

SECTION 3 : HUMAN BEINGS

3.1 INTRODUCTION

Brady Shipman Martin has been commissioned to undertake a study of the impact of the proposed remediation scheme for unauthorised landfills within Roadstone Dublin's landholding at Blessington on human beings. This study is intended to accompany the company's application to the Environmental Protection Agency for a Waste Licence in respect of the proposed works.

The personnel involved in the preparation of this report are :

- Robert Edge BEng(Hons) MSc MIEI
- Dearbhla Walshe BSc Surv(Hons) Dip Env Man

In undertaking this study, regard has been had to the requirements of the EPA Guidelines on impact assessment for Waste Disposal Activities (Landfill Sites), and includes, but is not limited to consideration of the economic activities, existing amenities and sensitive receptors in the vicinity of the site.

3.2 RECEIVING ENVIRONMENT

3.2.1 Outline of Baseline Study and Methodology

The baseline study of the area, with regard to Human Beings, involved study of the Census Reports (1996 and 2002) information for the District Electoral Division (DED) of Blessington. While 2002 Census information was available for the overall population (and male/female population breakdown), more detailed statistics for 2002 are not available as of the time of writing. Therefore the current source of reference (other than overall population statistics) is still the 1996 Census Report. Other statistics were derived from use of local knowledge, knowledge gained from previous work at this site and from the internet.

A survey of housing in the Blessington area was carried out, the results of which are illustrated on Figure 3.1. Ordnance Survey maps and aerial photography were utilised, as well as local knowledge of recent housing developments, to establish the local housing pattern.

The preparation of this section of the report has had regard to the publication 'Guidelines on the Information to be contained in Environmental Impact Statement' (March 2002). The EPA 'Guidance Note for Applicants - Waste Disposal Activities (Landfill Sites)' (July 2001) has also been referenced.

3.2.2 Site Context

The proposed engineered landfill will be located within Roadstone Dublin's extensive landholding, approximately 1.5km north of the Downshire Hotel, in the centre of Blessington, and is approximately 0.65km from the closest point on the N81 National Secondary Road linking Dublin and Blessington. The extraction / removal areas (No's 1, 4 and 6) that also form part of this waste licence application are shown on Figure 3.1 and are located approximately 1.7 km, 1.75km and 0.8 km respectively from the centre of Blessington town.

Waste extraction Areas 1 and 4 are located well within the Roadstone Dublin site. Area 6 is within Roadstone Dublin's lands, adjacent to a new housing development ('Woodleigh') to the north-west of the N81, construction of which has recently been completed. These residences will be fully occupied by the time of commencement of the site remediation works.

3.2.3 Demography

The proposed site (comprising the engineered landfill and 3 No. waste extraction areas) is located in the townlands of Dillonsdown, Deerpark and New Paddocks, in the District Electoral Division (DED) of Blessington, in which some 3,126 people reside. The demographic trends for the DED and town of Blessington over the past 25 years, shown in Table 3.1, illustrate a significant increase in population in that time.

Year	Blessington DED			Blessington Town		
	Population	Change	% Change	Population	Change	% Change
1971	1,172			628		
1979	1,697	(+525)	(+42.0%)	878	(+250)	(+39.8%)
1981	1,766	(+69)	(+4.1%)	988	(+110)	(+12.5%)
1986	2,153	(+387)	(+21.9%)	1,322	(+334)	(+33.8%)
1991	2,207	(+55)	(+2.5%)	1,408	(+86)	(+6.5%)
1996	2,705	(+498)	(+22.6%)	1,860	(+452)	(+32.0%)
2002	3,126	(+421)	(+15.6%)	2,509	(+649)	(+34.9%)

Source: Census of Population 1996, C.S.O.
Census 2002, Volume 1, C.S.O

Table 3.1 : Recent Population Trends

	0-14	15-24	25-44	45-65	65+
Blessington DED	24.0%	14.2%	33.2%	21.4%	7.2%
Blessington Town	24.2%	14.6%	36.5%	18.9%	5.7%
Ireland	21.1%	16.4%	30.1%	21.2%	11.1%

Source: Census 2002, Small Area Population Statistics

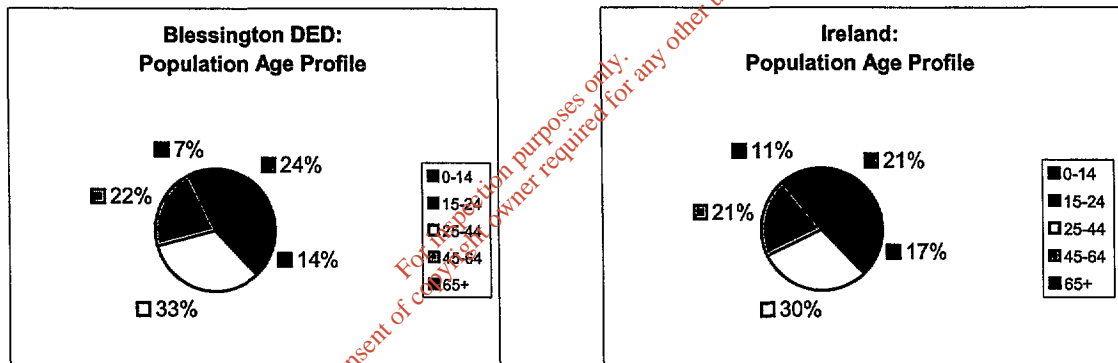


Table 3.2 : Age Profile

The age profile at local and national level is indicated in Table 3.2 and allows for an investigative assessment of the likely trends in population in the coming years. In all age groups in Blessington, there are slight variations with State averages. However, the age profile of Blessington is for the most part in line with that of the State as a whole. A high proportion (approximately one third) of the Blessington population is in the 25 – 44 range. This is suggestive of an area popular with family units. The 25-44 year old category is a highly energetic, highly mobile age group and the appeal of Blessington and its surrounds as an attractive area to raise a family would suggest that family groups have much to do with the population rise over recent years. The proportion of the population aged 65 and above is markedly lower than the national average, which supports previous observations.

Combining the 0-14 and 65 plus age groups gives an indication of the level of dependency within an area. The result is that Blessington has a level of dependency of 31.4% compared to the state average of 32.2%. The implications for the dependency percentage are on service provision such as schools, healthcare etc.

3.2.4 Employment

The employment statistics as presented in Table 3.3 below indicate that there are good employment opportunities in the area. Over the past 50 years, Roadstone Dublin Ltd (and its predecessors) have provided significant long term employment at its sand and gravel pit operations at Blessington.

The percentage of the population at work is 8% percentage points higher than the State average, the level of unemployment is approximately 60% of the average. The proximity of Blessington to a major employment centre such as Dublin (22 miles) may suggest that some of those "at work" commute outside the area.

	Available Workforce	At Work	Unemployed
Blessington DED	2,377	61.2%	2.8%
State	3,089,775	53.1%	4.5%

Table 3.3 : Employment

A breakdown of the industry in which those at work are employed is provided below in Table 3.4. The level of participation in the agricultural sector is almost half the national average. Information from the 1996 Census, which included a separate occupational classification for 'mining', indicated that local participation in the mining industry was 3 times higher at that time than the state average, reflecting the impact on employment that the extractive industries have the area. Allied to this are the manufacturing and building and construction industries, where employment is also notably above the national average.

Blessington is a tourist centre (this is explored in more detail in Section 11 – Material Assets) and the numbers involved in commerce are above the national average. Those in professional services however are marginally lower than the national average.

	Agriculture	Manufacturing	Building and Construction	Commerce	Professional Services	Other
Blessington DED	2.7%	20.5%	10.3%	29.3%	14.5%	22.7%
State	5.3%	12.5%	7.6%	22.7%	16.3%	34.3%

Table 3.4 : Employment by Industry

3.2.5 Economic Activities

There are two principle types of economic activity prevalent in the Blessington area:

1. Extractive Industry / Agricultural Suppliers
2. Service Providers

1. Extractive Industry / Agricultural Suppliers

Since the 1950's Roadstone Dublin has been extracting and processing sand and gravel on its lands to the east and west of the N81, immediately north of Blessington town. It is a long established activity in the area and has provided employment over many years.

Other businesses in this category in the same general area are:

- JW Carnegie and Co. (sand and gravel extraction)
- Hudson Brothers (sand and gravel extraction)
- National Concrete (readymix concrete production) – extends across Kildare county border
- Redwood Hydraulics Ltd. (supply of hydraulics systems for plant and machinery)
- Clarke Group (farm machinery and plant suppliers)
- Blessington Tyre Centre

2. Service Providers

Blessington Town has a strong service base, with sufficient shops, pubs, cafes and miscellaneous services (e.g. video shop, barbers) to provide for the local population and passing trade. Blessington also benefits from trade generated by tourists visiting Russborough House, the Blessington Lakes and the established walking routes in the vicinity.

3.2.6 Existing Amenities

As mentioned above, Blessington Lakes, Russborough House and walking routes are all existing amenities in the general Blessington area, and are utilised by locals and tourists. The hotels, pubs, restaurants and Bed and Breakfast accommodation in Blessington are established amenities / services of the area.

Educational facilities comprise two Montessori schools, primary schools (in Blessington, Vallemount and Lacken), a community college, an education resource centre and a community education centre.

3.2.7 Sensitive Receptors

At present a relatively small percentage of the 3,126 people in Blessington DED (2002 C.S.O. figure) live in the direct vicinity of the site, as indicated by the location of dwelling houses in the area (Figure 3.1). The housing estates and housing clusters around Blessington have been identified and numbered on Figure 3.1. Housing areas H1 to H5 are at least 800 from the nearest waste extraction area (Area 6) of this planning application. H6 is located approximately 550 m from Area 6, and H7 is at least 1 km from Area 6.

Housing Area H8, which is nearest the proposed extraction removal area (Area 6), is currently under construction (approximately 80 no. houses and 70 no. apartments). As previously mentioned, this housing is expected to be fully occupied by the time of commencement of the site remediation works. Housing Area H9 is a relatively new development of approximately 40 houses and is located at least 250m from Area 6.

Directly to the south west of the new housing development is Blessington Business Park, which is currently nearing completion of construction.

3.3 IMPACT OF REMEDIATION WORKS

The proposed site remediation works provides for removal of buried domestic, commercial and industrial (DCI) waste from 3 unauthorised landfill sites within the Roadstone Dublin's landholding at Blessington and its transfer to an engineered landfill facility, also on Roadstone Dublin's landholding.

The proposed engineering landfill facility will only be used for the remediation of the unauthorised landfills on this site and no importation of waste will be permitted under any circumstances.

The duration of waste excavation, removal and landfilling will be short-term – estimated to be of the order of 4 to 6 months following construction of the basal landfill liner. The duration of waste extraction activities from each of Areas 1, 4 and 6 will be shorter, approximately 6 to 8 weeks at each site.

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.

The impact of the proposed remediation works on human beings is addressed in the succeeding sub-sections of this report by means of an appraisal of the effects of the development on the environment in general, of which human beings are an integral part.

3.3.1 Short-Term Impacts

The impacts on human beings will arise mainly through environmental factors that are detailed in other sections of this report; namely noise, air quality (including dust), odour etc. There will be negligible or no impact on housing areas marked H1 to H7 on Figure 3.1. Housing H8 adjacent to Area 6, which is at present under construction, is expected to be fully occupied by the time of commencement of the site remediation works. Housing Area H9 is currently occupied.

The greatest potential impact will be experienced by these residents and by the working population of the adjacent business park, and will arise from the removal and transport of the waste from Area 6 to the engineered landfill. The potential and predicted impacts as well as mitigation measures to minimise the impacts are detailed elsewhere in this report (Section 6 - Water, Section 7 - Air, Section 8 - Noise, Section 9 - Landscape, Section 11 - Material Assets).

As mentioned earlier, the duration of landfilling operations is expected to be relatively short while waste is excavated and removed at the unauthorised landfill sites at Areas 1, 4 and 6 and transferred to the engineered landfill facility. As previously mentioned, no waste originating off-site will be placed at the landfill facility.

The proposed construction and landfilling of the engineered landfill will have no impact with regards to employment, as qualified contractors will be brought on site to carry out the construction and landfilling works, assisted, where practicable, by existing Roadstone Dublin staff.

3.3.2 Long-Term Impacts

The long-term impacts of the proposal relate primarily to the public perception of the unauthorised landfill sites and the engineered landfill site, both from a visual and cognitive viewpoint.

Understandably, the existence of the waste on the site at Blessington is cause for concern for the local population, particularly in relation to the local groundwater table and other environmental factors. The remediation works proposed by the Applicant will constitute a significant environmental improvement to the existing situation. The excavation, removal and transfer of the existing buried waste to licensed facilities and specifically the on-site non-hazardous landfill facility, will help allay environmental concerns of the residents of the area.

Following removal of the waste, Area 6 will be restored to grassland and planted with native woodland and wildflower species. This will positively impact on the visual amenity of the residents adjacent to this area.

The subsequent impact of the construction and operation of the Blessington Inner Relief Road (which has been approved by An Bord Pleanála) will be more pronounced for these residents, but is not within the scope of this report.

3.3.3 Interaction with other Environmental Receptors

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 report.

3.4 MITIGATION MEASURES

Mitigation measures to be adopted during operation of this landfill project will relate primarily to minimising any impacts of the project on surrounding sensitive receptors. These measures are discussed later in this report, in the chapters to which they relate.

The duration of extraction of buried waste from the unauthorised landfill sites at Areas 1, 4 and 6 will be kept to a minimum, as will the period of time taken to transfer the excavated waste to licensed facilities off-site or to the on-site non-hazardous landfill. In this way, the short-term impacts of the proposed remediation works should be minimised.

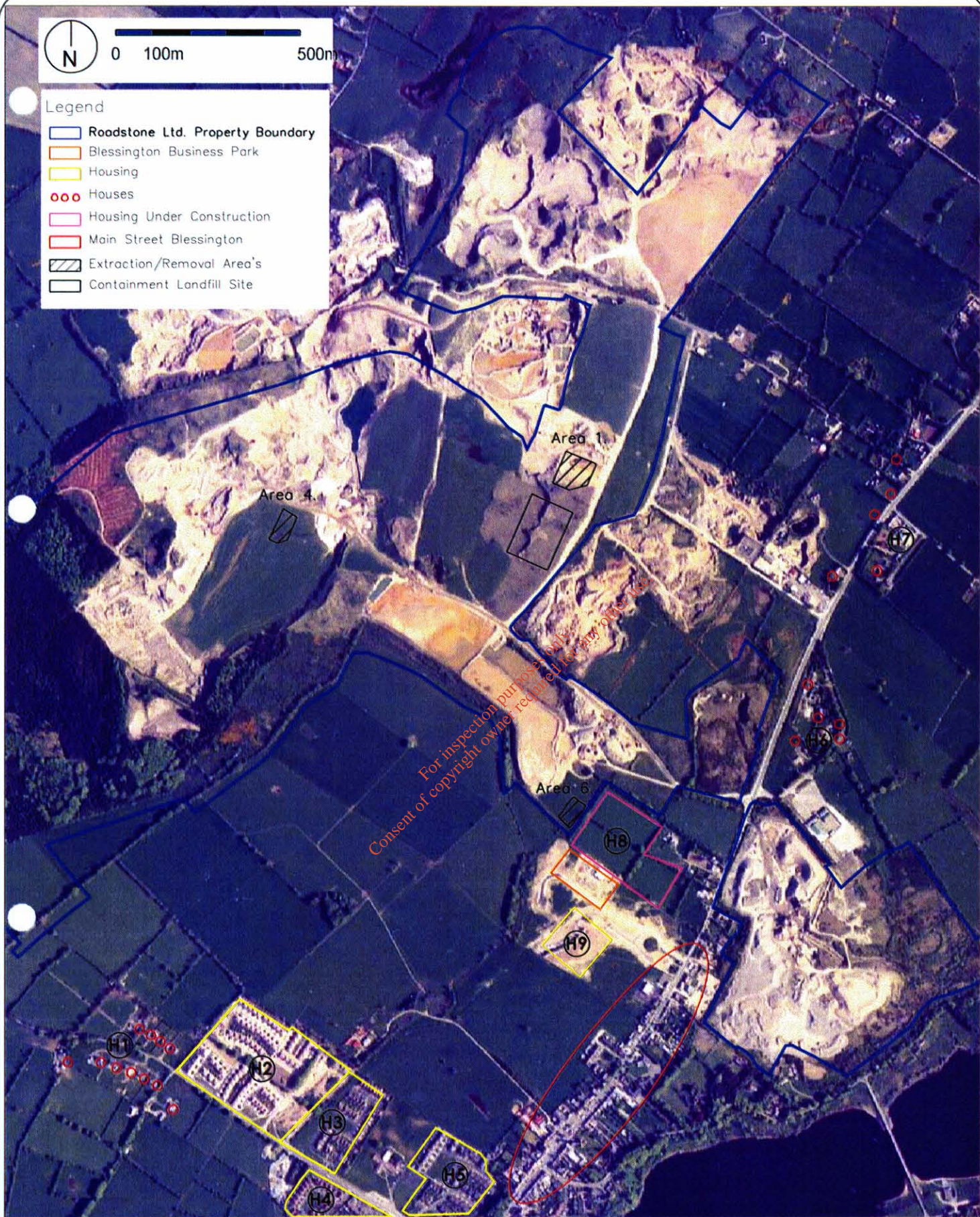
FIGURES

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Legend

- Roadstone Ltd. Property Boundary
- Blessington Business Park
- Housing
- Houses
- Housing Under Construction
- Main Street Blessington
- Extraction/Removal Area's
- Containment Landfill Site



BRADY SHIPMAN MARTIN

ROADSTONE DUBLIN LTD.
FORTUNESTOWN
TALLAGHT
DUBLIN 24

JOHN BARNETT & ASSOCIATES
7 DUNDRUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14

Site: Lands at Blessington, Co. Wicklow

Project: Remediation of Unauthorised Landfill Sites

Title: Housing in the Vicinity of the Application Site

Drawn: SMD/PM

Scale: Not to Scale

Job. No: 2901/10

Date: Dec 2004

FIGURE 3.1