance between key species?	No	
Reduce diversity of the site?	No	
Result in disturbance that could affect population size or density or the balance between key	No	With the application of the mitigation measures the proposed development will not result in disturbance that will affect population size or

Conservation Objectives		
Does the project have the potential to:	**Yes or No**	**Comment**
species?		densities of Qualifying features associated with the Natura 2000 site within the project ZoI.
Result in fragmentation?	No	There will be no fragmentation of the Natura 2000 site within the project ZoI.
Result in loss or reduction of key features (e.g. tree cover, tidal exposure, annual flooding, *etc*.)?	No	With the application of the mitigation measures the proposed development will not result in the loss or reduction of key features of the Lower River Suir SAC.

5.5 Conclusion

The Screening for AA (see **Section 4**) found that it could not be excluded, on the basis of objective scientific information that the proposed works, individually or in combination with other plans or projects, would have a significant effect on the Lower River Suir SAC. Therefore, a NIS (presented in **Section 5**) was required to ascertain whether the proposed works (with application of mitigation measures) would have an adverse effect on the integrity of the Natura 2000 sites.

Standard and recognised environmental control measures and appropriate site-specific mitigation measures (as outlined within **Section 5.3**) have been proposed to ensure that there is no adverse impacts on the relevant qualifying interests of the Lower River Suir SAC as a result of the construction and operation of an expanded Ormonde Organics facility.

It has been objectively concluded that the proposed facility activities will not adversely affect the integrity of any Natura 2000 site, and there is no reasonable scientific doubt in relation to this conclusion.

6 References

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Appendix A

Proposed Site Plan [Existing, Permitted and Proposed Elements]

A1

LEGEND

- SITE BOUNDARY
- PROPOSED STORAGE TANK or RELOCATED STORAGE TANK
- PREVIOUSLY PERMITTED STORAGE TANK (ref.19296) AND NOW TO BE RELOCATED
- EXISTING COVERED STORAGE TANK/VESSEL
- PERMITTED ROOFED BUILDING NOT YET CONSTRUCTED
- PERMITTED CONCRETE PAVEMENT NOT YET CONSTRUCTED
- PERMITTED BIOGSA DELIVERY PIPES, NOT YET CONSTRUCTED
- EXISTING ROOFED BUILDING
- PROPOSED ROOFED BUILDING
- PROPOSED CONCRETE PAVEMENT
- EXISTING GRASSED AREA
- EXISTING HEDGING AND WOODLAND
- EXISTING METAL MESH PERIMETER FENCE
- PROPOSED METAL MESH PERIMETER FENCE (to match existing)

PROPOSED SITE PLAN

SCALE 1:500

SITE AREA

SITE AREA = 6.43 Hactare or 64,330 sqm

Note:
ITM (Irish Transverse Mercator)
Co-ordinate System Used
North Sign Refers to Grid North
Level Tied to Ordnance Datum (Malin Head)
O.S. Sheet No. 5562-B 5497-D

NOTES:

1. DO NOT SCALE, USE FIGURED DIMENSIONS ONLY.
2. NO PART OF THIS DRAWING MAY BE REPRODUCED OR TRANSMITTED IN ANY FORM OR STORED IN ANY RETRIEVAL SYSTEM OF ANY NATURE WITHOUT THE WRITTEN PERMISSION OF BOWE CONSULTING ENGINEERS AS COPYWRITE HOLDER EXCEPT AS AGREED FOR USE ON THE PROJECT FOR WHICH THE DOCUMENT WAS ORIGINALLY ISSUED.

Issue register

Rev.	Date	Description	Dwg.	Chkd.	Appvd.
P	21.07.20	PLANNING	AD	IB	

Revision change notes

Rev.	Date	Description	Dwn.	Chkd.	Appvd.

PLANNING

Drawing Title: PROPOSED SITE PLAN		Client: ORMONDE ORGANICS	
		Job Description: PROPOSED EXTENSION TO EXISTING FACILITY, PORTLAW, CO.WATERFORD	
Date: 10/03/2020	Scale: 1:500	Project No: 20P1390	Drawing Ref: 02 / Rev: P
Drawn By: AD	Checked By: IB		

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