

TABLE OF CONTENTS

	<u>PAGE</u>
NON-TECHNICAL SUMMARY	X
PREAMBLE	XX
1. INTRODUCTION.....	1
1.1 GREENSTAR.....	1
1.2 EXISTING OPERATIONS.....	1
1.3 SITE LAYOUT	2
1.4 PROPOSED ACTIVITIES	2
1.4.1 <i>Increases in Waste Inputs</i>	3
1.4.2 <i>Biowaste Treatment</i>	3
1.4.3 <i>Capping System</i>	3
1.4.4 <i>Process and Sanitary Wastewater</i>	3
1.4.5 <i>Operational Hours</i>	4
1.4.6 <i>Other Changes</i>	4
2. PLANNING POLICY AND CONTEXT.....	5
2.1 INTRODUCTION.....	5
2.2 NATIONAL WASTE MANAGEMENT POLICY	5
2.3 REGIONAL WASTE MANAGEMENT POLICY.....	6
2.3.1 <i>Wicklow Waste Management Plan 2000 - 2004</i>	6
2.3.2 <i>Draft Wicklow County Development Plan, 2004 - 2010</i>	6
2.4 WASTE LICENCE	7
2.5 NEED FOR THE DEVELOPMENT	7
3. ALTERNATIVES	9
3.1 INTRODUCTION.....	9
3.2 ALTERNATIVE LOCATIONS	9
3.3 ALTERNATIVE SITE LAYOUTS	10
3.4 ALTERNATIVE MATERIALS RECOVERY & TRANSFER PROCESSES	10
3.5 ALTERNATIVE BIOWASTE TREATMENT PROCESSES	10
3.5.1 <i>Preferred Technology</i>	12
3.6 "DO NOTHING" SCENARIO	13
4. FACILITY DESCRIPTION	14
4.1 INTRODUCTION.....	14
4.2 FACILITY LOCATION	14
4.3 SITE HISTORY.....	14
4.4 TOPOGRAPHY & SURROUNDING LAND USE	16
5. PROJECT DESCRIPTION	18
5.1 INTRODUCTION.....	18
5.2 PROPOSED CHANGES	18

5.3	MATERIALS RECOVERY AND TRANSFER	18
5.4	BIOWASTE TREATMENT PLANT	20
5.4.1	<i>Process Description</i>	20
5.4.2	<i>Product Quality</i>	24
5.5	HOURS OF ACCEPTANCE/ HOURS OF OPERATION	25
5.6	SITE ACCESS	25
5.7	WASTE TYPES AND VOLUMES	26
5.8	WASTE ACCEPTANCE PROCEDURES	26
5.9	WASTE HANDLING	27
5.9.1	<i>Non Biodegradable Household and Commercial Waste</i>	27
5.9.2	<i>C & D Waste</i>	27
5.9.3	<i>Wood, Timber and Green Waste</i>	28
5.9.4	<i>Biowaste</i>	28
5.9.5	<i>Civic Amenity Facilities</i>	28
5.10	FACILITY MANAGERMENTS	28
5.11	EQUIPMENT	29
5.12	SAFETY AND HAZARD CONTROL	30
5.13	OIL STORAGE	30
5.14	WATER SUPPLY	30
5.15	SURFACE WATER MANAGEMENT	30
5.16	WASTEWATER	31
5.16.1	<i>Current System</i>	31
5.16.2	<i>Proposed System</i>	31
5.16.3	<i>Volume and Quality</i>	32
5.17	WASTE GENERATION	32
5.18	AIR MANAGEMENT	33
5.19	NUISANCE CONTROL	33
5.19.1	<i>Litter</i>	33
5.19.2	<i>Birds</i>	33
5.19.3	<i>Pests</i>	34
5.19.4	<i>Noise</i>	34
5.20	SITE SECURITY	34
5.21	LANDSCAPE MEASURES	34
5.22	ENVIRONMENTAL MONITORING PROGRAMME	36
5.23	CHANGES TO THE PROJECT	36
5.24	ASSOCIATED DEVELOPMENTS	36
6.	CLIMATE	38
6.1	INTRODUCTION	38
6.2	METEOROLOGICAL DATA	38
6.3	IMPACT ASSESSMENT	39
7.	TRAFFIC MOVEMENT	40
7.1	INTRODUCTION	40
7.2	EXISTING CONDITIONS	40
7.2.1	<i>General Location in Relation to Roads Network</i>	40
7.2.2	<i>Existing Traffic Flows</i>	40
7.3	PROPOSED ACTIVITIES	41
7.3.1	<i>Proposed Operations</i>	41
7.3.2	<i>Projected Traffic Flows</i>	42
7.3.3	<i>Operations Staff Related Traffic Attraction (Non-HGV)</i>	43
7.4	TRAFFIC IMPACTS AND MITIGATION	43

8.	GEOLOGY, HYDROGEOLOGY AND HYDROLOGY	44
8.1	INTRODUCTION.....	44
8.2	GEOLOGY	44
8.2.1	<i>Geology</i>	44
8.2.1.1	<i>Impacts</i>	45
8.3	HYDROGEOLOGY.....	45
8.3.1.1	<i>Groundwater Quality</i>	45
8.3.1.2	<i>Groundwater Impacts</i>	46
8.4	HYDROLOGY	47
8.4.1	<i>Catchment Area</i>	47
8.4.2	<i>Surface Water Drainage System</i>	47
8.4.2.1	<i>Surface Water Quality</i>	47
8.4.3	<i>Surface Water Quality Impacts and Mitigation</i>	48
9.	ECOLOGY	50
9.1	INTRODUCTION.....	50
9.2	EXISTING ENVIRONMENT	50
9.3	IMPACT ASSESSMENT	51
9.4	MITIGATION MEASURES.....	51
10.	AIR.....	52
10.1	INTRODUCTION.....	52
10.2	DUST.....	52
10.2.1	<i>Existing & Proposed Activities</i>	52
10.2.2	<i>Impacts</i>	52
10.2.3	<i>Mitigation Measures</i>	53
10.3	LANDFILL GAS	54
10.3.1	<i>Existing & Proposed Activities</i>	54
10.3.2	<i>Impact Assessment</i>	54
10.3.3	<i>Mitigation Measures</i>	54
10.4	BIOAEROSOLS	55
10.4.1	<i>Existing & Proposed Activities</i>	55
10.4.2	<i>Impact Assessment</i>	55
10.5	MITIGATION MEASURES.....	55
11.	ODOUR.....	56
11.1	EXISTING & PROPOSED ACTIVITIES	56
11.2	BIOWASTE TREATMENT PLANT	56
11.2.1	<i>Materials Management</i>	56
11.2.2	<i>Temperature Control</i>	57
11.2.3	<i>Air Emission Treatment</i>	58
11.3	IMPACT ASSESSMENT	59
11.4	MITIGATION MEASURES.....	59
12.	NOISE	60
12.1	INTRODUCTION.....	60
12.2	EXISTING CONDITIONS	60
12.2.1	<i>Measurement Locations</i>	60
12.2.2	<i>Survey Period</i>	62
12.3	IMPACT ASSESSMENT & NOISE PREDICTIONS.....	65
12.4	MITIGATION MEASURES.....	66
13.	LANDSCAPE	67

13.1	INTRODUCTION.....	67
13.2	METHODOLOGY	67
13.3	LANDSCAPE CHARACTER	67
13.3.1	<i>Landform</i>	67
13.3.2	<i>Landcover</i>	68
13.3.3	<i>Landscape Value</i>	68
13.4	LANDSCAPE SENSITIVITY	68
13.5	VIEW POINTS.....	68
13.6	IMPACT ASSESSMENT	72
13.7	MITIGATION MEASURES.....	72
14.	HUMAN BEINGS	73
14.1	INTRODUCTION.....	73
14.2	EXISTING ENVIRONMENT	73
14.3	HUMAN HEALTH	73
14.4	SOCIO-ECONOMIC ACTIVITY	73
14.5	ENVIRONMENTAL NUISANCE	74
14.6	IMPACT ASSESSMENT	74
15.	CULTURAL HERITAGE.....	75
15.1	INTRODUCTION.....	75
15.2	STUDY METHODOLOGY.....	75
15.3	DEVELOPMENT WORKS.....	75
15.4	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	76
15.5	IMPACT ASSESSMENT	76
15.5.1	<i>Archaeological Impact</i>	76
15.6	MITIGATION MEASURES.....	77
16.	MATERIAL ASSETS.....	78
16.1	INTRODUCTION.....	78
16.2	AMENITIES	78
16.3	INFRASTRUCTURE.....	78
16.4	AGRICULTURE.....	78
16.5	NATURAL RESOURCE CONSUMPTION	79
17.	INTERACTION OF THE FOREGOING	80
17.1	INTRODUCTION.....	80
17.2	HUMAN BEINGS / WATER.....	80
17.3	HUMAN BEINGS / AIR / ODOUR	80
17.4	HUMAN BEINGS / LANDSCAPE.....	81

LIST OF FIGURES

<u>FIGURES</u>	<u>TITLE</u>	<u>PAGE</u>
FIGURE 1	Site Location (Non Technical Summary)	xiii
FIGURE 4.1	Site Location	15
FIGURE 4.2	Surrounding Landuse	17
FIGURE 12.1	Noise Monitoring Locations	61
FIGURE 13.1	Viewpoint 1	69
FIGURE 13.2	Viewpoint 2	70
FIGURE 13.3	Viewpoint 3	71

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

LIST OF TABLES

<u>TABLES</u>	<u>TITLE</u>	<u>PAGE</u>
TABLE 1.1	Proposed Increase in Waste Volumes	x
TABLE 1.1	Proposed Increase in Waste Volumes	3
TABLE 1.2	Evaluation of Impacts	xix
TABLE 5.1	Total Permitted & Proposed Waste Inputs	26
TABLE 5.2	Plant & Equipment	29
TABLE 5.3	Wastewater Quality	32
TABLE 6.1	Meteorological Data : Dublin Airport	38
TABLE 7.1	Existing Import Traffic Volumes	41
TABLE 7.2	Existing Export Traffic Volumes	41
TABLE 7.3	Proposed Import Traffic Volumes	42
TABLE 7.4	Proposed Export Traffic Volumes	42
TABLE 11.1	Optimum Operational Ranges for the Biofilters	58
TABLE 12.1	Summary of Noise Results for Position N1	62
TABLE 12.2	Summary of Noise Results for Position N2	63

LIST OF TABLES – CONT'D

<u>TABLES</u>	<u>TITLE</u>	<u>PAGE</u>
TABLE 12.3	Summary of Noise Results for Position N3	63
TABLE 12.4	Summary of Noise Results for Position N4	64
TABLE 12.5	Summary of Noise Results for Position NSL1	64
TABLE 12.6	Summary of Noise Results for Position NSL2	64
TABLE 12.7	Noise Sources	65
TABLE 12.8	Predicted Noise Levels at Noise Sensitive Locations	65
TABLE 15.1	Monuments in the Vicinity of the Site	76
TABLE 16.1	Resource Consumption	79

LIST OF DRAWINGS

<u>DRAWINGS</u>	<u>TITLE</u>	<u>PAGE</u>
DRAWING NO. B7498-C012-C	Existing Licensed Site Layout & Site Boundary	19
DRAWING NO. B8575-C003-A	Proposed Site Layout Plan with Drainage	21
DRAWING NO. B8575-C005-A	Proposed Biowaste Treatment Area	22
DRAWING NO. 03072-01	Existing & Proposed Monitoring Locations	37

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

LIST OF APPENDICES

- APPENDIX 1** - **Public Consultation**
- APPENDIX 2** - **Climatic Information**
- APPENDIX 3** - **Ecology 1998 & Biological Assessment 2003**
- APPENDIX 4** - **Noise Assessment**
- APPENDIX 5** - **Archaeological Survey 1998**

For inspection purposes only. No other use.
Consent of copyright owner required for any other use.