

14.0 HUMAN BEINGS

14.1 Human beings form one of the most important aspects of the environment to be considered. Any likely significant impacts on the character of human beings must therefore be addressed. This section of the Environmental Impact Statement is split into three parts, socio-economic aspects, tourism aspects and human health. The first two parts considers the human environment in the vicinity of the application site in terms of its population profile and trends, labour force profile, socio-economic profile and an assessment of the tourism impacts. The final part considers current available literature from Health Research Board on the health effects of landfills.

THE SOCIO-ECONOMIC ENVIRONMENT

14.2 The proposed Meenaboll landfill site is located on the border of Church Hill District Electoral Division (DED) and Seacor DED which are within the Letterkenny Rural District (RD) (Figure 14.1). Letterkenny Rural District is part of the administrative area of Donegal County Council.

14.3 Small Area Population Statistics (SAPS) were obtained for both DEDs but to create a comparative picture of population and employment dynamics occurring in the DEDs, comparisons have been made with Donegal County and State levels.

14.4 The structure for assessing the impact of the proposed development is based upon guidelines prepared by the Environmental Protection Agency (EPA 1995a and 1995b). The statistics used in compiling this section of the report are from the 1991, 1996 and 2002 censi and were obtained from the Central Statistics Office.

Characteristics of the Proposal

14.5 The proposed landfill site is located in the townland of Meenaboll on an elevated site approximately 18 km west of Letterkenny in County Donegal. The site is located on Meenaboll Hill, which forms part of the Glendowan Mountains. The elevation of the site is between 244 metres (800 feet) and 305 metres (1000 feet).

14.6 The land was previously used for commercial forestry but has recently been clear-felled and is now replanted. It is located within the Donegal County Council area covered by the Donegal County Development Plan 2000. The development consists of the construction of a landfill facility, ancillary buildings, upgrading of the County road (which provides access to the site from the R250) and boundary treatment. The Environmental Protection Agency (EPA) will have licensing control over the site and Donegal County Council will operate it. The catchment of the landfill will be the area from Lough Foyle to the east, Dungloe to the west and Ballybofey to the south.

14.7 Entry to the proposed landfill site will be from the existing County road, which is accessed from the regionally important R250. This road is an important east-west link for the County of Donegal, linking as it does Letterkenny to Glenties. The R250 is in good condition but the County road will require surface repair works as well as the addition of passing lay-bys to allow its safe use.

Receiving Environment

14.8 Donegal is predominantly a rural county with only three towns containing a population greater than 3,000 (2002). Church Hill and Seacor DEDs typify the above description. The landuse surrounding the site is predominantly forestry with some domestic turf cutting evident close to the R250.

14.9 The proposed landfill site is located away from established settlements. The proximity of urban centres is highlighted in Table 14.1 below.

Table 14.1 Proximity of Nearby Settlements (as the crow flies)

Town	Distance	
	Miles	Km
Letterkenny	11.2	18.0
Glenties	14.2	22.8
Ballybofey	12.4	20.0
Dungloe	14.3	23.0
Fintown	6.0	9.7
Docharry	8.1	13.0
Glendowan	3.5	5.6

Demography

14.10 Table 14.2 below contains the population of Church Hill DED, Seacor DED, County Donegal and the State for the years 1991, 1996 and 2002.

Table 14.2 Population Change at Local, Regional and National Level Between 1991 and 1996

Area	Year			Percentage Change 1991-1996	Percentage Change 1996 - 2002
	1991	1996	2002		
Church Hill DED	266	271	281	1.9%	3.7%
Seacor DED	91	93	84	2.2%	-9.7%
Donegal	128,117	129,994	137,575	1.5%	5.8%
Ireland	3,525,719	3,626,087	3,917,203	2.8%	8.0%

Source: Census of Population 1991, 1996 & 2002

- 14.11 Between 1996 and 2002 the population of County Donegal grew by almost 6%, while the population of Ireland grew by 8%. The rate of population growth in County Donegal was the highest experienced in the county since the 1970s.
- 14.12 Church Hill DED has experienced a positive increase in its population between 1991 and 2002, rising by 1.9% between 1991 and 1996 and by almost 4% between 1996 and 2002. This increase is positive and is reflected in County Donegal and Ireland as a whole. However the population of Seacor DED differs in that it has experienced a significant decrease of 9.7% in its population between 1996 and 2002.
- 14.13 The negative change in population in such rural areas such as Seacor DED is not uncommon with other areas throughout Ireland. Such declines are not confined to rural areas alone. Over the past number of year's participation rates and indeed the dependency on the primary industries such as agriculture and forestry has diminished. This may explain why the population of Seacor DED has fallen over recent years.
- 14.14 The age profile at local, regional and national level are provided in Table 14.3 and allow an investigative assessment of the likely trends in population in the coming years.

- 14.15 Of particular interest is the difference in the age profile of residents in the two relevant DEDs from the county and national averages. Of particular note are the 25-44 and 45-64 age groups, neither of which are in keeping with the national or county averages. In Church Hill and Seacor DEDs the percentage of the population in the 25-44 age group is significantly lower than the county and national averages. Conversely the percentage of the 45-64 year olds is considerably higher by as much as 6.2 percentage points (Seacor DED). This would suggest that the make-up of both areas is very different to the county and nation as a whole.
- 14.16 The low percentage of 25-44 year olds is very significant. The 25-44 year old category is a highly energetic, highly mobile age group. The lower percentage of 25-44 year olds would suggest a lack of opportunities for this age group in the area and hence their relocation elsewhere.
- 14.17 Ultimately the profile for Church Hill and Seacor DEDs would suggest an ageing population, the proportion of 45-64 and 65+ years olds (40% and 38.1% respectively) is above the county (34.4%) and national average (32.3%). (The percentage of 65+ year olds in Seacor DED is below the national average but only marginally.)

Table 14.3 Age Profile of the Population at a Local, Regional and National Level in 1996

	Age				
	0-14	15-24	25-44	45-64	65+
Church Hill DED	21.4%	16.4%	22.4%	26.0%	13.9%
Seacor DED	20.2%	21.4%	20.2%	27.4%	10.7%
Donegal	23.4%	15.1%	27.1%	21.8%	12.6%
Ireland	21.1%	16.4%	30.1%	21.2%	11.1%

Source: Census of Population 2002

- 14.18 Combining the percentages of the 0-14 and 65+ age groups gives an indication of the level of dependency within the areas analysed. The national average for 1996 was 32.2%. Church Hill DED, Seacor DED and County Donegal are above the national average at 35.3%, 30.9% and 36.0% respectively.

ECONOMIC ACTIVITY & EMPLOYMENT

- 14.19 Ireland has undergone a major economical change over recent years, which has impacted positively on the majority of the country's inhabitants. Analysis and comparison of the relevant figures for 2002 provide an indication of an areas strengths/weaknesses. Amongst the other factors affecting population growth and decline is the availability of paid employment.
- 14.20 The variance in employment levels is shown in Table 14.4. A definition of the categories analysed are provided in the table footnotes. Those who are classified as being in paid employment in Church Hill DED in 1996 is lower than is the case in County Donegal and indeed Ireland as a whole. Seacor DED is marginally above the county average but well below the national average. The level of 'unemployed' is considerably higher in Church Hill and Seacor DED than in the state and significantly higher than is the case in the County. This would suggest a lack of opportunities in both DEDs and would be a considerable factor in the low percentage of the 25-44 age group as discussed in paragraph 14.12.
- 14.21 Both DEDs experienced changes in their employment levels between 1996 and 2002. The change in Church Hill DED has been positive, the percentage of the available workforce who are at work has increased and the percentage of unemployed has decreased. The trend is in common with County and State trends. There has been a positive shift in Seacor DED though its magnitude is unimpressive.

Table 14.4 Employment Levels

	1996			2002		
	Available ¹ w'force	At work ²	Un- ³ employed	Available ¹ w'force	At work ²	Un- ³ employed
Church Hill DED	181	43.6%	15.5%	178	56.2%	11.8%
Seacor DED	64	48.4%	15.6%	58	48.3%	15.5%
Donegal	82985	48.0%	13.7%	84740	57.1%	10.5%
Ireland	2426775	53.9%	9.3%	2626265	62.5%	6.1%

Source: CSO 1996 and 2002

Available workforce = Population 15+ who are not either retired or unable to work

At work = Percentage of the available workforce who are in paid employment ie excludes students, home duties etc.

Unemployed = 1st job seekers plus unemployed as a percentage of the available workforce.

14.22 Further investigation of the employment figures reveals the sector within which those who are in paid employment are employed. In general the professional services is the dominant employment sector for inhabitants of Church Hill and Seacor DED, the level of participation in both these sectors is significantly higher than the county and state average. The manufacturing industry is the next largest employment sector in Seacor DED, while commerce is the next largest sector of employment in Church Hill DED. County Donegal has a strong manufacturing base, which is evident in its percentage of employment in this industry. The figure is comparatively higher than the national average. The level of manufacturing in Church Hill DED is half that of the national average. Such rural areas tend to have a high dependency on the primary industries such as agriculture, participation in other industries is dependent on the opportunities presented in the vicinity. One would expect the two DEDs to have similar sectoral participation rates given their proximity to each other, their rural nature and their close proximity to the major centre of Letterkenny. However sectoral participation rates are governed by knowledge and skills, which is explored in the socio-economic profile below, and the differences would explain the differing participation levels described here.

Table 14.5 Employment by Industry

	Agriculture	Building & Construction	Manufacturing	Commerce	Professional Services
Church Hill DED	8.0%	15.0%	8.0%	22.0%	22.0%
Seacor DED	3.6%	7.1%	32.1%	14.3%	21.4%
Donegal	8.4%	11.2%	17.2%	20.5%	17.5%
Ireland	5.9%	9.1%	16.0%	26.9%	15.4%

SOCIO-ECONOMIC PROFILE

14.23 A socio-economic profile of the study area has been derived from statistics contained in the Small Area Population Statistics (SAPS) as supplied by the Central Statistics Office. The profile is detailed below in Table 14.6.

14.24 The percentage of residents who are classified as being retired in both Church Hill DED and Seacor DED is not dissimilar to the corresponding result for Ireland as a whole. The average for County Donegal is considerably higher than the national average. The nature of farming in Ireland is such that the retirement age is immaterial, this becomes evident when comparing a number of results from the SAPS. Though not pronounced it is evident when considering the percentage of 65+ in the age profile (Table 14.3), the level of participation in the agricultural industry (Table 14.5) in comparison the percentage of retirees that all are inter-related, where one is elevated all are and vice versa.

- 14.25 The level of residents who are classified as being at work in both DEDs is lower than the State average. These factors correspond to a significant percentage of inhabitants who are unemployed which is almost twice the national average in church Hill DED and two and half time in Seacor DED. Both figures are at variance with the national average. In conjunction, both of these figures would suggest that employment opportunities in the area are scarce. This becomes more evident when considering the socio-economic groupings with the two DEDs.
- 14.26 The socio economic groupings of all persons, aged 15 years and over, who are at work is determined by their occupation and additionally in some cases by their employment status. Unemployed or retired persons are classified by socio-economic group according to their former occupation. The results for both DEDs reveal significant contrasts between the study area and the county and national average. The percentage of residents who are within the "Manager/Technician" grouping is significantly lower than the national and county average. This would suggest that employment is indeed scarce within the area and that high paid, high skilled employment is very scarce. The level of skilled manual labour is higher in Church Hill and Seacor DED than the county and national average but levels of unskilled manual is within the band created by the County and national averages. The level of skilled manual labour however in Seacor DED is almost double the national and county average and would explain the high level of participation in the manufacturing industry as highlighted above. This DED does have a very low level of unskilled manual labour, almost half the national average.
- 14.27 Educational attainment and employment prospects are somewhat linked. The proportion of over 15s who have had an education up to the inter-cert only is considerably higher in Church Hill DED than the national average but less than the county average. The figure for Seacor DED lies within the band created by the county and national averages. Correspondingly the proportion of the population who have gained a third level qualification is less than half that of Ireland and significantly less than the County figure.
- 14.28 The percentage of households, which are occupied by one person only, is dramatically lower in Seacor DED than in the other areas analysed. At just over 17% it is almost half that of Church Hill DED and lower than the national and county average. The percentage of single person households in Church Hill DED is most probably linked to its ageing population and would suggest that a number of it middle aged and elderly residents live alone.

Table 14.6 Socio Economic Profile

	Church Hill DED	Seacor DED	County Donegal	Ireland
Economic Status				
Residents classified as retired	8.5%	8.3%	10.7%	8.5%
Residents classified as at work	35.6%	33.3%	35.2%	41.9%
Unemployed rate	7.5%	10.7%	6.5%	4.1%
Socio Economic Groups				
Manager / Technician	17.8%	15.5%	20.8%	25.5%
Skilled Manual	22.1%	21.4%	19.8%	17.2%
Unskilled manual	7.1%	6.0%	8.4%	5.6%
Education Attainment				
Primary and lower secondary	63.5%	46.2%	55.6%	42.1%
Third level	15.5%	15.4%	17.5%	24.7%
Households				
Single person h'holds	35.4%	17.4%	22.8%	21.6%

IMPACT OF THE PROPOSED DEVELOPMENT ON THE SOCIO-ECONOMIC FABRIC OF THE AREA

- 14.29 The proposed development of a landfill site in the Meenaboll area of Donegal will impact on the inhabitants of the area. The majority of these impacts will be positive and are detailed below.
- 14.30 During the construction phase of the development employment will be created and sourced from the surrounding area. This will have a positive impact on employment levels in the short term. The proposed landfill will require operatives to collect refuse, transport, compress and oversee the process. The proposed development will therefore sustain current employment levels in the refuse collection/disposal sector but will potentially create additional employment for inhabitants of the area.
- 14.31 The remote nature of the site will ensure that disturbance to inhabitants of the general area is effectively eliminated. The impact on current land uses in the area will be negligible.

- 14.32 The public perception of landfill sites has been negative in the past and is reflective of the lack of education on waste management and disposal in general. As a society we all contribute to the problem of waste disposal. The proper disposal of waste is vital to ensure that human health is unaffected and that our quality of life remains undiminished. This is a positive impact not just for local residents but also for the wider community.
- 14.33 Landfill sites are strictly controlled and regulated by the EPA. They are highly engineered structures and highly controlled and managed, therefore the perceptions and the reality are not one in the same.

MITIGATION MEASURES

- 14.34 Ultimately all impacts on the environment, whether positive or negative impact on human beings. Therefore the topic of human beings is addressed in the succeeding sections of the Statement by means of an appraisal of the effects of the development on the environment in general. Where appropriate, mitigation measures to reduce adverse impacts are identified and incorporated into the proposal.

TOURISM ASSESSMENT - RECEIVING ENVIRONMENT

Trends In Tourism - Nationally

- 14.35 Tourism in Ireland is emerging as the largest industry in the country in terms of income revenue. While the industry has grown at an enormous rate over the past 10 years, 2001 saw a decline in visitor numbers to the country compared to 2000. The revenue generated by tourism however increased. The decline in visitor numbers, at just over 5%, was partly due to the Foot and Mouth outbreak as well as the events of the 11th September 2001.
- 14.36 There were 6,081,000 overseas visits to Ireland by non-residents in the year 2001, compared with 6,409,000 in 2000. During the same period Irish residents travelling abroad rose by 11.5%. The majority of visitors to Ireland are from Great Britain (58%), while other European countries and America/Canada contribute 22% and 15% respectively.
- 14.37 While visitor numbers declined in 2001, earnings from tourists rose by 8% on the previous year. This is an increase of over 32% on the same figure for 1997. The total revenue generated by overseas visitors amounted to €3,960 million in 2001.
- 14.38 The total number of nights spent by overseas visitors in Ireland during 2001 was 45,276,000, a decrease of 893,000 on the year 2000.

14.39 The main tourist season in Ireland is from April to September with approximately 66% of visitors arriving during this period, however 41% of the annual total arrive between the months of July and September.

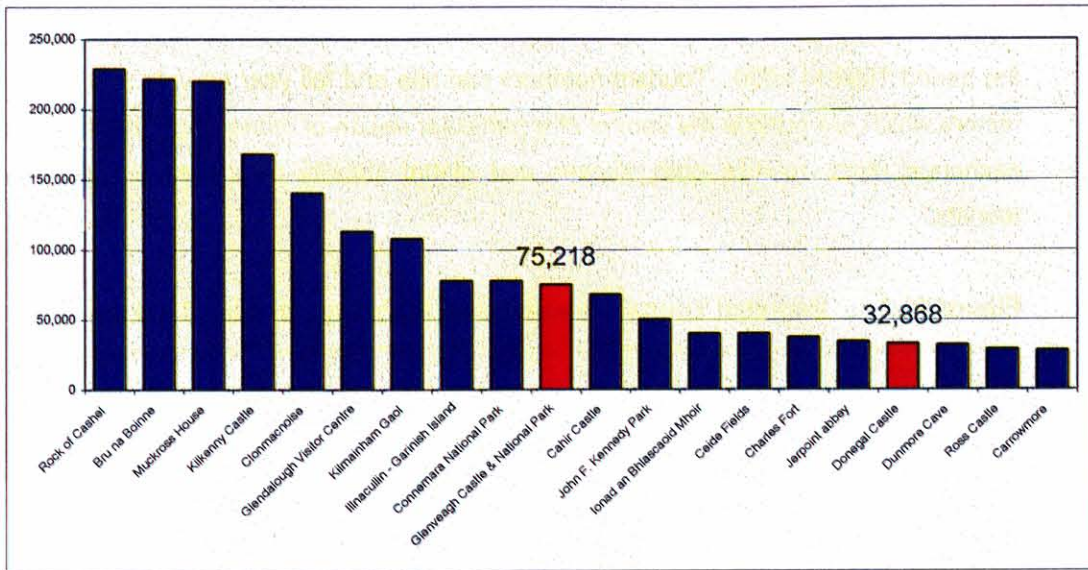
14.40 The most popular activities for visitors are, in order of popularity, as follows;

- Hiking/Hillwalking
- Golf
- Cycling
- Angling
- Language Study
- Equestrian
- Cruising

14.41 The latest employment statistics for the tourism industry in Ireland indicate that the sector provided 137,739 jobs (or job equivalents) in 1999. The effective distribution of tourism numbers throughout Ireland can be of great benefit to regions, which lack an intensive industrial base. The distribution of overseas visitors to County Donegal is discussed in the following paragraphs.

14.42 Irelands rich heritage is a major attraction to domestic and overseas visitors. Graph 14.1 is a graph of the most popular attractions in the Republic of Ireland. The attractions are predominantly historical sites but sites of natural heritage of Ireland are also represented. There are two sites which feature in the list from County Donegal. Ranked at number 10 is Glenveagh Castle and National Park and at 17 is Donegal Castle. These two sites are shown in red in Graph 14.1. Glenveagh Castle and National Park is situated approximately 11.6 km (7 miles) as the crown flies from the proposed landfill site at Meenaboll and Donegal Castle is located approximately 31 km (19.3 miles) from the proposed site.

Graph 14.1 Graph of the Top 20 Tourism/Visitor Attractions in Ireland



Glenveagh Castle and National Park

14.43 Ranked at number 10 in the country is Glenveagh Castle and National Park with over 75,000 visitors each year. Glenveagh Castle was built between 1870 and 1873. It consists of a four storey rectangular keep and has a distinctly Scottish feel. It was originally used as a shooting/sporting retreat. It is open from mid March to early November and boasts facilities such as exhibitions, tearoom, restaurant, free bus ride to the Castle from the exhibition centre as well as guided tours of the castle and free access to the gardens. The national park at Glenveagh comprises some 16,540 hectares of mountains, lakes, glens and woods with a herd of red deer roaming its contours. Over recent years the re-introduction of the Golden Eagle to Ireland has commenced in the National Park.

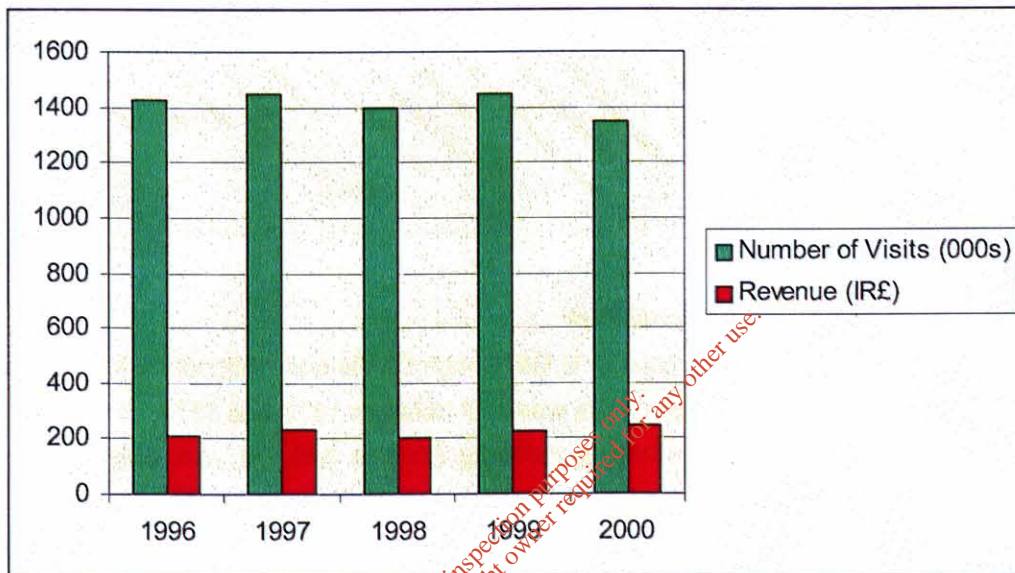
Donegal Castle

14.44 Ranked at number 17 in the country is Donegal Castle with over 32,000 visitors per year. Donegal Castle was built by the O'Donnell chieftain in the 15th century beside the River Eske. The castle underwent extensive 17th century additions by the then occupier Sir Basil Brooke. The castle is furnished throughout and includes Persian rugs and French tapestries. Information panels chronicle the history of the castle owners from the O'Donnell chieftains to the Brooke family.

Trends In Tourism - Regionally

14.45 Donegal is part of the North Western Region along with Monaghan, Cavan, Leitrim and Sligo. Figure 14.2 below shows the fluctuations in tourist numbers and revenue to the region over the period 1996 to 2000. Tourism numbers can rise and fall year on year due to a number of factors which are outside the control of a particular region or indeed country. Factors such as exchange rates, relative cost, access and global stability all influence the movement of tourists.

Figure 14.2 Regional Tourist Numbers and Revenue Between 1996 and 2000



14.46 The latest figures from Bord Fáilte (The Irish Tourist board) for the North West Region are for the year ended 2000. The numbers indicate a growth in revenue (18%) but a decline in visitor numbers (1%) between 1999 and 2000. However the growth in revenue and visitor numbers between 1996 and 2000 are 46% and 14% respectively.

14.47 Overseas tourism and domestically generated tourism are almost evenly split, 607,000 from overseas, and 738,000 from both northern and southern Ireland. Of the overseas visitors 48% are from Britain, 22% from mainland Europe and 23% from North America. The revenue generated by tourism in the region is also evenly split between overseas visitors (54%) and Irish (North & South) (46%). The bulk of the overseas visitor revenue is from British guests (57%), the percentage from mainland Europe and North America are far less at 17% and 21% respectively.

14.48 Tables 14.7 and 14.8 below show the breakdown of tourism to the North West region by County. Table 14.7 shows the number of visitors to each county, while Table 14.8 shows the revenue generated. Donegal receives the largest percentage of visitors to the North West Region compared to any other county in the region. It accounts for 42% of all visitors to the region. It also has a different pattern of tourism as compared to other counties. While the majority of visitors to other counties are from Britain, this is not the case for Donegal. Donegal receives only 29.9% of its visitors from Britain as compared to a range of between 46.3% (Sligo) and 72% (Leitrim). Tourists to Donegal are evenly split between Britain, Mainland Europe and North America, North American visitors are marginally in the majority.

14.49 The North American market is vitally important to the tourism sector in Donegal as the table shows, but a reduction of 12.6% of North American visitors in 2001 to Ireland as a whole will have had a negative impact on the county's tourism sector.

Table 14.7 Overseas Tourists to Counties, 2000 (000s)

County	Total	%	Britain		Mainland Europe		North America		Other Areas	
			No.	%	No.	%	No.	%	No.	%
Cavan	107	15.4%	70	65.4%	12	11.2%	21	19.6%	4	3.7%
Donegal	291	42.0%	87	29.9%	89	30.6%	90	30.9%	26	8.9%
Leitrim	50	7.2%	36	72.0%	6	12.0%	6	12.0%	2	4.0%
Monaghan	40	5.8%	23	57.5%	7	17.5%	8	20.0%	2	5.0%
Sligo	205	29.6%	95	46.3%	54	26.3%	45	22.0%	11	5.4%

Source: Bord Failte, 2001

14.50 County Donegal receives over 34%, amounting to €58m, of the total revenue generated by tourism in the North West Region, exceeding all other counties in the region. The next highest is Sligo with just over 30%. The amount of revenue generated from the differing country categories differs greatly for Donegal as its visitor numbers revealed, to the other counties. Only 39% of its revenue is generated from British tourists, as compared to a range of 55.6% (Monaghan) to 75% (Cavan) for the other counties.

14.51 As mentioned above the percentage of visitors from the three main origin categories is similar but the income from these origin countries differs greatly. British tourists spend the most, €23m or 39% of the total. North America, with the majority share of tourist numbers, comes next with €18m or 30.4%.

Table 14.8 Revenue generated by overseas tourists to counties within the North West Region – 2000. (Values = € m)

County	Total	%	Britain		Mainland Europe		North America		Other Areas	
			€	%	€	%	€	%	€	%
Cavan	30	17.9%	23	75.0%	3	8.3%	5	16.7%	0	0.0%
Donegal	58	34.4%	23	39.1%	13	21.7%	18	30.4%	5	8.7%
Leitrim	18	10.5%	13	71.4%	3	14.3%	1	7.1%	1	7.1%
Monaghan	11	6.7%	6	55.6%	3	22.2%	1	11.1%	1	11.1%
Sligo	52	30.6%	33	63.4%	9	17.1%	9	17.1%	3	4.9%

Source: Bord Failte, 2001

14.52 The provision of quality accommodation of varying types is an important factor in retaining visitors and indeed encouraging their return. Table 14.9 below reveals the shifts in accommodation stock provision between 1996 and 2000. The upper end of hotel accommodation provision, 3 and 4 star hotels, have risen by 5.9% and 5.3% respectively. The opposite is the case for 1 and 2 star hotels whose numbers fell by 48% and 7.2% during the same period. The category of "others" includes non-classified hotels and 5 star hotels have risen by 200% over the period. Guesthouses and Bed and Breakfast provision also increased. While camping and caravan accommodation stock increased dramatically, the level of self-catering and hostel places decreased. The figures suggest that significant levels of investment in the tourism sector have been allocated to provide essential infrastructure development. The quality and type of provision is largely determined by visitor demand and it is evident that Donegal has adapted its targeting to suit client needs.

Table 14.9 Accommodation Stock in the North West Region – 2000

		1996	2000	Percentage Change 1996 – 2000
Hotels	4 Star	338	358	5.9%
	3 Star	1426	1501	5.3%
	2 Star	538	499	-7.2%
	1 Star	407	210	-48.4%
	Other	248	744	200.0%
	Total	2957	3312	12.0%
Guesthouses and B&Bs		2408	2586	7.4%
Total Paid Serviced		5365	5898	9.9%
Self Catering (Registered) *		480	436	-9.2%
Caravan & Camping **		888	1136	27.9%
Hostels ***		917	753	-17.9%

Notes: As of May 2000

* Based on average of 2 persons per room

** Caravan/Camping refers to number of pitches

*** Hostel figures are beds available

Source: Bord Failte, 2001

Trends In Tourism - Local Tourism

- 14.53 There are a number of tourist attractions/tourist activities which are located within a short commuting distance from the proposed landfill site.

Table 14.10 Distance to tourist centres (as the crow flies).

	Distance (km)
Letterkenny	11.6
Fintown	9.7
Glebe Gallery	11.0
Newmills	12.5
Glenveagh National Park	11.6

- 14.54 The closest of which is the Fintown Railway Museum which is situated in Fintown, approximately 10 km (as the crow flies) away. There is also a working narrow gauge railway, Donegal's only one, located in the same village. This railway runs through the scenic landscape of the area and along the shores of Lough Finn. Activity pursuits such as walking and angling are also provided in Fintown. Recognised walking routes are confined to south of Meenaboll hill, none of which cross the R250.
- 14.55 St. Columba House and the Glebe Gallery are located near the shores of Lough Gartan. The House was originally a Church of Ireland Rectory and became the long time home of the artist Derek Hill. In 1980, Hill presented the house, grounds and his art collection to the State.
- 14.56 The Glebe Gallery was built beside the house and contains the Derek Hill Collection of Victorian and 20th Century art works, including ceramics by Picasso. The gallery and house are open from the end of May to the end of September.
- 14.57 The corn and flax museum at Newmills is an interesting reminder of a stage in the industrial development of this country. Visitors to the museum can experience one of the largest waterwheels in Ireland in action as it drives the machinery of the corn mill. The attraction contains a complex of industrial buildings which include both corn and flax mills powered by the river Swilly. The museum is open from mid June to mid September.

14.58 The nearby centre of Letterkenny is a prime tourist location offering an abundance of attractions to foreign and domestic travellers. Also within the area is Glenveagh Castle and national park which is described in paragraph 14.44.

Tourism Funding & Policy

14.59 The importance of tourism to the rural economy is unquestionable. The downturn in agricultural incomes has necessitated a shift to diverse sources of income. In some areas the principal area of income generation for such rural economies has become tourism due in no small part to Irelands naturally picturesque environment and wealth of historical heritage.

14.60 Because of the tourism industry's' emerging importance to the economy over recent years, various interested parties in the tourism sector have produced reports on the future of tourism in Ireland, the regions and County Donegal. It is the allocation of sufficient funding as well as the policies and vision of various organisations that will drive the future development of tourism in the Donegal and safeguard the natural and built environment of the County.

14.61 The Operational Programme for Tourism (1994 to 1999) sets out the national spend for tourism under the community support framework. The strategic objective of Irelands tourism strategy over the period 1994-1999 was to maximize Irelands tourism potential thereby increasing tourism revenue and tourism employment. Of the total grants approved under these measures 10% of grant aid was allocated to the North West region and of this 42% was allocated to County Donegal. However, it is worth noting that Donegal received no funding for Measure One "Large National or Regional Tourism projects". The lack of a key quality attraction of national and international standards in the county has been cited as a major contributor to the low tourism profile of the County.

14.62 Also between 1994 and 1999 grant aid was available for tourism development under a number of other programmes, including the EU Special Support Programme for Peace and Reconciliation 1995-1999 (Peace Programme and the International Fund for Ireland).

14.63 In relation to tourism, the co-operation between the public bodies measure allocated support to joint tourism (Marketing actions by Bord Failte and the Northern Ireland Tourist Board).

14.64 The National Development Plan 2000-2006 recognises the imbalance between and within the regions in the distribution of national economic progress. The Border, Midlands and Western Regions have retained Objective 1 status for structural funds for the period of the plan. Substantial resources exist for major flagship projects and clusters of tourism activity to be supported through the Regional operation Programme.

- 14.65 A new all Ireland tourism body, Tourism Ireland, has been established. This body will have responsibility for all Ireland destination marketing in all markets outside the island of Ireland. This new approach will present great opportunities for tourism development in County Donegal.
- 14.66 The Donegal County Development Plan, 2000¹ has stated that it will develop a more proactive and focused involvement in the development of tourism in the county. It recognises that the sector is part of the service sector where greatest job expansion has taken place over recent years and where job expansion is likely in the future. It is the goal of the Council "to support the development of sustainable tourism as a key element of an overall economic development strategy at both County and local level."
- 14.67 An area of the tourism industry which is of paramount importance to County Donegal is that of marine tourism. This has been highlighted in a report² by the Donegal County Development Board. The report states that marine and water leisure activities are estimated to create an additional €25 m in tourism revenue and give employment to around 650 people.
- 14.68 The report has stated that the goal of the Board is "To promote the sustainable development of all fisheries in order to safeguard and increase economic activity in peripheral coastal and rural communities", and "To ensure that the tourism and leisure potential of the County's rivers, lakes and marine resources is fully organised, developed and promoted".
- 14.69 Amongst its key objectives in achieving these goals are;
- To pursue the establishment of a second Donegal based Inshore Fisheries Development Committee in the South Donegal region;
 - To ensure conservation, monitoring and protection of the natural resource; And
 - To market the Donegal water leisure product to home and overseas visitors.
- 14.70 The sustainable development of Donegal's rich fishing resource was further outlined in a report³ by the Northern Regional Fisheries Board and Donegal County Development board.
- 14.71 The report states that "County Donegal is richly endowed with angling resources capable of providing local leisure needs while simultaneously attracting significant tourism revenue. Unfortunately, many of the County's game and sea stocks have been depleted and there is a clear need for improved management and substantial investment." The report concludes that "conservation and strategic marketing are highlighted as the critical issues" affecting further development of the sector.

14.72 The report highlighted the decline in visitor numbers from overseas fishermen to Ireland between 1996 and 2000. These figures are reproduced here.

Table 14.11 Market distribution of overseas visitors engaging in angling (000's)

		1996	1997	1998	1999	2000	Growth/Decline 1996-2000
Britain		102	93	84	78	75	-26.5%
Mainland Europe		54	49	43	40	36	-33.3%
	France	14	13	12	10	9	-35.7%
	Germany	21	18	16	15	14	-33.3%
North America		10	11	11	10	10	0.0%
Other Areas		3	3	1	1	1	-66.7%
Total		204	187	167	154	145	-28.9%

Source: Northern Regional Fisheries Board & Donegal County Development Board, 2002

14.73 As Table 14.11 above shows, the number of overseas visitors to Ireland, for the purpose of angling over the 5 year period, 1996 to 2000, has declined considerably. The largest proportion of overseas anglers come from Britain but the numbers coming to Ireland has declined steadily over the period 1996 to 2000. However the decline is most notable amongst mainland Europe where visitors fell by 33.3%. On average, the percentage decline amounts to 28.9% or 59,000 visitors.

14.74 The decline in visitor numbers has resulted in declines in the numbers participating in the three categories of fishing in Ireland. The most pronounced declines are in coarse and sea angling with these pastimes declining by 40.8% and 34.0% respectively between 1996 and 2000. Game fishing, a sport which Donegal is particularly renowned for, has had the lowest decline over the period but a downward trend is still evident. This can be observed in the figures reproduced in Table 14.12.

Table 14.12 Type of Angling – Overseas Visitors (000's)

	1996	1997	1998	1999	000	Growth/Decline 1996-2000
Coarse	76	68	54	51	45	-40.8%
Game	53	51	52	47	46	-13.2%
Sea	47	39	33	28	31	-34.0%
Totals	176	158	139	126	122	-30.7%

Source: Northern Regional Fisheries Board & Donegal County Development Board, 2002

14.75 Donegal forms part of the North West tourism sector and Table 14.13 shows the breakdown by region of the destination of overseas fishermen. The majority of anglers pursue their sport in the South West. This is due to the accessibility of the South West Ballest to international visitors. The area is close to a major international airport, has its own regional airport, as well as having train links and is close to a ferry terminal. The accessibility issue for the North West has been acknowledged by many as the principal reason for its poor performance in tourism terms. The North West however is the next biggest destination point for anglers, attracting over 18% of overseas anglers to the country.

Table 14.13 Percentage breakdown of overseas visitors to angling destinations

	All	Britain	Mainland Europe	France	Germany
Dublin	1	2	-	-	-
Midlands/East	6	7	4	6	4
South East	10	13	4	4	2
South West	32	28	35	27	39
Shannon	8	6	13	11	11
West	18	17	19	29	10
North West	18	21	16	24	15

Source: Northern Regional Fisheries Board & Donegal County Development Board, 2002

14.76 The principal challenge facing the angling tourism sector in County Donegal and indeed Ireland as a whole is to halt the decline in visiting fishermen numbers to the county. Safeguarding the quality of water in the County's rivers, ensuring effective conservation and management practices are employed and promotion of the total angling product is vital to ensure the long term stability of the sector to all regions of the country.

IMPACT OF THE PROPOSED DEVELOPMENT ON THE TOURISM INDUSTRY

14.77 Visiting tourism numbers are affected by a host of factors such as cost, foreign exchange rates, access etc. The development of this proposed landfill site will have an imperceptible impact on the number of tourists travelling to the County. The site is not on any recognised tourism routes and therefore its presence will be unknown to visitors unless happened upon by chance.

- 14.78 Any change in land use may have a corresponding impact on the character of an area. The degree of any impact will depend on a number of aspects including the historical or personal associations with the sites, uniqueness of the environment and the extent to which this will change the nature of the surrounding land uses.
- 14.79 The impact of the development on the site will be significant, in so far as it will alter the current use of the site. The impact on the wider landscape however could be said to be slight as the undulating terrain provides a natural screen to the site.
- 14.80 In the short term the development of the site may have some negative impact, due to construction activity on the site and the movement of heavy earth moving machinery. Ultimately however, this would be limited, temporary in nature and significant adverse impact is not expected.
- 14.81 Sites or areas with tourism potential close to the landfill may be impacted by the following:
- Road network improvements and their effects on the surrounding countryside. The impact on existing established roads surrounding the site will be limited to a short section bounding the site. The visual impact from the road tends to be limited, in that the impact lasts only for the period for which travel is within the zone of visual influence of the proposed development.
 - There may be potential impact through construction traffic and disruption to existing traffic route at stages during the construction period.
 - Good construction practice including the use of wheel wash facilities will reduce potential impacts caused by soil and landfill materials being driven off site by construction vehicles.
 - Effects of additional vehicle movements on both road safety and air quality.
 - The ability of the landfill site to provide effective screening for the operations through a combination of topography and vegetation.
- 14.82 The proposed development will not adversely impact on the established tourism centres of Glenveagh National Park, Letterkenny or Fintown. It will not impact on the angling tourism of rivers and lakes in the general area such as Owenwee River, Lough Muck or Lough Barra. Indeed the development of the proposed landfill is an important factor in ensuring the required waste management infrastructure is available in the Mid and West Donegal to allow the tourism industry to develop.

MITIGATION MEASURES

- 14.83 The site will be operated to EU standards, which should reduce the risk to air and water quality. This is dealt with in full within the EIS (Section 9 and 12).
- 14.84 The proposed landfill development will lead to minor increases in traffic flows on the surrounding road network. The County road which will provide access to the site from the R250 will be improved and will incorporate passing lay-bys.
- 14.85 The proposed development of a modern landfill has inherent benefits to the socio-economic fabric of the catchment area. It also has a number of beneficial impacts on local sectors of the economy. As highlighted within this section of the EIS, the tourism sector is an important part of the economy of the north-west. The future development, and indeed expansion of the sector relies on the provision of essential services such as waste disposal. The proposed development is a critical factor in the sustainability of the local tourism sector, as well as other local employment generating industries.

HUMAN HEALTH

- 14.86 Landfill sites produce gas and leachate as a result of waste decomposition. An emission from a landfill site does not necessarily result in human exposure as a person can only be exposed if they come into contact with the emission. The potential risks to human health from landfill sites include migration of landfill gas, the contamination of water by leachate and vermin/bird control. The design of modern landfill sites, which include lining and capping systems, aims to minimise emissions of leachate and landfill gas from a landfill. These topics are dealt with in Chapters 6, 9, 12 and 13.
- 14.87 A study on the health effects of landfilling and the incineration of waste was undertaken by Health Research Board (HRB), 2003 at the request of the Department of the Environment Heritage and Local Government. The specific research objectives of the study were as follows:
- *To review national and international literature relating to the effects of landfill and thermal treatment of waste on (a) human health and (b) the environment.*
 - *To describe the knowledge and attitudes of service providers, special interest groups and the general public to waste management options and to undertake an analysis of the source and basic knowledge and attitudes.*

- *To describe (a) the current policy and practice of waste management in Ireland in terms of the hierarchy of principles in waste management, including methods of monitoring of waste and surveillance of emissions, and (b) practices in waste management in other countries, in order to identify best practices in terms of efficiency and safety. This will include technical descriptions of different waste management options and new technologies.*
- *To review national and international literature on environmental risk assessment and to identify and describe formal risk assessments that have been carried out on landfill and thermal treatment facilities to date. This will also describe those emissions that have been identified as hazardous to human health and the environment.*
- *To compare the risks posed to public health and the environment by emissions and health by emissions from landfill and from modern thermal treatment plants with those posed by similar emissions from other sectors.*

14.88 The study involved qualitative studies including focus groups and semi-structured interviews with representatives of service providers, industry, environmental health officers and the general public. Advertisements were also placed in the local press inviting submissions.

14.89 In its summary in relation to the health effects of landfilling it reported:

- *"There have been many studies of different potentially adverse effects. These studies show an increased risk of some adverse health effects linked to residence near certain specific sites. However, although a great number of studies have been carried out, evidence of a causal relationship between specific health outcomes and landfill exposure is still inconclusive. For many reasons, it is impossible to give definitive answers to questions about these health effects. In the future, examination of specific types of defect, possibly related to exposure to specific environmental agents, may serve to clarify this link. This is further complicated by the fact that little is known about the causes of birth defects in general.*
- *At present there is insufficient evidence to demonstrate a clear link between cancer and exposure to a landfill. When residence in proximity to a landfill has been examined as a health risk, excesses of bladder, lung, leukaemia and stomach cancer have been reported in some studies and not in others. Reports of increased risk of respiratory, skin and gastrointestinal illnesses are based mainly on self-reported symptoms. These studies are hard to interpret when trying to establish causal relationship.*

14.90 Research into Congenital Anomalies was also undertaken by the Small Area Health Research Unit, Department of Community Health and General Practice, Trinity College Dublin. A statistical analysis on the occurrence of congenital anomalies in proximity to municipal landfill sites in the Eastern Region (counties Dublin, Kildare, Wicklow) was examined by small area (district electoral division), distance and clustering tendencies in relation to 83 landfills, five of which were major sites.

14.91 In its conclusion the paper, which was published in the Irish Medical Journal concluded:
"That congenital anomalies were not found more commonly in proximity to municipal landfills, suggesting that the explanation for differences in local occurrence may lie elsewhere".

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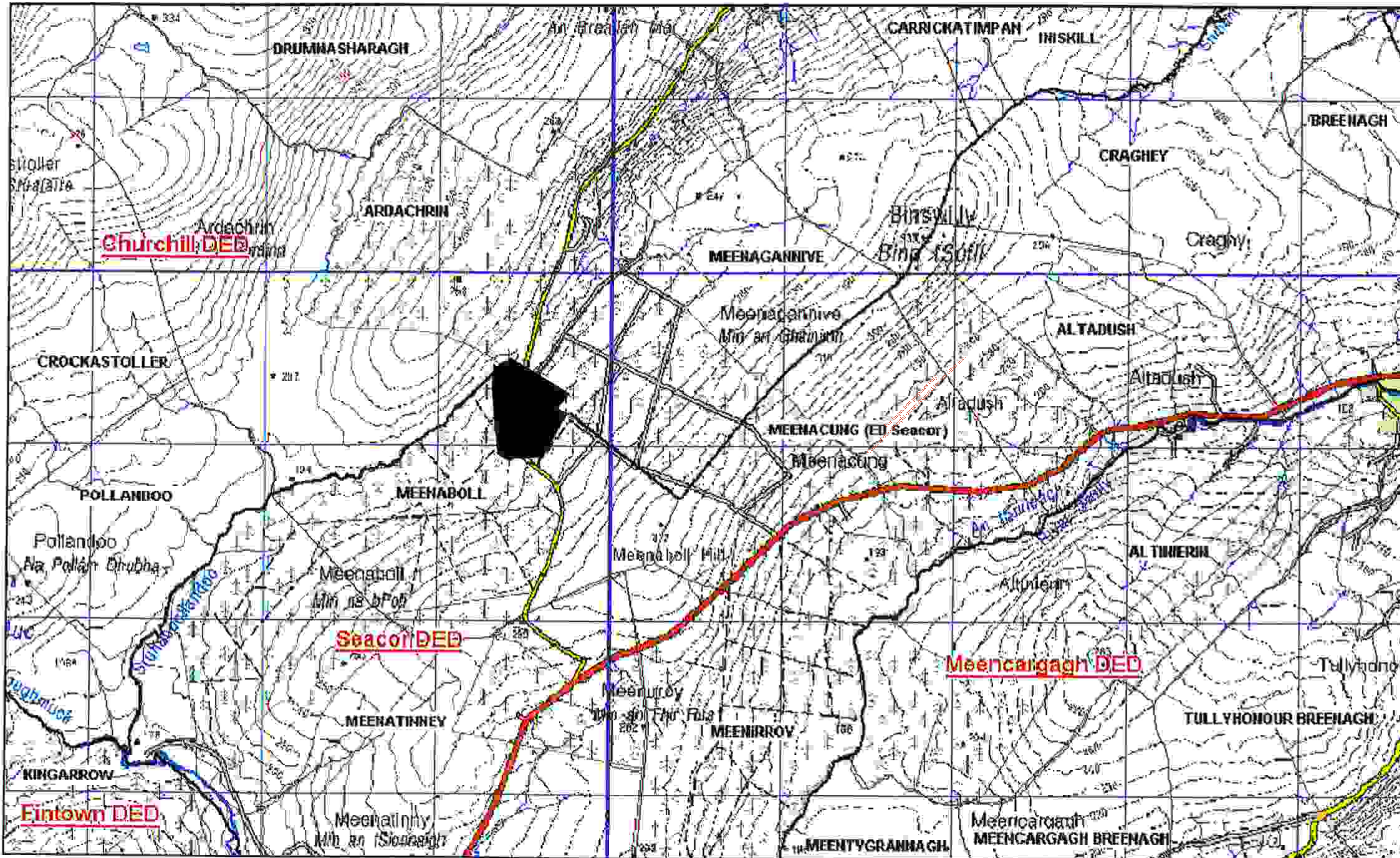
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FIGURES

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- KEY
- SITE AREA
 - DED BOUNDARY

ORDNANCE SURVEY LICENCE NO. EN 0029304
 © ORDNANCE SURVEY IRELAND / GOVERNMENT OF IRELAND
 SCALE: 1:10,000

 KIRK McCLURE MORTON <small>CONSULTING ENGINEERS</small>	 Comhairle Chiontae Dhúin na nGall <small>Donaghy County Council</small>
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PROJECT
 MEENABOLL LANDFILL PROJECT

TITLE
 DED BOUNDARIES

FIGURE
 14.1