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### **INTRODUCTION**

- 3.1 This chapter of the Environmental Impact Statement (EIS) addresses the impact on the human environment of the proposed quarry backfilling and inert-soil recovery activities at the former hard rock quarry operated by Roadstone Wood Ltd. at Brownswood, Enniscorthy, Co. Wexford. This Environmental Impact Statement is prepared in support of an application by Roadstone Wood Ltd. for planning permission to Wexford County Council and a waste licence to the environmental Protection Agency to provide for backfilling and restoration of the existing quarry void.
- 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 Statement*' 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 townland of Brownswood in which the worked-out quarry lie, is within the District Electoral District (DED) of Enniscorthy Rural in County Wexford. Brownswood is located just 2.5 km south of the town of Enniscorthy and it is considered that the growth and development of the town in recent years has had the most significant impact on the residential and working population of the Brownswood area. It is likely that it will continue to exert a strong influence on the area into the future. In preparing this study therefore, regards has also been had to developments in other DEDs in the area, most notably the Enniscorthy Environs DED.
- 3.4 A survey of existing residential housing in the Brownswood area was undertaken as part of this study. Ordnance Survey maps and aerial photography were also examined. Local knowledge of recent housing developments was also tapped to establish the local housing pattern.

#### Site Location

3.5 The existing worked out quarry is located in centre of Brownswood townland, Co. Wexford approximately 2.5 km south of Enniscorthy and is operated by Roadstone Wood Ltd. Rock extraction activities ceased at the quarry in the late 1980's / early 1990's. The former quarry site (known as the 'Old Quarry') is located in close proximity to a working quarry immediately to the south (known as 'Murphy's Quarry') which is operated by the Applicant. Rock excavated at this quarry is used in production of concrete, block and asphalt products at existing processing and production facilities within the Old Quarry.

- 3.6 A small number of residences occur in close proximity to the Old Quarry and the proposed inert-soil recovery facility. The nearest sensitive locations are located immediately north of the application site. Other sensitive residential locations are located along the local road, to the east and south of the site. The residences located in the area immediately surrounding the application area are identified in Figure 3-1.
- 3.7 There is a candidate Special Conservation Area (cSAC) Slaney River Valley (Site code: 00781) designated under EU Habitats Directive (92/43/EEC), within 20m of the proposed waste licence boundary. The existing quarry void, where the bulk of the proposed backfilling and soil recovery activity will be undertaken lies more than 200m from the cSAC boundary.
- 3.8 Traffic access to the application site is primarily obtained by turning directly off the existing N11 National Primary Road. Traffic turning off the N11 runs for a short distance onto the access road leading into the Old Quarry.

#### Demography

- 3.9 The existing worked out quarry is located in the townland of Brownswood which lies within the District Electoral District (DED) of Enniscorthy Rural in County Wexford. The current Wexford County Development Plan (2007-2013) does not identify any land zoning or development objectives for the lands within Roadstone Wood kids property at Brownswood. The Old Quarry at Brownswood lies immediately outside the area considered by the Enniscorthy Town and Environs Development Plan (2008-20014). The Zone 2 maps for Drumgold / Salville area published in the Development Plan indicate that the lands immediately north of the Old Quarry are zoned as open space and amenity.
- 3.10 Enniscorthy Town falls into a category of Large Town within the South East Region. The area has recently experienced high levels of population growth and would be considered an attractive location for future residential development. Enniscorthy is located within Sub Area B (North County Wexford) of the South Eastern Regional area, an area characterised by strong population growth, influenced largely by development in the Greater Dublin Area and strong physical links with Dublin. This growth has demographic implications for the rest of County Wexford and Wexford Town and hold potential implications for urban sprawl, tourism and sensitive costal landscapes.
- 3.11 The demographic trends for the Enniscorthy Town and its Environs over recent years, shown in Table 3-1 below, identify a moderate increase in population in the four years between 2002 and 2006.

Year	Enniscorthy Town	Enniscorthy Environs	Total (Enniscorthy Town and Environs)
2002	3,764	5,200	8,964
2006	3,241	6,297	9,538
Change 2002-2006	-13.9%	21.1%	6.4%

Table 3-1 Population Trends 2002-2006

Source: Census of Population 2002, 2006, C.S.O.

- 3.12 Census Data indicates that the population of Enniscorthy Town decreased by 13.9% in the 2002-2006 period, while that of its environs increased by 21.1% over the same period. This change reflects a national trend of movement out of inner urban areas to environs and outskirts of towns and migration to areas further outside Dublin in search of more affordable housing. The Enniscorthy Town and Environs Development Plan 2008-2014 projects the population of Enniscorthy Town to increase over next 5 years to reach 13,520 in 2011 and 15,718 in 2016.
- 3.13 The age profile at local and national level is indicated in Tables 3-2 and 3-3 below. The population of Enniscorthy Town across all age groups largely mirrors that of the State as a whole. A high proportion (31.4%) of the local population comprises adults in the traditional household formation age category, in the 25-44 age group. This group is made up mostly with young people working or studying of working-age parents.
- 3.14 The second highest proportion of the population (20.3%) comprises children in the 0-14 age group. This compares with a population for Co. Wexford of 22.2%, a proportion which is markedly above that for the State as a whole.
- 3.15 The age dependency ratio for Enniscorthy in 2006 was 49.6 % compared to 45.8% for the State as a whole and 51.1% for Country Wexford.

	Total	0-14	15-24	25-44	45-65	65+
Enniscorthy	9,538	1,940	1,468	2,991	1,913	1,226
		20.3%	15.4%	31.4%	20.1%	12.9%
Co. Wexford	131,749	29,238	17,530	39,919	29,738	15,324
		22.2%	13.3%	30.3%	22.6%	11.6%
State	4,239,848 -	864,449	632,732	1,345,873	928,868	467,926
		20.0%	15.0%	32.0%	22.0%	11.0%

Table 3-1	Age Profile of	Enniscorthy, Co.	Wexford and State
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Source: Census 2006

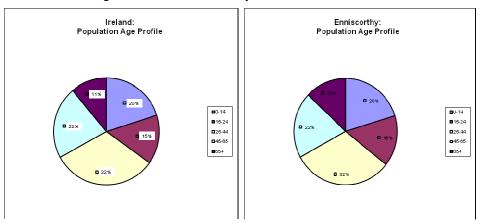


 Table 3-2
 Age Profile of Enniscorthy, Co. Wexford and State

#### Employment

- 3.16 Travel figures from Census 2006 indicates that over 29.9% of the working population in the Enniscorthy Environs travel in excess of 2 to 4 kilometers to work and over 16.1% travel 1 kilometer or less. Statistics indicate that a significant proportion of the working age population of Enniscorthy Environs work in the area.
- 3.17 According to June 2010 Live Register statistics from the Irish National Organization of the Unemployed, there were 18,912 persons on the Live Register for County Wexford and 452,862 persons nationally.
- 3.18 A breakdown of industries in which those at work are employed is provided in Table 3-3 below. Analysis of employment by industry in Enniscorthy Town and its Environs indicates that the highest workforce participation is in the commercial and trade sector, followed by the professional, building and construction and manufacturing sectors respectively.

	State	e	Enniscor	thy Town		scorthy virons
Agriculture	88,414	4%	37	1.5%	15	1.4%
<b>Building/Construction</b>	183,429	9%	354	15.9%	147	14.6%
Manufacturing	245,234	12%	317	14.5%	161	16.0%
Commerce /Trade	284,164	14%	598	26.9%	235	23.4%
Communication/Transport	114,919	5%	81	3.6%	49	4.9%
Public Administration	365,670	18%	97	4.6%	38	3.8%
Professional Service	342,414	16%	409	18.4%	184	18.3%
Other	230,918	11%	323	14.6%	175	15.6%

 Table 3-3
 Age Profile of Enniscorthy, Co. Wexford and State

Source: Census 2006

#### **Economic Activity**

3.19 There are three principle types of economic activity prevalent in the Brownswood area:

Agriculture Industry Craft/Leisure Industry

#### Agriculture

3.20 The lands immediately to the east of the application site and beyond the northern and southern boundaries of Roadstone Wood Ltd.'s landholding are typically used for tillage / crop growing purposes. The lands immediately west of the application site comprise the N11 National Primary Road which is part of the European E01 route from Dublin to Wexford. The River Slaney Valley Special Conservation Area lies immediately west of the N11.

#### Industry

- 3.21 There has been active and ongoing extraction of rock in the Brownswood area since the early years of the 20<sup>th</sup> Century. Quarrying is a long established activity in the area and has provided employment over many years. The Old Quarry was initially developed by Wexford County Council and acquired by Roadstone in the early 1960's. Rock excavation continued at the Old Quarry up to the late 1980's / early 1990's, at which time quarrying activity began relocating to the Murphy Quarry immediately to the south. Production of construction materials, principally concrete, blocks and asphalt, however continues up to the present day within the Old Quarry.
- 3.22 With Enniscorthy Town occated just 2.5 km to the north, the wider area beyond the application site has a thriving business community, reinforced by a selection of office industrial parks, commercial and trading, hotels and catering industry.
- 3.23 Enniscorthy Enterprise and Technology Centre located in town is the home of business support and training for small and medium enterprises. The centre specialises in the support of startup businesses and the upskilling of people in employment in Co. Wexford.

#### Craft / Leisure Industry

- 3.24 Natural amenity sites in the area are key attractions for the local tourist industry which is largely based on "day-trips" out of Dublin and/or "stop off" on the way to Wexford. Enniscorthy and its environs have a developed crafts industry, most particularly in pottery. There are a small number of guesthouses, hotels and similar facilities around Enniscorthy Town.
- 3.25 The Slaney River holds good stocks of small wild brown trout, sea trout. The river still gets a reasonable run of spring salmon but this varies from year to year and can attract anglers from all over the world. Fishing is controlled by Angling Associations and riparian owners, under the auspices of the Slaney Rod Fishers Association Ltd. There is free fishing downstream of Enniscorthy Bridge. The peak of the spring salmon fishing is from opening day to the end

of March and there can also be fair fishing in April and early May. A small number of grilse (young salmon) are also taken annually.

### **Existing Amenities**

- 3.26 The Brownswood area is predominantly rural in nature. It has no churches or schools or retail outlets. There is also no service industry in the immediate area. There are a wide variety of recreational, social, community and sport facilities in Enniscorthy, which also serve the residential community in Brownswood. Brownswood lies within the designated lowland landscape unit. The surrounding area is also indicted to lie immediately inside an area indentified as being strongly under the urban influence of Enniscorthy Town.
- 3.27 Enniscorthy is situated by the River Slaney and has short walks beside it to the north and to the south, on the west bank. The River Slaney Valley candidate Special Area of Conservation (cSAC Site Ref. 000781) lies immediately west of the Old Quarry and the existing N11 National Primary Road and is contiguous to Roadstone Wood Ltd.'s landholding. The site is protected as it contains a number of designated habitats listed in Annex I of the EU Habitats Directive, including alluvial wet woodlands, estuaries, mudflats and old oak woodlands. It also supports populations of several species listed on Annex II of the EU Habitats Directive.
- 3.28 There are three national monuments in the immediate vicinity (ie. within 1km) of Roadstone Wood Ltd.'s landholding:
  - There is a possible burial site (Ref. WX0026-014) immediately on the northern side of the stream which delineates the northern boundary of the landholding.
  - Approximately 100m further north of the landholding, there is a motte (Ref. WX0026-015), an artificial, steep-sided, earthen mound on or in which is set the principal tower of a castle.
  - Immediately south of Murphy's quarry there is a fulacht fia (Ref. WX0026-021), a Bronze Age cooking site.
- 3.29 A farmhouse dating from 1894 Brownswood House, is located immediately south of the Old Quarry, between it and Murphy's Quarry and is listed as a protected structure in the Wexford County Development Plan (Ref. no. WCC00672).
- 3.30 Enniscorthy is the cathedral town of the Diocese of Ferns and has two Catholic churches spread over two parishes — St. Aidan's and St Senan's, under the shadow of Vinegar Hill. The town also hosts a Church of Ireland, a joint Methodist/Presbyterian church, a Society of Friends meeting hall, and a Masonic Lodge.
- 3.31 There is a multiplex cinema, a swimming pool/recreation centre, several sports grounds and several hotels including the four stars "Riverside Park" Hotel. Surrounding the town, there is an 18-hole golf course, several pitch and putts, freshwater fishing, and a five-star spa "Monart" is just beside "The Still Pond". Greyhound racing takes place at the show grounds.

- 3.32 Enniscorthy town also boasts several historical sites and museums. It is also plays host to a number of festivals including:
  - The Strawberry Fair. This is an annual event, which takes place in the last week of June and first week of July. It consists of amusements in Bellfield, live bands and the crowning of the Strawberry Queen in the square.
  - Blackstairs Bluestairs Blues festival. This is an annual event, now in its twelfth year. The festival includes international and local performers, in a variety of late night concerts and open workshops. The festival includes a free pub trail and late night festival club.
  - Enniscorthy Street Rhythms and Dance Festival. This is an annual event, which takes place in the second weekend in August. The Festival includes dance exhibitions, parade, fireworks, concert, dance workshops for kids, adults and dancers.

#### **Sensitive Receptors**

- 3.33 The application site is located at Irish National Grid Co-ordinates E297600 N137300. The predominant land use immediately surrounding the application site is an established mix of industrial and commercial development with isolated rural housing and agricultural landholdings beyond.
- 3.34 At the present time, the principal sensitive receptors in the vicinity of the application site comprise 19 private residences within 500m of the perimeter and Brownswood Country House (a protected structure). The locations of these properties are indicated in Figure 3-1.
- 3.35 The other sensitive receptor in the vicinity is the Slaney River Valley candidate Special Conservation Area (Site code: cSAC 000781) designated under EU Habitats Directive (92/43/EEC). All identified sensitive receptors are listed in Table 3-4 below.

	Booptor		ING	ING
	Receptor	Туре	E coordinate	N coordinate
R1	Brownswood	Residential	297672	137426
R2	Brownswood	Residential	297698	137478
R3	Brownswood	Residential	297821	137581
R4	Brownswood	Residential	297879	137560
R5	Brownswood	Residential	297837	137625
R6	Brownswood	Residential	297953	137588
R7	Brownswood	Residential	297959	137637
<b>R</b> 8	Brownswood	Residential	297897	137643
R9	Brownswood	Residential	297784	137761
R10	Brownswood	Residential	297829	137855
R11	Brownswood	Residential	298100	137330
R12	Brownswood	Residential	298199	137279
R13	Brownswood	Residential	298153	136833
R14	Brownswood	Residential	298195	136752
R15	Brownswood	Residential	298231	136685
R16	Brownswood	Residential	298317	136607
R17	Brownswood	Residential	298221	136590

Table 3-4	Sensitive	Receptors
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SLR Consulting Ireland

ID	Receptor	Туре	ING E coordinate	ING N coordinate
R18	Brownswood	Residential	298152	136675
R19	Brownswood	Residential	298140	136726
R20	Brownswood House	Residential	298044	136751
R21	Slaney River Valley	SAC 000781	-	-

### IMPACT OF THE PROPOSED WASTE FACILITY

- 3.36 The proposed waste recovery facility at Brownswood will require ongoing / continued importation of inert soil and stones and occasional inert construction and demolition (C&D) waste from construction sites across County Wexford. The imported soil and stones will be used to backfill the quarry void.
- 3.37 The duration of the quarry backfilling works is likely to be of the order of 6 to 7 years, depending on the rate of infilling. The location and intensity of associated environmental impacts will vary over time, according as the active backfilling area moves across the site over that period.
- 3.38 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.
- 3.39 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 Impact 🔊

- 3.40 The impacts on human beings will arise mainly through environmental factors that are detailed in other chapters of this Environmental Impact Statement (EIS), most notably noise and air quality (including dust). While there will be negligible or no impact on much of the local residential housing in the area there may be some minor, limited impact at the 19 residences and Brownswood House closest to the application site identified on Figure 3-1.
- 3.41 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.
- 3.42 The potential and predicted impacts are detailed elsewhere in this Environmental Impact Statement Chapter 4-Flora & Fauna, Chapter 6 Hydrology and Hydrogeology, Chapter 7 Air Quality, Chapter 8 Noise and Vibration, Chapter 9 Landscape and Chapter 11 Material Assets).
- 3.43 The importation of inert soil and occasional C&D materials via the existing road network could potentially have adverse implications for existing traffic

levels or the safety of traffic movements along N11 National Road. This impact is assessed separately in Chapter 12 of this Environmental Impact Statement.

- 3.44 In the absence of mitigation measures, any increase in HGV traffic movements along N11 National Road could also have a temporary minor to moderate negative impact on existing noise and dust levels, depending on the intensity and net increase in traffic movements.
- 3.45 The proposed restoration of the former quarry will help sustain existing employment levels and could have a very minor positive impact, with the employment of one and possibly two dedicated staff, depending on the rate of backfilling. Qualified contractors will be brought to site to carry out any necessary infrastructure construction works. Environmental monitoring will be undertaken by Roadstone Wood Ltd.'s in-house staff or by independent consultants.

#### Long Term Impacts

- 3.46 In relation to community resources, the principal ong-term impact of infilling of the existing void and backfilling above groundwater level will be the substantial removal of an unsightly and potentially unsafe quarry void and significant reintegration of the site into the surrounding landscape. This impact is classified as permanent, minor and positive.
- 3.47 At the end of the quarry backfilling operations, there will be a reduction in 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

3.48 As mentioned above, all environmental factors ultimately impact upon, and interact with human beings. These impacts are discussed in detail in the relevant chapters of this Environmental Impact Statement (EIS).

#### **MITIGATION MEASURES**

- 3.49 Mitigation measures to be adopted during this restoration project will focus on continual minimisation of potential impacts of the waste recovery activity on surrounding sensitive receptors (primarily associated with noise and dust). These measures are discussed elsewhere in this Environmental Impact Statement (EIS), in the chapters to which they relate.
- 3.50 Mitigation measures for environmental indicators are already in place at the site and are identified in the site Environmental Management Plan. The effective application of these mitigation measures will continue to be monitored.

