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APPROPRIATE ASSESSMENT

STAGE 1 SCREENING

ORMONDE ORGANICS LTD

PORTLAW

COUNTY WATERFORD

Prepared For: -

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Portlaw
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Project		Stage 1 Screening Assessment Change of ELV		
Client				
Report No.	Date	Status	Prepared By	Reviewed By
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1. INTRODUCTION

Ormonde Organics Ltd operates its biological treatment plant in Portlaw under Industrial Emissions Licence (IED) (W0287-01) issued by the Environmental Protection Agency (Agency) in October 2016.

Schedule B.1.2 of the licence specifies the emission limit values (ELV) for the exhaust gasses from the on-site CHP Plant Gas Engines. Condition 4.2 stipulates that the concentration and volume flow limits for emissions to atmosphere specified in the licence shall be achieved without the introduction of dilution air and shall be based on gas volumes under standard conditions of Temperature 273K, Pressure 101.3 kPa, dry gas; 3% oxygen for liquid and gas fuels, 6% oxygen for solid fuels.

The 3% oxygen value for gas fuels is not consistent with the requirements of the Industrial Emissions Directive (2010/75/EU) (the Directive). Ormonde Organics considers that the reference to 3% oxygen for gas fuels as applied to the gas engines to be a clerical error and requested the Agency to amend the wording of the Condition to bring it into conformance with the requirements of Part 2 of Annex V of the Directive i.e. all emission limit values shall be calculated at a temperature of 273.15 K, a pressure of 101.3kPa and after correction for the waste vapour content of the waste gasses at a standardised O₂ content of 15%.

The Agency has concluded that the alteration requires a Technical Amendment of the licence and this requires the completion of an Appropriate Assessment Screening report.

The European Union (EU) Habitats Directive (92/43/EC) and the EU Birds Directive (2009/147/EC) identify designated areas (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) respectively), are collectively known as European Sites and otherwise as Natura 2000 Sites.

The Habitats Directive, which is implemented under the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No 477 of 2011), requires an “appropriate assessment” of the potential impacts any proposed development that may have an impact on the conservation objectives of any Natura 2000 site.

Article 6(3) of the Directive stipulates that *any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but likely to have a significant effect thereon...shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives.*

Guidance documents issued by Department of Environment, Heritage and Local Government (DEHLG) and the National Parks and Wildlife Services (NPWS) recommend that the assessment be completed in a series of Stages, which comprise:

Stage 1: Screening

The purpose of this Stage is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in respect of the site’s conservation objectives.

Stage 2: Appropriate Assessment

This Stage is required if the Stage 1 Screening exercise identifies that the project is likely to have a significant impacts on a Natura 2000 site.

Stage 3: Assessment of Alternative Solutions.

If Stage 2 determines that the project will have an adverse impact upon the integrity of a Natura 2000 site, despite the implementation of mitigation measures, it must be objectively concluded that no alternative solutions exist before the plan can proceed.

Stage 4: Compensatory Measures:

Where no alternative solutions are feasible and where adverse impacts remain but imperative reasons of overriding public interest require the implementation of a project an assessment of compensatory measures that will effectively offset the damage to the Natura 2000 Site is required.

1.1 Methodology

The Screening Assessment was based on a site inspection and the proposed changes to facility operations. It followed the guidance presented The DEHLG (2009, revised February 2010) Appropriate Assessment of Plans and Projects in Ireland and the NPWS (2010) Circular NPW 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.

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2. DESCRIPTION OF PROJECT

2.1 Site Location

The facility is located at Killowen, approximately 3km north of Portlaw. 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.

2.2 Environmental Setting

2.2.1 Hydrology

The site is in the catchment of the River Suir, which is approximately 350m to the east of the site. Two unnamed tributaries of the Suir join the river approximately 500m to the north and south of the site, with the confluence of the River Clodiagh and the Suir approximately 2km to the south of the site. The stretch of the river to the east of the site is part of the Middle Suir. It is tidal and is categorised as a Transitional Water Body under the South East River Basin District (SERBD) Management Plan.

The River Suir is part of the IE_SE_SuirMain Water Management Unit (WMU) designated in the ERBD Management Plan prepared under the EU Water Framework Directive (WFD). The WMU comprises various Water Bodies and the site is in the Middle Sure River Water Body.

Reports have been prepared on the 'Status' of each water body. Status means the condition of the water in a watercourse and is defined by its ecological and chemical status, whichever is worse. Water bodies are ranked in one of five classes, High, Good, Moderate, Poor and Bad. The WFD requires measures to ensure waters achieve at least 'Good Status' by specified dates and that their current status does not deteriorate. Where necessary, for example in heavily impacted or modified watercourses, extended deadlines (2021 and 2027) can be set for achieving the following objectives:

- Prevent Deterioration
- Restore Good Status
- Reduce Chemical Pollution
- Achieve Protected Areas Objectives

The objectives for particular watercourses are based on Pressure and Impact Assessments of human activity, including point and diffuse emissions, land use and morphological conditions on surface waters to identify those water bodies that are 'At Risk' of failing to meet the WFD objectives.

2.2.2 Geology & Hydrogeology

The soils and subsoils comprise 0.3m of topsoil overlying approximately 2m of medium dense brown silty clayey sand with gravel and cobbles, which in turn was underlain by at least 2m of firm to stiff, brown, sandy, silty clay with some gravel, cobbles and the occasional boulder. The subsoils range

from 34m in the north central part of the site to 12.5 m in the north east of the site, thinning towards the river. The logs of wells installed at the site indicate the underlain by a heavily weathered limestone.

The subsoils are not significantly water bearing. The on-site production well provided a sustainable yield of 450m³/day to the former tannery. Given the reported yields, it is probable that the bedrock is Regionally Important Aquifer. The direction of groundwater flow is influenced by the topography and the proximity to the River Suir, and is expected to be predominantly from west to east. It appears that there is hydraulic connectivity between the bedrock aquifer and the River Suir.

The Geological Survey of Ireland (GSI) assigned aquifer vulnerability rating, which indicates the potential susceptibility to contamination from pollution sources at the ground surface, is Low and the information from the wells installed at the site confirm this rating.

The aquifer is part of the Carrick-on-Suir Groundwater Body (IE_SE_G_030). The condition of a groundwater Water Body is defined by its chemical and quantitative status, whichever is worse, and groundwater quality is ranked in one of two status classes: Good or Poor. The Dublin Area Water Body is categorised as being of 'Good' status, but is 'At Risk' of achieving its objective of protecting the existing status.

2.3 Surrounding Land Use

Lands surrounding the site are used for agricultural purposes and the immediate east and south of the site are planted with dense deciduous trees. The nearest dwellings in the vicinity of the site are located along the R680 and there are no dwellings within 250 metres of the site. The stretch of the River Suir to the east of the site is designated as a Special Area of Conservation (Lower Suir River SAC Site code 002137).

The nearest domestic resident is more than 250 metres from the northwest existing site boundary. The anaerobic digestion plant is to the east of the composting plant and approximately 400m from the residence.

2.4 Site Layout

The site comprises -

- Compost Building, comprising
 - Waste Reception Areas ;
 - 11 No enclosed Forced Aeration Composting Bays;
 - Maturation Area (Bay 12);
 - Screening Area;
 - Offices.
- Building No. 2 linking to the southeast side of the Compost Building, comprising 2 No. pasteurisation areas, 5 No. maturation bays and a workshop.
- 3 No. above ground Anaerobic Digester (AD) Tanks (each 1800m³) for the treatment of 20,000 tonnes per annum of non-hazardous organic waste and biomass.
- 3 No tanks for storage of incoming organic waste and/or digestate from the AD.

- Building No. 3(A) to the southeast of the AD tanks, comprising an organic waste reception area.
- Combined Heat and Power (CHP) generator, comprising 3 No gas engines.
- A drier building (Building No. 3B) and adjacent gas flare stack associated with the CHP Plant.
- A new agricultural silage pit/ biomass storage area to the southeast of Building No. 3 with associated underground effluent storage tank.
- Odour Abatement System (Biofilter) located to the south east of the Compost Building.
- Odour Abatement System (Biofilter) to the southwest of Building No. 2.
- Maintenance Workshop to the rear of the Compost Building.
- Weighbridge.
- Natural Gas (Bord Gais) Substation.
- Security Fencing.
- Paved open yards, bunded fuel storage areas and landscaped areas.

2.5 Site Operations

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

- Municipal wastewater treatment sludge,
- Household biodegradable kitchen and canteen waste.
- Other biodegradable waste (Garden & Park Waste).
- Septic Tank Sludge.
- Non-hazardous industrial and water treatment sludge.

Household kitchen and canteen waste contains animal by-products (ABP), for example uncooked meat, that are subject to regulation by the Department of Agriculture, Fisheries and Food (DAFF). Ormonde Organics has initiated the DAFF approval process and will not accept any wastes containing ABP until the DAFF approval has been obtained.

2.6 Operational Hours

The licence authorises operations 24 hours, 7 day weeks a day.

2.7 Drainage

2.7.1 Foul Water

Sanitary wastewater is directed to the on-site septic tank, with the effluent from the tank distributed across a percolation area. This is the only direct emission to ground at the site.

2.7.2 Surface Water

Surface water run-off from the paved areas and building roofs discharges, via an oil interceptor to the River Suir.

2.8 Chemicals/Oil

All waste storage and processing is carried out inside the buildings. Diesel for the mobile plant is stored in 5000 litre above ground bunded storage tank located beneath a canopy adjoining the Workshop. A second oil storage tank is located in a bund on the western side of the Compost Building, 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.

Ormonde Organics has developed site specific procedures to deal with spills and any emergencies that may arise to ensure that the appropriate response actions are taken by trained staff to minimise any associated environmental impacts.

2.9 Emissions

The actual and potential emissions from the facility include noise, dust, exhaust gases from vehicles and mobile plant, odours, bioaerosols, surface water run-off and sanitary wastewater. Leachate generated during the composting processes is collected and stored in tanks located outside the building and there is no direct or indirect connection with the surface water drainage system.

Noise

Noise emission sources include the waste and finished product transport vehicles, the mobile plant, air compressors and air extraction fans. The closest noise sensitive location is 250m from the site boundary.

Dust

Potential dust sources include vehicle movement over the concrete yards during dry periods and during the screening of the finished product. The screening is carried out inside the building, which minimises the risk of dust emissions to atmosphere.

Odours

The incoming wastes and the treatment processes are a source of odours. The composting process is also a source of bioaerosols. The odour control system comprises an air extraction system that directs odorous air and bioaerosols via ducts to odour abatement systems, which comprises wet scrubbers and two biofilters. The abatement system is subject to a routine maintenance

programme, which includes bi-annual air flow rate measurements and olefactometry testing at the surface of the biofilters.

Surface Water

Surface water run-off from the paved areas and building roofs discharges, via an oil interceptor to the River Suir.

Sanitary Wastewater

Sanitary wastewater is directed to the on-site septic tank, with the effluent from the tank distributed across a percolation area. This is the only direct emission to ground at the site.

2.10 Emergencies

An emergency is an accident/incident that has the potential to result in environmental pollution and harm to human health & safety. Ormonde Organics has adopted an Emergency Response Procedure (ERP) that identifies potential hazards at the site that may cause damage to the environment and also specifies the roles, responsibilities and actions required to deal quickly and efficiently with all foreseeable major incidents and to minimise environmental impacts.

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3. NATURA 2000 SITES

SACs are selected for the conservation and protection of habitats listed on Annex I and species (other than birds) listed on Annex II of the Habitats Directive, and their habitats. SPAs are selected for the conservation and protection of bird species listed on Annex I of the Birds Directive and regularly occurring migratory species, and their habitats, particularly wetlands. The selected habitats and species are termed Qualifying Interests.

A statement of Conservation Objectives is prepared for each designated site which identifies the qualifying interests or conservation features. The Conservation Objectives are intended to ensure that the relevant habitats and species present on a site are maintained, and where necessary restored, at a Favourable Conservation Status. Favourable Conservation Status of a habitat, as defined in 2011 Birds and Natural Habitats Regulations, is 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

Conservation Status of a species is when:

- the favourable population dynamics data on the species concerned indicates that it is maintaining itself on a long-term basis as a viable component of its natural habitats,
- 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 designated SACs and SPAs within 15km of the site that could potentially be affected by the proposed changes are listed in Table 3 1. The closest site is the Lower River Suir SAC, which is 350 m east of the facility. There are no SPAs within 15 km of the facility.

Table 3.1. Natura 2000 Sites within 15 km of the SEHL Facility

Site	Code	Distance
SAC		
Lower River Suir SAC	002137	0.35 m east
Hugginstown Fen SAC	000404	13.0 km northeast
Comeragh Mountains SAC	001952	14.5 km southwest

3.1 SAC

Lower River Suir SAC

Lower River Suir SAC consists of the freshwater stretches of the River Suir immediately south of Thurles, the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford, and many tributaries including the Clodiagh in Co. Waterford, the Lingaun, Anner, Nier, Tar, Aherlow, Multeen and Clodiagh in Co. Tipperary. The Suir and its tributaries flow through the counties of Tipperary, Kilkenny and Waterford.

The Site Synopsis, which lists the full Qualifying Interests and the Conservation Objectives are accessible at <https://www.npws.ie/protected-sites/sac/002137> and the information is summarised below.

Qualifying Interests

Species/Habitat	Code
Atlantic Salt Meadows	1330
Mediterranean Salt Meadows	1410
Floating River Vegetation	3260
Hydrophilous Tall Herb Communities	6430
Old Oak Woodlands	91A0
Alluvial Forests*	91E0
Yew Woodlands*	91J0
Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)	1029
White-clawed Crayfish (<i>Austropotamobius pallipes</i>)	1092
Sea Lamprey (<i>Petromyzon marinus</i>)	1095
Brook Lamprey (<i>Lampetra planeri</i>)	1096
River Lamprey (<i>Lampetra fluviatilis</i>)	1099
Twaite Shad (<i>Alosa fallax</i>)	1103
Atlantic Salmon (<i>Salmo salar</i>)	1106
Otter (<i>Lutra lutra</i>)	1355

* Denotes a priority habitat

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Hugginstown Fen SAC

Hugginstown Fen is situated approximately 4 km south-west of Ballyhale, Co. Kilkenny. The site consists of a relatively large, isolated area of swamp and floating fen developed in a small valley in hilly country. It is underlain by limestone glacial till overlying and surrounded by acid Old Red Sandstone. The catchment is relatively small and iron-rich springs are an important source of water for the wetland.

The Site Synopsis, which lists the full Qualifying Interests and the Conservation Objectives are accessible at <https://www.npws.ie/protected-sites/sac/000404> and the information is summarised below.

Qualifying Interests

Species/Habitat	Code
Alkaline Fens	7230

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:

Commeragh Mountains SAC

The Comeragh Mountains are situated approximately 11 km south-west of Carrick-on-Suir in Co. Waterford. They consist of a plateau of Old Red Sandstone with its edges deeply scarred by recent glaciation. Corries and deep valleys are cut into the eastern and western sides leaving a central ridge with a width reduced to 270 m at its narrowest point. The rocks, which are horizontally-bedded, stand out as a series of terraces around these corries, which often house small mountain lakes such as Coumshingaun, the Sgilloge Loughs, the Coum Iarthar Loughs and Crotty's Lough.

The Site Synopsis, which lists the full Qualifying Interests and the Conservation Objectives are accessible at <https://www.npws.ie/protected-sites/sac/001952> and the information is summarised below.

Qualifying Interests

Species/Habitat	Code
Oligotrophic Waters containing very few minerals	3110
Floating River Vegetation	3260
Wet Heath	4010
Dry Heath	4030
Alpine and Subalpine Heaths	4060
Siliceous Scree	8110
Calcareous Rocky Slopes	8210
Siliceous Rocky Slopes	8220
Slender Green Feather-moss (<i>Drepanocladus vernicosus</i>)	1393

Conservation Objectives

The conservation objectives are to maintain or restore the favorable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

4. LIKELY EFFECTS

4.1 Direct Effects

The installation is not located within or adjoining to a Natura 2000 Site and the proposed development will not result in any direct habitat loss or fragmentation of any SPA or SAC.

4.2 Indirect Effects

The proposed development will not result in any new processes, there will be no changes to the existing emissions and it will not give rise to any new direct or indirect emission to air, surface water, ground or the foul sewer. There will be no change to the authorised operational hours.

4.3 Assessment of Effects

The assessment of the effects was based on the source- pathway- and receptor model. The source, is the location where an effect can arise i.e. the installation. The pathway is the means by which the effect can travel through the environment e.g. atmosphere, surface water and groundwater. The receptors are the Natura 2000 Sites.

A Natura Impact Statement (NIS) prepared in 2016 as part of the licence application concluded that the installation will not have an adverse effect on the integrity of the Lower River Suir SAC or any other Natura 2000 sites. As the proposed change in the ELV will not result in any changes to the emissions from the installation it will have no adverse effect on the Lower Suir SAC.

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5. SCREENING CONCLUSION & STATEMENT

5.1 Conclusion

The proposed changes will not have any direct or indirect effects on a Natura 2002 Site.

5.2 Statement

The proposed development does not present a risk of significant effects on the Qualifying Interests and Conservation Objectives of any Natura 2000 Sites.

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