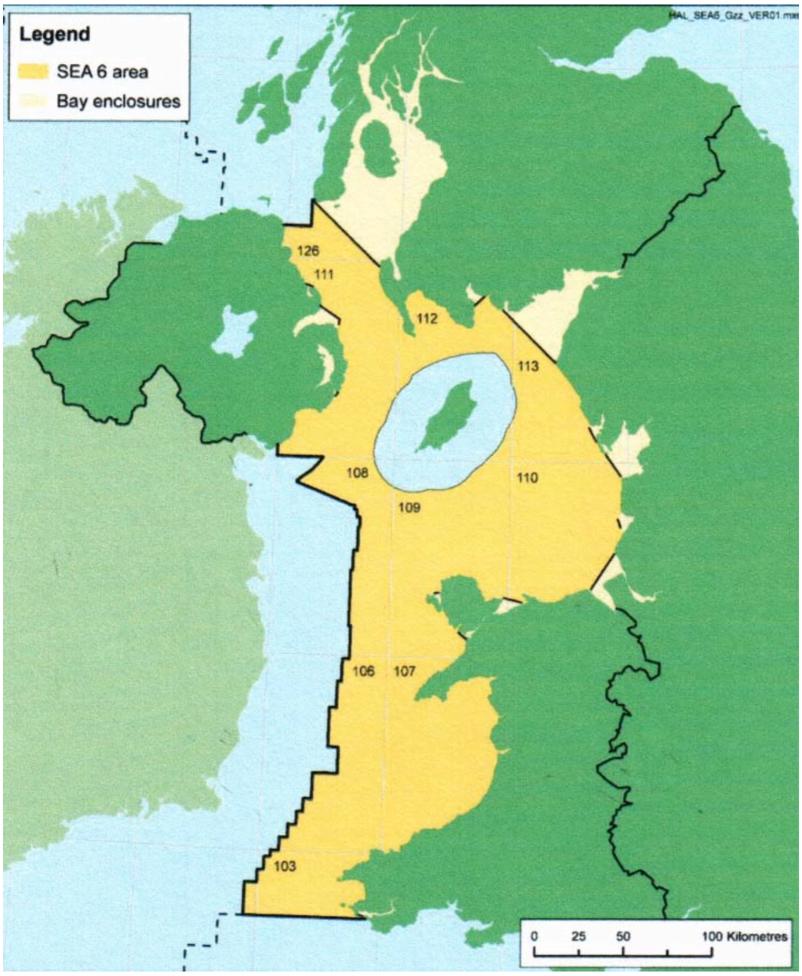
SEA 6 :
ECONOMIC AND SOCIAL BASELINE STUDY



A REPORT
for the
DEPARTMENT OF TRADE AND INDUSTRY
by
MACKAY CONSULTANTS

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May 2005

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1.0 INTRODUCTION

1.1 The UK Department of Trade and Industry (DTI) is conducting a Strategic Environmental Assessment (SEA) of licensing parts of the UK Continental Shelf (UKCS) for oil and gas exploration and production. This SEA 6 is the sixth in a series planned by the DTI, which will, in stages, cover the whole of the UKCS.

1.2 The SEA 6 area is shown on the map on the following page. It is the UK part of what is widely known as the Irish Sea, extending from the Mull of Kintyre in Scotland in the north to St David's Head in Wales in the south. It includes the area off the east coast of Northern Ireland but excludes the territorial waters of the Isle of Man.

1.3 Mackay Consultants were asked by Geotek Ltd and Hartley Anderson Ltd, on behalf of the DTI, to assess the socio-economic implications of licensing the SEA 6 area. A separate report sets out the results of that work, in relation to:

- oil and gas production, and reserves
- capital, operating and decommissioning expenditure
- employment
- tax revenues
- social impacts.

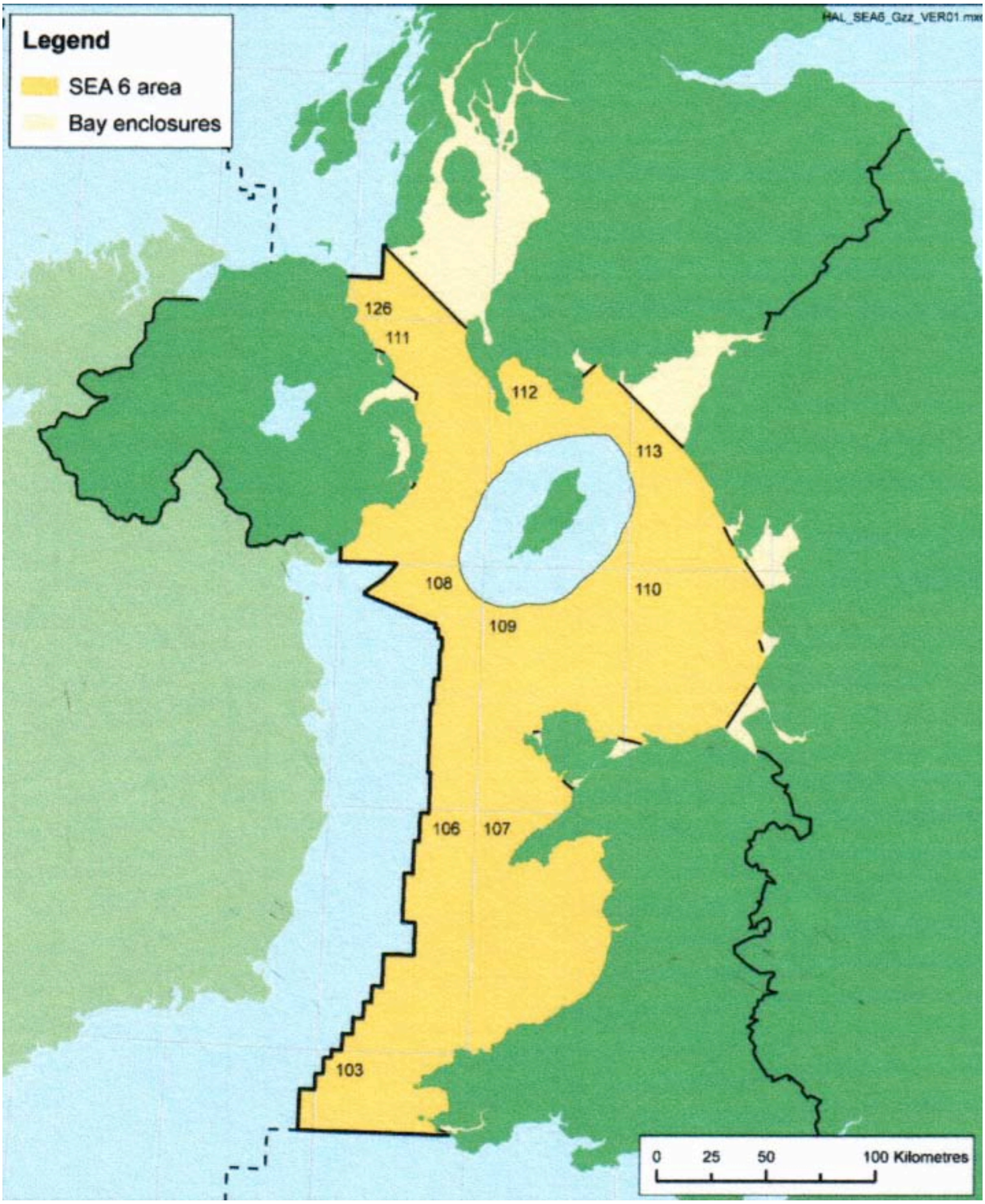
1.4 In addition to that report we were asked to produce a separate "SEA 6: Economic and Social Baseline Study" which could be used to assess the impacts of proposed offshore wind farms in the area. This report therefore provides baseline information on the key economic activities in the SEA 6 area, namely:

- offshore oil and gas
- offshore wind farms
- ports, ferries and other shipping services
- fishing
- tourism
- other marine-related activities.

1.5 It also provides brief area profiles on the relevant parts of

- Cumbria
- Lancashire
- Merseyside
- Wales
- Northern Ireland
- South West Scotland
- Isle of Man

1.6 We are very grateful for all the information and help provided in the course of our research. However, the opinions expressed in this report are those of Mackay Consultants, unless clearly indicated otherwise.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2.0 OFFSHORE OIL AND GAS

2.1 Offshore oil and gas activity is on a much smaller scale than in the North Sea but it is nevertheless a significant activity in the SEA 6 area. At the time of writing (May 2005) there were twelve oil and gas fields in production, with a few others expected to be developed in the near future.

2.2 The fields are in two main groups:

(a) **Morecambe Bay**, operated by Centrica Energy;

(b) **Liverpool Bay**, operated by BHP Billiton Petroleum.

These fields are shown on the map on the following page.

2.3 The Morecambe Bay fields comprise:

- **South Morecambe**, onstream in 1985
- **North Morecambe**, 1994
- **Dalton**, 1999
- **Millom**, 1999
- **Millom West**, 2000
- **Bains**, 2002
- **Calder**, 2004.

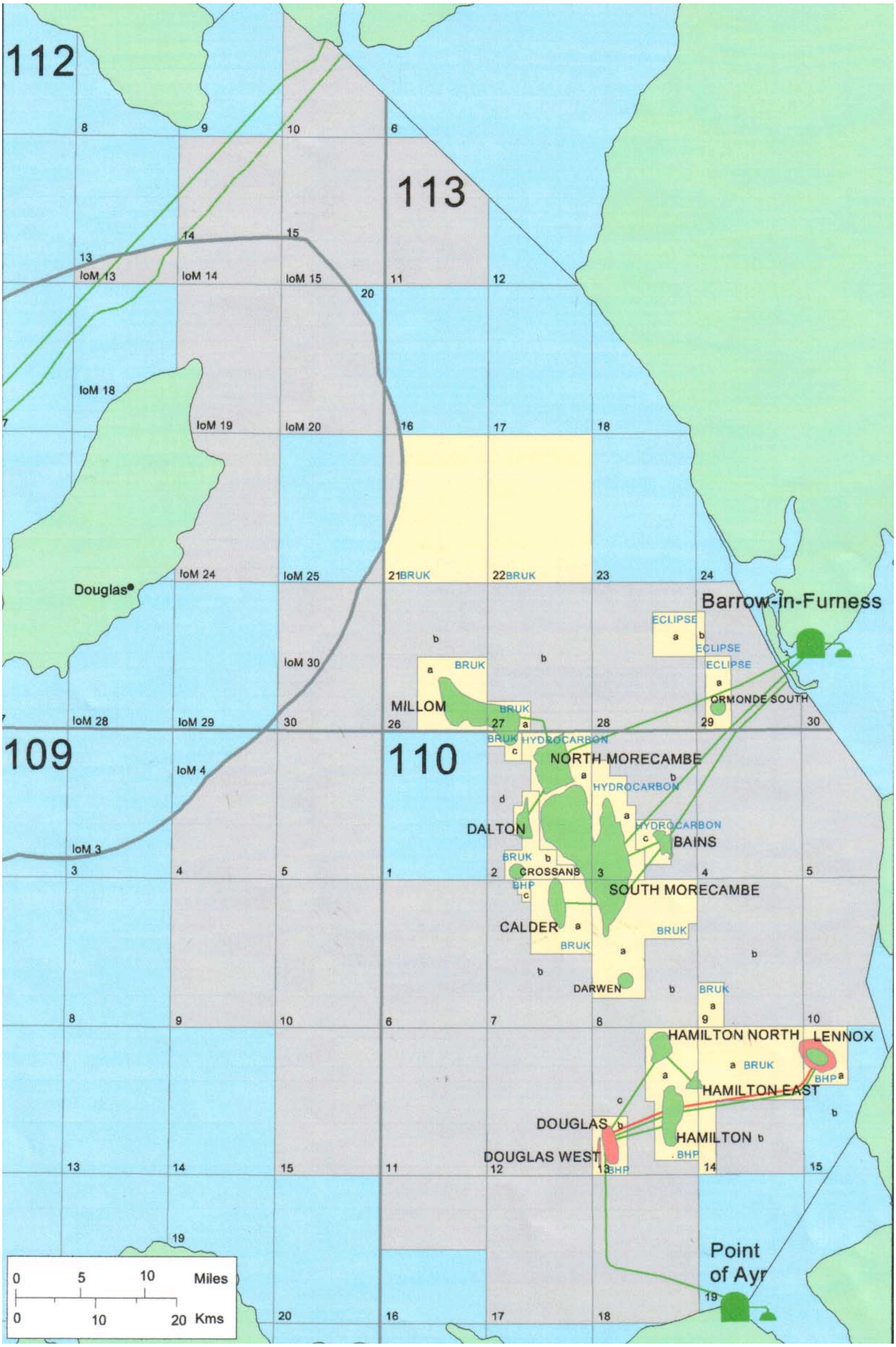
These are all gas fields, with some condensate production.

2.4 South Morecambe, North Morecambe and Bains are operated by Hydrocarbon Resources Ltd (HRL), which is a subsidiary of Centrica Energy. Centrica was formed after the demerger of British Gas in 1997 and some of its activities operate under the British Gas name. The Dalton, Millom and Millom West fields are operated by HRL/Centrica on behalf of Burlington Resources (Irish Sea) Ltd. That is also the case with the Calder field, which came onstream in October 2004 as part of the Rivers fields development, which is outlined below.

2.5 The Liverpool Bay fields comprise:

- **Hamilton North**, onstream in 1995
- **Douglas**, 1996
- **Lennox**, 1996
- **Hamilton**, 1997
- **Hamilton East**, 2001
- **Douglas West**, 2003.

These fields produce both oil and gas. All are operated by BHP Billiton Petroleum Ltd.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IoM 3
IoM 4
Douglas
Barrow-in-Furness
ECLIPSE
ORMONDE SOUTH
BRUK
MILLOM
HYDROCARBON
NORTH MORECAMBE
DALTON
BAINS
CROSSANS
BHP
SOUTH MORECAMBE
CALDER
DARWEN
HAMILTON NORTH
LENNOX
HAMILTON EAST
DOUGLAS
HAMILTON
DOUGLAS WEST
Point of Ayr
0 5 10 Miles
0 10 20 Kms

Morecambe Bay fields

2.6 **South Morecambe** was the first field to be developed in what is known as the Irish Sea or the SEA 6 area. It was discovered in September 1974 on block 110/20a, in 31 metres of water, about 20 miles south-west of Barrow-in-Furness, as shown on the map. Production start-up was in January 1985.

2.7 The field's original recoverable reserves were estimated at 144.4 billion cubic metres (bcm) of gas. The remaining reserves are estimated at about 27 bcm, approximately 20% of the original total.

2.8 South Morecambe was developed with six steel platforms – a central production platform and five "remote" platforms, which are not normally manned (NNM). The gas from the five NNM platforms goes to the central platform and from there via a 24 mile, 36 inch pipeline to the South Morecambe terminal at Barrow-in-Furness. Liquids are separated at the terminal and the dry gas then goes into the National Transmission System (NTS).

2.9 Production from South Morecambe in 2003 was just over 7.5 billion cubic metres (bcm), equivalent to about 725 million cubic feet per day (mcfd). That was about 7.0% of total UK gas production in 2003. The Morecambe Bay gas fields combined accounted for about 10.8% of the UK total.

2.10 The historical production statistics for the Morecambe Bay fields are shown in Table 2.1 and Figure 2.1 on the following page. Peak production from South Morecambe was 9.971 bcm in 1999, equivalent to 965 mcfd.

2.11 Output changes seasonally, as with most UK gas fields, with higher production in the winter than in the summer. For example, DTI statistics show output of 1,090 mcfd in January 2004. The average production for the twelve months to October 2004 was 798 mcfd.

2.12 It is expected that gas production from South Morecambe will decline over the next few years as the reservoir is depleted. As mentioned above, the remaining recoverable reserves are approximately 20% of the original total. The field has been in production for over 20 years.

2.13 **North Morecambe** was the second field to be discovered in the SEA 6 area. It was discovered in March 1976 but production did not begin until October 1994. The field is located on block 110/2a, the same as South Morecambe.

2.14 The original recoverable reserves were estimated at 27.9 bcm. The remaining reserves are estimated at about 2 bcm, approximately 8% of the original total.

2.15 The North Morecambe field was developed with a single NNM platform, which can be operated remotely from either South Morecambe or the central room at the Barrow terminal. The gas is piped via a 29 mile, 36 inch pipeline to the North Morecambe terminal at Barrow. This pipeline and terminal also handle the gas from the Dalton and Millom fields.

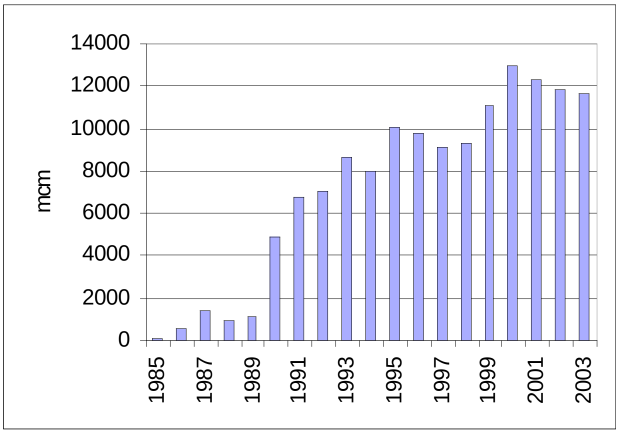
2.16 The Centrica Energy website (www.centrica.co.uk) states that "all gas processing for the North Morecambe field takes place onshore, avoiding the need for complex equipment and allowing substantial cost reductions. Gas from the North Morecambe field is different to that from the South Morecambe field, necessitating different onshore terminals".

Table 2.1: Gas production from Morecambe Bay fields
(million cubic metres, mcm)

	South Morecambe	North Morecambe	Dalton	Millom	Bains	Total Morecambe Bay
1985	90	-	-	-	-	90
1986	604	-	-	-	-	604
1987	1,441	-	-	-	-	1,441
1988	975	-	-	-	-	975
1989	1,138	-	-	-	-	1,138
1990	4,839	-	-	-	-	4,839
1991	6,730	-	-	-	-	6,730
1992	7,058	-	-	-	-	7,058
1993	8,691	-	-	-	-	8,691
1994	7,444	555	-	-	-	7,999
1995	7,675	2,399	-	-	-	10,074
1996	7,099	2,626	-	-	-	9,725
1997	6,170	2,930	-	-	-	9,100
1998	7,993	1,294	-	-	-	9,287
1999	9,971	848	267	29	-	11,115
2000	8,436	3,872	471	144	-	12,923
2001	8,328	3,017	32	1,023	-	12,310
2002	7,513	3,128	2	1,048	109	11,800
2003	7,526	2,594	110	927	505	11,662
Cumulative to end 2003	109,721	23,263	882	3,171	614	137,651

Source: DTI

Figure 2.1: Gas production from Morecambe Bay fields



2.17 There are two separate gas terminals at Barrow due to the differing gas compositions and tax regimes which apply between South and North Morecambe. Their role is to remove impurities in the gas to ensure the gas exported into the transmission system is of high quality. Gas from the Calder (Rivers) fields is high in hydrogen sulphide and requires pre-treatment before entering the North terminal commingled flow of the North Morecambe, Millom and Dalton fields.

2.18 Production from North Morecambe in 2003 was just under 2.6 billion cubic metres (bcm), equivalent to 250 million cubic feet per day (mcfd). According to DTI statistics output in October 2004 was 208 mcfd and the average for the previous twelve months 215 mcfd.

2.19 Thus production in 2004 as a whole could have been approximately 2.0 bcm. That compares with the above estimate of 2.0 bcm remaining reserves. It may be that the field's recoverable reserves have been increased but there seems little doubt that North Morecambe is coming to the end of its productive life.

2.20 The **Dalton** and Millom fields were the next to be developed, coming onstream in August 1999. Dalton was discovered in 1990 on block 110/2b by British Gas E&P. Burlington Resources bought this and other stranded assets from British Gas in 1998.

2.21 Dalton is a tiny field with estimated recoverable reserves of just 2.9 bcm. It was developed as a subsea satellite of North Morecambe, with a 4.4 mile tieback. Production in 2003 was just 110 million cubic metres, equivalent to 10 mcfd, although it reached 471 mcm in 2000. The DTI statistics show no production since April 2004 but 21 mcfd during that month. The DTI statistics show cumulative production of 882 mcm to end 2003, compared with the estimated original recoverable reserves of 2,900 mcm, so the field should be able to produce at the 2003 level for a few more years.

2.22 **Millom** also came onstream in August 1999. It was discovered by British Gas in 1982 on block 113/26a, to the north of the North Morecambe field. Like Dalton, it is operated by Centrica/HRL on behalf of Burlington Resources.

2.23 The field's original recoverable reserves were estimated at 6.1 bcm. The remaining reserves are estimated at 2 bcm, approximately 33% of the original total.

2.24 The Millom field was developed in two phases and is sometimes referred to as two separate fields, Millom (East) and Millom West. The eastern section produces from a single subsea well (a recompleted appraisal well), tied back via a 5.4 mile, 12 inch pipeline to the North Morecambe platform. The western section produces from a NNM minimal facilities platform with four wells which were drilled in 2000 and 2001.

2.25 The platform was originally intended to be a concrete gravity base structure but Burlington decided during the construction phase to replace that with a steel structure. The GBS was built at Pembroke Dock in Wales. Press reports suggested that it could be re-used for one of the Rivers fields (see below) but that has not (yet) happened.

2.26 The DTI statistics show Millom production of 927 mcm in 2003, equivalent to about 90 mcfd. The daily average for the twelve months to October 2004 was 81 mcfd.

2.27 The Burlington Resources website (www.br-inc.com) states that the company "produces sweet natural gas from the Millom and Dalton fields through a combination of platform wells and subsea completions. The two fields are located about 25 miles west of Walney Island, Barrow, and are together estimated to contain recoverable reserves of more than 300 bcfe (8.6 bcm). Production began in 1999, with an expected lifespan of 20 years, and averaged 96 mcfd during 2003".

2.28 "During the year Burlington completed a new subsea well, increasing the number of producing wells in the two fields to nine in total. Several of these wells are "trilaterals", meaning that each incorporates three horizontally drilled lateral extensions that more thoroughly exploit the Ormskirk reservoir."

2.29 There appear to be inconsistencies between some of the above estimates. The combined recoverable reserves of Millom and Dalton are about 9 bcm and production in 2003 was about 1 bcm. At the latter level, the fields are unlikely to produce for 20 years, although lower output in the future would undoubtedly extend their lifetimes.

2.30 The **Bains** field was developed by Centrica/HRL and began production in November 2002. The field was named after John Bains, the geologist who is credited as discovering the Morecambe fields. It is a very small field, with estimated recoverable reserves of approximately 50 bcf or 1.4 bcm.

2.31 Bains was a "fast-track" development, with a single subsea well tied back five miles to the South Morecambe platform. The development cost was reported as £30 million.

2.32 The DTI statistics show production of 505 mcm in 2003, which is about one third of the estimated recoverable reserves. That is equivalent to about 50 million cubic feet per day. Production in the twelve months to August 2004 averaged 36 mcfd. It appears therefore that the Bains field will only have a very short lifetime and could cease production in the next two to three years.

2.33 The main offshore development currently underway in the SEA 6 area is the **Rivers** project, by Burlington Resources which will be operated on their behalf by Centrica/HRL. The Rivers development will involve up to five small gas fields, namely

- **Calder**
- **Darwen**
- **Crossans**
- **Hodder**
- **Asland**

These fields are named after rivers.

2.34 The Burlington Resources website states that "a project to develop sour natural gas production from the multiple-field Rivers complex was completed during the fourth quarter of 2004. The five separate fields are estimated to contain more than 250 bcfe of resources (7.1 bcm), and following a full ramp-up of the facilities, the project is expected to average gas sales in excess of 90 million cfd".

2.35 "Burlington is initially producing gas from the **Calder** field, from three wells that tested at a combined rate of more than 180 mcfd. The gas flows to a producing platform, then through a 30-mile pipeline to an onshore gas terminal and processing plant at Barrow-in-Furness, adjacent to the Morecambe terminal complex. The facility includes a compressor station and sour gas treatment plant, and is operated under contract by Centrica Energy."

2.36 "Burlington holds 100% working interest in the Rivers fields facilities. The **Darwen** and **Crossan** fields are expected to be tied in by subsea completions in 2007."

2.37 First gas from the Calder field was on 16 October 2004, about six months later than planned. A platform was installed in 2002 and there are three producing wells. The development cost was given as £185 million ($340 million).

2.38 No development plans have yet been revealed for the **Hodder** and **Asland** discoveries. It is likely that they will be developed when spare capacity becomes available in the Calder facilities.

2.39 Table 2.1 and Figure 2.1 show combined output from the Morecambe Bay fields rising to a peak of 12.9 bcm (125 million cfd) in 2000. It has fallen a little since then and the 2003 total was just under 11.7 bcm. The Calder field will add about 0.2 bcm to the overall total.

2.40 We had meetings with staff of Centrica Energy at Barrow and Heysham in the course of the fieldwork for this study. The fields are supplied from a base at Heysham (see map), where Centrica also have their asset administration centre.

2.41 Centrica informed us that current employment is 325 staff plus about 150 contractors, a total of about 475. About 200 work at the Barrow terminals, 100 in Heysham and 200 offshore (2x100 crews on a 2 weeks on/2 weeks off rota). The employment has fallen by about 50% from its peak.

2.42 At Heysham they have a 21 acre site with a 55,000 sq ft warehouse, plus mud tanks and other facilities. Heysham was chosen as the supply base because the port has 24 hour non-constrained access. Barrow and Liverpool are both dependent on tidal access.

2.43 HRL/Centrica share one supply boat with BHP Billiton (see below). The vessel takes about two hours to travel to the Morecambe Bay facilities, which are 25 nautical miles away, and usually makes two or three trips there each week.

2.44 The offshore crews are flown by helicopter from/to Blackpool airport.

2.45 The fields produce a small amount of condensate which is transferred to a tank farm (six tanks) at Barrow Docks. They currently export from there 55-60,000 cubic metres of condensate per year, equivalent to about 12 tanker loads.

2.46 Centrica also bought the Roosecote gas-fired power station adjacent to the Barrow complex in May 2003. It is not supplied directly from the Barrow terminal but they are considering doing that to save on the transport charges from the National Transmission System (NTS). About 30 people work at the power station.

Liverpool Bay fields

2.47 Moving south, BHP Billiton Petroleum operate a group of fields in Liverpool Bay, namely

- **Hamilton North**, onstream in 1995
- **Douglas**, 1996
- **Lennox,** 1996
- **Hamilton**, 1997
- **Hamilton East**, 2001
- **Douglas West**, 2003

These fields are sometimes referred to as Liverpool Bay rather than by their individual names.

2.48 Douglas, Douglas West and Lennox are oil fields, with associated gas production from the last of those. The three Hamilton fields produce gas.

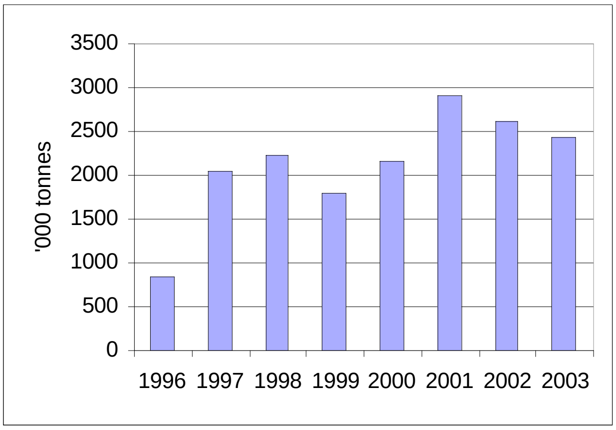
2.49 Table 2.2 and Figure 2.2 show the annual oil production from the Liverpool Bay fields since it began in 1996. It reached a peak of 2.9 million tonnes, equivalent to about 60,000 bpd, in 2001. The combined total in 2003 was just over 2.4 million tonnes, equivalent to about 50,000 bpd.

Table 2.2: Oil production from the Liverpool Bay fields
(thousands of tonnes)

	Hamilton North	Douglas	Lennox	Hamilton	Hamilton East	Douglas West	Total Liverpool Bay
1996	-	747	105	-	-	-	852
1997	-	1,587	453	-	-	-	2,040
1998	-	1,339	886	-	-	-	2,225
1999	-	937	857	-	-	-	1,794
2000	-	779	1,376	-	-	-	2,155
2001	-	1,118	1,798	-	-	-	2,916
2002	-	918	1,697	-	-	-	2,615
2003	-	645	1,573	-	-	205	2,423
Cumulative to end 2003	-	8,094	8,755	-	-	205	17,054

Source: DTI

Figure 2.2: Oil production from the Liverpool Bay fields



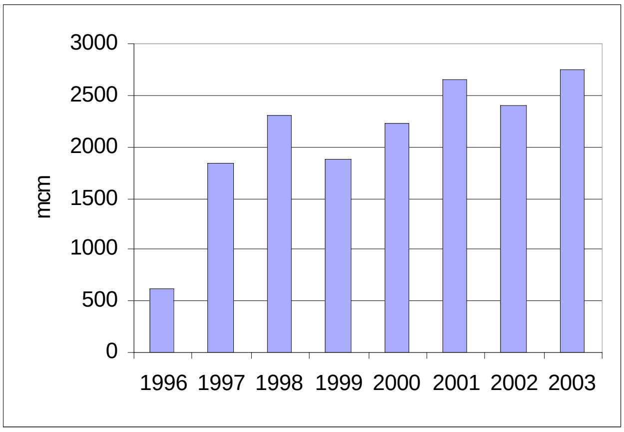
2.50 Table 2.3 and Figure 2.3 show the annual gas production from the fields since that also began in 1996. It has risen to a peak of just over 2.7 billion cubic metres in 2003, equivalent to about 250 million cfd.

Table 2.3: Gas production from the Liverpool Bay fields
(million cubic metres, mcm)

	Hamilton North	Hamilton	Hamilton East	Lennox	Total Liverpool Bay
1996	625	-	-	?	625
1997	667	1,176	-	?	1,843
1998	546	1,754	-	?	2,298
1999	454	1,416	-	?	1,870
2000	543	1,685	-	?	2,228
2001	553	1,933	167	?	2,653
2002	368	1,536	503	?	2,407
2003	566	1,833	354	?	2,753
Cumulative to end 2003	4,322	11,331	1,024		16,677

Source: DTI

Figure 2.3: Gas production from the Liverpool Bay fields



2.51 **Douglas** is the main field and acts as a production hub for the others. There is an offshore storage facility and oil production is via offshore tanker loading. The gas goes from Douglas via a 36 km pipeline to the Point of Ayr terminal in North Wales, as shown on the map.

2.52 The BHP Billiton website (www.bhpbilliton.com) states that "offshore operations are centred on the Douglas complex – a three-platform facility that monitors and controls the development's three unmanned satellite platforms at Lennox, Hamilton and Hamilton North. Oil and gas from all four fields are received at Douglas. The oil is then processed, blended and sent through a 20 km pipeline to the offshore storage installation, before being loaded into tankers, for export worldwide. Gas is part-processed on Douglas before it travels via a 34 km pipeline to BHP's state-of-the-art terminal, at Point of Ayr on the North Wales coast".

2.53 "The total recoverable reserves in Liverpool Bay are currently estimated to be in excess of 150 million barrels of oil (20 million tonnes) and 1.2 trillion cubic feet of gas (35 billion cubic metres). With peak oil production expected to average some 70,000 barrels per day, and a peak gas capacity of 300 million cubic feet per day, the life of the development is projected to be at least 20 years."

2.54 Douglas' original recoverable reserves were estimated at 13.3 mt (100 mb). Cumulative production to end 2004 is estimated at about 8.7 mt, implying remaining reserves of approximately 4.6 mt or 35% of the original total.

2.55 The DTI statistics show 2003 production of 645,000 tonnes, equivalent to 13,250 bpd. Production in the twelve months to October 2004 averaged 11,515 bpd, although the DTI statistics show no production since July 2004.

2.56 **Douglas West** was developed with a single highly-deviated well tieback. It came onstream in 2003, when production totalled 205,000 tonnes, equivalent to 4,200 bpd. Production in the twelve months to October 2004 averaged 2,923 bpd.

2.57 **Lennox**' original recoverable reserves were estimated at 10.1 million tonnes (75 mb) of oil, plus 10.3 bcm gas. Cumulative oil production to end 2004 is estimated at about 10.0 million tonnes. That implies that there is very little oil left, but presumably the reserves have been upgraded.

2.58 The DTI statistics show 2003 oil production of 1,573,000 tonnes, equivalent to 32,320 bpd. Production in the twelve months to October 2004 averaged 26,710 bpd.

2.59 Gas production from Lennox averaged 72 mcfd in the twelve months to October 2004. The October average was 87 mcfd.

2.60 **Hamilton North**'s original recoverable reserves were estimated at 5.3 billion cubic metres (bcm). Cumulative production to end 2004 is estimated at about 5.0 bcm, implying that there is very little gas left. However, these reserves may also have been upgraded.

2.61 The DTI statistics show 2003 production of 566 million cubic metres (mcm), equivalent to about 55 million cubic feet per day (mcfd). Production in the twelve months to October 2004 averaged 42 mcfd.

2.62 **Hamilton**'s original recoverable reserves were estimated at 14.3 bcm. Cumulative production to end 2004 is estimated at about 13.0 bcm, implying that there is very little gas left. However, these reserves may also have been upgraded.

2.63 The DTI statistics show 2003 production of 1,833 mcm, equivalent to about 180 mcfd. Production in the twelve months to October 2004 averaged 137 mcfd.

2.64 **Hamilton East** is a small satellite field, which came onstream in 2001 as an one well subsea tieback. Cumulative production to end 2004 is estimated at about 1.5 bcm.

2.65 The DTI statistics show 2003 production of 354 mcm, equivalent to about 35 mcfd. Production in the twelve months to October 2004 averaged 23 mcfd.

2.66 The fields are supplied from the Heysham base, in a cooperative arrangement with Centrica/HRL, as mentioned above. The offshore crews are flown by helicopter from/to Blackpool airport.

2.67 We met a representative of BHP Billiton Petroleum in the course of the fieldwork for this study. She informed us that there are about 300 people employed on the Liverpool Bay project, about half onshore and half offshore.

2.68 About 60 people work on the manned Douglas platform and 15 on the oil storage installation at any one time, with two crews bringing the total to 150. There are 60-70 at the Point of Ayr terminal and 70 in their offices near Mold in Flintshire.

2.69 A drilling team is based in London. There is likely to be one more drilling programme in 2005 but that will probably be the last.

2.70 The Liverpool Bay project could end by about 2014, unless there are new discoveries which would use the facilities.

Possible developments

2.71 There are a few existing development possibilities in the SEA 6 area. Mention was made above of Burlington's Rivers prospects, including **Darwen** and **Crossan**, which are expected to be subsea developments in 2007. No plans have been announced yet for **Hodder** and **Asland**.

2.72 A part of the DTI website lists

- **significant offshore discoveries in date order.**

In addition to the fields referred to above the list includes the following:

- **Ormonde South**, block 113/29-2, operator: Eclipse
- No name, **block 110/08a-5**, Open.

2.73 In February 2001 the DTI invited applications for licences for two blocks containing gas discoveries in the eastern Irish Sea, 113/28 and 113/29. The blocks were previously held by Kerr McGee but were relinquished in 1999. The then Minister for Energy Peter Hain stated that "these blocks contain gas discoveries that have been identified by PILOT's Undeveloped Discoveries Workgroup, as having potential for development. I am pleased that the efforts of the Workgroup have led to this invitation being made".

2.74 Eclipse Energy, together with Rolls-Royce Power Ventures, successfully applied for the licences which were awarded to them in August 2001. The companies plan an unique offshore co-generation scheme, involving both gas production and an offshore wind farm.

2.75 The plan shows the Ormonde North and Ormonde South gas fields, a proposed gas pipeline to Heysham and a proposed subsea electricity cable to the same location. A detailed application is expected to be submitted to the DTI during 2005. The development cost is estimated at £220 million.

2.76 We are not aware of any plans for block 110/08a mentioned above. This is located to the south of the South Morecambe field and is currently unlicensed.

2.77 A media report in January 2004 stated that "it is believed Centrica is currently in discussions with the Department of Trade and Industry over the possibility of acquiring the **Castleton** prospect, located in a relinquished block to the north of North Morecambe". We have no information on this.

2.78 Another media report in January 2004 also stated that "to the south-east of Morecambe, Burlington is also working on the development of its West Lennox find". We also have no information on this.

Exploration activity

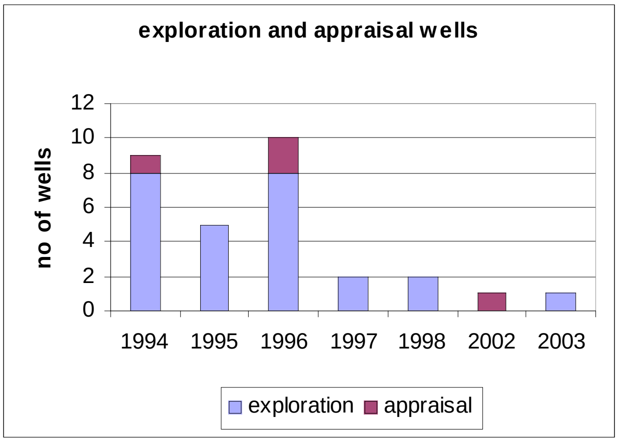
2.79 Table 2.4 and Figure 2.4 give statistics on drilling activity in the "West of England/Wales" area for the period since 1994. Twenty four exploration and appraisal wells were drilled in the three years 1994-6 but there has been very little activity since then. No e and a wells were drilled in the three years 1999-2001; there was one such well in 2002 and another in 2003.

Table 2.4: Historical drilling activity in the SEA 6 area

	exploration	appraisal	development	total
1994	8	1	7	16
1995	5	0	13	18
1996	8	2	14	24
1997	2	0	1	3
1998	2	0	3	5
1999	0	0	8	8
2000	0	0	8	8
2001	0	0	16	16
2002	0	1	10	11
2003	1	0	9	10
2004*	0	0	1	1

* provisional
Source: DTI

Figure 2.4: Historical drilling activity



2.80 However, the table shows a much higher level of development drilling, which is related to the field developments referred to earlier.

2.81 In 2003 the DTI invited applications for licences for blocks 113/21 and 113/22, which are located to the north of the Millom field. The licences were awarded to Burlington Resources in September 2003.

2.82 The area involved is largely covered by the Ministry of Defence's Eskmeals firing range. A DTI press release stated that "as a result any licensee must expect unusual restrictions on activity. In particular, exploration drilling will not be permitted before 2004 and when permitted is likely to be subject to strict timescales …. Permanent structures will not be permitted within the firing range within the lifetime of the licences".

3.0 OFFSHORE WIND FARMS

3.1 The DTI asked us to cover offshore wind farms in this report on the SEA 6 area, as well as offshore oil and gas activity.

3.2 The UK Government is very keen to encourage the production of renewable energy in the country. The 2003 Energy white Paper, “Our energy future – creating a low carbon economy”, set out the Government’s policy on renewable energy and confirmed the target that by 2010 10% of electricity should come from renewable sources. The target for 2020 is 20%.

3.3 One of the White Paper’s four goals is to cut the UK’s carbon dioxide emissions by 60% by 2050, as recommended by the Royal Environmental Commission on Pollution, with real progress by 2020, while maintaining reliable and competitive energy supplies. The Government recognises that increasing the use of renewables can make a significant contribution to achieving this. Achieving the 10% target would reduce carbon dioxide emissions by an estimated 2.5 MtC per year. Reaching the 2020 aspiration would achieve a further 3-5 MtC reduction.

3.4 The White Paper also recognises the decline of the UK’s indigenous energy supplies. The UK already imports nearly 50% of the coal it uses. By around 2006, the UK will also be a net importer of gas, and by around 2010 of oil.

3.5 By 2020, we could be dependent on imported energy for three-quarters of our total primary energy needs. As the UK moves from being a net energy exporter to being once again a net energy importer, it may become potentially more vulnerable to price fluctuations and interruptions to supply caused by regulatory failures, political instability or conflict in other parts of the world.

3.6 The Government’s main mechanism for supporting renewable energy is the **Renewables Obligation**, which became legislation in 2002. The Obligation requires suppliers to source an annually increasing percentage of their sales from renewables. For each megawatt hour of renewable energy generated, a tradable certificate called a Renewables Obligation Certificate (ROC) is issued. Suppliers can meet their obligation by:

- acquiring ROCs
- paying a buy-out price of £30/megawatt hour
- a combination of ROCs and paying a buy-out price.

3.7 Offshore wind will be a key contributor to the country’s renewable energy targets. According to the DTI’s Renewable Energy website “wind energy offers the best, and most cost-effective, potential for expansion of renewable energy in the short term. The UK has the largest potential wind energy reserve in Euope”.

3.8 The Crown Estate (CE) owns the seabed out to the 12-nautical-mile limit of territorial waters. Offshore wind farm development on the CE’s marine estate requires the CE to grant a lease over a particular site.

3.9 Similar considerations will apply in the Renewable Energy Zone, created under the Energy Act 2004, although, because the CE does not own the seabed beyond the territorial limit, it will issue a licence to develop a wind farm rather than a lease. The CE, in consultation with the DTI, will seek bids for site leases in future rounds of leasing.

3.10 In December 2000 the Crown Estate invited potential offshore wind farm developers to apply to explore and then develop sites. Applications were restricted to sites of no more than 10 square kilometres (km^2) and to a maximum of 30 turbines, with a minimum installed capacity of 20 MW (megawatt).

3.11 In April 2001 18 companies pre-qualified for site development under the Crown Estate procedures. At the time of writing (May 2005) 12 projects had gained all the necessary statutory consents to enable construction and operation. These Round One sites are shown on the map on the following page.

3.12 Six of the wind farm sites are in the SEA 6 area, namely

- **Solway Firth**
- **Ormonde**
- **Barrow**
- **Shell Flats**
- **Burbo Bank**
- **Rhyl Flats/North Hoyle**.

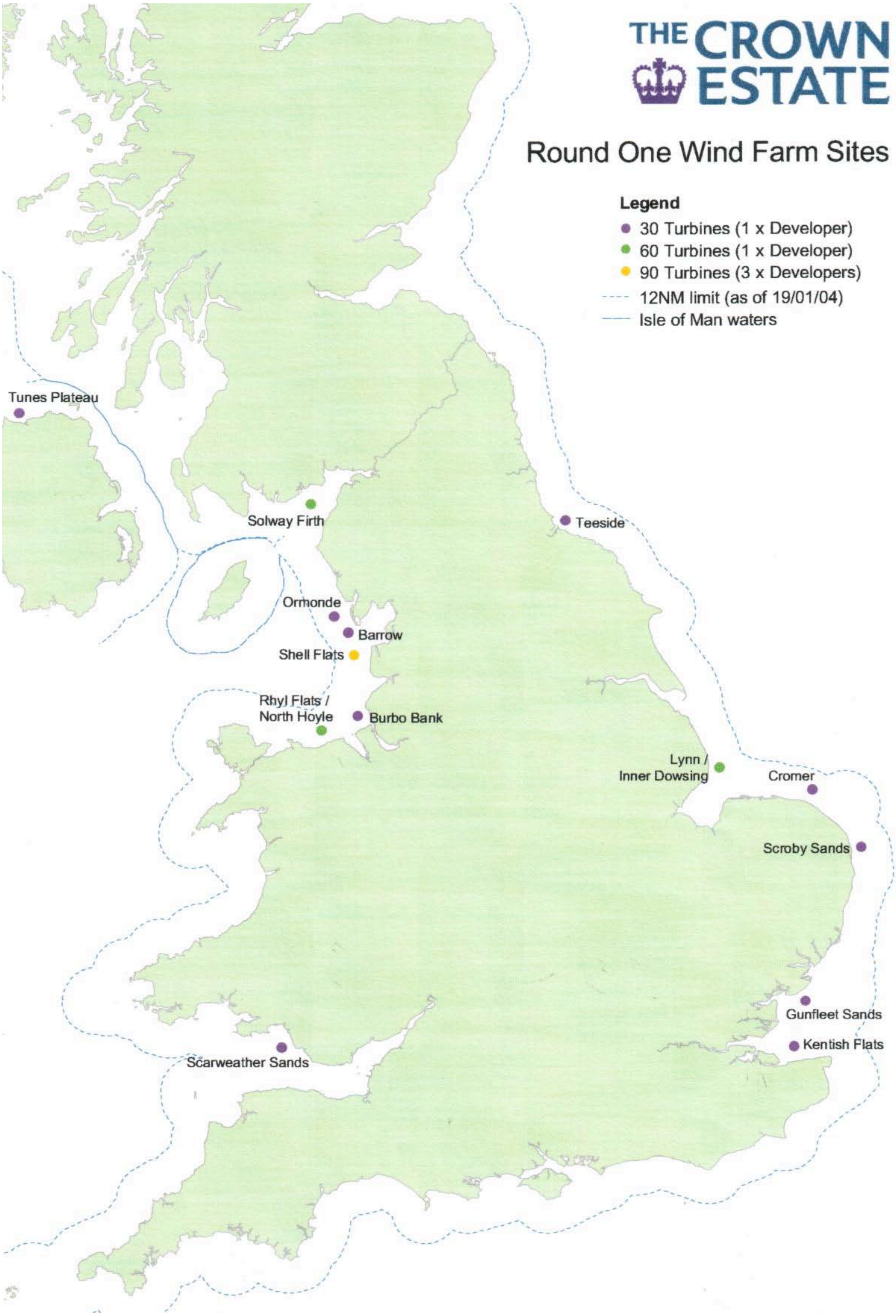
Brief notes on each of these are given below.

3.13 In addition the map shows the **Tunes Plateau** site off Northern Ireland. This was added in 2002 after Round One. The **Ormonde** site off Barrow was also added in 2002 after Round One.

3.14 The Crown Estate website states that "Round One aimed to provide the UK with a demonstration round, enabling prospective developers to gain the necessary technological, economic and environmental expertise within projects limited in size. Site selection was a critical factor. Round One sites were put forward by potential developers on the basis of a range of relevant factors including water depth, wind resource and grid connection. Areas of high nature conservation value have been avoided as well as areas of seabed where existing seabed activities and uses are potentially incompatible with offshore windfarm development".

3.15 "The present technology is limited by the depth at which foundations can be placed, whilst the cost of grid connection is a vital consideration. As a result all the proposed Round One windfarm sites are in water depths of less than 20m, and no further than 12 kms offshore.".

3.16 Further, "at the beginning of Round One 2 MW turbine technology was considered cutting edge. Since then technology has advanced with 3.6 MW turbines commonplace. Today, most developers intend to install 5 MW turbines in the larger scale Round Two developments".


THE CROWN ESTATE
Round One Wind Farm Sites
Legend
30 Turbines (1 x Developer)
60 Turbines (1 x Developer)
90 Turbines (3 x Developers)
12NM limit (as of 19/01/04)
Isle of Man waters
Tunes Plateau
Solway Firth
Teeside
Ormonde
Barrow
Shell Flats
Rhyl Flats /
North Hoyle
Burbo Bank
Lynn /
Inner Dowsing
Cromer
Scroby Sands
Gunfleet Sands
Kentish Flats
Scarweather Sands

3.17 “In April 2002 the Energy Minister announced that no further leasing arrangements would be made until a strategic review and consultation had been conducted. Late in 2003 the DTI’s consultation paper Future Offshore set out the government’s policy direction for the development of offshore wind development.”

3.18 “Future Offshore emphasised the commitment of the Government to take a more strategic approach to offshore windfarm development. It set out the intention to restrict further development to strategic areas and undertake a Strategic Environment Assessment (SEA). It proposed 3 strategic areas – The Greater Wash, the Thames Estuary and the North West (Liverpool Bay).”

3.19 “Consultation agreed this was the right approach and DTI commissioned an SEA on these three areas. The SEA was completed in May 2003 and following consultation DTI requested that The Crown Estate make available seabed areas in these three strategic regions for the purposes of windfarm development. Based on the conclusion of the SEA DTI issued guidance, including a costal exclusion zone of between 8 and 13 kilometres from the coast to reduce the visual impact of development and avoid sensitive, shallow water feeding areas for Common Scoter.”

3.20 “The SEA set out development scenarios limiting the total development possible within these 3 areas to between 4 and 7.5 GW (including the contribution from Round 1). Government announced that it wished to see between 4 and 6 GW being built as a result of this second round, placing UK in the forefront of offshore windfarm development.”

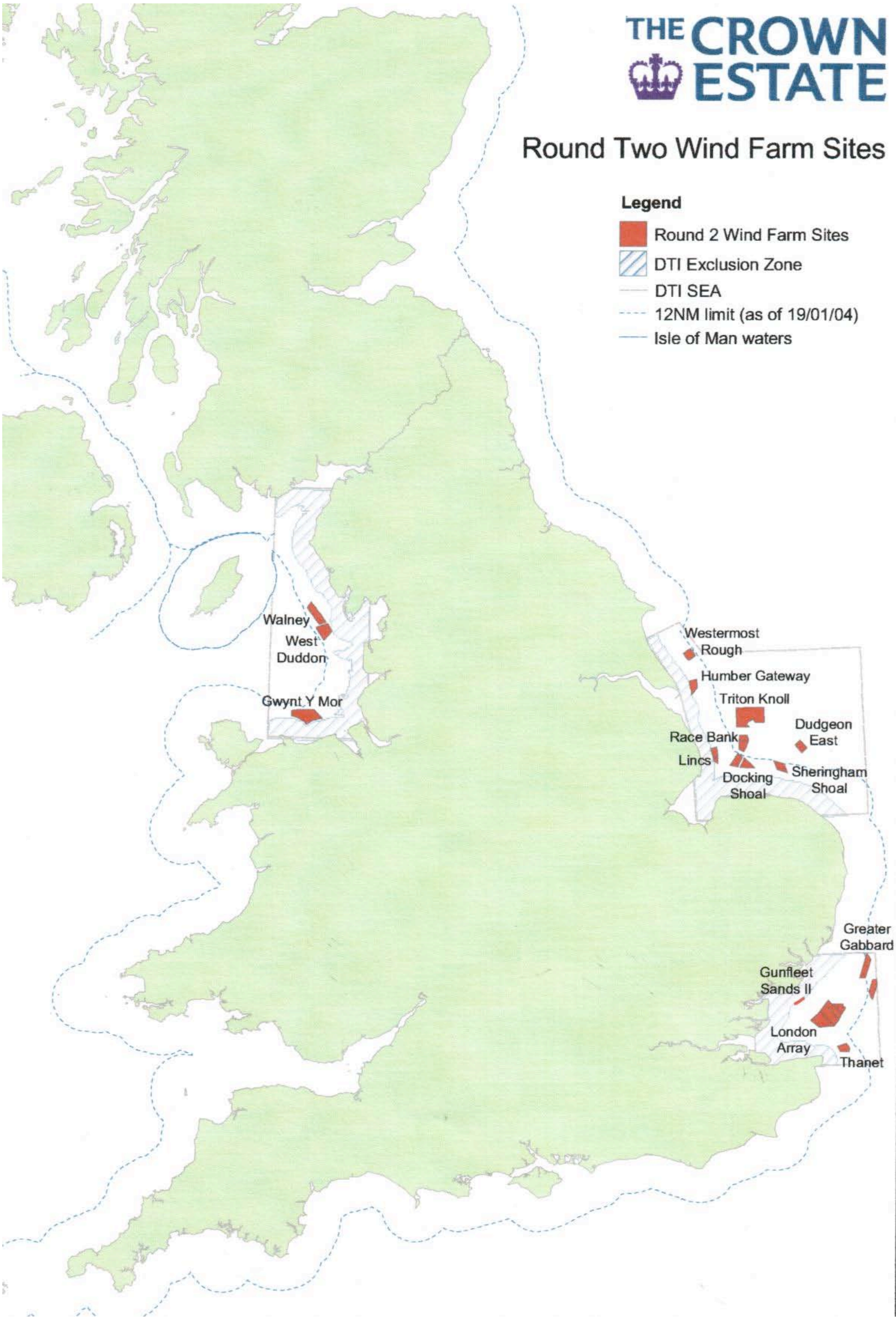
3.21 In July 2003 the Crown Estate announced its tender process for Round Two sites. The tender closed on 15th October and resulted in a very large submission of 41 projects amounting to 27 GW of installed capacity. In December 2003 The Crown Estate announced the successful developers and projects. The 15 projects awarded amount to 7.2 GW and include sites within and beyond territorial waters.

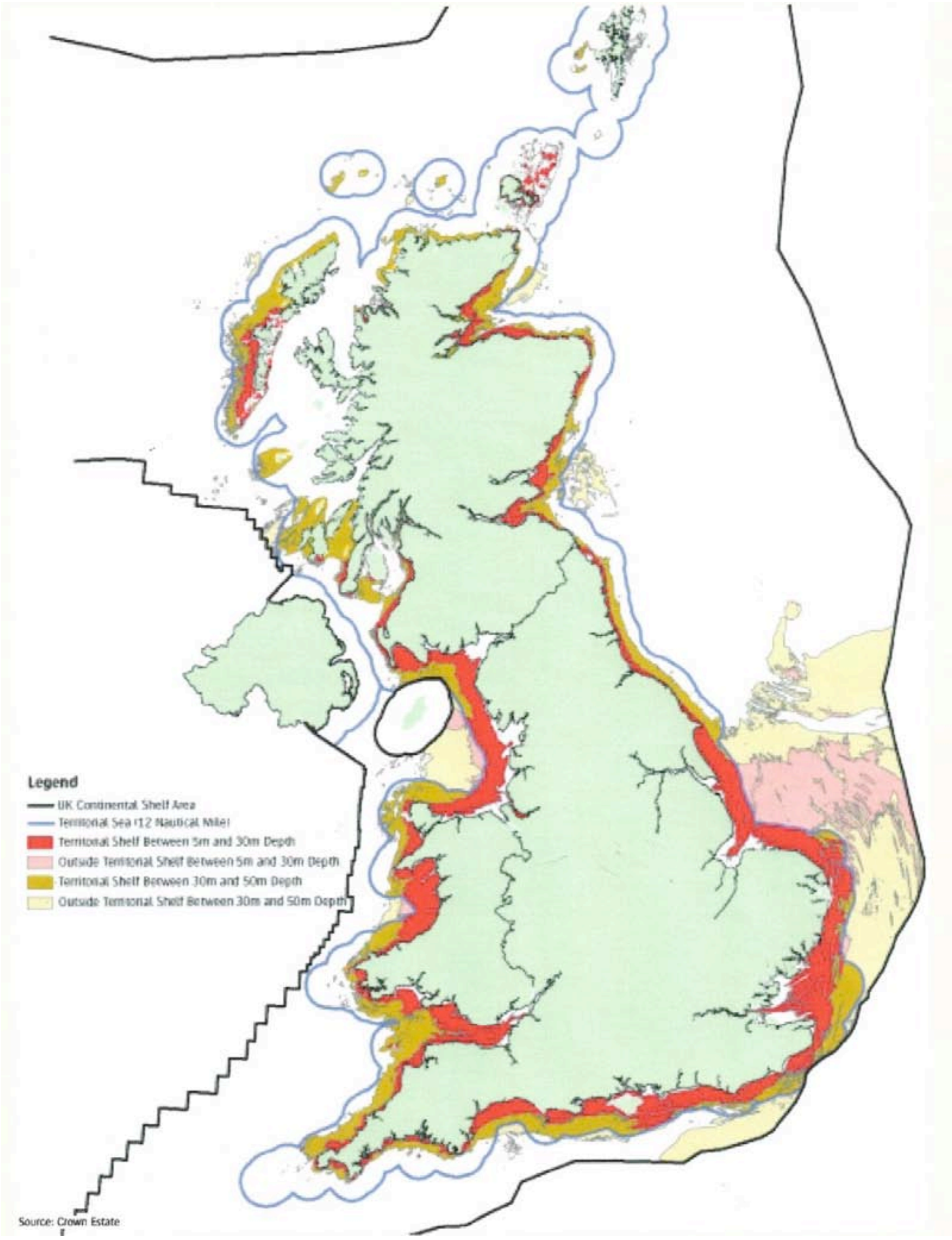
3.22 The map on the next page shows the Round Two wind farm sites. They include three in the SEA 6 area, namely

- **Walney**
- **West Duddon**
- **Gwynt y Mor.**

Information on each of these projects is given below.

3.23 There are likely to be other wind farm developments in the SEA 6 area in the future. The next map shows prospective areas identified by a geographic information system database known as Windbase, produced by the Crown Estate and the British Wind Energy Association (BWEA).


THE CROWN ESTATE
Round Two Wind Farm Sites
Legend
Round 2 Wind Farm Sites
DTI Exclusion Zone
DTI SEA
12NM limit (as of 19/01/04)
Isle of Man waters
Walney
West Duddon
Gwynt Y Mor
Westermost Rough
Humber Gateway
Triton Knoll
Dudgeon East
Race Bank
Lincs
Docking Shoal
Sheringham Shoal
Greater Gabbard
Gunfleet Sands II
London Array
Thanet


Legend
UK Continental Shelf Area
Territorial Sea (12 Nautical Mile)
Territorial Shelf Between 5m and 30m Depth
Outside Territorial Shelf Between 5m and 30m Depth
Territorial Shelf Between 30m and 50m Depth
Outside Territorial Shelf Between 30m and 50m Depth
Source: Crown Estate

Round One wind farms

3.24 The following are brief notes on each of the Round One wind farms.

3.25 **North Hoyle** became the UK's first commercial offshore wind farm when it began generating electricity in November 2003. It is located about 7-8 kilometres (4-5 miles) off the north coast of Wales, between Rhyl and Prestatyn, and is clearly visible from the coast.

3.26 The development has 30 turbines with an installed capacity of 60 MW, which can provide electricity to 50,000 homes. The operators are npower renewables, who are a subsidiary of National Wind Power, in turn a subsidiary of Innogen.

3.27 **Rhyl Flats** are located about 8 kilometres off Colwyn Bay in North Wales to the northof North Hoyle. The proposed development comprises 30 turbines with a capacity of up to 150 MW, capable of supplying 44,000 homes. The developers are also npower renewables, although no construction work has taken place yet.

3.28 In June 2002 Solway Offshore Ltd and Offshore Energy Resources Ltd applied to Scottish Ministers to construct an offshore windfarm at **Robin Rigg** in the **Solway Firth**. Approval was given in March 2003. The site is in Scottish waters in the Solway Firth, about 9 km from the nearest landfall at Bulcary Point on the coast of Dumfries and Galloway and a similar distance from the coast of Cumbria. The development will comprise 60 turbines with a generation capacity of up to 216 MW.

3.29 **Ormonde** will be an innovative combination of an offshore wind farm and an offshore gas field. In February 2001 the DTI invited applications for licences for two blocks containing gas discoveries in the eastern Irish Sea, 113/28 and 113/29. The blocks were previously held by Kerr McGee but were relinquished in 1999. The then Minister for Energy Peter Hain stated that "these blocks contain gas discoveries that have been identified by PILOT's Undeveloped Discoveries Workgroup, as having potential for development. I am pleased that the efforts of the Workgroup have led to this invitation being made".

3.30 Eclipse Energy, together with Rolls-Royce Power Ventures, successfully applied for the licences which were awarded to them in August 2001. The companies plan an unique offshore co-generation scheme, involving both gas production and an offshore wind farm.

3.31 The plan shows the Ormonde North and Ormonde South gas fields, a proposed gas pipeline to Heysham and a proposed subsea electricity cable to the same location. A detailed application is expected to be submitted to the DTI during 2005. The development cost is estimated at £220 million.

3.32 The **Barrow** site is located about 7 kilometres off Walney Island near Barrow-in-Furness in Cumbria. The proposed development comprises 30 turbines with a capacity of up to 108 MW, capable of supplying 44,000 homes. A consortium led by Centrica and DONG acquired the project from Warwick Energy in 2003.

3.33 The **Shell Flats** sandbank is located about 7 kilometres off Cleveleys in Lancashire. The proposed development comprises 90 turbines with a capacity of 324 MW. The developers are Cirrus Energy, which is a joint venture of three companies – CeltPower (Scottish Power and Eurus Energy), Shell and Elsam of Denmark.

3.34 **Burbo Bank** is located about 6.4 kilometres off North Wirral and Liverpool. The proposed development comprises 30 turbines with a capacity of up to 90 MW. The developers are Seascape Energy.

3.35 **Tunes Plateau** is located 5-10 kilometres off the north coast of Northern Ireland, near the towns of Portstewart and Portrush. The proposed development comprises 50-85 turbines with a capacity of 150-250 MW. A consortium led by B9 Energy Offshore Development is currently assessing the feasibility of the project.

Round Two wind farms

3.36 The **Walney** site is also located off Walney Island near Barrow-in-Furness. The proposed development comprises 100 turbines with a capacity of up to 450 MW, capable of supplying over 340,000 homes. The developers are a consortium of DONG and Statkraft.

3.37 **West Duddon** is also located off Walney Island near Barrow-in-Furness. The proposed development will have a capacity of up to 500 MW. The developers are Scottish Power in partnership with Elsam and Eurus.

3.38 **Gwynt Y Mor** is 13-15 km off the north coast of Wales in Liverpool Bay, further offshore than the existing North Hoyle wind farm. The proposed development comprises 200 turbines with a capacity of up to 750 MW. The developers are npower renewables.

4.0 PORTS, FERRIES AND OTHER SHIPPING SERVICES

4.1 There is a lot of shipping activity in the SEA 6 area. The lengthy coastline has many harbours and ports.

4.2 There are various passenger and ferry services connecting the UK mainland with Northern Ireland, the Isle of Man and the Republic of Ireland, as well as the Scottish islands in the SEA 6 area. There is also a lot of freight traffic because Milford Haven and Liverpool are two of the busiest ports in the UK. Fishing activity is discussed in Section 5 of this report and sailing and other recreational activity in Section 6.

Passenger ferry services

4.3 The main passenger ferry services with Ireland are:

Northern Ireland
- **Stranraer – Belfast**
- **Cairnryan – Larne**
- **Troon – Belfast**

Republic of Ireland
- **Holyhead – Dublin**
- **Holyhead – Dun Laoghaire**
- **Fishguard – Rosslare**

4.4 The main ferry services between the UK mainland and the Isle of Man are:
- **Liverpool – Douglas**
- **Heysham – Douglas**.

4.5 Table 4.1 gives the passenger traffic statistics for the ferry services between Great Britain and Northern Ireland. A total of 2,657,139 passengers used these services in 2003, which was an increase of +2.7% on the previous year. The statistics for 2004 were not available at the time of writing.

Table 4.1: Passenger numbers on GB-Northern Ireland ferry services

Route	2001	2002	2003	% change 2002-2003
Belfast – Heysham	130,035	90,097	5,584	*
Belfast – Liverpool	130,476	137,348	149,640	+8.9
Belfast – Stranraer	1,357,793	1,296,028	1,362,792	+5.2
Belfast – Troon	362,293	331,525	367,677	+10.9
Larne – Cairnryan	604,384	651,305	598,650	-8.1
Larne – Fleetwood	66,990	67,293	66,526	-1.1
Larne – Troon	1,485	5,212	100,815	*
Warrenpoint – Heysham	5,347	5,382	6,085	+13.1
totals	**2,660,274**	**2,587,020**	**2,657,139**	**+2.7**

Source: Maritime Statistics, 2004

4.6 Passenger numbers on the Northern Ireland services fell from just under 3.0 million in 1999 to just under 2.6 million in 2002 but there was a +2.7% increase in 2003. The table shows eight routes in 2003.

4.7 The market shares of the different routes in 2003 were:

- Stranraer – Belfast 51.2%
- Cairnryan – Larne 22.5%
- Troon – Belfast 13.8%
- Liverpool – Belfast 5.6%
- Troon – Larne 3.8%
- Fleetwood – Larne 2.5%
- Heysham – Warrenpoint 0.2%
- Heysham - Belfast 0.2%

4.8 The Northern Ireland services are dominated by the shortest crossings from/to Stranraer and nearby Cairnryan in South West Scotland, which together accounted for about 75% of the total. The Troon (Ayrshire) services accounted for about 18% of the passenger numbers and the English services about 8.5%.

4.9 There have been a few changes in recent years. For example, a service operated between Campbeltown in Scotland and Ballycastle for a few years but stopped in 1999, although there are hopes that it can be restarted. The Belfast-Heysham service lost most of its passengers in 2003 but a similar number was gained on the Larne-Troon service.

4.10 Seacat stopped operating their Belfast-Troon service in February 2005, reportedly because of competition from low cost airlines. This service carried 302,656 passengers and 72,876 vehicles in 2004.

4.11 Table 4.2 gives the statistics on passenger numbers on the GB-Republic of Ireland ferry services. A total of 3.8 million passengers used these services in 2003, which was –2.0% less than in the previous year.

Table 4.2: Passenger numbers on GB-Republic of Ireland ferry services

route	2001	2002	2003	% change 2002-2003
Fishguard - Rosslare	687,000	662,000	645,000	-2.6
Holyhead - Dublin	1,316,000	1,354,000	1,350,000	-0.3
Holyhead – Dun Laoghaire	1,064,000	1,017,000	984,000	-3.2
Liverpool – Dublin	298,000	291,000	269,000	-7.6
Pembroke – Rosslare	388,000	387,000	384,000	-0.8
Swansea – Cork	122,000	121,000	118,000	-2.5
Other routes	8,000	48,000	53,000	+10.4
Totals	**3,882,000**	**3,880,000**	**3,802,000**	**-2.0**

Source: National Statistics: Transport Statistics, Sea Passenger Bulletin, Q3 2004

4.12 Six main routes are listed in the table, so there appears to be plenty of competition. The market shares of the different routes changed little during the 2001-3 period. The market shares in 2003 were:

- Holyhead - Dublin 35.5%
- Holyhead – Dun Laoghaire 25.9%
- Fishguard - Rosslare 17.0%
- Pembroke - Rosslare 10.1%
- Liverpool - Dublin 7.1%
- Swansea - Cork 3.1%
- Other routes 1.4%

4.13 Holyhead accounted for over 60% of the total passenger traffic. All the other services also used ports in Wales, with the exception of Liverpool – Dublin.

4.14 Table 4.3 gives the passenger statistics for the Isle of Man ferry services. A total of 590,000 passengers used these services in 2003, which was an increase of +3.1% on the previous year.

Table 4.3: Passenger numbers on the Isle of Man ferry services

route	2001	2002	2003	% change 2002-2003
Liverpool – Douglas	273,000	314,000	324,000	+3.1
Heysham – Douglas	224,000	252,000	261,000	+3.6
Other routes	-	6,000	5,000	-16.6
totals	**496,000**	**572,000**	**590,000**	**+3.1**

Source: Maritime Statistics, 2004

4.15 The Liverpool – Douglas services accounted for 55% of the total in 2003 and Heysham – Douglas 44%. There is also a service between Douglas and Belfast, which carried 29,911 passengers in 2003.

Freight traffic

4.16 Turning to freight, Table 4.4 on the following page sets out the tonnage handled by the various ports in the SEA 6 area for the three years 2001-3. The 2003 total was just under 118 million tonnes, which was virtually the same as in the previous year. It should be noted that the port statistics in Table 4.4 exclude the Isle of Man, primarily Douglas.

4.17 Information on the type of freight handled at each of the ports listed in Table 4.4 is given in the following notes.

4.18 The largest ports in terms of tonnage in 2003 were:

(1) Milford Haven	32.7 million	(27.8% of total)
(2) Liverpool	31.7 million	(26.9%)
(3) Belfast	13.2 million	(11.2%)
(4) Clyde	9.2 million	(7.8%)

Table 4.4: Freight traffic through SEA 6 ports
(thousand tonnes)

area/port	2001	2002	2003	% change 2002-3
North West England				
Silloth	141	134	155	+15.7
Workington	418	430	258	-40.0
Barrow	225	279	241	-13.6
Heysham	3,824	3,705	4,083	+10.2
Lancaster	117	130	156	+20.0
Fleetwood	1,608	1,521	1,624	+6.8
Manchester	7,879	6,279	6,088	-3.0
Garston	462	443	433	-2.3
Liverpool	30,288	30,413	31,684	+4.2
Sub-total	**44,963**	**43,334**	**44,723**	**+3.2**
North West Wales				
Mostyn	309	871	944	+8.4
Holyhead	3,229	3,288	3,329	+1.2
Fishguard	341	408	474	+16.2
Milford Haven	33,792	34,543	32,737	-5.2
Other ports	722	634	545	-14.0
Sub-total	**38,393**	**39,745**	**38,029**	**-4.3**
Scotland				
Stranraer	1,404	1,273	1,274	+0.0
Cairnryan	2,014	2,099	2,328	+10.9
Ayr	274	241	291	+20.7
Clyde	11,069	9,733	9,214	-5.3
Sub-total	**14,761**	**13,319**	**13,107**	**-1.6**
Northern Ireland				
Londonderry	1,060	1,065	1,172	+10.0
Coleraine	45	54	54	+0.0
Larne	3,520	4,295	4,319	+0.6
Belfast	13,402	12,825	13,201	+2.9
Warrenpoint	1,480	1,826	1,880	+3.0
Other ports	1,660	1,299	1,347	+3.7
Sub-total	**21,167**	**21,363**	**21,973**	**+2.9**
SEA 6 totals	**119,284**	**117,761**	**117,832**	**+0.1**

Source: Maritime Statistics 2004

Cumbria

4.19 There are five important ports in Cumbria, namely:

- **Silloth**
- **Maryport**
- **Workington**
- **Whitehaven**
- **Barrow-in-Furness**

4.20 **Silloth** is a small port on the Solway Firth which is operated by the Associated British Ports (ABP) group and administered from their Barrow office. The Maritime Statistics show 155,000 tonnes of freight in 2003, of which 150,000 tonnes were inward and only 5,000 tonnes outward. The totals for 2001 and 2002 were 141,000 and 134,000 tonnes respectively, so the traffic appears to be quite stable.

4.21 The ABP website for Silloth states that "a variety of cargoes has been handled at the port in recent years but the most permanent feature of the port's traffic continues to be specially-selected bulk grain discharged directly into Carr's Flour Mills. Fertilisers are another regular inward traffic. The port also handles exports of bulk cement, the throughput of which has increased significantly in recent years". Thus Silloth seems to be a small local port serving the local economy, notably Carr's Flour Mills which are part of the well-known Carr's of Carlisle group.

4.22 **Maryport** now has no commercial traffic, apart from the fishing industry, to the best of our knowledge. The DEFRA statistics show that 249 tonnes of fish were landed in 2003, with a value of £276,048. There was a mixture of shellfish and demersal landings.

4.23 Maryport has a "dinky little harbour", according to the Footprint tourist guide. It includes a 161 berth marina, so sailing is clearly popular in this part of the SEA 6 area. There is also the Lake District Coast Aquarium in the town.

4.24 **Workington** is the main industrial and commercial centre on the Cumbrian coast. The port is owned and operated by Cumbria County Council. The Maritime Statistics show 258,000 tonnes of freight in 2003, of which 191,000 tonnes (74%) were inward and 67,000 tonnes (26%) outward. The 2001 and 2002 totals were 418,000 and 430,000 tonnes respectively, so there was a large fall in 2003.

4.25 The website for the port states that "the main cargoes handled at Workington are liquid and dry bulks, steel cargo, forest products, agricultural products, container freight, general cargo and ro/ro traffic. These consist primarily of chemicals and petroleum products, gypsum, perlite, logs, animal feeds, fertilisers and steel rails". Thus Workington, like Silloth, is a local port serving the local economy.

4.26 It is also an active fishing port, with landings of 587 tonnes in 2003, valued at £398,155. The landings were a mixture of demersal and shellfish.

4.27 **Whitehaven** is the main fishing port in Cumbria, with landings of 2,425 tonnes in 2003, valued at just under £2.2 million. The port is run by the Whitehaven Harbour Commissioners.

4.28 There are 300 berths for leisure vessels in the inner harbour. There are two marinas in the inner harbour, one with 220 pontoon berths and the other with 80 trot pontoons. The port advertises itself as "a strategic departure point for those yachts heading for the Isle of Man, Ireland or Southern Scotland".

4.29 The Lonely Planet guide writes of Whitehaven that "this small Georgian harbour town was at one time the third largest port in England and a distasteful mover and shaker in the slave trade. Hustle and bustle is absent these days, but a facelift has spruced up the now sleepy marina, and its pastel-painted buildings fairly gleam along the front". Visitor attractions in Whitehaven include the Beacon heritage centre overlooking the harbour and The Rum Story.

4.30 **Barrow-in-Furness** is the location for the landfall terminals for the Morecambe Bay gas fields, as discussed in Section 2. Condensate produced from the gas is shipped out from the port, which is operated by Associated British Ports (ABP), involving 10-11 tankers per year.

4.31 Barrow is also the location of a major shipyard which builds nuclear submarines and other vessels for the Royal Navy. It was established by Vickers and is now part of the BAE group.

4.32 The Maritime Statistics for 2003 show 241,000 tonnes of freight, of which 44,000 tonnes (18%) were inward and 197,000 tonnes (82%) outward. The port manager informed us that limestone exports account for about half the traffic. They also handle nuclear fuels for BNFL's Sellafield and Preston plants, and the occasional cruise liner.

4.33 ABP are keen for Barrow port to be involved with the offshore wind farms planned for that part of the SEA 6 area. Details are given in Section 3 of this report.

Lancashire

4.34 Lancashire has a lengthy coastline but only three significant ports:

- **Heysham**
- **Glasson Dock (Lancaster)**
- **Fleetwood**

4.35 **Heysham** is the supply base for the Morecambe Bay gas fields, as discussed in Section 2. It also has one of the two main ferry services between the UK mainland and the Isle of Man, operating to/from **Douglas**. The port is owned by Mersey Docks.

4.36 Isle of Man Ferries operate twice daily passenger and cargo ferry services between Heysham and Douglas. They also operate services between Liverpool and Douglas.

4.37 The Maritime Statistics 2004 give the following numbers of passengers on these routes:

	2001	2002	2003	2004 to Q3
Heysham-Douglas	224,000	252,000	261,000	217,000
Liverpool-Douglas	273,000	314,000	324,000	246,000
Other routes	0	6,000	5,000	4,000
Totals	**496,000**	**572,000**	**590,000**	**496,000**

4.38 Passenger numbers through Heysham have increased over the last few years. The total for the first three quarters of 2004 was +4.3% higher than in the same period of 2003. However, there is increasing competition from low cost airlines serving the Isle of Man.

4.39 Isle of Man Ferries use conventional ro-ro vessels for most of the year, supplemented by high speed catamarans during the summer season. The conventional crossing takes about 3½ hours from/to Heysham and the high speed crossing 2 hours.

4.40 The quarterly breakdown of the Heysham-Douglas passenger traffic in 2003 was:

Q1	43,000
Q2	82,000
Q3	83,000
Q4	53,000
Total	**261,000**

4.41 These statistics indicate that the summer traffic is about double the winter traffic. The Isle of Man is a popular tourist destination in the summer.

4.42 The Maritime Statistics show that the port of Heysham handled 4,083,000 tonnes of freight in 2003, of which 2,046,000 tonnes (50%) were inward and 2,037,000 tonnes (50%) outward. Thus the traffic was very evenly balanced, in marked contrast with the ports in Cumbria which mainly handle imports for local businesses.

4.43 The freight totals for the last three years are:

	tonnes	% change
2001	3,824,000	-
2002	3,705,000	-3.1
2003	4,083,000	+10.2

4.44 In addition to the Isle of Man services, Norse Merchant Ferries also operate scheduled freight services between Heysham and Belfast and Heysham and Dublin. There are normally three daily return trips on the former route, which takes about nine hours each way, and two on the latter, which takes about eight hours each way.

4.45 Seatruck Ferries operate scheduled freight services between Heysham and Warrenpoint in Northern Ireland. There are normally 24 sailings per week, with a nine hour crossing. The Seatruck Ferries' website states that "by carefully choosing terminal locations that are not prone to major congestion problems, Seatruck Ferries customers are able to maximise the efficiency of their operations whilst still taking advantage of easy links to the industrial heartland of both Ireland and England".

4.46 **Glasson Dock** is a small port on the River Lune about five miles south of Lancaster, which is operated by Glasson Grain. The dock was originally built in the 18th century to import tobacco, cotton and rum from the West Indies. The main traffics now are imports of fertiliser and grain.

4.47 The Maritime Statistics show that Glasson handled 156,000 tonnes of freight in 2003, of which 91,000 tonnes (58%) were inward and 65,000 tonnes (42%) outward. The 2001 and 2002 totals were 117,000 and 130,000 tonnes respectively, so business has been growing rapidly.

4.48 The Dock's website states that "the company operates a regular liner service to the Isle of Man, capable of handling any general cargo … the service normally operates daily during the working week".

4.49 There is also a 260 berth marina at Glasson Dock, of which 20 are for visitors.

4.50 **Fleetwood** used to be one of the most important fishing ports in the UK but that industry is now on a very small scale there. Stena Line operate a ferry service to/from Larne in Northern Ireland. The port is owned by the Associated British Ports (ABP) group.

4.51 The Maritime Statistics show that Fleetwood handled 1,624,000 tonnes of freight in 2003, of which 847,000 tonnes (52%) were inward and 777,000 tonnes (48%) were outward. The 2001 and 2002 totals were 1.6 million and 1.5 million respectively, so traffic appears to have been quite stable.

4.52 Stena Line operate three daily services between Fleetwood and Larne in Northern Ireland, with a journey time of just under eight hours. It is described as a "no frills service", which is aimed at freight rather than passenger traffic. The Northern Ireland Transport Statistics show that 66,526 passengers used this service during 2003, which was just 2.5% of the total on the Northern Ireland ferry services.

4.53 The DEFRA statistics show that 1,006 tonnes of fish were landed in Fleetwood in 2003, with a value of £940,000. There is still an important fish market which handles fish from elsewhere.

4.54 The harbour also has a 300 berth marina and promotes itself as "a good location from which to cruise Morecambe Bay and the Irish Sea".

4.55 The Lancashire coast is very popular with tourists, notably at Blackpool and Morecambe, but there are no other significant harbours in the area, even for leisure craft.

Liverpool area

4.56 **Liverpool** is one of the biggest commercial ports in the United Kingdom, handling nearly 32 million tonnes of cargo in 2003. It includes the Seaforth container terminal. There are many container and other freight services operating from/to the port, which is owned by the Mersey Docks and Harbour Company. The port also includes the Liverpool Freeport.

4.57 Liverpool is the UK's main gateway for container trade with the USA and Canada. There are also regular services to/from the Iberian Peninsula and the Mediterranean, plus one with West Africa.

4.58 Isle of Man Ferries operate services between Liverpool and Douglas, in addition to the Heysham services mentioned in the Lancashire notes above. The Maritime Statistics 2004 show that 324,000 passengers used the Liverpool service in 2003, which was 55% of the Isle of Man total. The summer traffic is much higher than the winter traffic, reflecting the popularity of the Isle of Man as a tourist destination.

4.59 Three companies – P&O Irish Ferries, Norse Merchant Ferries and Seacat – operate ferry services between Liverpool and Dublin. The Maritime Statistics show that 269,000 passengers used these services in 2003, which was 7.1% of the Irish-GB total.

4.60 Norse Merchant Ferries also operate services between their Birkenhead terminal in Liverpool and Belfast. The Maritime Statistics show that 149,640 passengers used these services in 2003, which was 5.6% of the Northern Ireland-GB total.

4.61 The Maritime Statistics also show that Liverpool handled 31.7 million tonnes of freight in 2003, of which 75% was inward and 25% outward. Liverpool accounted for 71% of the total freight handled in the ports in North West England and was the seventh busiest port in the UK by tonnage.

4.62 Of the total of 31.7 million tonnes, 12.1 million were liquid bulks (mainly crude oil), 9.0 million dry bulks (coal, agricultural products etc), 4.2 million containers and 5.4 million ro-ro traffic.

4.63 Cruise liners visit Liverpool. Fifteen visits were scheduled for 2004, including the QE2.

4.64 There is another port on the Mersey at **Garston**, which is operated by Associated British Ports (ABP). Table 4.4 shows that it handled 433,000 tonnes of freight in 2003, of which 73% was inward and 27% outward. Garston specialises in grain, animal feeds and steel.

4.65 **Ellesmere Port** is located at the end of the Manchester Ship Canal. Table 4.4 shows that the port of Manchester handled just over 6.0 million tonnes of freight in 2003, which was presumably all via the Ship Canal.

Wales

4.66 Table 4.4 lists four ports in Wales, namely:

- **Mostyn**
- **Holyhead**
- **Fishguard**
- **Milford Haven**

There are also many smaller harbours on the coast of Wales, which are now mainly used by leisure craft and a few fishing vessels.

4.67 **Mostyn** is a small port on the estuary of the River Dee in North Wales. Table 4.4 shows that it handled 944 tonnes of freight in 2003. P&O used to operate a cargo service between Mostyn in North Wales and Dublin but that stopped in April 2004, although efforts are underway to revive it.

4.68 Mostyn has other commercial traffic and is only few miles from the Point of Ayr gas terminal, which handles gas from the Liverpool Bay fields. Those fields are supplied from the Heysham base. Mostyn handled the installation of the turbines for the North Hoyle offshore wind farm (see Section 3) and is used to service the facilities there.

4.69 There are a few small harbours along the north coast of Wales but they are now only used by leisure craft. There are many moorings in the Conwy estuary, for example, and two marinas.

4.70 **Holyhead** on the Isle of Anglesey is the main commercial port in North Wales. Stena Line operate ferry services to/from Dublin and to/from Dun Laoghaire and Irish Ferries operate services between Holyhead and Dublin. There is a mixture of conventional, fast and super-fast services, with the shortest crossing taking about 1 hour 40 minutes.

4.71 Table 4.2 shows that 1,350,000 passengers used the Holyhead – Dublin ferries in 2003 and 984,000 the Dun Laoghaire services, giving a combined total of over 2.3 million, which was 61% of the overall total for the Irish services.

4.72 Table 4.4 shows that **Holyhead** handled 3,329,000 tonnes of freight in 2003, of which 53% was inward and 47% outward. The breakdown by type of traffic was: ro-ro self-propelled 2,376,000 tonnes (71%), ro-ro non-self-propelled 612,000 tonnes (18%) and ores (dry bulk) 341,000 tonnes (10%). The port’s traffic is obviously dominated by the Irish ro-ro traffic.

4.73 Holyhead is also an important fishing port (see Section 5), with landings valued at just under £2 million in 2003, and has a large marina for leisure vessels.

4.74 There are many small harbours on the west coast of Wales but they are mainly used by leisure craft and a few fishing boats.

4.75 **Fishguard** has a ferry service with Rosslare in the Republic of Ireland, operated by Stena Line. Table 4.2 shows that 645,000 people used this service in 2003, which was 17.0% of the total on the Irish ferries.

4.76 Table 4.4 shows that Fishguard handled 474,000 tonnes of freight in 2003, of which 55% was inward and 45% outward. All of it was ro-ro traffic.

4.77 **Milford Haven** is the biggest commercial port in Wales. The port is owned and operated by the Milford Haven Port Authority, which is a public trust set up by an Act of Parliament in 1958.

4.78 There are two oil refineries there and an oil storage terminal. Two import terminals for liquefied natural gas (LNG) are also under construction.

4.79 The port handled nearly 33 million tonnes of traffic in 2003, as shown in Table 4.4, which was the sixth largest in the UK. Of that 56% was inward and 44% outward. Virtually all the traffic was crude oil and oil products, although there were also 805,000 tonnes of ro-ro traffic.

4.80 **Pembroke Dock** is located on the south side of Milford Haven. Irish Ferries operate a ro-ro service between Pembroke and Rosslare in Ireland. Table 4.1 shows that this carried 384,000 passengers in 2003, which was 10.1% of the Irish total. Pembroke Dock's freight statistics are presumably included with those for Milford Haven.

4.81 Milford Haven is also the most important fishing port in Wales, with landings valued at £4.1 million in 2003. Other facilities in the port include the Milford Marina and the Royal Navy Moorings and Salvage Depot at Pembroke Dock.

Northern Ireland

4.82 Five main ports in Northern Ireland are listed in Table 4.4, namely:

- **Londonderry**
- **Coleraine**
- **Larne**
- **Belfast**
- **Warrenpoint**

There are a few smaller ports which are included under "other ports" in the statistics.

4.83 Table 4.1 gives the passenger statistics for the Northern Ireland ports. The total number in 2003 was 2,657,139, which was +2.7% higher than in the previous year. In 1999 the total was 2,966,785, so there has been a fall since then.

4.84 The numbers for the three ferry ports and their shares of the 2003 total were:

• Belfast	1,885,693	(70.9%)
• Larne	765,361	(28.8%
• Warrenpoint	6,085	(0.2%)

4.85 Table 4.4 shows the freight handled by the ports in Northern Ireland. The 2003 total was just under 22 million tonnes, of which 69% was inward and 31% outward.

4.86 The statistics for the main ports and their shares of the 2003 total were:

• Belfast	13,201,000	(60.1%)
• Larne	4,320,000	(19.7%)
• Warrenpoint	1,880,000	(8.6%)
• Londonderry	1,172,000	(5.3%)
• others	1,401,000	(6.4%)

Belfast is clearly the main port in Northern Ireland for both passenger and freight traffic.

4.87 **Londonderry** or **Derry** is located where the River Foyle meets Lough Foyle, close to the border with the Republic. It is a public trust port operated by the Londonderry Port and harbour Commissioners.

4.88 The statistics above show that the port handled just under 1.2 million tonnes of freight in 2003, of which 97% was inward and only 3% outward. The amount of traffic has changed little over the last few years.

4.89 **Ballycastle** is the mainland ferry terminal for Rathlin Island, which is Northern Ireland's last remaining inhabited offshore island, with a population of about 70. The island is five miles north of Ballycastle and just twelve miles west of the Mull of Kintyre in Scotland. Caledonian MacBrayne operate the ferry service, which increases in frequency during the summer tourist season.

4.90 **Larne** is the second busiest port in Northern Ireland, handling just over 4.3 million tonnes of freight in 2003, of which 53% was inward and 47% outward. It also handled 765,000 passengers. The main ferry service is to/from Cairnryan in South West Scotland, operated by P&O, who also have a service between Larne and Troon. Stena Line operate the Larne-Fleetwood service.

4.91 **Belfast** is the busiest port in Northern Ireland, accounting for about 60% of the freight traffic and 70% of the passenger traffic. The port handled 13.2 million tonnes of freight in 2003, of which 72% was inward and 28% outward. Oil products totalled 2.8 million tonnes, dry bulk traffic 3.7 million tonnes, ro-ro traffic 2.6 million tonnes and other general cargo 0.5 million tonnes.

4.92 The main passenger ferry service is Belfast-Stranraer, operated by Stena Line, which carried just under 1.4 million passengers in 2003. This service will relocate to Cairnryan, just north of Stranraer, in the near future.

4.93 Norse Merchant Ferries operate services between Belfast and both Liverpool and Heysham, the latter of which is primarily for freight. Isle of Man Ferries operate a summer service. Seacat operated a service between Belfast and Troon but that stopped in February 2005.

4.94 **Warrenpoint** is the most southerly of the ports in Northern Ireland and is located on Carlingford Lough. The port handled just under 1.9 million tonnes of freight in 2003, of which 69% was inward and 31% outward.

4.95 Norse Merchant Ferries operate a scheduled freight service between Warrenpoint and Heysham in Lancashire, which also carries a few passengers, eg 6,085 in 2003. There are also scheduled container and other cargo services, including the import of timber from Scandinavia and Canada.

4.96 The main fishing ports in Northern Ireland are Kilkeel, Portavogie and Ardglass. Details are given in Section 5 of this report.

4.97 Sailing is very popular in Northern Ireland and there are many marinas on the coast. Further details are given in Section 12 of this report.

South West Scotland

4.98 Table 4.4 lists four main ports on the West Coast of Scotland, namely:

- **Stranraer**
- **Cairnryan**
- **Ayr**
- **Clyde**

4.99 **Stranraer** and Cairnryan handle most of the passenger and freight traffic with Northern Ireland. Both are located about six miles apart on Loch Ryan in Dumfries and Galloway.

4.100 The Stranraer-Belfast ferry is the busiest of the Northern Ireland services and carried just under 1.4 million passengers in 2003. It is operated by Stena Line, with both conventional and high speed (catamaran) services. The port also handled just under 1.3 million tonnes of freight, of which 54% was inward and 46% outward. We understand that Stena Line will move this service from Stranraer to nearby Cairnryan in the near future.

4.101 **Cairnryan** is the terminal for the Larne ferry service operated by P&O Irish Sea Ferries, which carried just under 600,000 passengers in 2003. The port also handled over 2.3 million tonnes of freight, of which 48% was inward and 52% outward, and all of which was ro-ro traffic.

4.102 **Ayr** and Troon are "sister" ports, five miles apart, which are operated by Associated British Ports (ABP). Table 4.4 shows that Ayr handled 291,000 tonnes of freight in 2003, of which 54% was inward and 46% outward. The main cargoes are timber and agricultural products.

4.103 **Troon** had two ferry services with Northern Ireland. The Belfast-Troon service, operated by Seacat, carried just under 370,000 passengers in 2003, and the Larne-Troon service, operated by P&O Irish Sea Ferries, carried just over 100,000 passengers. However, the Seacat service with Belfast stopped in February 2005.

4.104 The **Clyde** is just outside the SEA 6 area but is the most important port on the west coast of Scotland. Clydeport operate the ports of Greenock and Glasgow on the River Clyde, plus Hunterston and Ardrossan, under the Clyde "name". Table 4.4 shows that the Clyde handled 9.2 million tonnes of freight in 2003, of which 66% was inward and 34% outward.

4.105 The Maritime Statistics also include **Glensanda** in the West Coast ports. This is located near Oban and is operated by Yeoman Quarries, who exported over 5.3 million tonnes of stone from Glensanda in 2003. It is the largest coastal quarry in Europe.

4.106 There are various passenger, car and cargo ferries operating to/from the Kintyre peninsula. They include:

- **Kennacraig – Islay and Jura**
- **Tayinloan – Isle of Gigha**
- **Tarbert – Portavadie**
- **Tarbert – Lochranza (Arran).**

4.107 A summer season service between **Campbeltown** and **Ballycastle** in Northern Ireland began in 1997 but only operated for three years and was withdrawn at the beginning of 2000, although attempts have been made to re-introduce it. Campbeltown is the main commercial port in the area. Others are mainly used for fishing and leisure activities.

4.108 The Island of **Bute** is served by a ferry between **Rothesay** and **Wemyss Bay** in Ayrshire. There is also a small ferry on the Kyles of Bute between Rhubodach and Colintraive.

4.109 The island of Cumbrae is served by a ferry between the island and **Largs** in Ayrshire.

4.110 The island of Arran is served by a ferry between **Brodick** and **Ardrossan** in Ayrshire. There is also a ferry linking the island with the Kintyre peninsula. All these ferries are mainly used by the local populations but they are popular with tourists, particularly in the summer.

4.111 Sailing is very popular in this part of the SEA 6 area and there are many marinas. Further details are given in Section 13 of this report.

4.112 There is an important fishing industry in **Kirkcudbright** but most of the other harbours in Dumfries and Galloway are very small and are used only by leisure craft.

4.113 Mention should also be made of the nuclear submarine base at Faslane. Much of this part of the SEA 6 area is designated as a submarine exercise area. Further details are given in Section 7 of this report.

Isle of Man

4.114 Ports in the Isle of Man, principally Douglas, handled 119,001 tonnes of general freight in 2002-03, plus 133,435 tonnes of oil and 22,790 tonnes of gas. The amount of freight has been relatively stable over the last decade.

4.115 There are ferry services between Douglas and Belfast, Dublin, Fleetwood, Heysham and Liverpool. Isle of Man Ferries are the main operators.

4.116 The Treasury's "Digest of Economic and Social Statistics 2004" shows 659,929 harbour passengers in 2002-03, which was +13.1% higher than in the previous year. In comparison, 748,103 passengers used the island's airport in 2003.

4.117 Fish landings in 2002 were valued at just under £2.7 million. Scallops accounted for 54% of the value and queenies 29%. White fish (demersal) landings were tiny. We were informed that Isle of Man boats landed about £250,000 value of fish in UK ports in 2002.

4.118 Sailing is very popular in waters around the Isle of Man. Douglas is the main port and there are facilities for sailing vessels at Peel, Port St Mary, Ramsey and a few minor harbours.

5.0 FISHING

5.1 Fishing is another important industry in the SEA 6 area. The following is a brief summary of activity, based on the official statistics from the Department for Environment Food and Rural Affairs (DEFRA) and other bodies. The statistics for 2004 were not available at the time of writing.

Cumbria

5.2 Fish landings in Cumbria in 2003 totalled 12,265 tonnes, with a value of £12.3 million. Shellfish accounted for 91% of the value, demersal 8% and pelagics 1%.

5.3 The DEFRA statistics list four ports in Cumbria, as follows:

	weight (tonnes)	value (£)
Flockburgh, Coast Road and Barrow	9,004	9,005,475
Whitehaven	2,425	2,166,890
Workington	587	398,155
Maryport	249	276,048

5.4 The Flockburgh landings were dominated by cockles, of which there were an estimated 9,000 tonnes, with a value of £9 million. Presumably this is the Morecambe Bay cockle fishery where there was a tragic loss of life in 2004.

5.5 At the three other ports there was a mixture of shellfish and demersal landings. The only pelagic landings (mackerel) were at Workington.

Lancashire

5.6 The only Lancashire port listed in the DEFRA statistics is Fleetwood, where there were 1,006 tonnes with a value of £940,000. Demersal species accounted for 76% of the value and shellfish 24%.

5.7 Fleetwood was one of the best known fishing ports in the UK but fishing activity there is now on a very small scale. There is still an important fish market, however, and fish for that is trucked to Fleetwood from elsewhere.

Liverpool

5.8 Fish landings in Liverpool totalled 203 tonnes in 2003, with a value of £464,124. Scallops accounted for 68% of the value and sole 28%.

5.9 In 2003 there was a total of 1,469 fishermen (1,007 regular, 462 part-time) in the West Region, compared with 1,154 (973 and 181) in 2002. In the North West Region there was a total of 327 fishermen (96 regular, 231 part-time) in 2003 compared with 168 (150 regular, 18 part-time) in 2002. There has clearly been a substantial decline in the number of fishermen.

Wales

5.10 The Welsh fishing districts listed in the DEFRA statistics are:

	weight (tonnes)	value (£)
Conwy	8	7,870
Cemaes Bay	184	98,825
Holyhead	3,353	1,986,754
Aberystwyth area	531	802,806
Fishguard and St Davids area	457	799,405
Milford Haven	2,238	4,052,920

5.11 There is a famous mussel fishery in Conwy but that is not indicated by the above statistics.

5.12 At Holyhead shellfish – primarily whelks, queens and scallops – accounted for 73% of the value and demersal species – including dogfish and sole – the other 27%.

5.13 Virtually all the landings in the Aberystwyth area were shellfish, with the main species being lobster, scallops and crabs.

5.14 Virtually all the landings in the Fishguard/St Davids area were also shellfish, with the main species being lobster and crabs.

5.15 Milford Haven is the most important fishing port in Wales, with landings valued at £4.1 million in 2003. Demersal landings accounted for 78% of the total and shellfish 22%. There was a wide range of demersal species, including hake, anglerfish, megrims and sole.

5.16 There was a total of 983 fishermen (664 regular and 319 part-time) in Wales in 2003, compared with 762 (576 regular and 186 part-time) in 2002.

Northern Ireland

5.17 Fish landings in Northern Ireland in 2003 totalled 18,212 tonnes, with a value of £15.7 million. The breakdown by port was:

	weight (tonnes)	value (£)
Kilkeel	5,159	5,827,107
Ardglass	5,045	2,472,572
Portavogie	4,198	5,572,777
plus		
Other NI ports	3,810	1,799,886

5.18 At Kilkeel shellfish accounted for 52% of the total value and demersal species the other 48%. Shellfish were dominated by nephrops. The most important demersal species were dogfish, gurnard, hake and cod. The total number of fishermen in 2003 working out of Kilkeel was 190, compared with 260 in 2002.

5.19 At Ardglass the breakdown by value was shellfish 70%, pelagic 21% and demersal 10%. The pelagic landings included both herring and mackerel. Nephrops dominated the shellfish. In 2003, the total number of fishermen working out of Ardglass was 101, compared with 92 in 2002.

5.20 At Portavogie the breakdown by value was shellfish 53% and demersal 47%. The number of fishermen totalled 180 in 2003 and 228 in 2002.

5.21 For the “other Northern Ireland Ports” the breakdown by value was shellfish 38%, pelagic 36% and demersal 27%. The total number of fishermen was 27 in 2003, compared with 31 in 2002.

Scotland

5.22 There are two fisheries districts in Scotland in the SEA 6 area:

- Campbeltown and
- Ayr

5.23 In the Campbeltown district 4,424 tonnes of fish were landed, with a value of £7.3 million. Virtually all that fish was shellfish, with only very small quantities of demersal and pelagic fish.

5.24 The landings were widely dispersed throughout the district. Campbeltown and Tarbert had the highest values with £1.7 million each. Other important ports were West Loch Tarbert, Carradale, Grinan, Bute and Islay.

5.25 The “Scottish Fisheries Statistics 2003” show that there were 182 active vessels in the Campbeltown district in 2003, which was a reduction of –14 on the previous year. There were 255 fishermen regularly employed and 73 irregularly, giving a total of 328.

5.26 Fish landings in the Ayr district totalled 7,490 tonnes, with a value of £7.0 million. Shellfish accounted for 81% of the value and demersal/white fish 19%.

5.27 Troon and Saltcoats had the highest value of landings, with £3.6 million, followed by Kirkcudbright with £2.0 million. Other important ports are Whithorn, Girvan and Largs, and Greenock. Most of the white fish landings were in Troon and Saltcoats.

5.28 There were 152 active fishing vessels in the Ayr district, which was a decline of –6 on the previous year. There were 461 fishermen regularly employed and 132 irregularly, giving a total of 593.

Isle of Man

5.29 Fish landings in the Isle of Man were valued at just under £2.7 million in 2002, according to the Treasury’s “Digest of Economic and Social Statistics”. Scallops accounted for 54% of the value and queenies 29%. White fish (demersal) landings were tiny. We were informed that Isle of Man boats landed about £250,000 value of fish in UK ports in 2002.

6.0 TOURISM

6.1 Tourism is an important industry in some parts of the SEA 6 area. This section of the report considers marine-related tourism and tourism in the coastal parts.

6.2 The area includes some of the best known seaside holiday resorts in the UK, namely

- **Blackpool**
- **Morecambe**
- **Southport**
- **Rhyl**
- **Llandudno**

6.3 Recreational sailing is a very important pastime in many parts of the SEA 6 area. Details are given in another report on the SEA 6 website, "Identifying Recreational Cruising Routes, Sailing and Racing Areas within the SEA 6 Area", produced by the Royal Yachting Association. Brief notes on this activity are given below.

Cumbria

6.4 Tourism in Cumbria is dominated by the Lake District and is on a relatively small scale in the coastal parts of the region. They promote themselves as the "Western Lake District" and there are tourist information centres in the coastal towns of Silloth, Maryport, Workington, Whitehaven and Millom.

6.5 The "Footprint Guide to England" states that "between the Lakeland mountains and the Irish Sea, the Cumbrian coast is a strange, embattled, but in places very beautiful region, largely overlooked by many Lakeland tourists".

6.6 **Silloth** describes itself as "nestling on the shores of the Solway Firth, this peaceful Victorian resort offers an ideal base for a relaxing holiday". There is an excellent beach with views over the Solway Firth. Silloth has a port but it is not normally used by leisure craft.

6.7 **Maryport** has "a dinky little harbour" (Footprint), part of which has been converted into a marina with 161 berths. The harbour is also used by fishing vessels. There is also the Lake District Coast Aquarium.

6.8 **Workington** is the main industrial and commercial centre on the Cumbrian coast. The harbour is only occasionally used by leisure craft, most of which are based in Maryport or Whitehaven.

6.9 **Whitehaven**: "this small Georgian harbour town was at one time the third largest port in England and a distasteful mover and shaker in the slave trade. Hustle and bustle is about these days, but a facelift has spruced up the now sleepy marina, and its pastel-painted buildings fairly gleam along the front" (Lonely Planet guide). Visitor attractions in Whitehaven include the Beacon heritage centre overlooking the harbour and The Rum Story.

6.10 South of Whitehaven the coast is dominated by the **Sellafield** nuclear power station operated by British Nuclear Fuels Limited (BNFL). The Sellafield Visitor Centre is actually one of the most popular visitor attractions in the area.

6.11 Other popular visitor attractions on this part of the coast include the Ravenglass and Eskdale steam railway (also known as "La'al Ratty") and Muncaster Castle.

6.12 The southern part of Cumbria includes the Furness Peninsulas and the north coast of Morecambe Bay. According to the Lonely Planet Guide, "the sweep of Morecambe Bay has an unnerving sense of space, with some interesting towns in the hills above: genteel Grange, medieval Cartmel and lively Ulverston".

6.13 **Barrow-in-Furness** is the largest industrial and commercial town in the south of Cumbria. It is the centre of the nuclear submarine building industry, now done by BAE Systems (previously Vickers), and the location of the gas terminals for the Morecambe Bay gas fields. Visitor attractions include the Dock Museum, which has models of ships built in the town.

Lancashire

6.14 The Lancashire coast has three of the best known seaside resorts in the UK, namely Blackpool, Morecambe and Southport. The first two "have seen better days" but are undergoing substantial investment to revitalise them.

6.15 **Morecambe,** according to the Lonely Planet Guide, "was a quiet little fishing village until the mid 19^{th} century when it developed into a full-blown seaside resort, thanks to the construction of the railway, which brought holidaymaking mill workers from the surrounding towns in their droves. Its popularity has irrevocably waned, however, since WWII, when bolder and brasher Blackpool to the south became the west coast resort for the bucket-and-spade brigade".

6.16 "The old harbour has been refurbished and all that remains is the stone jetty, which is adorned with bird sculptures, a tribute to the glorious bay, which is considered Britain's most important wintering site for wildfowl (mainly terns) and wading birds such as ducks and geese. Sunsets here can be quite spectacular." Morecambe has a lengthy beach. Most of the resort has a very rundown appearance, however.

6.17 Nearby **Heysham** is the main ferry terminal for the Isle of Man. The port is also the supply base for the Morecambe Bay gas fields, as discussed in Section 2. Reid's Nautical Almanac 2005 writes of Heysham "good shelter, but yachts not normally accepted without special reason. Beware high speed ferries and oil rig supply boats".

6.18 There is a 260 berth marina nearby at **Glasson Dock** on the River Lune just outside Lancaster. Reid's states that 20 of the 260 berths are for visitors.

6.19 **Fleetwood** attracts few visitors now but the harbour has a 300 berth marina and promotes itself as "a good location from which to cruise Morecambe Bay and the Irish Sea".

6.20 **Blackpool**, according to the Lonely Planet Guide, "the unchallenged doyen of the tacky British seaside resort … has stubbornly refused to fade in spite of the challenge of budget holidays to southern Spain and other destinations where the sun is guaranteed to shine".

6.21 "Basically, Blackpool offers little else but unadulterated fun. Its famous "golden mile" is packed with amusement arcades, fairground rides, fish-and-chip shops, pubs and bingo halls that are aimed to distract and divert with almost complete abandon. It's not sophisticated but the aggressive marketing strategy that backs it all up certainly is : it cleverly combines the time-tested British tradition of a holiday by the sea with the high-tech 21^{st}-century amusements that are bound to thrill even the most unresponsive kid."

6.22 The tourist attractions in Blackpool include the Tower, the Pleasure Beach, three piers, and the Illuminations. There are also plans for a Las Vegas-type casino.

6.23 **Lytham St Annes** is a more genteel and upmarket resort a few miles south of Blackpool. It also has a championship golf course which hosts major events such as the British Open.

6.24 **Preston** has a marina 15 miles up the River Ribble, which is part of the Riversway Dockland development.

6.25 **Southport** is an attractive seaside resort about 20 miles north of Liverpool. It does not feature in many of the tourist guides but is clearly very popular for day trips by residents of Liverpool, Manchester and other parts of the North West. There has been large investment recently in the tourist facilities, including a sea wall which has enclosed an area of water. Another championship golf course, Royal Birkdale, is located in Southport.

6.26 Most of the coast between Southport and Liverpool is undeveloped. It includes the Ainsdale Nature Reserve and the Formby Point Nature Trail.

Merseyside

6.27 **Liverpool** is a large city with a growing tourism industry. Most of that tourism is not directly relevant to this SEA 6 study but some of the main attractions are located in the Albert Dock area on the River Mersey, close to the ferry terminal. They include the Merseyside Maritime Museum, the Museum of Liverpool Life and the Beatles Story. The Albert Dock complex is reported to attract 4.5 million visitors annually. Liverpool will be the European Capital of Culture in 2008.

6.28 Liverpool also gives access to two canals. There is a marina in the Brunswick and Coburn Docks, which are tidal. Leisure craft can also use part of the Albert Dock.

Wales

6.29 The north coast of Wales has a series of seaside resorts popular with residents of Merseyside and elsewhere. They include Rhyl, Prestatyn and the more upmarket Llandudno. The west coast is much more rural and remote but also has a significant tourism industry.

6.30 Travelling west from Liverpool along the north coast, the gas terminal handling the gas from the Liverpool Bay gas fields is located at the Point of Ayr, where there was a small visitor centre, which we understand closed in 2004.

6.31 The Rough Guide to Wales states that “the next twenty-mile stretch of coastline is the ugliest in Wales, an endless array of caravan parks with barely an arm’s length between adjacent vehicles – packed each year with fun-seekers from Merseyside and the rest of northern England. The amusements scattered along the promenades and beachfronts seem designed to keep you off the beaches : wise counsel even in the hottest weather since the sea here is none too clean”.

6.32 “Of the resorts **Prestatyn**, though uninspiring, is at least notable as the starting or finishing point of the Offas Dyke long-distance path. **Rhyl** is the largest, loudest and tackiest.”

6.33 The North Hoyle offshore wind farm is clearly visible from this part of the North Wales coast.

6.34 **Colwyn Bay** is a few miles further east along the coast. The Rough Guide writes that "its hilly setting and architecturally intact Victorian main street gives the place marginally more charm than its eastern neighbours, enhanced by an unspoilt old-fashioned seafront with an adequate beach and a semi-working pier".

6.35 **Llandudno** is a much more attractive and upmarket resort, which is particularly popular with retired people. The town's setting is spectacular and many of the original Victorian buildings remain on the promenade, including a fine pier.

6.36 Just to the west of Llandudno is **Conwy**, which is a very attractive walled town with an outstanding medieval castle, and attracts many visitors. It is a very popular base for sailing. There is a 500 berth marina in Conwy and just cross the river a 200 berth marina in Deganwy.

6.37 The Menai Strait separates the mainland on the Isle of Anglesey. The university town of **Bangor** is located on the mainland side at the eastern end of the strait and **Caernarfon**, with another famous castle, at the western end. There is a small marina in the harbour at Caernarfon.

6.38 According to the Lonely Planet Guide to Wales "joined to the mainland by two monumental bridges, **Anglesey** is very different physically from the biblical splendour of neighbouring Snowdonia. The island offers a scenic surprise of gentle green slopes, ringed by dramatic sea cliffs and bays, and small windswept settlements. It has a greater concentration of prehistoric sites than anywhere else in Wales".

6.39 The main town of **Holyhead** is not one of the island's tourist attractions but it has the terminal for the ferry services to/from Ireland. The harbour also has a large marina.

6.40 The west coast of Wales is much more remote and sparsely populated, and undoubtedly attracts a different type of tourist from the north coast. It is also the most heavily Welsh speaking part of the country.

6.41 Snowdonia and the Llyn Peninsula are at the northern end of the west coast. The Lonely Planet Guide states that "Snowdonia is not merely mountains : there is the bizarre glory of Portmeirion – an Italianate village; some marvellous windswept golden beaches; Edward I's formidable castles at Caernarfon and Harlech; the evocative remains of Snowdon's own industrial heritage at dramatic Blaenau Ffestiniog; Wales' finest seaside railway journey – the Cambrian Coast Line – and finest narrow-gauge railways; and one of its loveliest estuaries, the sparkling wood-edged Mawddoch".

6.42 The Llyn Peninsula is very popular with sailors. There is a 400 berth marina at **Pwllheli** and a number of very attractive small harbours.

6.43 There is a lengthy and beautiful coast around Cardigan Bay, which is also known as the Cambrian coast, and a series of attractive small towns such as **Twyn**, **Aberaeron**, **New Quay** and **Cardigan**. There is also the university town of Aberystwyth, where the National Library of Wales is located and which has a small marina in the harbour.

6.44 The Rough Guide states that "the southern section of Ceredigion coastline is enormously popular, combining safe beaches, lively market towns, great coastal walking and a resident pod of bottlenose dolphins. Although some of the larger towns, particularly Aberporth, have lost much of their scenic splendour to relentless waves of holiday homes and caravan parks, many of the coast's other settlements manage to cling on to some of the salty charm that makes them so popular".

6.45 **Fishguard** has a ferry terminal and service with Ireland, plus a few berths in the harbour. Visitor attractions include the Ocean Lab.

6.46 To the south lie **St David's Head** and **St Bride's Bay**. St David's Cathedral is known as the holiest place in Wales and the cathedral and nearby Bishop's Palace are very popular tourist attractions. The Lonely Planet Guide states that "St Bride's Bay is a great scoop of coast, facing where the sun sets … the best beaches in Wales line this wide bay and they are big enough to absorb the crowds of holiday-makers and surfers they attract at the height of summer".

Northern Ireland

6.47 Tourism has become increasingly important in Northern Ireland since the diminution of the troubles there. Statistics from the Northern Ireland Tourist Board show that visitors made just under 2 million trips in 2003, stayed 8.9 million nights and spent £291 million. Attractions on the coast include the famous **Giant's Causeway** and the seaside resorts of **Portstewart** and **Portrush**.

6.48 **Coleraine** has part of the coastline of Northern Ireland and is one of the main tourist destinations in the country. The town of Coleraine is the main population centre and others include the seaside resorts of Portstewart and Portrush.

6.49 Moyle has a lengthy part of the coastline of Northern Ireland which is sometimes known as the Causeway Coast. The main population centre is **Ballycastle** and there are various small villages on the coast.

6.50 The main visitor attraction in the area is the famous Giant's Causeway which is an Unesco World Heritage Site and a National Nature Reserve. Others include the Bushmills whiskey distillery.

6.51 Tourism is increasingly important in **Belfast** but it is not marine-related. However, Belfast Lough is very popular for sailing.

6.52 **Bangor** is a seaside resort, popular with residents of Belfast, and has a large marina, with about 500 berths, which is reported to be the biggest in Ireland.

6.53 **Strangford Lough** is a marine nature reserve and famous for its birdlife. It is also popular with sailors. There is a small marina at Portaferry and a ferry service across the lough.

6.54 **Ardglass** also has a marina, with about 55 berths.

6.55 **Carlingford Lough** is also popular for sailing and there is a marina at Carlingford. Tourism is important in the area, which has the famous **Mourne Mountains**. **Newcastle** is a well-known seaside resort.

South West Scotland

6.56 Tourism is a very important industry in Scotland but is on a relatively small scale in South West Scotland, probably because of the area's peripheral location. The main centres of tourism in the country are Edinburgh, Glasgow and the Highlands. South West Scotland attracts less than 10% of the visitors.

6.57 The SEA 6 area includes the Mull of Kintyre, the islands of Arran, Bute and Cumbrae in the Firth of Clyde, the Ayrshire coast and the coast of Dumfries and Galloway. These are not the most popular tourist destinations in Scotland but nevertheless tourism is a significant industry in some parts.

6.58 The tourism industry in Scotland was organised into area tourist boards (ATBs) until recent changes. Statistics on visitor numbers, expenditure, bednights etc are available for each of the ATBs.

6.59 Argyll was part of the Argyll, The Islands, Loch Lomond, Stirling and the Trossachs ATB. Statistics from VisitScotland show that this area attracted just over 2.5 million visits (trips) by UK residents and just over 200,000 overseas visits in 2003. The former spent just under £500 million and the latter about £60 million.

6.60 The Argyll ATB area accounted for 13% of the UK trips, 13% of the UK bednights and 11% of UK expenditure. It also accounted for 13% of overseas visits, 7% of overseas bednights and 7% of overseas expenditure.

6.61 However, the SEA 6 area includes only the Kintyre peninsula, which is a very small part of the area covered by the ATB. The latter includes very popular tourist destinations such as Loch Lomond and Stirling. It is not possible to obtain statistics on tourism in Kintyre on its own but it clearly accounts for only a very small proportion of activity in the wider ATB area.

6.62 The situation in Dumfries and Galloway is much clearer because the area tourist board (ATB) area coincides with that of the local authority. The VisitScotland statistics show that the area attracted just under 1.1 million visits from the UK and 32,000 from overseas in 2003. The former spent about £180 million and the latter £8 million, which was about 4% of the total tourism expenditure in Scotland.

6.63 The Dumfries and Galloway ATB area accounted for 6% of UK visits, 5% of UK bednights and 4% of UK expenditure. It also accounted for 2% of overseas visits, 1% of overseas bednights and 1% of overseas expenditure.

6.64 Tourism in **Kintyre** is limited by the peninsula's remote location and relatively poor transport links. The scenery is spectacular and the main reason why people visit. The area is well known because of Paul McCartney's famous song about the Mull of Kintyre.

6.65 **Campbeltown** has an airport at the former RAF base at Machrihanish. There was also a ferry service for a few years with Ballycastle in Northern Ireland but that stopped in 1999, although there are local hopes that it can be restarted. In addition to the natural beauty there are a few built visitor attractions, including the Springbank whisky distillery and the lighthouse on the Mull of Kintyre, which is just twelve miles from the coast of Northern Ireland.

6.66 The Isle of **Arran** is easily accessible from Glasgow and Ayrshire, being only an hour's ferry ride from Ardrossan. According to the Lonely Planet Guide, "the bucket-and-spade brigade fill the southern resorts, cyclists take to the island's circular road and hikers tackle the hills. With seven courses, Arran is also popular with golfers".

6.67 **Bute** is also popular with day-trippers from Glasgow and Ayrshire, with an estimated one million visitors each year. The main resort of **Rothesay** has a rundown feel about it, although there has been recent investment around the ferry terminal and waterfront, including a small marina.

6.68 **Cumbrae** is a much smaller island. The town of Millport is very unusual, with a "1950s feel" to it.

6.69 The Firth of Clyde and the adjoining lochs are very popular sailing waters. There are marinas at **Holy Loch** and **Rhu**.

6.70 The Ayrshire coast is also very popular with day trippers from the Glasgow area. **Largs** is the main resort and visitor attractions include the Scottish Maritime Museum in Irvine. There is a marina at Largs and a very large one at Kip with over 600 berths, as well as others at Ardrossan and Troon.

6.71 **Ayr**'s long sandy beach has made it a popular family seaside resort since Victorian times. The town has a racecourse which stages the Scottish Grand National each year. Ayr is famous for its Rabbie Burns connections and visitor attractions include the Burns Cottage and Museum at nearby Alloway.

6.72 There are also famous golf courses in Ayrshire, notably **Turnberry** and **Troon**, which hold championship events and attract many visitors.

6.73 Further south, many people travel through Dumfries and Galloway on their way to/from the Northern Ireland ferries from Stranraer and Cairnryan. The Lonely Planet guide to Scotland states that "the tourist board bills this region as Scotland's surprising south-west and it will surprise you if you expect beautiful scenery to be confined to the Highlands. The area has many features for which Scotland is famous – mountains, rolling hills, lochs and a rugged coastline". However, the number of visitors is relatively small because of the area's remoteness.

6.74 "Warmed by the Gulf Stream, this is the mildest corner of Scotland, a phenomenon that has allowed the development of some famous gardens. This is excellent cycling and walking country and is crossed by the coast-to-coast Southern Upland Way."

6.75 "Many notable historic and pre-historic attractions are linked by the Solway Coast Heritage Trail from Annan in the east to the Mull of Galloway in the west. Caerlaverock Castle, Threave Castle and Whithorn Cathedral and Priory are just three."

6.76 There are many attractive villages and towns along the coast, such as **Portpatrick, Wigtown, Gatehouse of Fleet** and **Kirkcudbright**. The Robin Rigg wind farm in the Solway Firth will be clearly visible from part of the coast, notably from the Caerlaverock Wildlife and Wetlands Centre.

6.77 Sailing is on a small scale. All the harbours are tidal and most "dry out". There are pontoons and berths for leisure craft in a few of the harbours but there are not marinas of the type in Maryport and Whitehaven in Cumbria across the Solway Firth.

Isle of Man

6.78 The Isle of Man, with a population of about 80,000, is independent of the United Kingdom and is described as a crown dependency. It has its own legal system, taxes etc and its own territorial waters which are excluded from the SEA 6 area.

6.79 Tourism is probably the second most important industry in the Isle of Man after financial services, although the number of visitors has declined since the heyday of the 1950s and 1960s. The island is well suited to walking, cycling and other outdoor-type holidays.

6.80 There are ferry services from/to both Heysham in Lancashire and Liverpool, the fastest of which take about two hours. There are also air services from various airports in the UK and Ireland.

6.81 There is a wide variety of visitor attractions. In addition to the natural scenery, built attractions include ancient castles and vintage railways. Each year the island stages the well-known **TT (Tourist Trophy) motorcycle races**.

6.82 The main town of **Douglas** is the centre of the financial services industry and could be described as a Victorian seaside resort, with a sweeping promenade and beach. Other attractive coastal towns and villages include **Castletown, Peel, Port Erin** and **Port St Mary**.

6.83 The Isle of Man is a popular sailing area. There are pontoons in the river in Douglas and quays or berths for boats in most of the harbours.

7.0 OTHER MARINE-RELATED ACTIVITIES

7.1 There are other marine-related activities in the SEA 6 area, including

- **military activity**
- **aggregate extraction**
- **marine disposal.**

These are discussed in detail in another report which is on the SEA 6 website, namely "SEA 6: Other Users", by Coastal Assessment, Liaison and Monitoring (CALM). A brief summary is given below.

Military activity

7.2 Practice and Exercise Areas (PEXA) charts, produced by the UK Hydrographic Office, provide information relating to military activity in the SEA 6 area. These are kept up to date through the Admiralty Notices to Mariners (NM) service and show areas which are in use, or available for use, by the Ministry of Defence for military practice and exercise.

7.3 The Scotland and Northern Ireland part of the SEA 6 area is used extensively by the Navy for activities which include non-firing exercises, practises and trials, submarine exercises and mine counter measures. By contrast, no Navy exercise areas occur in the southern part of SEA 6. Army exercise areas occur throughout SEA 6 but are most extensive in the southern part and are used for activities such as firing, bombing and demolition of unexploded ordnance. There are currently no Air Force practice areas in SEA 6.

7.4 The UK's nuclear submarine fleet is based at Faslane on Gare Loch in Argyll in Scotland. That part of the SEA 6 area is used for submarine training exercises.

7.5 In addition, military operations in Scottish waters include the triennial exercises run jointly by the Royal Navy and the Royal Air Force, mainly off the west coast. The exercises, called Joint Maritime Courses (JMC), provide collective training for the warships and aircraft of the UK and allied forces, including German, Canadian and Scandinavian units.

7.6 In the northern part of the SEA 6 area there are various army offshore firing ranges, including Luce Bay, Kirkcudbright and Eskmeals. The CALM report includes maps of these areas.

7.7 In the southern part of the SEA 6 area the main military activity is at Aberporth in Wales, which is the centre for pilotless target aircraft manoeuvring. The CALM report also includes a map of the area affected.

Aggregate extraction

7.8 Sand and gravel are essential materials for coastal protection, beach replenishment and private and industrial construction work. Extraction of sand and gravel from the seabed is licensed by the Crown Estate and is the largest source of revenue for the marine estate. There are currently 72 licences for the extraction of sand and travel in the UK, mainly for areas off the East Coast, South Coast and the Bristol Channel.

7.9 There are currently four active licensed areas for aggregate dredging in the SEA 6 area. In Liverpool Bay aggregate is extracted by United Marine Dredging Ltd and Norwest Sand & Ballast Company. Building sand is dredged from two very small licence areas at the mouth of the Mersey Estuary and an area located approximately 33 kms due west of the Cumbrian coast is dredged by the United Marine Dredging Ltd and RMC Marine Ltd. The CALM report has a map of these areas.

Marine disposal

7.10 The report by CALM states that “most forms of disposal at sea have been prohibited since the end of 1998 when the disposal of sewage sludge was phased out. Dredged material from ports and harbours is the only significant exception and now forms the majority of waste disposal at sea. Control of waste disposal at sea is achieved through a strict licensing system under the Food and Environment Protection Act 1985 (FEPA). Responsibility for statutory licences to carry out disposal in UK waters lies with the Marine Consents and Environment Unit (MCEU) of DEFRA for England and Wales, SEERAD through the Fisheries Research Services for Scotland (FRS) and the Department of the Environment for Northern Ireland.

7.11 In 2004 there were 24 sites in the SEA 6 area licensed for the disposal of dredged material. The CALM report includes a map showing these areas.

7.12 Since the end of the First World War, dumping of chemical weapons and munitions at sea has taken place. The full extent of this dumping will never be known due mainly to inadequate documentation of operations at the time of dumping and the subsequent loss or destruction of any records.

7.13 One of the most heavily used areas for dumping of conventional and chemical warfare munitions in the North-East Atlantic is located in the SEA 6 area. The Beaufort’s Dyke, a 200 to 300 metres deep trench, is located between Scotland and Northern Ireland and it has been estimated that over one million tons of munitions have been dumped in the Beaufort’s Dyke since the early 1920s (OSPAR Commission, 2004). During the 1990s reports of large numbers of phosphorous devices stranded on Scottish and Irish coasts were commonplace.

8.0 CUMBRIA

8.1 Cumbria is the northernmost part of England, with a lengthy coastline in the SEA 6 area extending from the Solway Firth in the north to Morecambe Bay in the south. The local authorities are Cumbria County Council and six districts. Our interests are in the four districts with coasts – **Allerdale, Copeland, Barrow** and **South Lakeland**. The other two "onshore" districts are Carlisle and Eden.

8.2 Cumbria is a very rural area and includes the well known Lake District, which is one of the most popular visitor destinations in the UK. It is also remote from the main centres of population and economic activity in England.

8.3 The population of Cumbria is approximately 490,000. It increased by +1.4% between 1981 and 2001, which was significantly below the +5.0% in England and +4.4% in the UK as a whole. There were significant geographical differences within the county : the population of Eden increased by a massive +15.3% and that of South Lakeland by +7.9%; but those of the other four districts fell.

8.4 The population is relatively old. For example, 46% of the Cumbrian population is aged 45 or over, compared with an average of 40% in the North West region. The South Lakeland and Eden districts are particularly popular with retired people.

8.5 Economic output and income levels per person in Cumbria are significantly below the national averages. The main reason for that is the structure of the local economy, with a preponderance of low income industries such as tourism and agriculture.

8.6 Nevertheless, Cumbria has a higher-than-average share of employment in the manufacturing sector. The largest manufacturing employers are the British Nuclear Fuels' Sellafield complex in Copeland and the BAE Systems shipyards in Barrow. Employment at these facilities is expected to fall substantially over the next decade so the local economies face major challenges.

8.7 We were provided with a copy of "An Economic Assessment of Cumbria 2004" produced for the Cumbria Economic Intelligence Partnership. The following extracts are from the Executive Summary.

8.8 "In gross employment terms, three areas predominate: the public services with around 37,000 jobs; distribution (wholesale, retail and hotels and restaurants) with around 60,000 jobs; and manufacturing with around 38,000 jobs. The last two of these areas are 'over-represented' in Cumbria – in particular, manufacturing employment is nearly one and a half times more significant to the county than is nationally typical. And, of course, the technical presentation of many jobs as being in 'distribution' – that is, in shops, hotels, restaurants, pubs, and so on – should not conceal the fact that many of these jobs are dependent on Cumbria's very significant tourism industry."

8.9 "Cumbria's relative dependence on manufacturing, especially at Sellafield and in the Barrow shipyards, increases its vulnerability, not only to political and commercial decisions in highly sensitive product areas but also to job losses due to technical change and competition from lower-cost overseas locations."

8.10 "Agriculture (including forestry and fishing) directly employs around 13,000 people, yet its indirect contribution to other sectors is undoubtedly much higher (eg agricultural engineering, construction, transport food processing etc). Furthermore, agriculture has shaped Cumbria's landscape and its role in maintaining that landscape is fundamentally important to tourism. Agriculture's vulnerability to several pressures (animal health, supermarket pressure on prices and consequent low margins, and changing subsidy regimes that seem likely to depress farm incomes further) is obvious."

8.11 One of the major impacts on the Cumbrian economy recently was that of foot-and-mouth disease (FMD), with the county probably being the worst affected area in the UK.

8.12 The Executive Summary also states that "what is important is that Cumbria has relatively few jobs (about 10% of the total compared with 20% in England and Wales) in the business and financial services sectors. These sectors, including those businesses involved in ICT development and support, have been the major engine of economic growth in the UK over the last two decades".

8.13 Further, "what emerges from this structural analysis is the suggestion that Cumbria's economy is not strongly positioned – manufacturing, as elsewhere, is under continuous pressure to shed jobs in search of productivity and is vulnerable to overseas competition, agriculture struggles to regain sustainable levels of profitability, and tourism, though it has recovered well from the foot-and-mouth crisis, faces strong competition from other UK, European and global destinations. Apart from the obvious exceptions, the economy has a high proportion of small businesses which are typically configured as 'lifestyle' family enterprises with low technological investment and with limited growth aspirations".

8.14 "Essentially, we see the reasons for Cumbria's failure to keep pace with national and regional growth rates as structural:

- the decline of activity in some high-value manufacturing sectors (particularly Sellafield and the Barrow shipyards);
- failure to compensate for such changes by establishing a larger business and financial services sector (a key 'value growth' area for the UK as a whole) – indeed, many such jobs have recently been lost from Kendal;
- an increasing reliance, therefore, on largely stable, traditional low value added sectors (characterised often by part-time work in micro-businesses) such as hotels and restaurants, retail, transport and construction."

8.15 Statistics in the "Economic Assessment" show that in 1995 Cumbria's gross value added (GVA) per person was 90% of the UK average and 101% of the North West average. However, by 2001 those figures had fallen to 75% and 86% respectively.

8.16 A similar picture is given by data from the Annual Survey of Hours and Earnings (ASHE), undertaken by the Office for National Statistics (ONS). The average gross weekly pay of full-time workers in Cumbria in 2004 was £429.2. That was –16.1% below the English average of £515.5 and –15.0% below the UK average of £504.9.

8.17 There is a surprisingly large number of public sector bodies involved in economic development in Cumbria. The main ones are Cumbria County Council, the other local authorities and the North West Development Agency. Others include the Cumbria Economic Intelligence Partnership, Cumbria Inward Investment Agency, Cumbria Tourist Board, the West Cumbria Strategic Forum and West Lakes Renaissance.

8.18 The following notes are comments on the current states of the economies in each of the coastal districts of Cumbria bordering on the SEA 6 area. The emphasis is on the key economic activities relevant to this SEA 6 study namely:

- offshore oil and gas
- offshore wind farms
- ports, ferries and shipping services
- fishing
- tourism

8.19 Cumbria is involved in the offshore oil and gas industry in the SEA 6 area. The landfall terminals for the Morecambe Bay gas fields are located at Barrow-in-Furness. Further information is given in Section 2 of this report and in the Barrow notes below.

8.20 Cumbria is also involved in the offshore wind farm industry. Offshore Energy Resources and Solway Offshore are currently developing the Robin Rigg project in the Solway Firth, which will have 60 turbines with a capacity of up to 216 MW. Warwick Energy are currently developing the Barrow project off Walney Island, which will have 30 turbines with a capacity of up to 108 MW. Further details are given in Section 3 of this report.

8.21 Ormonde Energy have also proposed an innovative joint offshore gas/wind farm development offshore Barrow. Details of that are given in Section 2.

8.22 The Round 2 wind farms also include two possible developments in the same area, known as Walney and West Duddon. Details of those are given in Section 3.

8.23 The lengthy coastline has various ports and harbours, including Silloth, Maryport, Workington, Whitehaven and Barrow. There are no passenger ferries but a range of freight services, as described in Section 4 and summarised below.

8.24 Fish landings in Cumbria in 2003 totalled 12,265 tonnes, with a value of £12.3 million. Shellfish accounted for 91% of the value, demersal 8% and pelagics 1%.

8.25 The DEFRA statistics list four ports in Cumbria, with the following landings in 2003:

	weight (tonnes)	value (£)
Flookburgh, Coast Road and Barrow	9,004	9,005,475
Whitehaven	2,425	2,166,890
Workington	587	398,155
Maryport	249	276,048

8.26 The Flookburgh landings were dominated by cockles. Presumably this is the Morecambe Bay cockle fishery, where there was a tragic loss of life in 2004.

8.27 Tourism is a vital part of the Cumbrian economy, notably in the Lake District. Tourism on the coast is on a much smaller scale but it is nevertheless important in some areas, particularly on the south coast. Further details are given in Section 6 of this report.

Allerdale

8.28 Allerdale has the section of the Cumbrian coastline from near Carlisle on the Solway Firth to just south of Workington, which is the main town and administrative centre. The other settlements on the coast include Maryport and Silloth.

8.29 The population of Allerdale is approximately 95,000. It fell by –2.3% between 1981 and 2001, in contrast with the +1.4% rise in Cumbria and +5.0% in England as a whole.

8.30 The service sector now dominates the local economy, as elsewhere in the country. However, the primary and manufacturing sectors are still relatively important.

8.31 Unemployment in April 2005 totalled 1,140, which was 2.0% of the population. That compares with 1.9% in Cumbria, 2.5% in the North West and 2.4% in the UK as a whole.

8.32 Income levels are significantly below the Cumbrian and UK averages. The Annual Survey of Hours and Earnings shows that the average gross weekly pay of full-time workers in Allerdale in 2004 was just £369.6. That was –13.9% below the Cumbrian average of £429.2 and –26.8% below the UK average of £504.9.

8.33 The average gross weekly pay of Allerdale residents (as distinct from people who work in the area) was significantly higher at £418.3, reflecting local commuting patterns.

8.34 The largest employers in Allerdale are the Borough Council and the National Health Service trusts. Important manufacturing firms include:

- Alcan Packaging, Workington
- Corus Process Engineering, Workington (railway lines)
- Cumbrian Seafoods, Maryport
- Eastman Chemical Ectona, Workington
- Iggesund Paperboard, Workington.

8.35 The whole of Allerdale has Objective 2 status until 2006. There are two main initiatives underway. The first is the £25 million redevelopment of Workington town centre. The second is the reclamation and redevelopment of the former Royal Navy Armaments Depot at Broughton Moor, which is the largest brownfield site in the North West of England. However, these are not relevant to the SEA 6 study.

8.36 Allerdale has no involvement in the offshore oil and gas industry in the SEA 6 area. However, it is very close to the Riggs Bay wind farm, currently being developed in the Solway Firth. The wind farm will clearly be visible from the north coast of Allerdale.

8.37 There are three ports in Allerdale which involve maritime activity in the SEA 6 area:

- Silloth
- Maryport
- Workington

Detailed information on the ports' activities is given in Section 4 of this report.

8.38 Silloth handled about 150,000 tonnes of freight in 2003, of which over 99% was inward. The main cargoes are grain for the Carr's Flour Mills and fertilisers.

8.39 Maryport is now a fishing and leisure port, with no commercial traffic. It has a 161 berth marina and is one of the two main centres in Cumbria for sailing.

8.40 Workington handled 258,000 tonnes of freight in 2003, of which about 74% was inward and 26% outward. The main cargoes are forest products, agricultural products and steel for local businesses.

Copeland

8.41 Copeland lies to the south of Allerdale, with a lengthy coastline from just north of Whitehaven to just north of Barrow-in-Furness. The main centres are Whitehaven and Millom on the coast and – inland – Cleator Moor and Egremont. Two thirds of the borough is within the Lake District National Park.

8.42 The population of Copeland is about 70,000. It declined by –5.0% between 1981 and 2001. That was the largest fall in the county and contrasts with the +1.4% rise in Cumbria and +5.0% in England as a whole.

8.43 The local economy was originally dependent on coal, iron and steel, all of which have disappeared. Total employment in the borough is now about 30,000, of whom about 12,000 work at the British Nuclear Fuels Ltd (BNFL) complex at Sellafield. The latter number is predicted to decline to just 4,000 by 2016. Thus Copeland faces some very big challenges over the next decade.

8.44 Unemployment in April 2005 totalled 1,157, which was 2.7% of the population. That compares with 1.9% in Cumbria, 2.5% in the North West and 2.4% in the UK as a whole.

3.39 The Annual Survey of Hours and Earnings shows that the average gross weekly pay of full-time workers in Copeland in 2004 was just £543.1. That was +26.5% above the Cumbrian average of £429.2 and +7.6% above the UK average of £504.9.

8.45 Apart from BNFL, most of the other jobs in Copeland are in the service sector, particularly health and social work, retail, education and public administration.

8.46 A steering group led by Copeland Borough Council commissioned a consultancy report in 2004 entitled “Gearing Up For Change : The New Copeland Economic Strategy and Action Plan”. In addition to a proposed strategy it outlines 52 possible development projects.

8.47 As far as this SEA 6 study is concerned, Copeland has no current involvement in the offshore oil and gas industry nor the offshore wind farms.

8.48 Whitehaven is the only port in the area. It is the main fishing port in Cumbria, with landings of 2,425 tonnes in 2003, valued at just under £2.2 million. The port has no other commercial traffic.

8.49 There is a 200 berth marina in the inner harbour. Visitor attractions include the Beacon heritage centre and The Rum Story.

8.50 Tourism is on a small scale in Copeland. South of Whitehaven the coast is dominated by the Sellafield nuclear power station and the Sellafield Visitor Centre is actually one of the most popular visitor attractions in the area. Other attractions on this part of the coast include the Ravenglass and Eskdale steam railway (also known as “La’al Ratty”) and Muncaster Castle.

Barrow-in-Furness

8.51 The Barrow Borough Council area is a small part of Cumbria in the south, including the Furness peninsula, as shown on the map. Barrow-in-Furness is the main population and economic centre.

8.52 The population of the area is approximately 72,000. It declined by –2.0% between 1981 and 2001, in contrast with the +1.4% increase in Cumbria and +4.0% in England as a whole.

8.53 The service sector now dominates the local economy, as elsewhere in the country. However, the manufacturing sector is relatively large. The biggest employer is the former Vickers shipyards, which are now owned and operated by BAE Systems.

8.54 Employment at the shipyards has fallen by about 10,000 since 1990. Taking into account subcontractors and other multiplier effects, the total job losses have probably been about 15,000.

8.55 Unemployment in April 2005 totalled 1,240, which was 2.9% of the population. That was the highest rate in Cumbria and well above the 1.9% average.

8.56 Income levels in Barrow are above the Cumbrian average. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in Barrow averaged £453.8. That was +5.7% above the Cumbrian average but –10.1% below the UK average.

8.57 Apart from the shipyards, most employment is in the service sector, particularly health services, retailing, education and public administration. Other important private sector employers are Kimberley Clark (paper tissues) and Centrica/British Gas.

8.58 West Lakes Renaissance have produced a master plan for the development of Barrow, with a £100 million budget, most of which would come from the North West Development Agency (NWDA). The plan includes an innovation park, marina and village, which are forecast to generate up to 1500 jobs.

8.59 Barrow has a substantial involvement in the offshore oil and gas industry in the SEA 6 area. It is the landfall terminal for the gas and liquids from the Morecambe Bay gas fields. Details are given in Section 2 of this report. The terminal is owned and operated by Centrica Energy, and is actually divided into two distinct parts. Reference is often made to two Centrica subsidiaries, Hydrocarbon Resources Ltd (HRL) and British Gas. About 200 people work at the Barrow terminals.

8.60 Barrow is also heavily involved with the proposed offshore wind farm developments in the area. Warwick Energy are currently developing the Barrow project off Walney Island, which will have 30 turbines with a capacity of up to 108 MW. Further details are given in Section 3 of this report.

8.61 Ormonde Energy have also proposed an innovative joint offshore gas/wind farm development offshore Barrow. Details of that are given in Section 2.

8.62 The Round 2 wind farms also include two possible developments in the same area, known as Walney and West Duddon. Details of those are given in Section 3.

8.63 The port of Barrow, which is owned by the ABP group, handled 241,000 tonnes of freight in 2003. Most of that was limestone exports. Other traffic include condensate exports from the gas terminal, nuclear fuels for BNFL's Sellafield and Preston plants, and the occasional cruise liner. More information is given in Section 4 of this report.

South Lakeland

8.64 South Lakeland has the southern part of the Cumbrian coast from Barrow in the west to the border with Lancashire in the east, which is the northern part of Morecambe Bay. Settlements on the coast include Ulverston and Grange-over-Sands.

8.65 The area's population is approximately 105,000. It increased by +7.9% between 1981 and 2001, in marked contrast with the declines in the other three coastal districts in Cumbria.

8.66 The South Lakeland economy is dominated by tourism, notably in the Lake District National Park. Most employment is in the service sector, as elsewhere.

8.67 Unemployment in April 2005 totalled 432, which was just 0.7% of the population.

8.68 Income levels in South Lakeland are well below the regional and national averages. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers averaged £401.5. That was –6.5% below the Cumbrian average and –20.5% below the UK average. However, the average for South Lakeland residents (as distinct from people who work there) was much higher at £502.4.

Acknowledgements

8.69 We are very grateful for the help received from the following in preparing this section of the report:

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- Bern Hellier, Head of Economic Development, Copeland Borough Council
- Phil Huck, Assistant Director – Strategy and Regeneration, Barrow Borough Council.

9.0 LANCASHIRE

9.1 Lancashire is a large region, with a population of about 1.4 million. Much of the region is industrial and urban.

9.2 The interest of the SEA 6 study is confined to the four coastal areas in Lancashire namely:

- **Lancaster City**
- **Blackpool**
- **Wyre Borough**
- **Fylde**

West Lancashire also has a small coastline but there is no significant economic activity there.

9.3 Lancaster, Wyre and Fylde are second tier local authorities, coming under the Lancashire County Council. Blackpool is an unitary authority.

9.4 Lancashire County Council have an Economic Intelligence Team who have put a great deal of useful information on the local economy on their website (www.lancashire.gov.uk), including area profiles and sector profiles. Some of that information is summarised below.

9.5 A research monitor entitled “Lancashire: Perceived Strengths and Weaknesses” (May 2004) states that “the Lancashire region was at the forefront of the “Industrial Revolution” and is where many of Britain’s traditional industries – most notably textiles, but also engineering, vehicles and chemicals among them, had their earliest start. To this day the legacy of canals, older industrial premises and industrial structure still bears witness to the county’s fundamental contribution to the development of manufacturing industry in Britain at a time when it was said that “England’s bread hangs by Lancashire’s thread”. Many of Lancashire’s towns still have the unmistakable physical stamp of an earlier manufacturing era”.

9.6 “But constant changes had been a feature of the county’s industry: the massive expansion of the textile and allied industries to become a global force over the late 18th and 19th centuries and then their protracted contraction over the 20th century; the growth of aerospace, engineering, electronics, vehicles and paper industries in the 1940s, 50s, and 60s; the development and more recent retrenchment of a large slice of the region’s defence and automotive sectors; and today, the massive structural shift into service and technical sectors.”

9.7 “The past two decades have been especially severe as the traditional manufacturing sectors have downsized and restructured to take advantage of new technologies and new forms of industrial organisation in order to boost competitiveness and to meet emerging global challenges. Major structural shifts have occurred as the County has undergone a massive reconstruction away from a previously large and vertically integrated company dominated economic base towards a far more diversified structure in which small and medium sized companies, many high tech or specialising in niche and higher added value markets have come to play a far more important role. Moreover, whilst production industry still constitutes a large and important sector, contributing probably in excess of a third of Lancashire’s economic output, the employment base is now firmly services rather than manufacturing dominated.”

9.8 "Today Lancashire has a very diverse economic base with a strong mix of both international and indigenous companies from the likes of BAE Systems, Baxi Heating, British Nuclear Fuels, Leyland Trucks and Rolls Royce to Matalan, MyTravel, and Time Computers. Manufacturing remains a key and highly valued wealth creating sector still accounting for a fifth of the workforce. However, despite the continuing key role of production industry, as elsewhere in the UK it is services, particularly the commercial, business and technical services along with public-sector employment in areas like education, health and welfare that is today fuelling much of the new jobs growth."

9.9 As in Cumbria, there is a myriad of public sector bodies involved in economic development, including:

- **North West Development Agency (NWDA)**
- **Lancashire West Partnership (LWP)**
- **Lancashire Rural Partnership (LRP)**.

9.10 Lancashire has some involvement in the key SEA 6 industries. The Morecambe Bay gas fields are supplied from Centrica's base at Heysham, where about 100 people work. BHP Billiton also use this base to supply the Liverpool Bay fields. Further details are given in Section 2 of this report.

9.11 Lancashire may also be involved in the offshore wind farm industry. One of the Round One sites is Shell Flats, about seven kilometres offshore Cleveleys. Further details are given in Section 3 of this report.

9.12 Heysham is the main UK terminal for the Isle of Man ferry services, which are operated by Isle of Man Ferries. There are also cargo services to/from Belfast and Warrenpoint in Northern Ireland and Dublin in the Republic. Further details are given in Section 4.

9.13 There is a small port at Glasson Dock on the River Lune a few miles south of Lancaster, operated by Glasson Grain. There is a daily cargo service with the Isle of Man and also a 260 berth marina.

9.14 Further south the port of Fleetwood handles a large share of Northern Ireland traffic, with Stena Line operating a ro-ro service to/from Larne. There is also a 300 berth marina in the harbour. Further details are also given in Section 4.

9.15 Fishing is on a relatively small scale in Lancashire. Fleetwood was one of the best known fishing ports in the UK but fishing activity there has declined substantially. There is also the Morecambe Bay cockle fishery, which is referred to in Section 5.

9.16 Marine-related tourism in Lancashire is discussed in Section 6. Blackpool is one of the best known seaside resorts in the UK. Morecambe also used to be a very popular resort but has declined in recent years. Lytham St Annes is a more "genteel" resort, a few miles south of Blackpool.

Lancaster

9.17 The population of the Lancaster City Council area is approximately 135,000. Of those, about half live in Lancaster itself. The coastline includes the seaside resort of Morecambe and the port of Heysham, which is the supply base for the Morecambe Bay gas fields. The area also has a large rural hinterland.

9.18 Lancaster's population increased by +7.0% between 1981 and 2001. That compares with a +4.4% rise in the UK as a whole and a –3.0% fall in the North West. The local increase was one of the highest in the region.

9.19 The local economy is now dominated by the service sector, as elsewhere in the UK. The manufacturing sector is relatively small. The primary sector is relatively large, because of the continuing importance of agriculture in the rural hinterland. The health sector is now the largest employer in the area. The University of Lancaster is the second and the nuclear power stations at Heysham the third.

9.20 Unemployment is low. The April 2005 total was 1,640, which was 2.0% of the population. That compares with 1.8% in Lancashire as a whole, 2.5% in the North West and 2.4% in the UK.

9.21 Income levels are a little below the national average. The average gross weekly pay of full-time employees in Lancaster in 2004 was £500.4, according to the Annual Survey of Hours and Earnings (ASHE). That was +7.4% above the Lancashire average of £466.0 and just –0.9% below the UK average of £504.9. The average for residents of Lancaster (as distinct from people who work there) was a little lower at £481.0.

9.22 The area profile produced by the County Council's Economic Intelligence Team lists the major employers in Lancaster as:

Employer	location	Activity
Arvin Replacement Products	Glasson Dock	Vehicle exhaust systems
Axa Direct	Morecambe	Insurance and financial services
British Energy	Heysham	Nuclear electricity generation
British Gas/Hydrocarbon Resources	Heysham	Offshore supply base
Cannon Hygiene	Morecambe	Hygiene services
Imperial Home Décor	Morecambe	Printed wallcoverings etc
Lancaster Basalt Fibre	Lancaster	Basalt rock, glass etc
Lancaster City Council	Lancaster	Local authority
Lancaster and Morecambe College	Lancaster	Further education
Lancaster University	Lancaster	Higher education
Mitchells of Lancaster	Lancaster	Brewers, pubs and hotels
Morecambe Bay Hospitals NHS Trust	Lancaster	National Health Service
Morecambe Bay Primary Care Trust	Lancaster	National Health Service
Reebok International	Lancaster	Sportswear
St Martins College	Lancaster	Higher education
Solvent Resource Management	Morecambe	Recycling of waste solvents etc
Tulchan Group	Carnforth	Sock Shop, Jumpers retail chains

9.23 Lancaster is one of the few parts of the SEA 6 area directly involved with the offshore oil and gas industry. Both the Morecambe Bay and Liverpool Bay fields are supplied from the supply base at Heysham, which is operated by Centrica. About 100 people work there. Further details are given in Section 2 of this report.

9.24 Lancaster is unlikely to have any direct involvement in the offshore wind farm industry in the near future. However, four such farms are proposed offshore Barrow-in-Furness and they may be visible from Morecambe and Heysham.

9.25 Lancaster's main involvement in the energy industry is through the Heysham 1 and 2 nuclear power stations, which are owned and operated by British Energy.

9.26 In relation to the fishing industry the only Lancashire port listed in the DEFRA statistics is Fleetwood in the Wyre district (see below). However, the statistics show £9 million worth of cockles landed in 2003 in "Flookburgh, Coast Road and Barrow" in Cumbria. This is presumably the Morecambe Bay cockle fishery, where there was a tragic loss of life in 2004.

9.27 Marine-related tourism in the area is centred on the seaside resort of Morecambe. According to the Lonely Planet Guide, Morecambe "was a quiet little fishing village until the mid 19th century when it developed into a full-blown seaside resort, thanks to the construction of the railway, which brought holidaymaking mill workers from the surrounding towns in their droves. Its popularity has irrevocably waned, however, since WWII, when bolder and brasher Blackpool to the south became the west coast resort for the bucket-and-spade brigade".

9.28 "The old harbour has been refurbished and all that remains is the stone jetty, which is adorned with bird sculptures, a tribute to the glorious bay, which is considered Britain's most important wintering site for wildfowl (mainly terns) and wading birds such as ducks and geese. Sunsets here can be quite spectacular."

9.29 Morecambe has a very rundown appearance now, however. Lancaster City Council gave us information on various initiatives to revitalise the resort, including the redevelopment of the iconic Midland Hotel.

9.30 Lancaster and Morecambe are an economic development zone (EDZ), which have received about £8 million of European regional aid. The EDZ is targeting:

- information and communications technology (ICT) and media
- creative industries
- the acute shortage of industrial land.

9.31 We were informed of tentative plans for a Bay Bridge from North Morecambe to Barrow, which is a distance of about eight miles. There had been earlier plans for a tidal barrage in the bay.

Wyre

9.32 Travelling south, the Wyre Borough Council area includes the coastline from the boundary with Lancaster to just north of Blackpool. The main settlements on the coast are Fleetwood and Cleveleys.

9.33 The population of Wyre is approximately 106,000. It increased by +6.0% between 1981 and 2001. That compares with a +4.4% rise in the UK as a whole and a –3.0% fall in the North West.

9.34 The local economy is now dominated by the service sector, as elsewhere in the UK. Employment in public administration is about twice the national average. So too is the primary sector because of the fishing industry in Fleetwood and the agricultural industry in the rural hinterland. Obversely, the manufacturing sector is relatively small.

9.35 Unemployment is very low. The April 2005 total was 821, which was just 1.3% of the population. That compares with 1.8% in Lancashire as a whole, 2.5% in the North West and 2.4% in the UK.

3.40 The average gross weekly pay of full-time employees in Wyre was £416.4 in 2004, according to the Annual Survey of Hours and Earnings (ASHE). That was –10.6% below the Lancashire average and –17.5% below the UK average. The average for residents of Wyre (as distinct from people who work there) was much higher, however, at £482.5.

9.36 The area profile of Wyre produced by the County Council's Economic Intelligence Team lists the following major employers:

employer	location	activity
Asah: Glass Fluoropolymers	Thornton Cleveleys	Fluoropolymers
Blackpool, Fylde and Wyre Hospitals	Poulton-le-Fylde	National Health Service
Corporation of Rossal School	Fleetwood	School
Department of Works and Pensions	Norcross	Government offices
Freeport Village	Fleetwood	Retail/leisure complex
Gilberts	Thornton Cleveleys	Smoke, fire controls etc
HM Treasury	Fleetwood	Government offices
Lancashire Care NHS Trust	Fleetwood	National Health Service
Lappet Manufacturing	Calder Vale	Lappets
Lofthouse of Fleetwood	Fleetwood	"Fisherman's Friend" lozenges
Moto Hospitality	Forton	Motorway service station
Myersrough College	Bilsborrow	Further education
P&O European Ferries	Fleetwood	Irish Sea ferry services
Safeway Stores	Fleetwood	Retail store
Victrex	Thornton Cleveleys	Plastics
Walki Wisa	Garstang	Paper and board
Wyre Borough Council	Poulton-le-Fylde	Local authority

9.37 Wyre has no current involvement in the offshore oil and gas industry in the SEA 6 area. However, we were informed that some Fleetwood-based firms had been involved in the development phases of the Morecambe Bay gas fields.

9.38 The area may be involved in the offshore wind farm industry. One of the Round One sites is Shell Flats, about seven kilometres offshore Cleveleys. Further details are given in Section 3 of this report.

9.39 There are no electricity generating stations in Wyre (to the best of our knowledge).

9.40 Fleetwood is the only port in the area. Stena Lines operate a ro-ro ferry service to/from Larne in Northern Ireland, which is mainly used by commercial traffic. Stena recently took over the service from P&O, who are listed above as one of the major employers.

9.41 Fleetwood was one of the best known fishing ports in the UK but fishing there is now on a very small scale. There is still an important fish market, however, and fish for that is trucked to Fleetwood from elsewhere. The DEFRA statistics show fish landings of 1006 tonnes, valued at £940,000 in 2003. Demersal species accounted for 76% of the value and shellfish 24%.

9.42 The Head of Economic Development at Wyre Borough Council informed us that there is still a strong group of fish-related businesses in Fleetwood, including processors and merchants such as A&M, MC Foods and CG Nieves, supplying the major supermarket chains. Mention should also be made of Lofthouse who make the "Fisherman's Friend" cough sweets and are one of the major employers in the area.

9.43 Tourism in Fleetwood has also declined from the heyday of the 1950s and 1960s, although there is some spill-over from nearby Blackpool. About £1 million of Objective 2 money was spent on improvements to the pier and promenade.

9.44 There is a 300 berth marina in Fleetwood harbour which promotes itself as "a good location from which to cruise Morecambe Bay and the Irish Sea".

9.45 The Head of Economic Development told us that there is a high level of deprivation in parts of Fleetwood, including low educational standards, benefit dependency and drug abuse. A Fleetwood Regeneration Partnership has been set up.

9.46 Cleveleys is basically an extension of Blackpool and is mainly a residential area.

Blackpool

9.47 Blackpool is an unitary authority with a population of about 142,000. It fell by –4.6% between 1981 and 2001. That compares with a fall of –3.0% in the North West but an increase of +4.4% in the UK as a whole.

9.48 The local economy is now dominated by the service sector, as elsewhere in the UK. Tourism is the single most important industry, of course.

9.49 Unemployment is relatively high at the present time. The April 2005 total was 2,580, which was 3.1% of the population. That compares with 1.8% in Lancashire, 2.5% in the North West and 2.4% in the UK.

9.50 Income levels are significantly below the regional and national averages. The average gross weekly pay of full-time employees in Blackpool in 2004 was £459.1. That was –2.2% below the North West average of £469.5 and –9.1% below the UK average of £504.9.

9.51 The area profile produced by the County Council's Economic Development Team lists the following major employers in Blackpool:

employer	Activity
Arvin Exhausts	Exhausts for motor vehicles
Blackpool Borough Council	Local authority
Blackpool and the Fylde College	Further education
Blackpool Pleasure Beach	Amusement park
Blackpool Transport Services	Bus and tram services
Blackpool, Fylde and Wyre Hospitals	National Health Service
Burton Foods	Biscuit manufacturers
Department for Works and Pensions	Government offices
Glasdon Group	Modular building systems
HM Treasury	National Savings offices
Leisure Parcs	Entertainment services
TVR Engineering	Sports car manufacturers

9.52 The proportion of employment in the "hotels and restaurant" industry is nearly three times the national average and the proportion in public administration is also high. Obversely, the manufacturing sector is relatively small.

9.53 Blackpool has a small involvement in the offshore oil and gas industry in the SEA 6 area. Both Centrica and BHP Billiton fly their offshore crews to/from the Morecambe Bay and Liverpool Bay fields by helicopter from Blackpool Airport. The airport is actually located in neighbouring Fylde (see below), rather than in Blackpool itself.

9.54 The area is unlikely to be directly involved in the offshore wind farms. However, one of the Round One sites is Shell Flats, about seven kilometres offshore Cleveleys. That development may well be visible from Blackpool.

9.55 Turning to tourism, Blackpool, according to the Lonely Planet Guide, "the unchallenged doyen of the tacky British seaside resort … has stubbornly refused to fade in spite of the challenge of budget holidays to southern Spain and other destinations where the sun is guaranteed to shine".

9.56 "Basically, Blackpool offers little else but unadulterated fun. Its famous "golden mile" is packed with amusement arcades, fairground rides, fish-and-chip shops, pubs and bingo halls that are aimed to distract and divert with almost complete abandon. It's not sophisticated but the aggressive marketing strategy that backs it all up certainly is : it cleverly combines the time-tested British tradition of a holiday by the sea with the high-tech 21st-century amusements that are bound to thrill even the most unresponsive kid."

9.57 The tourist attractions in Blackpool include the Tower, three piers, the Pleasure Beach and the Illuminations. There are also plans for a Las Vegas-type casino.

Fylde

9.58 Fylde is located to the south of Blackpool and has a small part of the coastline on the north shore of the Ribble estuary and river. The main coastal settlement is Lytham St Anne's, which is sometimes referred to as the two separate towns of St Anne's and Lytham.

9.59 The population of Fylde is approximately 73,000. It increased by +6.5% between 1981 and 2001. That compared with a +3.8% increase in Lancashire as a whole and +4.4% in the UK.

9.60 The economy is now dominated by the service sector, as elsewhere in the country. The percentage of employment in "public administration and defence" is nearly twice the national average. The manufacturing sector is also relatively large because of the presence of BAE Systems and British Nuclear Fuels.

9.61 Unemployment is very low at the present time. The April 2005 total was 415, which was just 1.0% of the population. That compares with 1.8% in Lancashire, 2.5% in the North West and 2.4% in the UK.

9.62 Income levels are well above the regional and national averages. The average gross weekly pay of full-time employees in Fylde in 2004 was £540.1. That was +15.0% above the North West average and +7.0% above the UK average. The average for residents of Fylde (as distinct from people who work there) was a little lower at £529.1.

9.63 The area profile of Fylde produced by the County Council's Economic Intelligence Team lists the following major employers:

employer	location	activity
Aegon UK	Lytham St Anne's	Life insurance etc
Axa Insurance	Lytham St Anne's	Financial services
BAE Systems (Operations)	Warton	Military aircraft
BAE Systems (Systems and Services)	Warton	Defence contractor
British Nuclear Fuels	Springfields	Nuclear fuel and products
Fylde Borough Council	Lytham St Anne's	Local authority
Department for Works and Pensions	Lytham St Anne's	Government offices
Electronic Data Systems	Lytham St Anne's	Information technology
Fox's Biscuits	Wesham	Biscuit manufacturers

9.64 Fylde has a small involvement in the offshore oil and gas industry in the SEA 6 area. Blackpool airport is located in the borough and is the helicopter base for both the Morecambe Bay and Liverpool Bay fields.

9.65 There are no ports nor harbours in Fylde. However, there is a marina at Preston, about 15 miles up the River Ribble.

9.66 Lytham St Anne's is a much more genteel and upmarket resort than Blackpool, which is just a few miles north. It also has a championship golf course which hosts major events such as the British Open.

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- Stephen Smith, Economic Development Officer, Fylde Borough Council.

10.0 MERSEYSIDE

10.1 Merseyside is another region with a large population. Our interest is primarily in the two local authorities with coasts on the SEA 6 area, namely:

- **Sefton**
- **Wirral**

Reference also needs to be made to

- **Liverpool**.

10.2 The Liverpool Bay oil and gas fields are located in this area but there is no direct involvement with Merseyside. Gas from the fields goes to the Point of Ayr terminal in North Wales and the oil is loaded into tankers at sea. The supply base is Heysham in Lancashire and the helicopters use Blackpool airport, also in Lancashire.

10.3 The port of Liverpool is one of the busiest and most important in the United Kingdom. Most of the port's facilities, which are owned and operated by Mersey Docks, are actually located in Sefton and Wirral rather than in Liverpool itself.

10.4 ABP operate a small port at Garston further up the River Mersey. The Manchester Ship Canal links the Mersey with Manchester.

10.5 There are ferry services between Liverpool and Belfast, Liverpool and Dublin, and also between Liverpool and Douglas in the Isle of Man.

10.6 Fish landings in Liverpool in 2003 totalled 203 tonnes, with a value of £464,124. Most of the landings were scallops and sole.

10.7 Liverpool has established itself as an important tourist destination but tourism activity there is not directly relevant to this SEA 6 study. However, seaside tourism is important in Southport.

Sefton

10.8 Sefton has a lengthy coastline in the SEA 6 area, extending from just south of Preston to just north of Liverpool. Bootle and Southport are the main population centres.

10.9 The population of Sefton is about 280,000. It fell by –5.8% between 1981 and 2001. That compares with a +5.0% increase in England as a whole but a –10.5% decline in Merseyside. The populations of all five local authority areas in the Merseyside region fell.

10.10 Unemployment in April 2005 totalled 4,299 which was 2.6% of the population. That compares with 2.5% in the North West and 2.4% in the UK as a whole.

10.11 Income levels are well below the UK and North West averages. The Annual Survey of Hours and Earnings (ASHE) shows that the average gross weekly pay of full-time workers in Sefton in 2004 was £444.9. That was –11.9% below the UK average of £504.9 and –5.2% below the North West average of £409.5. The average gross weekly pay of Sefton residents (as distinct from people who work in the area) was a little higher at £454.1, but still significantly below the UK and North West averages.

10.12 The economy is now dominated by the service sector, as elsewhere. The biggest employers are in the public sector, both local and central government. The Alliance and Leicester Girobank employ about 3,500 people in Bootle and other large local businesses are Mersey Docks at Seaforth, Cargill (edible oils), Kellogg (cereals) and Leaf in Southport (chocolate).

10.13 The area is designated as Objective 1 and has received a high level of UK and European regional assistance over the last decade. There has been a large increase in employment and a corresponding drop in unemployment over the last few years.

10.14 Sefton has no involvement with the offshore oil and gas industry. However, much of the Port of Liverpool is located in Sefton, notably the Seaforth container terminal and the Liverpool Freeport. Liverpool is one of the biggest commercial ports in the UK, handling nearly 32 million tonnes of cargo in 2003. It is the UK's main gateway for container trade with the USA and Canada.

10.15 There are also passenger and freight ferry services between Liverpool and Belfast, Dublin and Douglas in the Isle of Man.

10.16 Tourism in Sefton is dominated by Southport, which is one of the best known seaside resorts in the North West. It is more upmarket than Blackpool and on a much smaller scale. There has been substantial investment in Southport recently as part of the "Classic Resort" programme.

10.17 Sefton has about 25 miles of coast, much of which has high environmental designations, such as Ramsar. The Sefton Council are keen to open up as much as possible, subject to environmental considerations.

Wirral

10.18 The Wirral is a peninsula between Liverpool and the River Mersey to the east and North Wales and the River Dee to the west. The main population centres are Birkenhead, Ellesmere Port and Wallasey. The Wirral is linked to Liverpool by the Mersey Tunnels and there are also passenger ferries across the Mersey.

10.19 The population of the Wirral is about 310,000. It fell by –8.3% between 1981 and 2001. That compares with a +5.0% increase in England as a whole but a –10.5% decline in Merseyside. The populations of all the five local authority areas in the Merseyside region fell.

10.20 Unemployment in April 2005 totalled 6,041, which was 3.3% of the population. That compares with 2.5% in the North West and 2.4% in the UK as a whole.

10.21 Income levels are well below the UK and North West averages. The Annual Survey of Hours and Earnings (ASHE) shows that the average gross weekly pay of full-time workers in the Wirral in 2004 was £416.0. That was –17.6% below the UK average of £504.9 and –11.4% below the North West average of £469.5.

10.22 The average gross weekly pay of Wirral residents (as distinct from people who work in the area) was much higher at £476.1. That presumably reflects the fact that many local residents commute to work in Liverpool.

10.23 The economy is now dominated by the service sector, as elsewhere. The largest employer is Wirral Borough Council and the largest private sector business is Unilever.

10.24 As mentioned above, part of the Port of Liverpool is located at Birkenhead in the Wirral. Ellesmere Port is located at the end of the Manchester Ship Canal.

11.0 WALES

11.1 Wales has a population of approximately 2.9 million, which is about 5% of the UK total. The population increased by +3.2% between 1981 and 2001, which was a little below the +4.4% growth in the UK as a whole. A large proportion live in south Wales, including the cities of Cardiff and Swansea.

11.2 There are 22 unitary authorities in Wales. Our interest is in the seven authorities with coasts on the SEA 6 area, namely

- **Flintshire**
- **Denbighshire**
- **Conwy**
- **Isle of Anglesey**
- **Gwynedd**
- **Ceredigion**
- **Pembrokeshire**

11.3 Wales currently has a small involvement in the offshore oil and gas industry. The landfall terminal for the gas from the Liverpool Bay fields is located at the Point of Ayr on the Flintshire coast. Further details are given in Section 2 of this report and the Flintshire notes below.

11.4 There has been occasional exploration drilling in what might be described as "Welsh waters" but no commercial discoveries to date.

11.5 Wales has a significantly greater involvement in the offshore wind industry at the present time. One of the Round 1 wind farm sites – North Hoyle – is located off the north coast and is clearly visible from the coast. It began producing electricity in November 2003 from 30 turbines.

11.6 Another Round 1 site Rhyl Flats is close to North Hoyle. It has all the necessary consents but has yet to be developed. The Gwynt Y Mor Round 2 site is also in this area. Further details are given in Section 3 of this report. Another Round 1 site at Scarweather Sands is located off the south coast of Wales but outwith the SEA 6 area.

11.7 Wales has a lengthy coastline along the SEA 6 area but there are only a few commercial ports. The main ones are Milford Haven, Holyhead, Fishguard and Mostyn.

11.8 There are a few small harbours along the north coast of Wales but they are now only used by leisure craft. There are also many small harbours on the west coast of Wales which are mainly used by leisure craft and a few fishing vessels.

11.9 P&O used to operate a cargo service between Mostyn in North Wales and Dublin but that stopped in April 2004, although efforts are underway to revive it. Mostyn has other commercial traffic and is only few miles from the Point of Ayr gas terminal, which services the Liverpool Bay gas fields. Those fields are supplied from the Heysham base in Lancashire.

11.10 Holyhead on the Isle of Anglesey is the main commercial port in North Wales. Stena Line operate ferry services to/from Dublin and to/from Dun Laoghaire, and Irish Ferries operate services between Holyhead and Dublin. It is also an important fishing port.

11.11 Fishguard has a ferry service with Rosslare in the Republic of Ireland, operated by Stena.

11.12 Milford Haven is the biggest commercial port in Wales. There are oil refineries there and the UK's first liquefied natural gas (LNG) terminal will be built in the area. Pembroke Dock is located on the south side of Milford Haven and there is another ferry service between there and Rosslare in Ireland, operated by Irish Ferries.

11.13 Fishing is an important economic activity in the SEA 6 area. The DEFRA statistics show the following fish landings in Wales in 2003:

	Weight (tonnes)	Value (£)
Conwy	8	7,870
Cemaes Bay	184	98,825
Holyhead	3,353	1,986,754
Aberystwyth area	531	802,806
Fishguard and St Davids area	457	799,405
Milford Haven	2,238	4,052,920
totals	6,771	7,755,351

11.14 There are also famous mussel fisheries in the Menai Strait and the Conwy estuary, which are not included in the above landings because they are defined as fish farms rather than wild fisheries. We understand that their annual value is between £15 and £20 million, which is more than double the above total.

11.15 Turning to tourism, the north coast of Wales has a series of seaside resorts popular with residents of Merseyside and elsewhere. They include Rhyl, Prestatyn and the more upmarket Llandudno. The west coast is much more rural and remote but also has a significant tourism industry. Further details are given in Section 6 of this report.

11.16 Sailing is very popular in the SEA 6 area. There are many marinas on the north and west coasts. Details are also given in Section 6.

Flintshire

11.17 Flintshire is the first county in North Wales adjacent to the border with England and very close to the Merseyside conurbation. The coastline extends along the estuary of the River Dee from Shotton to Connah's Quay, Mostyn Dock and the Point of Ayr gas terminal.

11.18 The population of Flintshire is approximately 150,000. It increased by +7.2% between 1981 and 2001, which was well above the +3.2% growth in Wales and the +4.4% in the UK as a whole.

11.19 The Flintshire economy is booming. There is a large manufacturing sector, including the Airbus factory at Broughton which makes wings for the Airbus and currently employs about 7,000 people directly and 12,000 indirectly.

11.20 Unemployment in April 2005 totalled 1,565, which was just 1.7% of the population. That compares with 2.3% in Wales and 2.4% in the UK as a whole.

11.21 Income levels in Flintshire are well above the Welsh average. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in the county averaged £469.7. That was +6.3% higher than the Welsh average of £441.7 and the second highest in the country (after the Vale of Glamorgan). The average weekly pay for Flintshire residents (as distinct from people working in the county) was a little lower at £443.9.

11.22 The Head of Economic Development and Tourism at Flintshire County Council told us that twenty years ago the local economy was dominated by coal, steel and textiles (ie Courtaulds). The coal and textiles industries have disappeared. Employment in the steel industry at Shotton (previously British Steel, now Corus) has fallen from 22,000 to just 600.

11.23 There is now a much wider range of industrial activity, including

- the Airbus plant at Broughton
- Toyoto's car engine plant near Shotton
- paper and packaging plants
- food processing
- chemicals.

11.24 In the early 1990s unemployment reached 22%, with male unemployment at 30%. Now it is just 1.8%.

11.25 However, the service sector is under-represented in Flintshire. The County Council and the Welsh Development Agency are keen to increase service sector employment, eg through the establishment of the Warren Hall business park. Tourism is another development priority.

11.26 Flintshire is involved in the offshore oil and gas industry in the SEA 6 area through the Point of Ayr terminal which handles gas from the Liverpool Bay fields, via a 34 kilometre (20 mile) pipeline. The fields' operators BHP Billiton Petroleum informed us that 60-70 people work at the Point of Ayr terminal, plus 70 in the company's offices near Mold. Further details are given in Section 2 of this report.

11.27 Activity at Point of Ayr and Mold is unlikely to change much over the next few years, for the reasons discussed in Section 2.

11.28 Flintshire has also had a small involvement with the offshore wind farms in the SEA 6 area, specifically the North Hoyle wind farm mentioned above, which began generating electricity in November 2003. The 30 turbines are located a few miles off the coast between Rhyl and Prestatyn in neighbouring Denbighshire, and are clearly visible from the coastline. We understand that Mostyn Docks were involved in the installation phase of the North Hoyle wind farm and that it is also serviced from the port.

11.29 The only notable port in Flintshire is at Mostyn on the Dee Estuary. P&O Ferries operated a freight service between Mostyn and Dublin but that stopped in April 2004. We were informed that decision was taken partly because of overcapacity on the Irish Sea routes and partly because of dredging problems. We were also told that P&O had reached an agreement with Stena to withdraw from the Irish route.

11.30 One of the websites providing information on the Irish Sea ferry services states that the "new ro-ro port of Mostyn, on the estuary of the River Dee just 16 miles from the M56, has been purpose-designed to meet the needs of P&O Irish Sea's freight customers. This is the first new ro-ro ferry port to be built in the UK in the past ten years and represents a significant investment by the Port of Mostyn".

11.31 The Council's Head of Economic Development informed us that Mostyn Dock is privately owned by Jim O'Toole, who bought it via a management buyout. It now handles steel for Corus and has a contract to ship out the Airbus wings. They are taken down the river on barges to the dock and from there by ship to Toulouse.

11.32 There are no facilities for leisure craft in Flintshire. Reeds Nautical Almanac 2005 states that "in good weather at nps the Dee Estuary is accessible for boats able to take the ground but most of the estuary dries and banks extend 6M seaward. Channels shift and buoys are moved as required". The Almanac also mentions the North Hoyle wind farm and states "vessels to keep well clear and not enter the area".

11.33 Marine-related tourism in Flintshire is also on a very small scale. There used to be a visitor centre at the Point of Ayr gas terminal, although it closed in 2004. The Royal Society for the Protection of Birds (RSPB) have a bird sanctuary nearby and there are coastal walks signposted. There is also a small caravan park/holiday complex at nearby Talacre.

Denbighshire

11.34 Denbighshire has a small part of the North Wales coastline which includes the well-known seaside resorts of Rhyl and Prestatyn.

11.35 The population of Denbighshire is about 95,000. It increased by +7.4% between 1981 and 2001, which was well above the +3.2% growth in Wales and the +4.4% in the UK and a whole.

11.36 The County Council's website gives a brief profile of the local economy. It states that "the economy of Denbighshire has a diverse range of key sectors. The county has blue chip employers such as Thales in St. Asoph and Smurfit in Llangollen. In the north of the county are the traditional seaside resorts of Prestatyn and Rhyl … further south, Denbighshire is predominantly rural in character and agriculture is a key sector".

11.37 The whole of Denbighshire has Tier 1 "Assisted Area" status, which provides access to the highest rates of financial support for industry available in the UK. The county also qualifies for Objective 1 structural funds from the European Union.

11.38 Unemployment in April 2005 totalled 1,041, which was 1.9% of the population. That was well below the 2.3% in Wales and the 2.4% in the UK as a whole.

11.39 Income levels, however, are well below the Welsh average. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in the county averaged £400.3. That was –9.4% below the Welsh average of £441.7 and one of the lowest levels in the country.

11.40 The average weekly pay of Denbighshire residents (as distinct from people working in the county) was significantly higher at £427.9. The Council's Head of Development Services told us that many residents commute to work in areas to the east such as Flintshire, Chester, Liverpool and Manchester, whose economies are doing very well at the present time.

11.41 Denbighshire has had no involvement in the offshore oil and gas industry in the SEA 6 area.

11.42 It is involved in the offshore wind farm industry, however. The North Hoyle wind farm is located just a few miles off the coast and is clearly visible from it. The 30 turbines began generating electricity in November 2003 and the cable comes onshore at Rhyl.

11.43 Another Round 1 site Rhyl Flats is close to North Hoyle. It has all the necessary consents but has yet to be developed. The Gwynt Y Mor Round 2 site is also in this area. Further details are given in Section 3 of this report.

11.44 There are no ports nor shipping services in Denbighshire. However, the Reeds Nautical Almanac 2005 states that "Rhyl is a tidal harbour, not accessible in strong onshore winds, but gives shelter for yachts able to take the ground".

11.45 Tourism is very important, of course, because of Rhyl and Presatyn. It is notably downmarket, however.

11.46 The Rough Guide to Wales states that "the next twenty-mile stretch of coastline is the ugliest in Wales, an endless array of caravan parks with barely an arm's length between adjacent vehicles – packed each year with fun-seekers from Merseyside and the rest of northern England. The amusements scattered along the promenades and beachfronts seem designed to keep you off the beaches : wise counsel even in the hottest weather since the sea here is non too clean".

11.47 "Of the resorts Prestatyn, though uninspiring, is at least notable as the starting or finishing point of the Offas Dyke long-distance path. Rhyl is the largest, loudest and tackiest."

Conwy

11.48 Conwy is the next local authority area on the north coast of Wales. It includes the well-known seaside resorts of Llandudno and Colwyn Bay, plus Conwy itself.

11.49 The population of Conwy is about 110,000. It increased by +10.9% between 1981 and 2001, which was wella bove the +3.2% growth in Wales and +4.4% in the UK as a whole.

11.50 A notable feature of the population structure is the high proportion of people of pensionable age or over (60 for women; 65 for men). This group accounted for 26.3% of the total population in 2001, compared with 20.1% in Wales and 18.4% in the UK as a whole. That is the highest percentage of the 22 local authorities in Wales. The reason is the large number of people who have retired to live in Conwy, notably in Llandudno.

11.51 The economy is dominated by the service sector, including tourism. The manufacturing base has declined considerably and now accounts for only about 5% of employment. Agriculture continues to be important in the inland part of the county.

11.52 Unemployment in April 2005 totalled 1,264, which was 2.1% of the population. That was a little below the 2.3% in Wales and the 2.4% in the UK as a whole.

11.53 Income levels, however, are below the Welsh average. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in Conwy averaged £430.7. That was –2.5% below the Welsh average of £441.5.

11.54 In contrast, the average weekly pay of Conwy residents (as distinct from people working in the county) was significantly higher at £462.3. That was +4.6% above the Welsh average.

11.55 Conwy has Objective 1 status. The Council's Head of Regeneration Services provided us with details of the Objective 1 projects and the "Objective 1 Local Strategy 2000-2010" produced by the Conwy Economic Development and Regeneration Partnership. The latter document highlights three themes of equal opportunities, environmental sustainability and the information society.

11.56 Conwy has had no direct involvement in the offshore oil and gas industry in the SEA 6 area. That is also the case with the offshore wind farm industry, although the North Hoyle wind farm off Rhyl is close. There are existing onshore wind farms in the county and plans for more.

11.57 There are no ports in Conwy but the Conwy estuary has many boat moorings. There is a 500 berth marina in Conwy and just across the river a 200 berth marina in Deganwy.

11.58 There is a famous mussel fishery in Conwy but it is not included in the DEFRA statistics on fish landings in Wales because it is defined as a fish farm rather than a wild fishery. We were told that it involves about 30 fishermen and produces about 300 tonnes of mussels per year, with an annual value of about £500,000.

11.59 Llandudno is a very attractive and upmarket resort, which is particularly popular with retired people. The town's setting is spectacular and many of the original Victorian buildings remain on the promenade, including a fine pier. Just to the west of Llandudno is Conwy, which is a very attractive walled town with an outstanding medieval castle, and attracts many visitors. It is a very popular base for sailing.

Isle of Anglesey

11.60 The Isle of Anglesey is separated from the mainland by the Menai Strait. There is the well-known Menai Bridge and another combined rail/road bridge. Holyhead is the main town on the island.

11.61 The population of Anglesey is approximately 67,000. It fell by –2.0% between 1981 and 2001. That was in marked contrast with the +3.2% growth in Wales and +4.4% in the UK as a whole.

11.62 Unemployment in April 2005 totalled 1,324, which was 3.3% of the population. That was well above the 2.3% in Wales and the 2.4% in the UK as a whole and in fact the third highest unemployment rate in Wales.

11.63 Income levels are also significantly below the Welsh average. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in the county averaged £454.9. That was +3.0% above the Welsh average of £441.7.

11.64 The average weekly pay of Anglesey residents (as distinct from people working in the county) was significantly lower at £423.5, which was –4.2% below the national average. The inference is that many people commute from the mainland to work in relatively high paid jobs on Anglesey.

11.65 Anglesey has a mixed economy. Most employment is in the service sector – as elsewhere in the UK – but the manufacturing and primary sectors are relatively large. Major employers include Anglesey Aluminium, the Wylfa nuclear power station and RAF Valley. Agriculture and fishing continue to be important parts of the local economy.

11.66 Anglesey has Objective 1 status. The Business Development Manager in the Economic Development Unit of the Isle of Anglesey County Council gave us a copy of the "Anglesey Economic Regeneration Strategy". The Executive Summary states that "the isle of Anglesey is famed for its quality environment and is an 'island of choice' for many who wish to work and live in one of the most attractive landscapes in the world".

11.67 "Nevertheless, Anglesey also has deep seated economic problems – high levels of youth out migration and unemployment; social deprivation; rural economic problems and a number of small scale, low skill employment sectors. Its level of GDP is well below the EU average and its traditional industrial base will face significant decline in the next decade".

11.68 The Business Development Manager told us that the Council is very keen on promoting renewable energy. The Council and others are also trying to develop a marine sciences cluster on Anglesey. The University of Bangor has a School of Ocean Sciences at Menai Bridge, with a research vessel.

11.69 Anglesey has no current involvement in the offshore oil and gas industry in the SEA 6 area. We understand that Holyhead has occasionally been used as a supply base for exploration rigs in the past and the port's website includes photos of rigs and supply boats.

11.70 Anglesey also has no direct involvement in the offshore wind farm industry. However, Cambrian Engineering of Holyhead produced components for wind farms, both onshore and offshore. They went into liquidation in 2004 but a new company Cambrian Caledonian Ltd has taken over the factory in Holyhead and a similar facility in Stornoway in the Western Isles.

11.71 Holyhead is one of the main ports in the SEA 6 area. Stena Line and Irish Ferries operate ferry services to/from Dublin and to/from Dun Laoghaire. These services carried over 2.3 million passengers in 2003, which was 61% of the total on the GB-Irish ferries. The port also handled over 3.3 million tonnes of freight in 2003.

11.72 Holyhead is also one of the most important fishing ports in Wales. DEFRA statistics show fish landings of 3,353 tonnes in 2003, valued at just under £2 million. Shellfish – primarily whelks, queens and scallops – accounted for 73% of the value and demersal species – including dogfish and sole – the other 27%.

11.73 Tourism is also an important industry on Anglesey. According to the Lonely Planet Guide to Wales "joined to the mainland by two monumental bridges, Anglesey is very different physically from the biblical splendour of neighbouring Snowdonia. The island offers a scenic surprise of gentle green slopes, ringed by dramatic sea cliffs and bays, and small windswept settlements. It has a greater concentration of prehistoric sites than anywhere else in Wales".

11.74 The main town of Holyhead is not one of the island's tourist attractions but it has the terminal for the ferry services to/from Ireland. The harbour also has a large marina for leisure vessels.

Gwynedd

11.75 Gwynedd has a lengthy section of the coastline of Wales, extending from Llanfairfechan on the north coast along the Menai Strait, opposite the Isle of Anglesey, to the Llyn Peninsula, Cardigan Bay and Aberdovey. Caernarfon is the county town and the largest settlement is Bangor, which has an university.

11.76 The population of Gwynedd is just under 120,000. It increased by +4.4% between 1981 and 2001, which was above the +3.2% growth in Wales as a whole and the same as the +4.4% growth in the UK.

11.77 Unemployment in April 2005 totalled 1,686, which was 2.5% of the population. That was above the 2.3% in Wales and the 2.4% in the UK as a whole.

11.78 Income levels are well below both the Welsh and UK averages. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in Gwynedd averaged £382.3. That was –13.4% below the Welsh average of £441.7 and –24.3% below the UK average of £504.9. It was also the second lowest in Wales (after Powys).

11.79 The average weekly pay of Gwynedd residents (as distinct from people working in the county) was similar at £389.9. There is not the volume of commuting common in some of the other parts of the SEA 6 area.

11.80 Most of the employment is in the service sector, as elsewhere in the UK. The largest employers in the county are Gwynedd County Council, the health service and the University of Bangor. The manufacturing sector is very small. Agriculture continues to be an important part of the local economy.

11.81 Gwynedd has had no involvement in the offshore oil and gas industry in the SEA 6 area. That is also the case with the offshore wind farms, although there are onshore wind farms in the county.

11.82 There is no significant port in Gwynedd but there are many small harbours, which are mainly used by leisure craft.

11.83 The DEFRA statistics show no fish landings in Gwynedd, although they could be included under “Other ports in Wales”.

11.84 Tourism is very important in the area. The west coast of Wales is much more remote and sparsely populated, and undoubtedly attracts a different type of tourist from the north coast. It is also the most heavily Welsh speaking part of the country.

11.85 Snowdonia and the Llyn Peninsula are at the northern end of the west coast. The Lonely Planet Guide states that “Snowdonia is not merely mountains : there is the bizarre glory of Portmeirion – an Italianate village; some marvellous windswept golden beaches; Edward I’s formidable castles at Caernarfon and Harlech; the evocative remains of Snowdon’s own industrial heritage at dramatic Blaenau Ffestiniog; Wales’ finest seaside railway journey – the Cambrian Coast line – and finest narrow-gauge railways; and one of its loveliest estuaries, the sparkling wood-edged Mawddoch”.

11.86 The Llyn Peninsula is very popular with sailors. There is a 400 berth marina at Pwllheli and a number of very attractive small harbours.

11.87 There is a lengthy and beautiful coast around Cardigan Bay, which is also known as the Cambrian coast, and a series of attractive small towns such as Porthmadog, Portmeirion, Barmouth and Twyn.

Ceredigion

11.88 Ceredigion also has a lengthy part of the west coast of Wales, extending from the Dovey estuary in the north to Cardigan in the south. Aberaeron is the county town, Aberystwyth the largest and other important settlements on the coast are Cardigan and New Quay.

11.89 The population of Ceredigion is approximately 75,000. It increased by a massive +23.1% between 1981 and 2001. That compares with a +3.2% increase in Wales as a whole and +4.4% in the UK. The rise was by far the biggest in all the 22 local authorities in Wales.

11.90 Unemployment in April 2005 totalled 570, which was just 1.2% of the population. That was the lowest rate in the whole of Wales and well below the +2.3% average in Wales and the 2.4% in theUK as a whole.

11.91 Income levels are well below the Welsh and UK averages. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in Ceredigion averaged £394.9. That was –10.6% below the Welsh average of £441.7 and –21.8% below the UK average of £504.9.

11.92 The average weekly pay of Ceredigion residents (as distinct from people working in the county) was a little higher at £408.3.

11.93 Ceredigion is part of the Objective 1 area because the local GDP is below the 75% threshold.

11.94 Most of the employment is in the service sector, as elsewhere in the UK. The largest employers are the Universities of Aberystwyth and Lampeter, the National Library of Wales (also located in Aberystwyth), the Defence Evaluation and Research Agency (DERA) at Aberporth and the Institute of Grassland and Environmental Research (IGER) at Aberystwyth. The hinterland of the county is largely agricultural.

11.95 We were informed that Aberporth has been designated as an European centre for unmanned aerial vehicles (UAV). The licensed range covers a large part of Cardigan Bay. There is an exclusion zone which could affect proposed activities in the SEA 6 area.

11.96 Ceredigion has had no involvement in the offshore oil and gas industry in the SEA 6. That is also the case with the offshore wind farms.

11.97 There is no significant port in Ceredigion but there are a few small harbours, which are mainly used by leisure craft. Aberystwyth has a 100 berth marina.

11.98 The DEFRA statistics show that 531 tonnes of fish were landed in the Aberystwyth area in 2003, with a value of £802,806. Virtually all these landings were shellfish, with the main species being lobster, scallops and crabs.

11.99 Tourism is important in the area. The Rough Guide states that “the southern section of Ceredigion coastline is enormously popular, combining safe beaches, lively market towns, great coastal walking and a resident pod of bottlenose dolphins. Although some of the larger towns, particularly Aberporth, have lost much of their scenic splendour to relentless waves of holiday homes and caravan parks, many of the coast’s other settlements manage to cling on to some of the salty charm that makes them so popular”.

Pembrokeshire

11.100 Pembrokeshire is the most southerly county in the SEA 6 area, with a lengthy coastline extending from Fishguard to St David's Head, St Bride's Bay, Milford Haven and Pembroke Dock.

11.101 The population of Pembrokeshire is approximately 115,000. It increased by +5.2% between 1981 and 2001. That was above the +3.2% increase in Wales as a whole and +4.4% in the UK.

11.102 Unemployment in April 2005 totalled 1,439, which was 2.2% of the population. That was a little below the 2.3% in Wales and the 2.4% in the UK as a whole.

11.103 Income levels are well below the Welsh and UK averages. According to the 2004 Annual Survey of Hours and Earnings (ASHE), the gross weekly pay of full-time workers in Pembrokeshire averaged £404.9. That was –8.3% below the Welsh average of £441.7 and –19.2% below the UK average of £504.9.

11.104 Pembrokeshire has a varied economy, with a relatively large manufacturing sector, although most employment is in the service sector, as elsewhere in the UK.

11.105 Pembrokeshire has had no involvement in the offshore oil and gas industry in the SEA 6 area, to the best of our knowledge. However, Milford Haven is one of the main centres of the UK oil refining industry, which was attracted there because of the deep water and sheltered harbour.

11.106 There are two oil refineries, operated by ChevronTexaco and Total/Murco. Petroplus converted a third refinery, previously operated by Gulf Oil, into an oil storage terminal. A fourth refinery, operated by Esso, closed down in the 1980s.

11.107 There are also plans to build two LNG (liquefied natural gas) import terminals in Milford Haven. Dragon LNG – which is a joint venture of Petroplus, BG Group and Petronas of Malaysia – are developing a terminal at the former Gulf Oil site at Waterston, with an initial capacity to import 6 billion cubic metres (4.5 million tonnes) of LNG per year, beginning in late 2007. Petroplus also have plans to build a 1600 MW gas-fired combined cycle gas turbine (CCGT) power plant on an adjacent site.

11.108 A joint venture of ExxonMobil and Qatar Petroleum are developing the South Hook LNG terminal near Pembroke on the site of the former Esso oil refinery. It was announced recently that the capacity would be doubled to 15.6 million tonnes per year (20.8 billion cubic metres). The first imports are expected in 2008.

11.109 Pembrokeshire has had no involvement in the offshore wind farm industry, to the best of our knowledge. However, another Round 1 site at Scarweather Sands is located off the south coast of Wales but outwith the SEA 6 area.

11.110 There are three important ports in Pembrokeshire at Fishguard, Milford Haven and Pembroke Dock. Milford Haven is the biggest commercial port in Wales. Fishguard has a ferry service with Rosslare in the Republic of Ireland. Pembroke Dock also has a service with Rosslare, operated by Irish Ferries. Further details are given in Section 4 of this report.

11.111 The DEFRA statistics show that Milford Haven is the most important fishing port in Wales, with landings valued at £4.1 million in 2003, which was about 52% of the Welsh total. Demersal landings accounted for 78% of the local total and shellfish 22%. There was a wide range of demersal species, including hake, anglerfish, megrims and sole.

11.112 Tourism is important in Pembrokeshire. St David's Cathedral is known as the holiest place in Wales and the cathedral and nearby Bishop's Palace are very popular tourist attractions. The Lonely Planet Guide states that "St Bride's Bay is a great scoop of coast, facing where the sun sets … The best beaches in Wales line this wide bay and they are big enough to absorb the crowds of holiday-makers and surfers they attract at the height of summer".

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- Jon Pinnington, Business Development Manager, Isle of Anglesey County Council
- Mike Shaw, Business Services and European Manager, Ceredigion County Council.

12.0 NORTHERN IRELAND

12.1 Northern Ireland has a population of approximately 1.7 million, which is about 3% of the UK total. It increased by 9.8% between 1982 and 2002, which was well above the +5.2% growth in the UK as a whole.

12.2 There are 26 local government districts in Northern Ireland. Our interest is in the twelve districts with coasts on the SEA 6 area, namely:

- **Derry**
- **Limavady**
- **Coleraine**
- **Moyle**
- **Larne**
- **Carrickfergus**
- **Newtonabbey**
- **Belfast**
- **North Down**
- **Ards**
- **Down**
- **Newry and Mourne**

12.3 Northern Ireland currently has a very small involvement in the offshore oil and gas industry. There are a few active onshore licences, including one adjacent to the coast north of Belfast. There were areas previously under licence off the coast of Northern Ireland.

12.4 Northern Ireland imports North Sea gas via Scotland. The Scottish-Northern Ireland Pipeline (SNIP) runs 40 km from Portnaughton Bay to Castle Robin. It began transporting gas in 1996 and is operated by Premier Transco.

12.5 Regarding offshore wind farms, during 2000 the Northern Ireland Department of Economic Development (now the Department of Enterprise, Trade and Investment) and the Republic of Ireland's Department of Public Enterprise (now Department of Communications, the Marine and Natural Resources) jointly commissioned a study into offshore wind energy around the coast of Ireland. The study established that there are two areas that are potentially viable for wind farm developments off the Northern Ireland coast: the Tunes Plateau in the Foyle Estuary, and off Carlingford Lough.

12.6 In June 2002, the Tunes Plateau site was included in the Crown Estate's Round 1 agreements and a consortium of renewables developers has started feasibility studies in the area. The consortium is led by B9 Energy Offshore Developments and is considering a wind farm with 50-85 turbines and a capacity of 150-250 MW.

12.7 The lengthy coastline of Northern Ireland includes many ports and harbours. The main commercial ports are Belfast, Larne, Warrenpoint and Londonderry. Further details are given in Section 4 of this report.

12.8 Belfast, Larne and Warrenpoint all have ferry services with the UK mainland, primarily Scotland. The ports also handled just under 22 million tonnes of freight in 2003, of which 69% was inward and 31% outward. Belfast accounting for about 70% of the passenger traffic and 60% of the freight traffic.

12.9 Fish landings in Northern Ireland in 2003 totalled just over 18,000 tonnes, with a value of £15.7 million. The landings were a mixture of shellfish, demersal and pelagive. The most important fishery ports are Kilkeel, Ardglass and Portavogie.

12.10 Tourism has become increasingly important in Northern Ireland since the diminution of the troubles there. Statistics from the Northern Ireland Tourist Board show that visitors made just under 2 million trips in 2003, stayed 8.9 million nights and spent £291 million. Attractions on the coast include the famous Giant's Causeway and the seaside resorts of Portstewart and Portrush.

Derry

12.11 Derry is in the north west of the country, with a border with the Republic and a coastline on Lough Foyle. The main population centre is Derry or Londonderry as it is sometimes known.

12.12 The population of Derry is approximately 105,000. It increased by +16.4% between 1982 and 2002. That compares with a +9.8% rise in Northern Ireland as a whole and +5.2% in the UK.

12.13 Unemployment in April 2005 totalled 3,294, which was 5.0% of the working age population. That was nearly double the Northern Ireland average of 2.7%.

12.14 The ASHE Survey of Earnings does not give separate statistics for the local authority areas in Northern Ireland but the Northern Ireland average is about –15% below the UK average. Statistics are available from the 2003 New Earnings Survey, which shows that gross weekly earnings in Derry averaged £347.7, which was –16.0% below the Northern Ireland average.

12.15 The port of Londonderry handled just under 1.2 million tonnes of freight in 2003, of which 97% was inward and only 3% outward.

Limavady

12.16 Limavady lies to the east of Derry, with a coastline on Lough Foyle. The main population centres are Ballykelly, Dungiven and Limavady itself.

12.17 The population of Limavady is approximately 33,000. It increased by +21.4% between 1982 and 2002, which was one of the largest rises in the country. The Northern Ireland average was +9.8% and the UK average +5.2%.

12.18 Unemployment in April 2005 totalled 642, which was 3.0% of the working age population. That was close to the Northern Ireland average of 2.7%.

12.19 According to the 2003 New Earnings Survey, gross weekly earnings in Limavady averaged £404.1, which was virtually identical with the Northern Ireland average of £404.5.

12.20 There are no major harbours in Limavady but there is a car and passenger ferry across Lough Foyle between Magilligan Point and Greencastle in County Donegal.

Coleraine

12.21 Coleraine has part of the coastline of Northern Ireland and is one of the main tourist destinations in the country. The town of Coleraine is the main population centre and others include the seaside resorts of Portstewart and Portrush.

12.22 The population of Coleraine is approximately 56,000. It increased by +18.3% between 1982 and 2002, which was nearly double the Northern Ireland average of +9.8%. The increase in the UK as a whole was +5.2%.

12.23 Unemployment in April 2005 totalled 1,233, which was 3.7% of the working age population. That was above the Northern Ireland average of 2.7%.

12.24 According to the 2003 New Earnings Survey, gross weekly earnings in Coleraine averaged £357.5, which was –11.6% below the Northern Ireland average.

12.25 As mentioned above, tourism is an important part of the local economy. Portstewart and Portrush are two of the most popular seaside resorts in the country, with excellent sandy beaches.

Moyle

12.26 Moyle has a lengthy part of the coastline of Northern Ireland which is sometimes known as the Causeway Coast. The main population centre is Ballycastle and there are various small villages on the coast.

12.27 The population of Moyle is just 16,000. It increased by +11.4% between 1982 and 2002, which was a little above the Northern Ireland average of +9.8%.

12.28 Unemployment in April 2005 totalled 305, which was 3.1% of the working age population. That was a little above the Northern Ireland average of 2.7%.

12.29 There are no earnings statistics available for Moyle, because of the small sample size.

12.30 There is a ferry service between Ballycastle and Rathlin Island, which lies five miles off the coast and just twelve miles west of the Mull of Kintrye in Scotland. Rathlin is Northern Ireland's last remaining inhabited offshore island, with a population of approximately 100.

12.31 The main visitor attraction in the area is the famous Giant's Causeway which is an Unesco World Heritage Site and a National Nature Reserve. Others include the Bushmills whiskey distillery.

Larne

12.32 Larne also has a lengthy part of the Northern Ireland coastline, extending to Belfast Lough in the south. Larne is the second largest ferry port in the country.

12.33 The population of Larne is approximately 31,000. It increased by +7.2% between 1982 and 2002, which was a little below the Northern Ireland average of +9.8%.

12.34 Unemployment in April 2005 totalled 448, which was 2.4% of the working age population. That was a little below the Northern Ireland average of 2.7%.

12.35 According to the 2003 New Earnings Survey, gross weekly earnings in Larne averaged £382.6, which was –5.4% below the Northern Ireland average.

12.36 Larne is the second busiest port in Northern Ireland, handling just over 4.3 million tonnes of freight in 2003, of which 53% was inward and 47% outward. It also handled 765,000 passengers. The main ferry service is to/from Cairnryan in South West Scotland, operated by P&O, who also have a service between Larne and Troon. Stena Line operate a Larne-Fleetwood service, which is mainly for freight.

Carrickfergus

12.37 Carrickfergus has a small coastline on Belfast Lough. The main population centre is Carrickfergus itself.

12.38 The population of the area is approximately 38,000. It increased by a massive +32.4% between 1982 and 2002. The average increase in Northern Ireland was +9.8% and in the UK +5.2%.

12.39 Unemployment in April 2005 totalled 570, which was 2.4% of the working age population. That was a little below the Northern Ireland average of 2.7%.

12.40 According to the 2003 New Earnings Survey, gross weekly earnings in Carrickfergus averaged £391.2. That was –3.3% below the Northern Ireland average.

12.41 Belfast Lough is very popular for sailing. There is a large marina, with 280 berths, at Carrickfergus.

Newtonabbey

12.42 Newtonabbey has a small coastline on Belfast Lough. It describes itself as “the tourist gateway to Belfast City and the beautiful Glens of Antrim”.

12.43 The population of Newtonabbey is approximately 80,000. It increased by +10.1% between 1982 and 2002, which was just above the Northern Ireland average of +9.8%.

12.44 Unemployment in April 2005 totalled 1,022 which was 2.1% of the working age population. That was significantly below the Northern Ireland average of 2.7%.

12.45 According to the 2003 New Earnings Survey, gross weekly earnings in Newtonabbey averaged £398.4, which was –1.5% below the Northern Ireland average.

Belfast

12.46 Belfast is the capital of Northern Ireland. The city’s population is approximately 275,000. It fell by –12.2% between 1982 and 2002, which was the only fall in the whole of Northern Ireland.

12.47 Unemployment in April 2005 totalled 6,937, which was 4.2% of the working age population. That was well above the Northern Ireland average of 2.7%.

12.48 According to the 2003 New Earnings Survey, gross weekly earnings in Belfast averaged £444.6, which was +9.9% above the Northern Ireland average and by far the highest in the country.

12.49 Belfast is the busiest port in Northern Ireland, accounting for about 60% of the freight traffic and 70% of the passenger traffic. The port handled 13.2 million tonnes of freight in 2003, of which 72% was inward and 28% outward. Oil products totalled 2.8 million tonnes, dry bulk traffic 3.7 million tonnes, ro-ro traffic 2.6 million tonnes and other general cargo 0.5 million tonnes.

12.50 The main passenger ferry service is Belfast-Stranraer, operated by Stena Line, which carried just under 1.4 million passengers in 2003. Norse Merchant Ferries operate services between Belfast and both Liverpool and Heysham, the latter of which is primarily for freight. Isle of Man Ferries operate a summer service to/from Douglas.

12.51 Tourism is increasingly important in Belfast but it is not marine-related. However, Belfast Lough is very popular for sailing, as noted above.

North Down

12.52 North Down has a coastline on the southern shore of Belfast Lough, immediately to the east of Belfast. The main population centres are Bangor and Holyhead.

12.53 The population of North Down is approximately 77,000. It increased by +13.8% between 1982 and 2002, which was above the Northern Ireland average of +9.8%.

12.54 Unemployment in April 2005 totalled 922, which was 1.9% of the working age population. That was well below the Northern Ireland average of 2.7%.

12.55 According to the 2003 New Earnings Survey, gross weekly earnings in North Down averaged £364.5, which was –9.9% below the Northern Ireland average.

12.56 Bangor is a seaside resort, popular with residents of Belfast, and has a large marina, with about 500 berths, which is reported to be the biggest in Ireland.

Ards

12.57 Ards occupies the peninsula between the Irish Sea and Strangford Lough. Newtonards is the main population centre and others include Donaghadee, Portaferry and Portavogie.

12.58 The population of Ards is approximately 74,000. It increased by +3.9% between 1982 and 2002 but that was well below the +9.8% growth in Northern Ireland as a whole.

12.59 Unemployment in April 2005 totalled 1,116, which was 2.4% of the working age population. That was a little below the Northern Ireland average of 2.7%.

12.60 According to the 2003 New Earnings Survey, gross weekly earnings in Ards averaged £341.8, which was –15.5% below the Northern Ireland average, which itself was about –15% below the UK average. It is therefore a very low income area.

12.61 Portavogie is one of the main fishing ports in Northern Ireland. In 2003 4,198 tonnes of fish were landed there, with a value of nearly £5.6 million. Shellfish accounted for 53% of the value and demersal 47%.

12.62 Strangford Lough is a marine nature reserve and famous for its birdlife. It is also popular with sailors. There is a small marina at Portaferry and a ferry service across the lough.

Down

12.63 Down has coastlines on both the Irish Sea and the western side of Strangford Lough. The main centre is Downpatrick and others include Ardglass.

12.64 The population of Down is approximately 65,000. It increased by +19.1% between 1982 and 2002. That was nearly double the +9.8% growth in Northern Ireland as a whole and nearly four times the +5.2% increase in the UK.

12.65 Unemployment in April 2005 totalled 1,037, which was 2.6% of the working age population. That was just below the Northern Ireland average of 2.7%.

12.66 According to the 2003 New Earnings Survey, gross weekly earnings in Down averaged £313.1, which was –22.6% below the Northern Ireland average and the lowest in the country. The Northern Ireland average itself was about –15% below the UK average.

12.67 Ardglass is one of the main fishing ports in Northern Ireland. In 2003 5,045 tonnes of fish were landed there, with a value of just under £2.5 million. Shellfish (mainly nephrops) accounted for 70% of the value, pelagic (herring and mackerel) 21% and demersal 10%.

12.68 Ardglass also has a marina, with about 55 berths.

Newry and Mourne

12.69 Newry and Mourne is the most southerly area in Northern Ireland, bordering on the Republic. Newry is the main centre and others include Newcastle, Kilkeel and Warrenpoint.

12.70 The population of Newry and Mourne is approximately 90,000. It increased by +13.7% between 1982 and 2002, which was above the +9.8% average for Northern Ireland as a whole.

12.71 Unemployment in April 2005 totalled 1,382, which was 2.6% of the working age population. That was just below the Northern Ireland average of 2.7%.

12.72 According to the 2003 New Earnings Survey, gross weekly earnings in Newry and Mourne averaged £390.1, which was –3.6% below the Northern Ireland average.

12.73 Warrenpoint is the most southerly of the ports in Northern Ireland and is located on Carlingford Lough. It handled just under 1.9 million tonnes of freight in 2003, of which 69% was inward and 31% outward.

12.74 Norse Merchant Ferries operate a scheduled freight service between Warrenpoint and Heysham in Lancashire, which also carries a few passengers. There are also scheduled container and other cargo services, including the importation of timber from Scandinavia and Canada.

12.75 Kilkeel is one of the main fishing ports in Northern Ireland. In 2003 5,159 tonnes of fish were landed there, with a value of just over £5.8 million. Shellfish accounted for 52% of the value and demersal species the other 48%.

12.76 Carlingford Lough is also popular for sailing and there is a marina at Carlingford.

12.77 Tourism is important in the area, which has the famous Mourne Mountains. Newcastle is a well-known seaside resort.

13.0 SOUTH WEST SCOTLAND

13.1 Scotland has a population of just over 5.0 million, which is about 8.5% of the UK total. The population fell by –2.2% between 1981 and 2001, in marked contrast with the +4.4% growth in the UK as a whole.

13.2 There are 32 local authorities in Scotland. Our interest is primarily in the two authorities with coasts on the SEA 6 area, namely:

- **Argyll and Bute**
- **Dumfries and Galloway**.

Reference also needs to be made to

- **South Ayrshire.**

13.3 Scotland has a substantial involvement in the offshore oil and gas industry on the UK continental Shelf (UKCS). Virtually all UKCS oil production is from fields in Scottish waters and approximately 45% of UKCS gas production. Most of this activity is off the east coast of Scotland in the North Sea.

13.4 In contrast, there has been very little activity in the Scottish part of the SEA 6 area, which comprises northerly sections of Quadrants 111 and 112. A few blocks have been licensed there in the past and exploration wells drilled but no commercial discoveries made. There are no active licences in this part of the SEA 6 area at the present time.

13.5 However, there are three gas pipelines from Scotland in the SEA 6 area:

(i) the Scottish-Northern Ireland Pipeline (SNIP), which is a 40 km pipeline from Portnaughton Bay to Castle Robin, which began transporting gas in 1996 and is operated by Premier Transco;

(ii) the UK-Irish Gas Interconnector, which is a 250 km pipeline from Brighouse Bay to Gormanston, north of Dublin in the Republic, which began transporting gas in 1993 and is operated by Bord Gas Eirann (BGE);

(iii) the Interconnector (2), a 238 km pipeline from Brighouse Bay to just north of Dublin, with a 11 km spur to the Isle of Man, also operated by BGE.

These pipelines export gas from Scotland to both Northern Ireland and the Republic.

13.6 South West Scotland is also involved in the offshore wind farm industry. Offshore Energy Resources and Solway Offshore are currently developing the Robin Rigg project in the Solway Firth, which will have 60 turbines with a capacity of up to 216 MW. Further details are given in Section 3 of this report.

13.7 The lengthy coastline of South West Scotland includes many ports and harbours. The main commercial ports are at Stranraer, Cairnryan, Ayr/Troon and on the Clyde. Further details are given in Section 4 of this report.

13.8 Stranraer, Cairnryan and Troon all have passenger ferry services with Northern Ireland, which account for over 90% of the passengers on the Northern Ireland routes. These services also handle large volumes of freight.

13.9 There is an important fishing industry in South West Scotland, with landings valued at £14.3 million in 2003. Further details are given in Section 5.

13.10 Tourism is also important and is discussed in more detail in Section 6.

13.11 Mention should also be made of the nuclear submarine base at Faslane. Most of this part of the SEA 6 is designated as a submarine exercise area. Further details are given in Section 7.

Argyll and Bute

13.12 Argyll and Bute is the most northerly part of the SEA 6 area. However, our interest is only in the southern part around the Mull of Kintyre.

13.13 The population of Argyll and Bute is just over 90,000. it increased by +0.4% between 1981 and 2001. That compares with a –2.2% fall in Scotland and a +4.4% increase in the UK as a whole.

13.14 Unemployment in April 2005 totalled 1,354 which was 2.5% of the population. That compares with 2.9% in Scotland and 2.4% in the UK as a whole.

13.15 Income levels are well below the Scottish and UK averages. The Annual Survey of Hours and Earnings (ASHE) shows that the average gross weekly pay of full-time workers in Argyll and Bute in 2004 was £422.5. That was –9.1% below the Scottish average of £459.6 and –16.3% below the UK average of £504.9. The average gross weekly pay of Argyll and Bute residents (as distinct from people who work in the area) was a little higher at £431.5, but still well below the Scottish and UK averages.

13.16 The local economy is now dominated by the service sector, particularly public services and tourism. The manufacturing sector is very small but the primary sector is relatively large, because of the continuing importance of agriculture/crofting and fishing.

13.17 Argyll and Bute are part of the Highlands and Islands Enterprise (HIE) area and were an Objective 1 area for European regional assistance. It currently comes under the Special Transitional Programme, which runs from 2002-6.

13.18 Campbeltown is the main settlement on the Kintyre Peninsula, with a population of approximately 6,000.

13.19 The area has no current involvement in the offshore oil and gas industry. Quadrant 126 lies immediately to the south of the Mull of Kintyre but no licences for it have been issued. It is possible that seismic vessels and rig supply boats have occasionally used the harbour at Campbeltown.

13.20 The area has no direct involvement in the offshore wind farm industry. However, Vestas-Celtic have a factory at Machrihanish near Campbeltown which manufactures components for wind farms – both onshore and offshore. The company were attracted to Campbeltown with financial assistance from Highlands and Islands Enterprise. Thus the level of offshore wind farm activity in the SEA 6 area could indirectly affect the economy of Kintyre.

13.21 Campbeltown is the main port in Kintyre. Fishing vessels are the main users and there is a pontoon for leisure craft. A ferry service between Campbeltown and Ballycastle in Northern Ireland was introduced in 1997 but stopped in 1999 because of financial losses, although there are hopes locally that it can be restarted.

13.22 There were 4,424 tonnes of fish landed in the Campbeltown fisheries district in 2003, with a value of just under £7.3 million. Campbeltown itself accounted for £1.7 million of these landings, which were virtually all shellfish.

13.23 There were 182 active vessels in the Campbeltown district in 2003, which was a reduction of –14 on the previous year. There were 255 fishermen regularly employed and 73 irregularly, giving a total of 328.

13.24 Tourism is important in the area, particularly during the summer season, despite the remoteness. The Mull of Kintyre is well known because of Paul McCartney's famous song.

Dumfries and Galloway

13.25 Dumfries and Galloway have a lengthy section of the coast of South West Scotland. There are many small towns and villages on the coast, although Dumfries itself is inland.

13.26 The population of Dumfries and Galloway is approximately 150,000. It increased by +2.6% between 1981 and 2001. That compares with a –2.2% fall in Scotland and a +4.4% increase in the UK as a whole.

13.27 Unemployment in April 2005 totalled 2,202, which was 2.6% of the population. That compares with 2.9% in Scotland and 2.4% in the UK as a whole.

13.28 Income levels are well below the Scottish and UK averages. The Annual Survey of Hours and Earnings (ASHE) shows that the average gross weekly pay of full-time workers in Dumfries and Galloway in 2004 was £399.7. That was –13.0% below the Scottish average of £459.6 and –20.8% below the UK average of £504.9. The average gross weekly pay of Dumfries and Galloway residents (as distinct from people who work in the area) was a little higher at £414.1, but still well below the Scottish and UK averages.

13.29 The local economy is very rural, although most employment is in the service sector, as elsewhere. Agriculture and forestry are still important industries.

13.30 The area has a small involvement in the offshore oil and gas industry. As mentioned above, the SNIP gas pipeline goes from Portnaughton Bay to Castle Robin in Northern Ireland and the two UK-Irish Republic gas pipelines also have landfalls in Dumfries and Galloway.

13.31 Various blocks close to the coast of Dumfries and Galloway have previously been licensed but there are no active licences at the present time.

13.32 Dumfries and Galloway is also involved in the offshore wind farm industry. Offshore Energy Resources and Solway Offshore are currently developing the Robin Rigg project in the Solway Firth, which will have 60 turbines with a capacity of up to 216 MW. Further details are given in Section 3 of this report.

13.33 The main ports in the area are at Stranraer and Cairnryan, which are just a few miles apart on Loch Ryan. The two busiest ferry services with Northern Ireland operate from here. Stena Line operate the Stranraer – Belfast service and P&O the Cairnryan – Larne service.

13.34 There are many small harbours along the coast of Dumfries and Galloway, which are now used mainly by leisure craft. Kirkcudbright is the centre of the local fishing industry, with landings valued at £2.0 million in 2003.

13.35 Tourism is also important in the area and is discussed in more detail in Section 6.

South Ayrshire

13.36 South Ayrshire is outwith the SEA 6 area but the port of Troon, near Ayr, was the Scottish terminal for two of the ferry services with Northern Ireland. P&O operate a service between Troon and Larne. Seacat operated a service to/from Belfast but that stopped in February 2005.

13.37 Mention should also be made of the Clyde, which is also outside the SEA 6 area but is the most important port on the West Coast of Scotland. Clydeport operate the ports of Greenock and Glasgow on the River Clyde, plus Hunterston and Ardrossan, under the Clyde “name”. The Clyde handled 9.2 million tonnes of freight in 2003.

14.0 ISLE OF MAN

14.1 The Isle of Man is an internally self-governing dependent territory of the British Crown. It is not part of the United Kingdom but is a member of the Commonwealth. The Tynwald, the island's 1000 year old Parliament, makes its own laws and oversees all internal administration, fiscal and social policies. External issues, such as foreign representation and defence, are administered on the island's behalf by the UK government.

14.2 The Isle of Man's population was 78,266 at the April 2001 Census, including 76,315 residents and 1,951 visitors. The total was +9.8% higher than the 1991 total, which in turn was +7.8% higher than the 1981 total. Thus the island has experienced substantial population growth in recent years.

14.3 Statistics from the Economic Affairs Division of the Treasury show gross domestic product (GDP) of £1,427 million in the 2002-03 financial year. The economy has done well over the last few years and GDP per person is currently about 7% above the UK average.

14.4 The two main sectors of the Isle of Man economy are banking (accounting for about 20% of GDP) and insurance and finance (17%). Tourism is also important.

14.5 Unemployment is currently very low. For example, the April 2005 total of 561 was just 1.4% of the economically active population.

14.6 The Isle of Man's territorial waters extend to 12 miles offshore. They had their only oil and gas licensing round in December 1994 but there were no current licences at the time of writing (May 2005).

14.7 Thirteen blocks or part-blocks were offered in the licensing round. Elf were awarded blocks to the north and west of the island and Marathon blocks to the east. Both companies drilled one well. The results were obviously disappointing because nothing has happened since then. BP were subsequently granted an out-of-round licence but only did seismic work on the block.

14.8 The Isle of Man imports North Sea gas via Scotland. There is a spur pipeline off the Scottish-Irish Interconnector (IC2) pipeline.

14.9 Ports in the Isle of Man, principally Douglas, handled 119,001 tonnes of general freight in 2002-03, plus 133,435 tonnes of oil and 22,790 tonnes of gas. The amount of freight has been relatively stable over the last decade.

14.10 There are ferry services between Douglas and Belfast, Dublin, Fleetwood, Heysham and Liverpool. Isle of Man Ferries are the main operators.

14.11 The Treasury's "Digest of Economic and Social Statistics 2004" shows 659,929 harbour passengers in 2002-03, which was +13.1% higher than in the previous year. In comparison, 748,103 passengers used the island's airport in 2003.

14.12 Fish landings in 2002 were valued at just under £2.7 million. Scallops accounted for 54% of the value and queenies 29%. White fish (demersal) landings were tiny. We were informed that Isle of Man boats landed about £250,000 value of fish in UK ports in 2002.

14.13 Sailing is very popular in waters around the Isle of Man. Douglas is the main port and there are facilities for sailing vessels at Peel, Port St Mary, Ramsey and a few minor harbours.