

Table of Contents

NON TECHNICAL SUMMARY

SECTION 1 INTRODUCTION

1.1	Overview of the Proposed Development	1-1
1.1.1	Introduction	1-1
1.1.2	Composting Facility Overview	1-1
1.2	Facility Design Parameters	1-3
1.3	Site Facilities	1-3
1.4	Traffic and Access	1-4
1.5	Location and Setting	1-5
1.6	Existing Land Use	1-5
1.7	Infrastructure	1-5
1.8	Planning Context	1-5
1.8.1	Kildare Development Plan	1-5
1.8.1.1	Policy	1-6
1.9	Waste Strategies	1-7
1.9.1	National Waste Management Policy	1-7
1.9.2	Kildare Waste Management Plan	1-10
1.9.2.1	General Policy on Waste Management	1-10
1.9.2.2	The Proximity Principle	1-11
1.10	Alternatives	1-12
1.10.1	Alternative Waste Management Practices	1-12
1.10.2	Alternative Sites	1-12
1.10.3	The Do-Nothing Alternative	1-12
1.11	Requirements for and EIS	1-13
1.12	Structure of the EIS	1-13
1.13	Contributors to the EIS	1-14
1.14	Scoping of the EIS	1-14
1.15	Data Necessary to Identify and Assess Environmental Effects of Development	1-15
1.16	Difficulties Compiling Specified Information	1-15
1.17	Forecasting Methods used to Assess the Effects on the Environment	1-15

Consent of copyright holder is required for any other use.

SECTION 2 DESCRIPTION OF RECEIVING ENVIRONMENT

2.1	Climate	2-1
2.1.1	Rainfall	2-1
2.1.2	Wind	2-2
2.1.3	Temperature	2-2
2.2	Air Quality	2-3
2.2.1	Introduction	2-3
2.2.2	Survey Protocol	2-3
2.2.3	Assessment Criteria	2-4
2.2.4	Sampling Methodologies	2-5
	2.2.4.1 Dust Deposition	2-5
2.2.5	Results	2-5
2.2.6	Discussion of Results	2-6
	2.2.6.1 Dust Deposition	2-6
	2.2.6.2 Boiler Emission Results	2-6
2.3	Noise	2-7
2.3.1	Introduction	2-7
2.3.2	Existing Noise Environment	2-7
	2.3.2.1 Existing Noise Sources	2-7
	2.3.2.2 Measurement Locations	2-7
	2.3.2.3 Instrumentation	2-8
	2.3.2.4 Survey Implementation	2-8
	2.3.2.5 Meteorological Conditions	2-8
	2.3.2.6 Results	2-9
	2.3.2.7 Discussion	2-10
2.4	Soils and Geology	2-13
2.4.1	Regional Geology	2-13
	2.4.1.1 Solid Geology	2-13
	2.4.1.2 Unconsolidated Geology	2-13
2.4.2	Local Geology	2-14
	2.4.2.1 Solid Geology	2-14
	2.4.2.2 Unconsolidated Geology	2-14
2.5	Groundwater/Hydrogeology	2-15
2.5.1	Regional Hydrogeology	2-15
2.5.2	Overburden Hydrogeology	2-15
2.5.3	Bedrock Hydrogeology	2-15
2.5.4	Vulnerability of Aquifers	2-16

2.5.5	Groundwater Quality	2-18
2.6	Surface Water	2-20
2.6.1	Surface Water Features	2-20
2.6.2	Drainage System	2-20
2.6.2.1	Mushroom Growing Areas	2-20
2.6.2.2	Composting Areas	2-20
2.6.2.3	Sewage Effluent Management	2-21
2.6.3	Quantity and Rate of Discharge	2-21
2.6.3.1	Composition and Level of Discharge	2-21
2.7	Flora and Fauna	2-23
2.7.1	Environmentally Designated Sites	2-23
2.7.2	Regional Ecology	2-23
2.7.3	Local Ecology	2-23
2.8	Human Beings and Local Population	2-25
2.8.1	Land Use	2-25
2.8.2	Housing Density	2-25
2.8.3	Population Statistics	2-25
2.8.4	Employment	2-26
2.8.5	Human Health and Safety	2-26
2.8.6	Other Potential Impacts	2-26
2.9	Roads and Traffic	2-27
2.9.1	Introduction	2-27
2.9.2	Existing Conditions	2-27
2.9.2.1	Road Access	2-27
2.9.2.2	General Location in Relation to Road Networks	2-28
2.9.2.3	Current Local Authority Policy and Roads Objective	2-28
2.9.3	Quantification of Current Traffic Flows	2-30
2.9.3.1	Threshold for Traffic Assessment	2-30
2.9.3.2	Data Collection – Traffic Survey	2-31
2.9.3.2.1	Extent of Traffic Surveys	2-31
2.9.3.2.2	Identification of the Road Network (R403) Peak	2-33
2.9.3.2.3	Traffic Generation of the Existing Site	2-34
2.10	Landscape and Visual Assessment	2-38
2.10.1	Scope and Methodology	2-38
2.10.2	General Landscape Character	2-38
2.10.3	The Existing Site	2-39

Consent of copyright owner required for any other use.

2.10.4	Visibility	2-40
2.10.5	Site Vegetation	2-40
2.10.6	Landscape Planning	2-41
	2.10.6.1 Kildare County Development Plan Site Vegetation 2005	2-41
	2.10.6.2. Designated Views & Aspects	2-41
2.10.7	Photographic Record	2-41
2.11	Cultural Heritage	2-42
2.11.1	Site Location	2-42
2.11.2	Characteristic of the Proposed Development	2-42
2.11.3	Baseline Archaeological Data	2-42
	2.11.3.1 Recorded Archaeological Sites and Monuments	2-42
	2.11.3.2 Recorded Archaeological Finds	2-43
2.11.4	Archaeological Significance of the Site	2-43
2.12.	Material Assets	2-44
2.12.1	Introduction	2-44
2.12.2	Industry	2-44
2.12.3	Infrastructure	2-44
2.12.4	Tourism	2-45
SECTION 3	DESCRIPTION OF SITE	
3.1	General	3-1
3.1.1	Current Position	3-1
3.1.2	Proposed development	3-2
3.2	Facility Design	3-4
3.2.1	Infrastructure	3-4
	3.2.1.1 Facility Security Arrangements	3-4
	3.2.1.2 Design for Facility Roads	3-4
	3.2.1.3 Design of Hard Standing Areas	3-4
	3.2.1.4 Weighbridge	3-4
	3.2.1.5 Wheelwash	3-5
	3.2.1.6 Fuel Storage	3-5
	3.2.1.7 Materials Inspection	3-5
	3.2.1.8 Traffic Control	3-6
	3.2.1.9 All Services	3-6
	3.2.1.10 Sewerage and Surface Water Drainage Infrastructure	3-6
	3.2.1.11 Aeration Equipment	3-7

3.2.1.12	Facility Accommodation	3-8
3.2.1.13	Fire control System	3-8
3.2.1.14	Generators	3-8
3.2.1.15	Boilers	3-8
3.2.1.16	Other Infrastructure	3-8
3.3	Facility Operation	3-9
3.3.1	Overview	3-9
3.3.2	Raw Materials	3-9
3.3.3	Facility Processes	3-9
3.4	Materials Management	3-11
3.4.1	Waste Acceptance and Handling	3-11
3.4.1.1	Hours of Opening	3-11
3.4.2.2	Staffing	3-11
3.4.2	Existing Material Types and Quantities	3-11
3.4.3	Proposed Quantities of Materials	3-12
3.4.4	Material Acceptance Procedures	3-12
3.4.5	Materials Handling	3-13
3.5	Other Raw Material and Energy	3-14
3.5.1	Plant Used on Site	3-14
3.6	Environmental Nuisances and Emissions	3-15
3.6.1.	Aerosol Control	3-15
3.6.2	Bird Control	3-15
3.6.3	Dust Control	3-15
3.6.4	Fire Control	3-16
3.6.5	Odour Control	3-16
3.6.6	Roads Cleansing	3-17
3.6.7	Traffic Control	3-17
3.6.8	Vermin Control	3-18
3.6.9	Emission to Groundwater	3-18
3.6.10	Emissions to Surface Water	3-19
3.6.11	Noise Emissions	3-20
3.7	Environmental Monitoring	3-21
3.7.1	Dust Monitoring	3-21
3.7.2	Ecological Monitoring	3-21
3.7.3	Groundwater Monitoring	3-21

For inspection purposes only.
Consent of copyright owner required for any other use.

3.7.4	Odour Monitoring	3-21
3.7.5	Meteorological Data Monitoring	3-21
3.7.6	Noise Monitoring	3-22
3.7.7	Surface Water Monitoring	3-22
3.8	Decommissioning and Aftercare	3-23
3.8.1	Decommissioning	3-23
3.8.2	Aftercare Management Plan	3-23
3.9	Contingency Planning	3-24
3.9.1	Emergency Response Procedures	3-24
3.9.1.1	Purpose	3-24
3.9.1.2	Responsibility	3-24
3.9.1.3	Procedures	3-24
3.9.2	Health and Safety	3-24
3.9.3	Oil Spill/Leachate Spill	3-24
3.9.4	Breakdown of Equipment	3-25
3.9.5	Fire	3-25
3.9.6	Other Emergencies	3-26
3.10	Conditioning Plan	3-27
3.10.1	Improvements to Infrastructure	3-27

SECTION 4 POTENTIAL IMPACTS AND MITIGATIONS MEASURES

4.1	Climate	4-1
4.2	Air Quality	4-2
4.2.1	Construction Phase	4-2
4.2.1.1	Generation of Dust	4-2
4.2.1.2	Construction Related Traffic	4-2
4.2.2	Operational Phase	4-3
4.2.2.1	Proposed Facility	4-3
4.2.1.2.1	Main Potential Emissions	4-3
4.2.1.2.2	Minor Potential Emissions	4-7
4.2.2.2	Development Related Traffic	4-8
4.2.3	Mitigation Measures	4-9
4.2.3.1	Construction Phase	4-9
4.2.3.1.1	Generation of Dust	4-9
4.2.3.1.2	Traffic Emissions	4-10

4.2.3.2	Operational Phase	4-10
4.2.3.2.1	Emissions from the Plant	4-10
4.2.3.2.2	Traffic Emissions	4-11
4.2.4	Interactions	4-11
24.2.5	References	4-12
4.3	Potential Impact of Noise Development	4-13
4.3.1	Potential Impacts during the Construction Phase	4-13
4.3.1.1	Noise Impacts	4-13
4.3.1.2	Vibration Impact	4-14
4.3.1.3	Potential Impacts from the Operation Phase	4-15
4.3.2	Mitigation Measures	4-17
4.3.2.1	Noise	4-17
4.3.2.2	Vibrations	4-20
4.3.3	Residual Impact	4-20
4.3.4	Interactions	4-20
4.3.5	References	4-21
4.4	Soils and Geology	4-22
4.4.1	Potential Impacts	4-22
4.4.2	Mitigation Measures	4-22
4.4.3	Likely Significant Effects	4-22
4.5	Groundwater	4-23
4.5.1	Sources of Contamination	4-23
4.5.2	Mitigation Measures and Likely Significant Effects	4-23
4.6	Surface Water	4-25
4.6.1	Potential Impacts	4-25
4.6.2	Potential Surface Water Receptors	4-25
4.6.3	Mitigation	4-25
4.6.4	Likely Significant Effects	4-26
4.7	Flora and Fauna	4-27
4.7.1	Potential Impacts and Mitigation Measures	4-27
4.8	Human Beings	4-28
4.8.1	Potential Impacts	4-28
4.8.1.1	Vermin	4-28
4.8.1.2	Human Health	4-28
4.8.1.3	Employment	4-29

For inspection purposes only.
Consent of copyright owner required for any other use.

4.8.2	Likely Significant Effects	4-29
4.9	Roads and Traffic	4-30
4.9.1	Introduction	4-30
4.9.2	Proposed Development Traffic Generation	4-30
4.9.3	Construction Related Traffic Activities	4-33
4.9.4	Assessment Years and Estimation of Traffic Growth	4-33
4.9.4.1	General	4-33
4.9.4.2	Forecast Traffic Impact of Proposed Development	4-33
4.9.4.3	Forecast Peak Hour Traffic – R403 Past Site Access	4-34
4.9.5	Proposed Development Access	4-35
4.9.5.1	Relevant Design Standards	4-35
4.9.5.2	Access Capacity	4-36
4.9.5.3	Stopping Sight Distance	4-36
4.9.5.4	Visibility Criteria in According with NRA-DMRB	4-36
4.9.5.5	Appraisal of Visibility Sightlines at Existing Access	4-37
4.9.5.6	Forward Visibility R403 Approaches to Proposed Access	4-38
4.9.6	Conclusion	4-38
4.10	Landscape and Visual Amenities	4-39
4.10.1	Specific Characteristics of the Proposal	4-39
4.10.2	Potential Impacts and Mitigation Measures	4-39
4.10.2.1	Landscape Character and Visibility	4-39
4.10.3	Likely Significant Effects	4-40
4.11	Cultural Heritage	4-41
4.11.1	Potential Impact of the Proposed development	4-41
4.11.2	Recommended Avoidance, Remedial or Reductive Measures	4-41
4.12	Material Assets	4-42
4.12.1	Potential Impacts	4-42
4.13	Interactions	4-43

FIGURES IN SECTION 1

- Figure 1.1.1 Site Location
- Figure 1.1.2 Existing Site Layout
- Figure 1.1.3 Proposed Site Layout

FIGURES IN SECTION 2

- Figure 2.1.1 Percentage Frequency of Occurrence of Wind Directions
- Figure 2.2.1 Monitoring Locations
- Figure 2.4.1 Local Geology
- Figure 2.6.1 Surface Water Monitoring Locations
- Figure 2.9.1 Current Access Layout for Existing Site
- Figure 2.10.1 Housing Survey and Photo-point Locations

FIGURES IN SECTION 3

Reference made to Figures 1.1.1 to 1.1.3

FIGURES IN SECTION 4

- Figure 4.2.1 Maximum Plum Spread

TABLES

- Table 2.1.1 Average Annual Rainfall
 - Table 2.2.1 Description of Sampling Locations
 - Table 2.2.2 Odour Annoyance Criteria for Dispersion Modelling
 - Table 2.2.3 Dust Deposition Results
 - Table 2.2.4 Flue Gas Monitoring of Emission Point A1-1
 - Table 2.3.1 Daytime Noise Survey Results
 - Table 2.3.2 Night time Noise Survey Results
 - Table 2.5.1 Hydro-geological Characteristics
 - Table 2.5.2 Vulnerability Classification
 - Table 2.5.3 Ground Water Monitoring Results
 - Table 2.8.1 Population Statistics
 - Table 2.9.1 Vehicle Movements on R403 (AM and PM Peak 2005)
 - Table 2.9.2 Vehicle Movements to/from site and R403
 - Table 2.9.3 Existing Traffic Generation Arising from Composting Operations
 - Table 2.11.1 Archaeological Features within the Surrounding Area
-
- Table 4.2.1 Source and Type of Emissions at the Proposed Facility
 - Table 4.2.2 Modelling Input data
 - Table 4.2.3 Air Dispersion Modelling Results for the Phase 1 Emission Point

Table 4.3.1	Significance Criteria for Construction Noise Effects
Table 4.3.2	Allowable Peak Particle Velocity at the Closest Part of Any Sensitive Receptor
Table 4.3.3	Main noise sources associated with operational phase
Table 4.9.1	Future Traffic Generation Arising from Proposed Development
Table 4.13.1	Impacts and Effects on Interactions between Environmental Media

APPENDIX SECTION 5

Appendix 2.3.1	Noise Calibration Certificate and Noise Glossary
Appendix 2.3.2	Noise Graphs
Appendix 2.6.1	Surface Water Sampling Results
Appendix 2.9.1	Traffic Information
Appendix 2.10.1	Photo-plates

ENGINEER DRAWINGS SECTION 6

3154 CPL -'06 1.01	Site location Plan
3154 CPL -'06 1.02	Site Layout Plan 1
3154 CPL -'06 1.03	Site Layout Plan 2
3154 CPL -'06 1.04	Site Notice Plan
3154 CPL -'06 2.01	Bunker Building Floor Plan
3154 CPL -'06 2.02	Bunker Building Roof Plan
3154 CPL -'06 2.03	Bunker Building Elevations
3154 CPL -'06 2.04	Bunker Building Sections
3154 CPL -'06 3.01	Tunnel Building Floor Plan
3154 CPL -'06 3.02	Tunnel Building Roof Plan
3154 CPL -'06 3.03	Tunnel Building Elevations
3154 CPL -'06 3.04	Tunnel Building Sections

For inspection purposes only. Copyright owner required for any other use.