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INTRODUCTION

- 3.1 This chapter of the Environmental Impact Statement addresses the impact on the human environment of the proposed quarry backfilling and inert waste recovery facility at the North Quarry at the Huntstown Quarry Complex, Finglas, Dublin 11. The Environmental Impact Statement is prepared in support of an application by Roadstone Wood Ltd. for a waste licence to provide for backfilling and restoration of the quarry using imported inert soils and stones.
- 3.2 In undertaking this study, regard has been had to the requirements of the EPA publication '*Guidelines on the Information to be Contained in Environmental Impact Statements*' for waste facilities, and includes, but is not limited to consideration of the economic activities, existing amenities and sensitive receptors in the vicinity of the site.

RECEIVING ENVIRONMENT

Outline of Baseline Study and Methodology

- 3.3 The townlands of Huntstown and Kilshane, in which the proposed inert soil recovery facility lies, are located within the District Electoral Division (DED) of The Ward in north-west County Dublin, within the administrative area of Fingal County Council.
- 3.4 The baseline study of the Huntstown and Kilshane areas, with regard to human beings, comprised review of the census information (2002 and 2006) for The Ward DED, Fingal County and the Greater Dublin Area; Live Register Statistics from the Irish National Organization of the Unemployed and other local information sources.
- 3.5 A survey of existing residential housing in the Huntstown and Kilshane areas was undertaken as part of this study. Ordnance Survey maps and aerial photography were also examined. Local knowledge of recent and potential future housing development in the area was also used to establish the local housing pattern.
- 3.6 As the site lies approximately 2.5km north-west of Finglas, this study will also have regard to Finglas and its immediate environs. It is considered that future development around Finglas will exert a strong influence on the lives of those currently living and working in and around the Huntstown area.

Site Context

- 3.7 The existing North Quarry and the proposed inert waste recovery facility straddles the townlands of Kilshane and Huntstown in north-west County Dublin. The site is located approximately 2.5 km northwest of Finglas, 2km north-east of Corduff, and 3.5km north-east of Blanchardstown village, Dublin 15. The site is currently accessed from the R135 Regional Road, known locally as the North Road (the former N2 National Primary Road) to the east and the Kilshane Road to the west.

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- 3.8 A small number of existing residences are located in close proximity to the proposed inert waste recovery facility. The nearest residential property is located approximately 170m west of the application boundary on the Kilshane Road. A further five residential properties are also located immediately to the west of the site along the Kilshane Road. Within 500m of the site there are a further six residences, all located to the east of the site along the North Road. The existing housing pattern in the vicinity of the site is shown on Figure 3.1.
- 3.9 The Regional Planning Guidelines for the Greater Dublin Area 2004-2016 identifies the site within the 'Metropolitan' area. Given its location in close proximity to designated Transportation Corridors, specifically the N2 Dual Carriageway / M2 Motorway between the M50 Motorway and Ashbourne, the site is in close proximity and within easy reach of designated 'Consolidation Towns' within the Metropolitan Greater Dublin Area.
- 3.10 The current zoning objective for the Huntstown Quarry complex identified by the Fingal County Development Plan 2005-2011 is to protect and provide for the development of agriculture and rural amenity. Lands immediately west and south of the site are zoned to facilitate opportunities for science and technology based employment. Lands to the south-east, around the junction of the M50 Motorway and the N2 Dual Carriageway are zoned for distribution, warehouse, storage and logistics facilities that require good access to the major road network. Lands to the north-east of the site are zoned as greenbelt and form a boundary between urban and rural areas.

Demography

- 3.11 The proposed waste recovery facility is located within the confines of a quarry void within the Huntstown Quarry complex (known as the 'North Quarry') operated by Roadstone Wood Ltd. in the townlands of Kilshane and Huntstown. The site lies in the District Electoral Division (DED) of The Ward, which had a population of 5,181 people at the time of the 2006 Census. This DED is relatively rural in nature and demographic trends in the area generally mirror those in Fingal and North County Dublin generally. Details of past and predicted demographic trends are provided in Tables 3-1 and 3-2 below,:

Table 3-1
Recent Population Trends

Area	2002	2006	Actual Change	% Change
The Ward DED	1,308	5,181	3,873	296%
Fingal County Council	196,413	239,992	43,579	22.2%
Dublin County and City	1,122,821	1,187,176	64,355	6%

Source: *Census of Population 1996, 2002, C.S.O.*

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Table 3-2
Predicted Population Trends for Greater Dublin Area and Mid East Region

Area	2006 Census	2016	2022*	% Change 2006 - 2022
Dublin City	506,211	563,513	606,110	19.7%
Dun Laoghaire / Rathdown	194,038	222,800	240,338	23.9%
Fingal	239,992	287,547	309,285	28.9%
South Dublin	246,935	287,341	308,467	24.9%
Kildare	186,335	234,422	252,640	35.5%
Meath	162,831	195,898	210,260	29.1%
Wicklow	126,194	164,280	176,800	40.1%

*Source: Draft Regional Planning Guidelines for the GDA 2010 - 2022

- 3.12 Demographic trends for The Ward DED, Fingal and Dublin City and County for 2002 and 2006, shown in Table 3-1 above, indicate that, over this period, there has been a marked increase in the population of The Ward (almost 300%), with a more moderate increase in the population of Fingal (of 22%).
- 3.13 Current population projections estimate that the population of Fingal will rise to approximately 288,000 by 2016 and 310,000 by 2022. This projected population figure for 2022 would equate to 28.9% increase on official population figure contained in the 2006 census. Significant population increases are also predicted for the other Dublin regions as well as the Mid East region over the period 2006 – 2022. In conjunction with this local and regional trend in population growth, there will be an associated increase in demand for housing and community facilities within the Greater Dublin area.

Employment

- 3.14 A breakdown of the industry in which those at work are employed is provided below in Table 3-3. Employment by Industry in Fingal follows a national pattern with the highest participation in the clerical and government workers sector, professional sector and sales sector reflecting the generally urbanised nature of this area. The level of participations in other sectors of employment is either in line with the national average or slightly lower.

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Table 3-3
Employment by Industry

	Fingal		Greater Dublin		State	
Agriculture	1,211	1%	2,060	0.1%	88,414	4%
Manufacturing	11,000	9%	50,131	7.9%	245,234	12%
Building & Construction	7,402	6%	36,217	6%	183,429	9%
Clerical / Government	31,005	24%	139,063	22%	365,670	18%
Sales	19,800	15%	98,167	16%	284,164	14%
Communications	9,134	7%	38,247	6%	114,919	5%
Professional	22,217	17%	112,651	19%	342,414	16%
Services	12,361	10%	62,797	10%	224,964	11%
Other	14,591	11%	80,313	13%	230,918	11%

Source: Census of Population 2006, C.S.O.

- 3.15 According to the July 2010 Live Register statistics provided by the Irish National Organization of the Unemployed (INOUE), there were 112,155 persons in County Dublin on the live register. This figure has risen from 103,577 in January 2010 and 104,390 for the same time in 2009. This figure is also in stark contrast to October 2006 when the number of unemployed stood at 37,834 persons. The current unemployment figure of 112,155 for County Dublin represents a increase of 196% on the October 2006 figure.
- 3.16 The main employment locations within the area surrounding the Huntstown Quarry complex are the business and technology campus facilities of Northwest Business Park, Ballycoolin Business Park, Millennium Business Park, Rosemont Business Park and Blanchardstown Corporate Park. All of these employment facilities are located in one industrial and commercial block to the west between the application site and Blanchardstown.

Economic Activities

- 3.17 There are two principal types of economic activity prevalent in the Huntstown and Kilshane areas, namely
- Agriculture
 - Industry

Agriculture

- 3.18 The lands located immediately around the Huntstown Quarry complex are used for agricultural purposes, typically tillage and grazing. Most of the land surrounding Roadstone Wood's landholding however has been zoned for industrial development, and this is gradually displacing agricultural activity in the area. The exception to this is the land to the north-east, on the eastern

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side of the N2 Dual Carriageway, which remains zoned as greenbelt in order to demarcate the northern urban limit of Dublin City.

Industry

- 3.19 There has been active extraction of limestone at the Huntstown Quarry complex dating back to the late 1960's. It is a long established activity and has provided employment in the area continually since its commencement right up to the present day. Quarrying and concrete batching activities are the main activities carried out at the site. Aggregate and concrete products from the site are dispatched across North County Dublin and into Counties Meath and Louth. There is also a retail stone paving outlet at the site which trades as Roadstone Retail and provides decorative stone and paving to the commercial and DIY markets. It is one of four retail centres operated by Roadstone Wood in the Dublin area and one of fourteen nationwide.
- 3.20 There is one other working quarry in the surrounding area, in Baytown townland approximately 1.5 kilometres north-west of Huntstown. That quarry is operated by Irish Asphalt Ltd.
- 3.21 In 2002 Viridian successfully commissioned its first high efficiency 340 MW Combined Cycle Gas Turbine (CCGT) power plant in Ireland at Huntstown. The power plant is located within the Huntstown Quarry complex and shares an access road with quarry traffic. In October 2007 Viridian commissioned a second CCGT power plant of 400 MW capacity on the same site.
- 3.22 One of the main employment hubs of north-west Dublin lies west and south of Huntstown Quarry complex. This area includes the business and technology campus facilities of Northwest Business Park, Ballycoolin Business Park, Millennium Business Park, Rosemount Business Park and Blanchardstown Corporate Park. Many large distribution warehouses and multinational companies are located in these business parks.
- 3.23 There are also a number of small local enterprises, including garden centres, a car sales business, an equipment supplier, a golf centre and veterinary clinic, all of which are located along the North Road, close to the junction with the access road leading into the Huntstown Quarry complex. Business parks and local enterprise locations are identified in Figure 3.1.
- 3.24 Kilshane Cross Recycling Park, located to the north-east of the application site was developed in recent years by Fingal County Council. It is envisaged that this facility will provide for future treatment / composting of brown bin waste and for recycling of construction and demolition waste.

Existing Amenities

- 3.25 As previously noted, the Kilshane / Huntstown area is predominantly rural in nature. It has no churches, schools, retail outlets (apart from Roadstone's own paving shop) or service industry.
- 3.26 There are a wide variety of recreational, social, community and sport facilities within 4km of the site in the Blanchardstown and Finglas areas, which are available to local residents in Kilshane / Huntstown townlands. These include golf courses at Elm Green, Hollystown and Sillogue, the national aquatic

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centre at Abbotstown and a range of football pitches, gyms and tennis courts located at both Blanchardstown and Finglas. There are also community and resource centres located at Blakestown in Blanchardstown and the Fingal Centre in Finglas.

- 3.27 The Fingal County Development Plan indicates that the townlands of Kilshane and Huntstown lie within the designated low lying agricultural landscape character area. There are no protected views or prospects into or out of the application site identified in the Plan, nor are there any designated or proposed Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or proposed Natural Heritage Areas (NHA's) within or contiguous to Roadstone Wood's landholding. It is understood that a geological exposure of the contact between the Tober Colleen and Waulsortian formations at the central quarry has been identified as a possible geological / geomorphological heritage feature by the Geological Survey of Ireland although, to date, no formal designation as an NHA has occurred.
- 3.28 Records held by the National Monuments Service of the Department of Environment, Heritage and Local Government indicate that there are a number of national monuments within and in the immediate vicinity of Roadstone Wood's landholding. At the northern end of the application site, the ruins of Kilshane Church, a graveyard and holy well (Ref. DU014-012) are identified as part of an extended archaeological site. These features are also included in the list of protected structures in the Fingal County Development Plan. There are no visible remains of these monuments remaining in situ.
- 3.29 Immediately east of Roadstone Wood's landholding, the National Monuments Record (NMR) indicates that there is an enclosure (Ref. DU014-015) and ring fort (Ref DU014-016) located in Coldwinter townland, on the opposite side of the North Road. These features are also included in the list of protected structures in the County Development Plan. A castle, motte (earthen mound) and bailey (courtyard) (Ref. DU014-013) is located north-east of the landholding in Newtown townland, while a fulacht fia (Ref. DU014-050), a Bronze Age cooking site, is located west of it, in Grange townland.

Sensitive Receptors

- 3.30 At the present time, there is a significant separation distance between the proposed inert waste recovery facility and potentially sensitive receptors. The most critical sensitive receptors in the vicinity of the application site comprise two private residential properties which lie beyond the application site and within 250m of the site boundary. These properties are identified in Figure 3-1. Ten other residential properties located at a greater distance from the application site (up to 500m) are also identified in Figure 3-1.
- 3.31 The only other potentially sensitive receptor in the vicinity of the application site is the proposed / candidate Natural Heritage Area around the geological contact in the Central Quarry.

IMPACT OF PROPOSED WASTE FACILITY

- 3.32 The proposed waste recovery facility at the Huntstown Quarry complex will require ongoing importation of inert soil and stones from construction sites across North County Dublin, and possibly also from Counties Meath and Louth. The imported soil and stones will be used to backfill the existing void in the North Quarry. Some inert concrete and brick and/or recovered construction and demolition waste (secondary aggregate) will be imported occasionally to construct temporary internal haul roads across the site as and when required.
- 3.33 The duration of the quarry backfilling works is expected to be of the order of 18 years, but is ultimately dependent on the rate of infilling. The location and intensity of associated environmental impacts will vary only very slightly according as the active backfilling area moves across the site over time.
- 3.34 Ultimately, all of the effects of a development on the environment impinge upon human beings. Direct effects relate to matters such as water and air quality, noise, and changes to landscape character. Indirect effects relate to such matters as flora and fauna.
- 3.35 The impact of the proposed waste recovery facility on human beings is addressed in the following sub-sections by means of an appraisal of the effects of the development on the environment in general, of which human beings are an integral part.

Short Term Impacts

- 3.36 The impacts on human beings will arise mainly through environmental factors that are detailed in other sections of this Environmental Impact Statement, most notably noise and air quality (including dust). While there will be negligible or no impact on much of the local residential housing identified on Figure 3-1, there may be some very minor, limited impact at the residences closest to the application site (most notably those fronting onto the Kilshane Road) when the active backfilling and restoration works are being undertaken at the western end of the waste recovery facility.
- 3.37 The noise and dust impacts which are likely to arise at these residential properties are associated with operational activities, specifically backfilling with soil and stones. These impacts are likely to be only marginal and are classified as temporary, minor and negative.
- 3.38 The potential and/or predicted impacts are detailed elsewhere in this Environmental Impact Statement (Section 6 - Water, Section 7 – Air, Section 8 – Noise, Section 10 – Landscape and Section 11 – Material Assets).
- 3.39 The projected increase in traffic movements and overall traffic flows in and out of the quarry complex will not exceed those which previously existed at the peak of the recent construction boom in 2006. Since that time, traffic levels along the North Road (the R135 Regional Road or former N2 National Primary Road) have fallen significantly as a result of the opening of the N2

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Dual Carriageway/M2 Motorway between the M50 Motorway and Ashbourne in the early summer of 2006. Traffic related impacts are addressed separately in Section 12 of this Environmental Impact Statement.

- 3.40 The importation of inert materials via the existing local road network and the resultant increase in HGV traffic movements will have only minor implications for traffic levels, road traffic capacity or traffic safety along the North Road. It may also result in a short to medium term, slight negative impact on existing noise and dust levels along the existing North Road.
- 3.41 The movement of additional HGV traffic along the Kilshane Road to access the site from the west (back entrance) could have a short to medium term, slight negative impact on existing noise and dust levels along the existing local road, depending on the intensity of HGV traffic movements.
- 3.42 The proposed restoration of the former quarry will have a very minor positive impact as regards existing employment levels. It is envisaged that the number of dedicated staff permanently employed at the facility will be one and possibly two, depending on the rate of backfilling. Qualified contractors will be brought on site to carry out any necessary infrastructure construction works required. Environmental monitoring will generally be undertaken by Roadstone Wood's in-house staff.

Long Term Impacts

- 3.43 The principal long-term impact of infilling of the existing void and backfilling to former ground level will be the removal of the need to dispose of clean inert soils and stones to otherwise valuable and finite landfill space.
- 3.44 Another long-term benefit of the proposed backfilling will be instatement of the lands to a beneficial agricultural use and the removal of an unsightly and potentially unsafe abandoned quarry void from the landscape. These impacts are classified as permanent, minor and positive.
- 3.45 At the end of the quarry backfilling operations, there will be a long-term, permanent reduction in HGV traffic movements over the local road network leading to and from the site, with consequent improvement of the human environment.

Interaction with other Environmental Receptors

- 3.46 As mentioned above, all environmental factors ultimately impact upon, and interact with human beings. These impacts are discussed in detail in the relevant sections of this Environmental Impact Statement.

MITIGATION MEASURES

- 3.47 Mitigation measures to be adopted during the quarry backfilling will relate primarily to minimising any impacts of the project on surrounding sensitive receptors (primarily associated with noise and dust). These measures are discussed in detail elsewhere in this Environmental Impact Statement.

HUMAN BEINGS 3

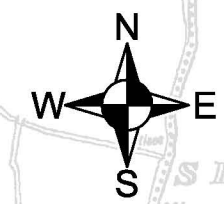
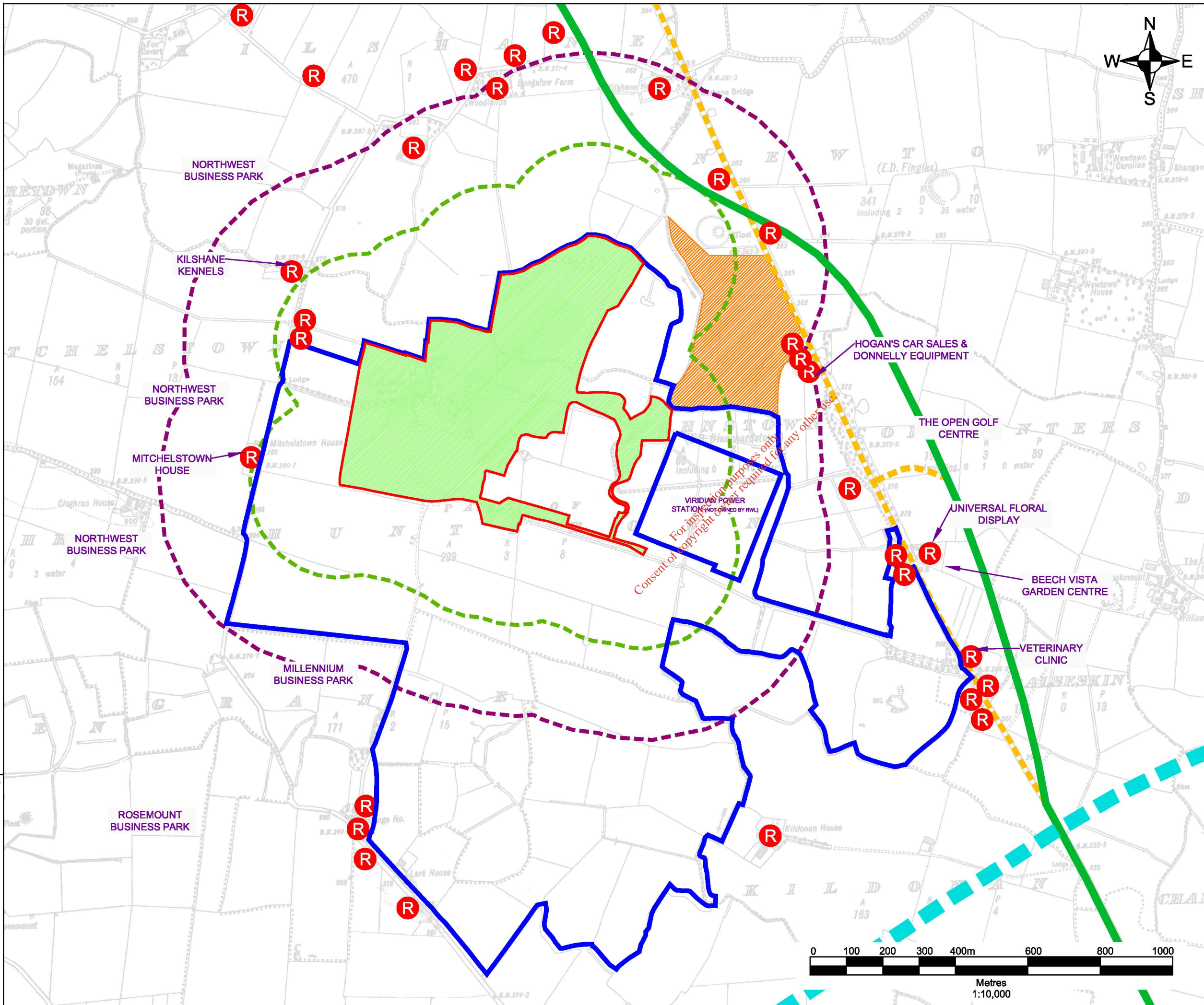
- 3.48 In view of the continued rock extraction, processing and concrete production activities at the Huntstown Quarry complex, it is anticipated that waste recovery activities will not give rise to any increased noise or dust nuisance at the nearest residential properties. Noise and dust impacts will be mitigated to a considerable degree (as they are currently) by screening berms constructed along the northern and western boundaries. In the unlikely event that emissions exceed permit threshold concentrations or adjoining residents complain of nuisance, the existing screening berms can be raised or further planted in order to suppress emission levels further.

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FIGURES

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00180.00015.18.3-1.R0.HOUSING PATTERN.dwg



NOTES

1. EXTRACT FROM 6 INCH ORDNANCE SURVEY DIGITAL SHEET NO'S. DN010, DN011, DN013, DN014 & MH051
2. ORDNANCE SURVEY IRELAND LICENCE NO. SU 0000711 (C) ORDNANCE SURVEY & GOVERNMENT OF IRELAND
3. TOPOGRAPHIC SURVEY PREPARED BY FUGRO BKS BASED ON MAY 2009 AERIAL PHOTOGRAPHY

LEGEND

	ROADSTONE WOOD LTD. LANDHOLDING (c. 201.8 ha)
	WASTE LICENCE APPLICATION AREA (c. 35.9 ha)
	250m OFFSET FROM APPLICATION AREA
	500m OFFSET FROM APPLICATION AREA
	N2 DUAL CARRIAGEWAY
	NORTH ROAD (R135)
	LOCAL ROAD
	LOCATION OF NEAREST RESIDENCES
	M5 MOTORWAY
	KILSHANE CROSS RECYCLING PARK



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**ROADSTONE WOOD LTD.
 ENVIRONMENTAL IMPACT STATEMENT**

**WASTE RECOVERY FACILITY,
 HUNTSTOWN QUARRY,
 NORTH ROAD, FINGLAS, DUBLIN 11**

**LOCAL RESIDENTIAL AND
 BUSINESS LOCATIONS**

FIGURE 3-1

Scale: 1:10,000 @ A3 Date: FEBRUARY 2011

