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## NON-TECHNICAL SUMMARY

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### **Introduction**

Greenstar Ltd. (Greenstar) is Ireland's leading waste management company and operates waste recovery, recycling and disposal facilities throughout the country, including Kilkenny and Waterford and two in County Wexford. Based on a review of market conditions in the South East Region (Carlow, Kilkenny, South Tipperary, Waterford and Wexford), Greenstar considers an annual waste processing capacity of 90,000 tonnes is required to meet its customer needs in the Wexford Area.

Greenstar's two existing facilities in Wexford (Wexford Town and Gorey), which currently process approximately 60,000 tonnes, cannot handle this increase in waste amounts. Greenstar has decided to close these sites and replace them with a new, purpose built facility, at Clavass, Enniscorthy.

### **Public Consultation**

Greenstar placed a notice of its intention to build the facility in the Enniscorthy Guardian and invited written comments from the general public. One written submission was received, which raised concerns about traffic, vermin, noise and impacts on residential development and property prices.

### **Description of the Proposed Development**

#### *Existing Site*

The site is in an area zoned for industrial use, approximately 4 km north of Enniscorthy (Figure 1). The planning application area covers 3 hectares but only the northern part of the site (1.5 hectares) will be used for waste operations. The site is bounded to the west by the N11 and to the east by the Old Dublin Road. The site entrance is off the Old Dublin Road. The lot to the south is also owned by Greenstar, but it not part of the development. The application site is currently grassed and was formerly used for agricultural purposes. There are no surface water drains, but a foul sewer, which serves the Commercial Park on the adjoining northern lot, runs through the west of the site. A surface water sewer serving the Commercial Park runs through the centre of the site.

The surrounding land use is a mix of industrial and agricultural activities, with houses on the Old Dublin Road to the north and south of the site. There are a total of 25 private residences within 500m of the site (Figure 2). The nearest house is approximately 50m to the north east.



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CLIENT

**Greenstar**

UNIT 1

**Site Location - Enniscorthy**

Legend



Site Location

FIGURE NUMBER

1

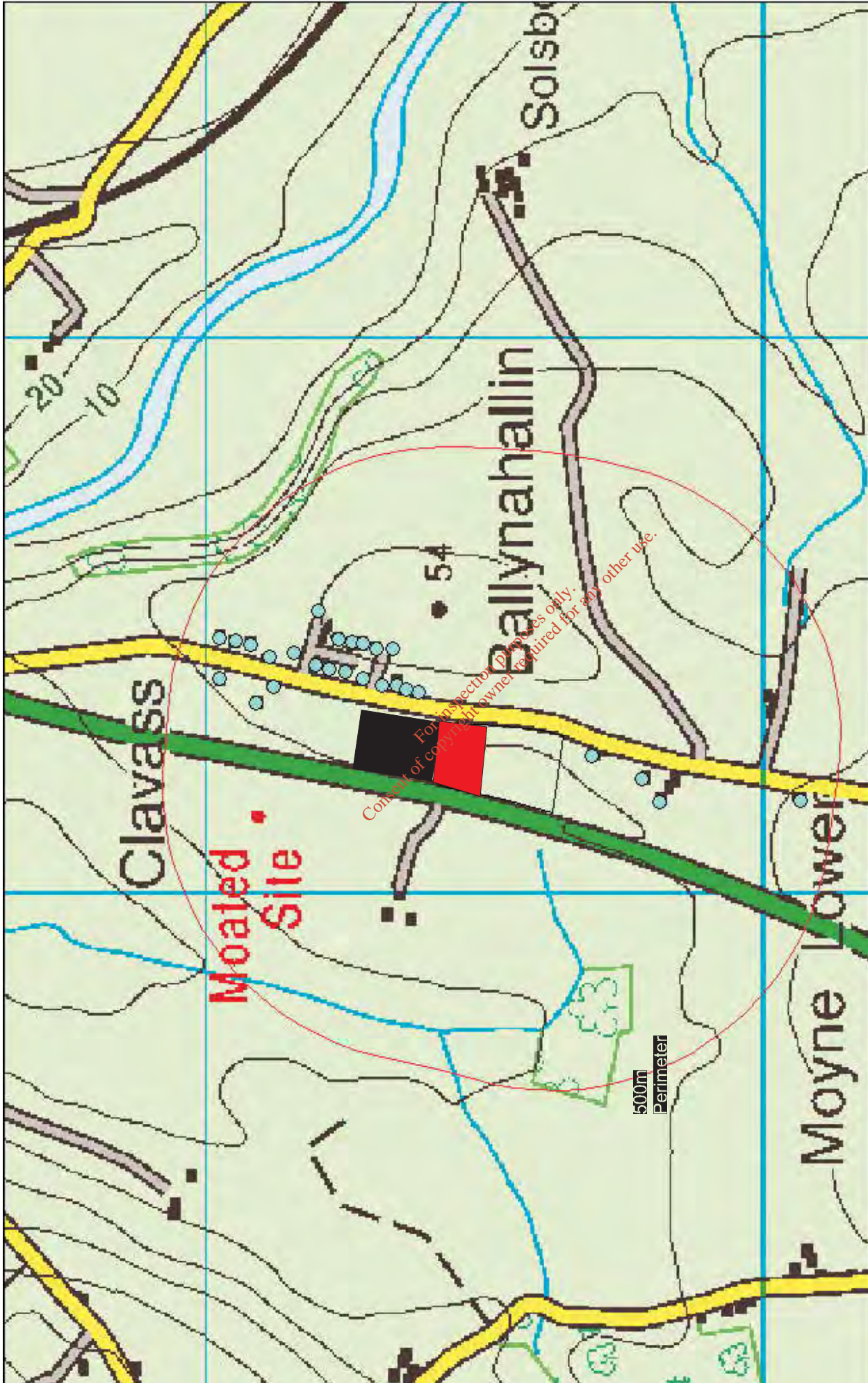
Scale

Not to Scale

Revision

A





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**Greenstar**

UNIT#

**Surrounding Landuse**

● Residential Dwelling

◆ Site Location

■ Commercial & Industrial Park

FIGURE NUMBER

**2**

Scale

Not to Scale

Revision

**A**

### Site Development

The proposed development layout is shown on Figure 3 (P-004). It involves the construction of one main building (3,008m<sup>2</sup>), offices, a double weighbridge, a vehicle wash, plant refuelling area, ESB Substation, open yards, an odour treatment plant, a site security fence and landscaping measures. The waste vehicles will enter and exit through the existing entrance off the Old Dublin Road, and a new entrance for staff cars will be provided further south.

The proposed facility requires a Waste Licence from the Environmental Protection Agency (EPA), which must be obtained before waste can be accepted. The Licence will regulate the types and volumes of waste accepted, and will specify the manner in which the facility is operated so as to ensure that it does not cause pollution or a nuisance.

### Opening Hours

The normal waste acceptance hours are 6 in the morning to 8 in the evening on Monday to Saturday, while the operational hours will be from 6 in the morning to 10 at night. The facility will not normally open on Sundays. Due to the nature of the waste recycling business, it may occasionally be necessary for vehicles delivering and removing waste to operate outside these hours.

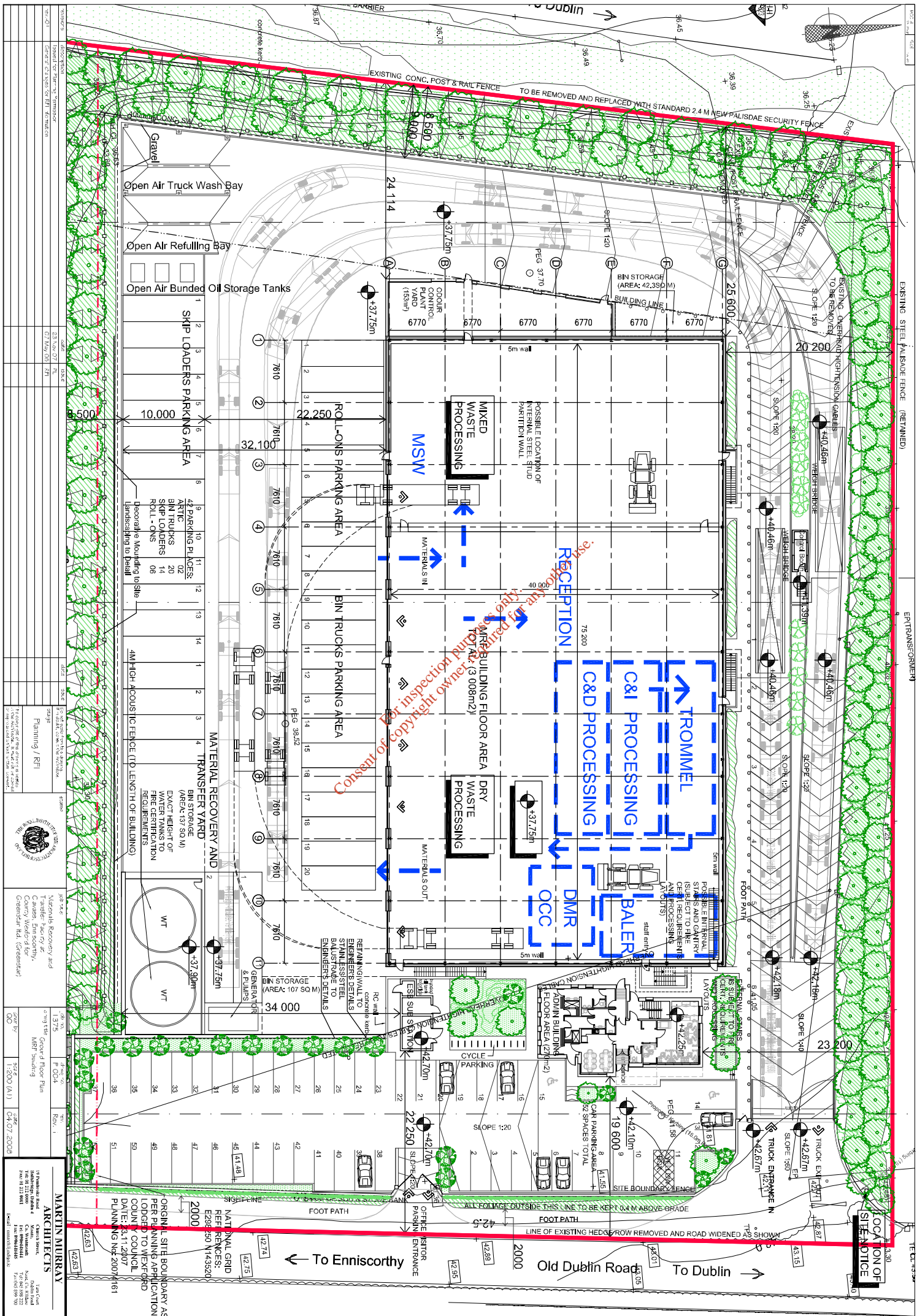
### Operations

The facility will only accept non-hazardous, Household, Commercial and Industrial (C&I) and Construction and Demolition Waste (C&D). The C&I waste will generally be similar to household waste, but there should be a higher proportion of separate recyclable materials e.g. plastic, paper, cardboard and cans. It is expected that in its first year the facility will process approximately 60,000 tonnes of waste, and that this will increase over the following seven years to 90,000 tonnes.

The waste will be delivered in refuse trucks, curtain sided trailers and covered open top trailers and skips. All incoming waste vehicles will be weighed at the weighbridge, where the contents of the vehicle will be inspected to confirm its suitability. Any waste load that contains unsuitable waste will not be accepted.

All wastes will be emptied out inside the main building, which will be divided into two areas. One (Mixed Waste Area) will take wastes that contain food stuff, and the other (Dry Waste Area) will only take dry recyclable materials- paper, cardboard, plastic, wood, aluminium cans and C&D waste. The mixed waste will be sorted to remove all of the recyclable materials, which will then be compacted, or baled to reduce the volume, before being sent off site in articulated trucks to recycling facilities. It is not possible to recycle all of the waste that will be accepted at the facility and the only available option for the residues remaining after all of the recyclables have been removed is off-site landfill.





NO. 01	Project No. 01	Scale	1:1000
NO. 02	Client Name	Date	23 Nov 07
NO. 03	Site No.	Author	CFM/03/201
NO. 04	Project Title	Check	
NO. 05	Project Location	Issue	
NO. 06	Project Description	Rev.	
NO. 07	Project Status	Rev.	
NO. 08	Project Type	Rev.	
NO. 09	Project Phase	Rev.	
NO. 10	Project Stage	Rev.	
NO. 11	Project Sub-stage	Rev.	
NO. 12	Project Task	Rev.	
NO. 13	Project Action	Rev.	
NO. 14	Project Outcome	Rev.	
NO. 15	Project Deliverable	Rev.	
NO. 16	Project Milestone	Rev.	
NO. 17	Project Risk	Rev.	
NO. 18	Project Issue	Rev.	
NO. 19	Project Change	Rev.	
NO. 20	Project Approval	Rev.	
NO. 21	Project Sign-off	Rev.	
NO. 22	Project Handover	Rev.	
NO. 23	Project Close-out	Rev.	
NO. 24	Project Post-mortem	Rev.	
NO. 25	Project Lessons Learned	Rev.	
NO. 26	Project Feedback	Rev.	
NO. 27	Project Evaluation	Rev.	
NO. 28	Project Reporting	Rev.	
NO. 29	Project Archiving	Rev.	
NO. 30	Project Retention	Rev.	
NO. 31	Project Disposal	Rev.	
NO. 32	Project Final Review	Rev.	
NO. 33	Project Sign-off	Rev.	
NO. 34	Project Handover	Rev.	
NO. 35	Project Close-out	Rev.	
NO. 36	Project Post-mortem	Rev.	
NO. 37	Project Lessons Learned	Rev.	
NO. 38	Project Feedback	Rev.	
NO. 39	Project Evaluation	Rev.	
NO. 40	Project Reporting	Rev.	
NO. 41	Project Archiving	Rev.	
NO. 42	Project Retention	Rev.	
NO. 43	Project Disposal	Rev.	
NO. 44	Project Final Review	Rev.	
NO. 45	Project Sign-off	Rev.	
NO. 46	Project Handover	Rev.	
NO. 47	Project Close-out	Rev.	
NO. 48	Project Post-mortem	Rev.	
NO. 49	Project Lessons Learned	Rev.	
NO. 50	Project Feedback	Rev.	
NO. 51	Project Evaluation	Rev.	
NO. 52	Project Reporting	Rev.	
NO. 53	Project Archiving	Rev.	
NO. 54	Project Retention	Rev.	
NO. 55	Project Disposal	Rev.	
NO. 56	Project Final Review	Rev.	
NO. 57	Project Sign-off	Rev.	
NO. 58	Project Handover	Rev.	
NO. 59	Project Close-out	Rev.	
NO. 60	Project Post-mortem	Rev.	
NO. 61	Project Lessons Learned	Rev.	
NO. 62	Project Feedback	Rev.	
NO. 63	Project Evaluation	Rev.	
NO. 64	Project Reporting	Rev.	
NO. 65	Project Archiving	Rev.	
NO. 66	Project Retention	Rev.	
NO. 67	Project Disposal	Rev.	
NO. 68	Project Final Review	Rev.	
NO. 69	Project Sign-off	Rev.	
NO. 70	Project Handover	Rev.	

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**DATE:** 23.11.2007  
**PLANNING NO:** 2007/161

**ORIGINAL SITE BOUNDARY AS PER PLANNING APPLICATION LOGGED TO WEXFORD COUNTY COUNCIL**

## **Existing Environment, Potential Environmental Effects and Mitigation Measures**

### Climate

The climate in the area can be described as mild and wet, with the prevailing wind direction from the south west. The development will not result in any impacts on either the climate or microclimate at the site.

### Geology / Hydrogeology

The soils are a shale till (clay) ranging from 3 to 10 metres deep. The underlying bedrock is rhyolitic volcanics and grey and brown slates. The soils are not significantly water bearing. The bedrock is classified as a Regionally Important Aquifer and its vulnerability to pollution ranges from High to Low.

### Surface Water

The site is in the catchment of the River Slaney, which is approximately 1.5 km to the north and east of the site. There are no surface water drains on the site. Surface water from rainfall on the roof and open yards will be directed to an on-site percolation area. A silt trap and an oil interceptor will be provided to prevent sediment and any oils, which may occur as a result of accidental spills, from entering the percolation area. .

The water from the sinks and toilets will go to a new foul sewer system and will be pumped to the Council's foul sewer. Wash water from cleaning the floor in the Main Building along with water from the vehicle wash and rainwater from the refuelling area will also go to the foul water sewer.

### Ecology

An ecological survey was carried out that looked at the plants and animals inhabiting the site. The site habitats are mainly improved agricultural grassland and hedgerows, which are common in the surrounding countryside. It is an intensively managed habitat and of low ecological importance. The hedges along the southern and eastern boundaries of the site may support birds and small mammals, or at least act as a wildlife corridor between habitats and are of local ecological importance.

The development will involve the removal of part of the hedge along the Old Dublin Road, to provide for the safe entry and exit of vehicles onto the road and also to provide an entrance for cars. The loss of this section of hedge is not significant. Replacement trees will be planted along the eastern and southern boundary, as part of the landscaping plan.

## Air Quality

Air quality surveys were carried out to establish the existing conditions. The monitoring locations are shown on Figure 4. The surveys indicate that air quality at the site is generally good. The proposed development will be a source of emissions to air linked to traffic and the waste activities. These emissions include dusts, vehicle exhaust gases and odours.

Dust emissions will not be a significant problem. All waste processing that can produce dusts (e.g. screening and shredding of C&D waste) will be carried out inside the Main Building. The access roads, manoeuvring and parking areas will be paved and a road sweeper will be used to keep these areas clean. Computer modelling indicates that the vehicle exhaust gases from traffic using the facility will not be significant.

Some of the waste will contain odorous materials, such as foodstuffs. This type of waste will only be handled in the Mixed Waste Area of the Main Building. This area will be sealed off from the remainder of the Building and will be provided with an air collection and odour treatment system. The system, which will be similar to ones already successfully operating at other waste recovery facilities, will ensure that odours do not cause a nuisance. Computer modelling indicates that the facility will not have any significant odour impact.

## Noise

An environmental noise survey was carried out to establish the existing noise levels at the site. The survey included measurements at three locations (N1, N2 and N3) within the site boundary and at two off site locations (NSL1 and NSL2), as shown on Figure 4. The off-site locations were near the closest houses, as these were considered to be the most sensitive to noise from the facility.

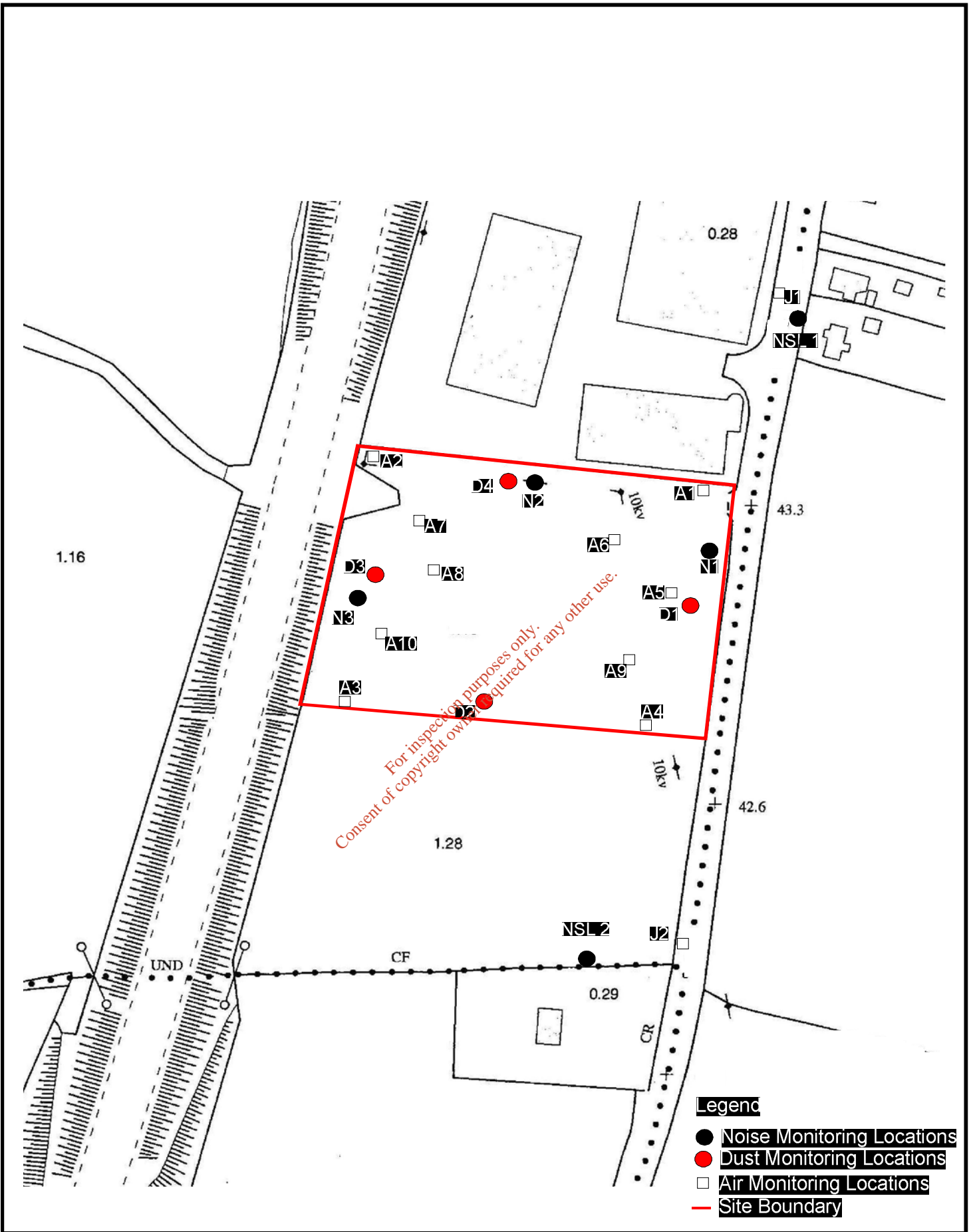
The dominant source of noise is traffic on the N11. The lowest levels were recorded at NSL1, where shielding from the N11 is provided by the existing buildings in the Commercial Park.

The noise survey information was used, along with data on the noise levels from the equipment that will be used at the facility, to predict future noise levels both within the site boundary and at the nearest houses. The development will not impact on the closest house (NSL1). Due to the doors at the southern side of the Building, there is the potential that noise levels could exceed recommended night time limits at the house to the south (NSL2). To prevent this a 4m high noise barrier will be erected along the southern site boundary.

## Landscape

The landscape character is neither distinctive, nor of exceptional value in the context of the surrounding landuse. The facility will be visible from the N11, the Old Dublin Road and from the house to the south of the site, as is currently the case with the units in the Commercial Park.





**Legend**

- Noise Monitoring Locations
- Dust Monitoring Locations
- Air Monitoring Locations
- Site Boundary



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CLIENT

**Greenstar**



**Monitoring Locations  
 Enniscorthy**

Details

O.S. Licence Agreement  
 Number AR 0038707

Ordnance Survey Ireland,  
 Government of Ireland.

FIG. No

**4**

Scale

N1S

Rev

A

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### Traffic

A traffic impact assessment was carried out to establish the current level of traffic on the local roads and to allow an assessment of the impact of traffic linked with the facility. Traffic on the Old Dublin Road is light, with a maximum daily movement of 120 vehicles. The N11 carried 8,144 vehicles southbound, of which 12% were trucks and 7,631 travelled northbound, of which 13% were trucks.

The proposed facility will, on opening, generate 71 truck trips every day. This is expected to increase annually to maximum of 105 trips daily. The facility will increase daily traffic by approximately 10% along the northern section of the Old Dublin Road and by 1% on the N11. Although the main impact will be upon the Old Dublin Road, the increased traffic will not have an adverse effect upon the capacity and operation of the road.

### Cultural Heritage

There are no known significant archaeological, heritage or socio-cultural features either on the development site, or the adjoining lands.

### Human Beings

Land use in the surrounding area includes industrial, commercial, residential and agricultural uses. The nearest dwelling is approximately 50 m to the north east of the site. There are no hospitals, hotels or holiday accommodation within 1 km of the site.

The facility will only accept non-hazardous waste, all of which will be processed indoors in a controlled manner. This will eliminate the risk of health impacts and minimise the risk of nuisance on occupants of the houses and commercial units in the surrounding area.

### Material Assets

The site is in an area zoned for industrial and related development, and it does not have a significant leisure or amenity potential. The potential for damage to amenities and leisure land use arising from the building and operation of the facility is negligible.

### Interaction of the Foregoing

The proposed facility has the potential to impact on human beings arising from noise, dust, vehicle exhaust emissions, odour and traffic. The location, design and proposed method of operation have taken these potential impacts into account. Proven effective control measures have been incorporated into the design and proposed method of operation to ensure that the facility has a minimum environmental impact.

A summary and evaluation of potential impacts is presented on Table 1.

**Table 1** Evaluation of Impacts

Description	Impact No.	Character	Magnitude	Mitigation	Significance of Impact
Climate	1	Increased CO <sub>2</sub>	105 Trucks Trips Per Day	Turn off engines when not in use	Imperceptible
Traffic	2	Increase in Traffic Volume	105 Trucks Per Day	-	Imperceptible
Landscape	3	New Structure	As shown on Drawings	Landscaping Plan submitted	Imperceptible
Flora	4	New Structure & Paved area	Existing flora of low ecological importance will be lost	New landscaping measures will be introduced to offset lost of flora	Imperceptible
Geology/ Hydrology 1	5	Discharge to Surface Water Drainage System and soakaway	Paved & Roof areas on-site	Secondary containment of oils, Internal processing of waste with discharge from MRF to foul, Discharge from Vehicle wash to foul	Imperceptible
Odour	6	Putrescible waste in Mixed Waste Area	Mixed Waste Area Only	Odour abatement system comprising Air Extraction and Filter system with discharge to stacks	Imperceptible
Air	7	Dust	On-site Paved Areas	Regular Roadsweeping of paved areas. Dampening down of paved areas as required in dry weather.	Imperceptible
Noise	8	Traffic onsite. Plant items operational inside the MRF building	On-Site	Acoustic Barrier on southern boundary. Internal processing of waste (Internal plant items).	Imperceptible
Archaeology	9	-	-	Non required	-
Material Assets	10	Non-Renewable Resource Consumption	Minimal. Associated with running of site	An Energy Audit will be carried out in compliance with the Waste Licence to determine energy saving options for the facility once it is operational for 12 months.	Imperceptible
Human Beings	11	-	-	-	No Impact



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## PREAMBLE

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This Environmental Impact Statement (EIS) examines the potential impacts and significant effects on the environment of the proposal by Greenstar Ltd. (Greenstar) to develop a Materials Recovery and Transfer Facility at Clavass, Enniscorthy, County Wexford.

The information contained in the EIS complies with Paragraph 2 of the Second Schedule of the European Communities Environmental Impact Assessment Regulations 1989, as amended by the European Communities (Environmental Impact Assessment) (Amendment) Regulations 2001.

The EIS follows the grouped format structure recommended in the Guidelines on the Information to be Contained in Environmental Impact Statements (March 2002), published by the Environmental Protection Agency (EPA), and the EPA's Advice Notes to these Guidelines. This structure assesses each relevant topic in a separate section, which describes the existing environment, the impacts associated with the proposed development and, where considered necessary, the proposed mitigation measures.

An original EIS, which was prepared in November 2007 and submitted with the planning application, was amended in May 2008 to take account of additional information surveys carried out at the request of the planning authority and changes to the site layout to accommodate the planning authority's requirements.

The original application site was 1.5 ha and formed one half of a 3 ha lot owned by Greenstar. Following discussions with the planning authority it was agreed to amend the planning application area to encompass the entire 3 ha landbank. This was solely to allay the planning authority's concerns about the enforcement of conditions relating to the sight lines, foul water drainage and landscaping. It is not intended to allow the future development of the southern portion of the site for waste activities.

### Public Consultation

Greenstar held pre-application discussions with Wexford County Council. In August 2007 Greenstar informed the Environmental Protection Agency (EPA) of its intention to apply for a Waste Licence for the facility.

Greenstar placed a notice announcing its intention to develop the Facility in the Enniscorthy Guardian. The notice invited written submissions, which would be taken into consideration during the preparation of the EIS. Greenstar received one written submission, which voiced concern about increased traffic movements, vermin, noise and impacts on residential

development and property prices. Copies of the newspaper advertisement and the submission are included in Appendix 1. OCM also received a verbal submission from one of the residents, who raised concerns over traffic and nuisance.

### **Difficulties in Compiling the Required Information**

OCM did not encounter any particular difficulties in compiling the required information. The ecological survey was confined to a single reason. However considering the type of habitats at the site, which are of low ecological importance, this does not materially affect the assessment.

### **Project Team**

O' Callaghan Moran & Associates (OCM) were the prime consultants, and were assisted by a number of specialist service providers. Unless otherwise referenced OCM were responsible for completing the baseline surveys and assessment of impacts.

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