

# **Submarine Dismantling Project**

**SEA Scoping Report Update** 

**Annex C - Review of Sub-Regional Baseline Information** 

March 2011



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# Defence Equipment and Support

# Submarine Dismantling Project

Strategic Environmental Assessment – Scoping Report (Annex C)

March 2011

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# **Sub-Regional Baseline Information**

Sub-regional baseline information is presented for the following potential dismantling sites:

- C1 Devonport Royal Dockyard Ltd (DRDL), Plymouth
- C2 Rosyth Royal Dockyard Ltd (RRDL), Fife, Scotland

Each sub-regional baseline section contains the following information:

# Table x.1 – Baseline Information

Sub-regional level information is provided for each of the SEA Annex I categories to provide the appropriate context for the assessment for the locational options. The information that has been used to inform the sub-regional baseline has been drawn from the relevant local authority area that covers each potential candidate site.

# Table x.2 – Evolution of the Baseline (following a 'Business as Usual' Scenario)

This table sets out the likely evolution of the sub-regional baseline without the implementation of the SDP programme. It is acknowledged that there are information gaps where trends or targets have not been identified in relation to specific issues.

# • Table x.3 – Current Problems in Sites of Particular Environmental Importance

This sets out the current condition and potential problems facing European designated Special Protection Areas (SPA), Special Areas of Conservation (SAC) as well as Ramsar Sites within a 20km radius of each site.

# Table x.4 – Relevant Plans and Programmes

This identifies and reviews other relevant plans, programmes, policies and strategies (herein after referred to as 'plans and programmes') that are applicable to the SDP, and outlines the nature of "relationship with other relevant plans and programmes".

It is noted that there is significant variation in the geographic land area covered by the authorities in England and Scotland (Fife is a much larger authority than Plymouth). This variation is a product of using the smallest available authority boundary as to collate information.



# C1 Plymouth - Sub Regional Information

### Table C1.1 Baseline Information

# **Sub-Regional Baseline - Plymouth**

# **Biodiversity and Nature Conservation**

Number of SSSIs: three terrestrial SSSIs: Billacombe SSSI, Plymbridge Lane & Estover Road SSSI; and Tamar-Tavy Estuary SSSI. 1

Number of SACs: one, covering 6,402.3ha: Plymouth Sound and Estuaries. Two others (Datmoor and South Dartmoor Woods) are nearby.<sup>3</sup>

Number of SPAs: one, covering 1,955ha: Tamar Estuaries Complex.<sup>2</sup>

Marine Conservation Zones: Marine Conservation Zones are a new designation introduced by the Marine and Coastal Access Act. Lundy is currently the only Marine Conservation Zone in the south-west (it became an MCZ through a special provision in the Marine and Coastal Access Act). The four-year *Finding Sanctuary* project aims to design a network of marine protected areas (including Marine Conservation Zones) for the coasts and seas of South West England and preliminary work has highlighjted the value of Plymouth Sound and waters immediuately offshore<sup>4</sup>. There is also one voluntary Marine Protected Area at Wembury.<sup>2</sup>

Other important sites: Plymouth has eight designated Local Nature Reserves mostly situated on the eastern side of the city<sup>1</sup>, and 23 County Wildlife Sites.<sup>5</sup>

Current issues for biodiversity, flora and fauna: Current threats to the designated features of SAC and SPAs are mainly from increased coastal development and increased marine activity causing pollution and disturbance.

The complex ria system and wide rocky inlet of Plymouth Sound are popular with visitors, close to a large population, and accommodate military and commercial shipping. Potential threats therefore include: increased pressure for recreational moorings and associated facilities; port development and ongoing maintenance dredging. Both the geology and geography of Plymouth Sound make it very sensitive to oil pollution.<sup>6</sup>

#### References:

- Plymouth City Council Ecological Sites of Special Scientific Interest, http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconserv ation/greenspace/greenspacesssi.htm
- Plymouth City Council, Characteristics of the City of Plymouth http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconserv ation/protectingnature/designatedconservationareas.htm
- Tamar Estuaries Consultative Forum, Plymouth Sound and Estuaries Coastal Planning Study, Final Report 7 September 2006 <a href="http://www.plymouth.gov.uk/coastal\_planning\_project\_report.pdf">http://www.plymouth.gov.uk/coastal\_planning\_project\_report.pdf</a>
- Finding Sanctuary <a href="http://www.finding-sanctuary.org/page/the-marine-environment.html">http://www.finding-sanctuary.org/page/the-marine-environment.html</a>
- Plymouth City Council County Wildlife Sites, http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconserv ation/greenspace/countywildlifesites.htm
- Joint Nature Conservation Committee Plymouth Sound and Estuaries, http://www.jncc.gov.uk/ProtectedSites/S ACselection/sac.asp?EUcode=UK00131 11

# **Population**

### **Demographics**

Resident population of 256,700.1

49.2% male (126,200 people) and 50.8% female (130,500 people).

67.2% of population is of working age (68.7% of males and 65.9% of females).1

75.6% of working age population is economically active.<sup>1</sup>

70.1% of working age population is in employment.<sup>1</sup>

7.9% of working age population is unemployed.1

### References:

- NOMIS, official labour market statistics, Plymouth, https://www.nomisweb.co.uk/reports/lmp
  - /la/2038431908/report.aspx

    Home Office, Crime Statistics, Local Authorities: Recorded crime for seven

key offences and BCS comparator

2006/07 to 2007/08 http://www.homeoffice.gov.uk/rds/pdfs08



Of those of working age in Plymouth: 24.2% have NVQ4 and above; 48.6% have NVQ3 and above; 66.7% have NVQ2 and above; 83% have NVQ1 and above; 8.6% have other qualifications; and 8.4% have no qualifications.

There were 67 recorded crime BCS comparator offences per 1,000 population in 2007/08 (54 average for England and Wales).<sup>2</sup>

In May 2010, Plymouth had 97schools: 2 nursery (194 students); 68 primary (18,702 students); 16 secondary (17,982 students); eight special (607 students); and three pupil referral units (159 students).<sup>3</sup>

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 Plymouth City Council, website, http://www.plymouth.gov.uk/schoolsfacts andfigures

### Socio-Economics

In 2009, per capita GVA in Plymouth was £16,479 . This trend has shown a steady year-on-year increase, up from £11,848 in 2000. The per-head GVA index is 80.2, compared to the UK baseline of 100 and an index of 82.8 for the area in  $2000.^1$ 

In the period July 2009 - June 2010, the average full-time gross hourly pay in Plymouth was £11.77 (compared to a national average of £12.65). This compares to £9.75 in 2007 for the area (and a national average of £11.51).  $^2$ 

Between July 2009 and June 2010 Plymouth had an average unemployment rate of 7.9% compared to a UK average of 7.7%. This compares to January to December 2008, when Plymouth had an average unemployment rate of 5.7% compared to a UK average of 5.7%.

Plymouth has a total of 106,900 jobs with a job density<sup>1</sup> of 0.74 (compared to 0.82 in the South West and 0.79 in Great Britain). <sup>2</sup>

Plymouth has a strong and recognisable industrial and military heritage which has left behind a set of ongoing and evolving specialisms in Advanced Engineering and Maritime and Marine industries However, in recent years there has been a decline in employment in technology and knowledge based activities in Plymouth The Economic Strategy identifies that a more diverse business base is important to Plymouth's future economic development. <sup>3</sup>

Plymouth experienced a large loss of high skilled and high paid jobs from the dockyard in the 1970's and 1980's. Although there was some recovery by attracting overseas manufacturing, these jobs were not as skilled and attracted lower pay.<sup>3</sup>

#### References:

- ONS, Regional, sub-regional and local gross value added (GVA), December 2008,
  - http://www.statistics.gov.uk/pdfdir/gva12 10.pdf
- NOMIS, official labour market statistics, Plymouth,
  - https://www.nomisweb.co.uk/reports/Imp/la/2038431908/report.aspx
- Economic Strategy 2006-2021 & Beyond.

http://www.plymouth.gov.uk/homepage/business/businessandinvestment/localeconomicstrategy.htm

# **Human Health**

Life expectancy at birth for males of 77.2 years (Jan 2007 –Dec 2009) compared to 78.3 in England.  $^1$ 

Life expectancy at birth for females of 82.0 years (Jan 2007 –Dec 2009) compared to 82.3 in England.  $^{\rm 1}$ 

Infant mortality in Plymouth is 4.5 per 1,000 live births, compared to 4.7 in England. 1

Coronary Heart Disease diagnoses of 5,313 (2007 - 2008) (total of 1,000,332 in England).<sup>1</sup>

Cerebrovascular Disease (including Stroke) diagnoses of 999 (2007 - 2008) (total of 187,962 in England).  $^{1}$ 

Cancer (excluding non-melanoma skin cancer) diagnoses of 6,680 (2007 - 2008) (total of 1,326,050 in England). <sup>1</sup>

In 2001, 66.7% of people in Plymouth rated their health as good; 23.2% rated their health as fair; and 10.1% of people rated their health as not good.  $^2$ 

### References:

- ONS, Neighbourhood Statistics, http://www.neighbourhood.statistics.gov. uk/dissemination/LeadTableView.do?a= 7&b=276837&c=plymouth&d=13&e=6&g =401185&i=1001x1003x1004&m=0&r=1 &s=1298902555914&enc=1&dsFamilyId =037
- Plymouth's Joint Strategic Needs
   Assessment updated February 2008
   <a href="http://www.plymouthpct.nhs.uk/healthan-dwellbeing/publichealth/Pages/healthyplymouth.aspx">http://www.plymouthpct.nhs.uk/healthan-dwellbeing/publichealth/Pages/healthyplymouth.aspx</a>
- Plymouth City Council, Cancer Incidence in Plymouth – 2007 follow-up

<sup>&</sup>lt;sup>1</sup> The density figures represent the ratio of total jobs to working-age population. Total jobs includes employees, self-employed, government-supported trainees and HM Forces.



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Health in Plymouth has been improving over the last 10 years. By 2005, health (as measured by Standardised Mortality Rates) had almost improved to the level of the national average.<sup>2</sup>

Most deaths are caused by heart disease, stroke, and cancer; however rates are falling above the national average. <sup>2</sup>

Life expectancy in Plymouth is generally increasing; however, significant health inequalities exist. In the most deprived fifth of neighbourhoods, overall life expectancy was 75.3, compared to 78.7 for the city as a whole, and that the gap has widened in recent years.

In 2008, life expectancy in Devonport was nearly 13 years less than the best-performing ward. <sup>2</sup> Public Studies in 2004, 2006 and 2007 have consistenctly reported that Plymouth has higher cancer incidence than the national average. However, there is no geographic association of cancer with the Tamar, and no excess of cancers known to be radiation-sensitive. By contrast, there is an excess of cancers related to socio-economic deprivation, and to smoking in particular. Plymouth has been found to have cancer rates similar to other UK cities with a similar socio-economic profile<sup>3</sup>

In 2007, Plymouth ranked 76th out of 354 Districts on the overall rank of deprivation (1 being the most deprived).<sup>5</sup>

- 28.8% of area is within the 5th (most deprived) quintile of the IMD 2007; 6
- 25.1% of area is within the 4th quintile of the IMD 2007; <sup>6</sup>
- 18.9% of area is within the 3th quintile of the IMD 2007;
- 19.6% of area is within the 2th quintile of the IMD 2007; and <sup>6</sup>
- 7.6% of area is within the 1th (least deprived) quintile of the IMD 2007.<sup>6</sup>

Site specific nuclear safety reports are available quarterly from the Health and Safety Executive.<sup>4</sup>

#### report

http://www.plymouth.gov.uk/homepage/communityandliving/emergencies/regulatedhazardoussites/devonportdockyard.htm

- Health and Safety Executive, Quarterly Reports, <a href="http://www.hse.gov.uk/nuclear/llc/2008/index.htm">http://www.hse.gov.uk/nuclear/llc/2008/index.htm</a>
- 5. ONS, Neighbourhood Statistics, Indices of Deprivation.
- Association of Public Health Authorities, Plymouth Health Profile 2009, <a href="http://informinghealthierchoices.net/resource/item.aspx?RID=71411">http://informinghealthierchoices.net/resource/item.aspx?RID=71411</a>

### **Human Health (Noise)**

Major sources of noise: Domestic sources, traffic and construction<sup>1</sup>. Plymouth City Airport and Moorcroft Quarry (both on the eastern edge of Plymouth).<sup>2</sup>

Current issues for noise: Traffic noise on major roads in Plymouth has a significant area of affect either side of those roads, particularly where open spaces exist. <sup>3</sup> Large developments in Plymouth are required to adopt and comply with Codes of Practice to manage noise on their sites to within thresholds set by Plymouth City Council.<sup>4</sup>

# References:

- 1. Plymouth City Council, Scoping Report communication, Feb 2011.
- Plymouth Sustainable Neighbourhoods Study (2005), <a href="http://www.plymouth.gov.uk/homepage/">http://www.plymouth.gov.uk/homepage/</a>

http://www.plymouth.gov.uk/homepage/ environmentandplanning/planning/planni ngpolicy/ldf/ldfbackgroundreports/brsust ainableneighbourhoodassessments/sna methodology.htm

3. Defra, Noise Mapping, Major Roads,

http://www.defra.gov.uk/environment/quality/noise/environment/mapping/roads.htm

 Plymouth City Council, http://www.plymouth.gov.uk/homepage/ environmentandplanning/pollution/noise. htm

# **Soil and Geology**

**Predominant geology:** Upper Devonian slates and shales. The southern parts of Plymouth lie on Devonian Limestone whilst the northern parts lie on Devonian Shillets. These very different geologies give rise to diverse soils with the shillets producing acid soils and the limestone more calcareous soils.<sup>1</sup>

Topographic features: A high ridge along the southern waterfront with the land beyond rising

# References:

1. Plymouth City Council, Geology, http://www.plymouth.gov.uk/homepage/enviro nmentandplanning/natureconservation/geolo



gently to the north. The rise is interspersed with several ridges and dips cut by rivers, notably the Tamar and Plym.<sup>2</sup>

Geological designations: Plymouth has six SSSIs designated for their geological importance: Faraday Road, Mount Wise, Plymouth Sound, Shores & Cliffs; Richmond Walk; Wallsend Industrial Estate; and Western King.<sup>3</sup>

Other important features: A belt of hard grey limestone which runs across its southern edge of Plymouth producing the cliffs overlooking the Sound. 1

Current issues for soils and geology: Plymouth and its surroundings have experienced intense industrial activity in many areas from the 18th and 19th centuries, right through to the present day. It has left a legacy of potentially contaminated land at sites used for former industry, waste disposal and also where previous excavations and low-lying areas have been in-filled.

Plymouth has one 'special site' designated under the Contaminated Land Regulations, at Keyham oil fuel depot  $^{5}$ 

# gy.html

2. Plymouth City Council, Characteristics of the City of Plymouth

http://www.plymouth.gov.uk/homepage/environmentandplanning/natureconservation/geology.html

3. Plymouth City Council. http://www.plymouth.gov.uk/homepage/enviro nmentandplanning/natureconservation/geolo gy/ergs/geologysssi.htm

4. Plymouth City Council. http://www.plymouth.gov.uk/homepage/enviro nmentandplanning/pollution/contaminatedlan

 Plymouth City Council, http://www.plymouth.gov.uk/contaminated\_la nd\_register.pdf

# Water

<u>Major surface water features:</u> Plymouth Sound (one of the world's great natural harbours); river Tamar; the Tory Brook; Tamerton Foliot stream; and the lower stretch of the River Plym.<sup>1</sup>

<u>Major groundwater features</u>: There are no major aquifers in the southwest. Some minor aquifers are important for local supplies, as is the case in Plymouth. There are 12 licensed private groundwater abstractions within the Plymouth boundaries. Four of these are for private drinking supplies.

<u>Freshwater quality:</u> 2006 surveys record the following inland water quality: 65.2% were in good biological condition; 34.8% were in fair biological condition (none in poor or bad condition). 100% were in good chemical condition.<sup>2</sup>

<u>Bathing water quality:</u> Plymouth Sound waters are assessed as having good potential ecological quality, but poor chemical quality.<sup>3</sup> There are two bathing waters in Plymouth (Hoe West and Hoe East). In 2008, both these waters were rated as 'poor' for bathing water quality (down from Excellent since 2004).<sup>4</sup>

<u>Protected water features:</u> Plymouth Sound and Estuaries SAC; and Tamar Estuaries Complex SPA.<sup>5</sup>

In 2007, radioactive discharge licences to the estuary were issued to Devonport Royal Dockyard Ltd.  $^{\rm 6}$ 

In 2004, a study for Natural England reported that the radiological significance of levels of radionuclides discharged into the Plymouth Sound and Estuaries SAC was considered to be low <sup>7</sup>

Currents issues for water: Challenges affecting water quality in the South West River Basin District include diffuse pollution from agricultural activities; diffuse and point source pollution from disused mines; point source pollution from water industry sewage works; and physical modification of water bodies. Plymouth has a long maritime history with naval and defence industries continuing to be important to the local economy. Historic mining and industrial activity has significantly affected land, water quality and estuary sediments over many years.<sup>8</sup>

### References:

- Plymouth City Council, <a href="http://www.plymouth.gov.uk/characteristicsplymouth">http://www.plymouth.gov.uk/characteristicsplymouth</a>
- Defra, Inland Water Quality Surveys <a href="http://www.defra.gov.uk/evidence/statistics/environment/inlwater/iwquality.htm">http://www.defra.gov.uk/evidence/statistics/environment/inlwater/iwquality.htm</a>
- 3. Environment Agency 2009
  http://maps.environmentagency.gov.uk/wiyby/wiybyController?lat
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- Environment Agency 2009 http://maps.environment- agency.gov.uk/wiyby/wiybyController?x= 245500.0&y=55500.0&scale=3&layerGr oups=default&location=Devonport,%20 City%20of%20Plymouth&ep=map&lang = e&textonly=off&topic=coastalwaters# x=247881&y=53844&lg=1,&scale=5
- Plymouth City Council, Characteristics of the City of Plymouth http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconserv ation/protectingnature/designatedconservationareas.htm
- Environment Agency (2009) Industrial Pollution maps, <a href="http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=247500.0&y=56500.0&topic=pollution&ep=map&scale=3&location=Plymouth.%2">http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=247500.0&y=56500.0&topic=pollution&ep=map&scale=3&location=Plymouth.%2</a>



# Sub-Regional Baseline - Plymouth OCity%20of%20Plymouth&lang= e&lay erGroups=default&textonly=off#x=24750 0&y=56500&lg=5,4,1,&scale=4 7. English Nature 2004 The South Western Peninsula Marine Natural Area http://naturalengland.etraderstores.com/ NaturalEnglandShop/Product.aspx?Prod uctID=d92d70ba-37e6-489d-b069845bd1bb5e13 8. South West River Basin District River Basin Management Plan, http://wfdconsultation.environmentagency.gov.uk/wfdcms/en/southwest/intr

#### Air

Air quality: Air quality in Plymouth is generally good,  $^1$  with the key pollutants being nitrogen dioxide (NO $_2$ ) from traffic, and fine particles (PM $_{10}$ ) being an issue around docks where china clay is handled  $^1$ . In 2009, annual average NO $_2$  levels in Plymouth were between 32 and 42.7  $\mu g \ m^{-3}$  against a statutory target of 40 $\mu g \ m^{-3}$   $^2$ 

Annual average  $PM_{10}$  levels were 26 $\mu$ g m<sup>-3</sup> against a statutory target of 50 $\mu$ g m<sup>-3</sup> (although the limit was exceeded on 21 days).

The average Combined Air Quality Index for Plymouth from the 2007 Indices of Deprivation was 1.11.<sup>4</sup> This represents the addition of the four indices (Nitrogen Dioxide, Particulates, Sulphur Dioxide and Benzene). A higher value implies poorer overall air quality. (The mean average of all Combined Air Quality Index scores for all Local Authority regions in England is 1.23).<sup>3</sup>

Number of AQMAs: 2 for NO<sub>2</sub>; 1 for PM<sub>10</sub>. Plymouth City Council is considering replacing the two individual site AQMAs in the city centre with one larger AQMA area, which will include main transport routes into the city.  $^{2, \, 6.}$ 

The Devonport Royal Dockyard is licensed under the Nuclear Installations Act 1965. It has a radioactive waste management policy which requires a justification for any work which generates radioactoice waste, and proof of control using Best Practicable Means (BPM). Airbourne waste is discharged via authorized outlets which are monitored and declared to the Environment Agency.

#### References:

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- Plymouth City Council, Air Quality, http://www.plymouth.gov.uk/airquality
- Plymouth City Council, 2010 Air Quality progress report <a href="http://www.plymouth.gov.uk/2010">http://www.plymouth.gov.uk/2010</a> progress report final.pdf
- Defra (2009) Local Air Quality
   Management Technical Guidance
   http://www.defra.gov.uk/environment/quality/air/airquality/local/guidance/documents/tech-guidance-lagm-tg-09.pdf
- Indices of Deprivation, 2007
   <a href="http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/">http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/</a>
- Environment Agency (2009) Industrial Pollution maps <a href="http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=247500.0&y=56500.0&topic=pollution&ep=map&scale=3&location=Plymouth,%20City%20of%20Plymouth&lang=e&layerGroups=default&textonly=off#x=247500&y=56500&lg=5,4,1,&scale=4</li>
- 6. Defra Air Information Resource (http://uk-air.defra.gov.uk/)

# **Climate Change and Energy Use**

Total energy consumption in Plymouth: 4,539 GWh in 2008. This has reduced from the 2007 figure of 941 GWh. Of this, 35% was consumed by the industrial/commercial sector, 38% by the domestic sector and 27% by transport. This figure was split between energy sources: 41% natural gas; 33% petroleum products; 25% electricity; 0.3% coal; and 0.2% renewables. <sup>1</sup>

Average commercial and industrial electricity usage per customer: In 2007, the average commercial and industrial consumption per customer was significantly higher than the South West and national averages (89.4GWh in Plymouth compared to 62.75GWh in the South West and 79.06GWh in Great Britain).<sup>1</sup>

Average commercial and industrial gas usage per customer: In 2007 Plymouth average

# References:

- Department of Energy and Climate Change (2010) Total final energy consumption at regional and local authority level) , http://www.decc.gov.uk/en/content/cms/ statistics/regional/total\_final/total\_final.a\_spx.
- 2. DECC, NI 186 Per capita reduction in



commercial and industrial consumption per customer was also significantly higher than the South West and national averages (744.81GWh in Plymouth compared to 556.85GWh in the South West and 633.78GWh in Great Britain).<sup>1</sup>

Transport fuel: In 2008, road transport in Plymouth used 93,000 tonnes of fuel – a drop from the previous 3 year average of 96,500 tonnes. Of this, 76% was used for personal transport (including buses), and 24% was attributable to road freight.  $^1$ 

Total carbon dioxide emissions: In 2008, Plymouth produced a total of 1,401 kt CO<sub>2</sub>. 41% of CO<sub>2</sub> emissions were attributed to commercial and industrial activities.<sup>2</sup>

Total end user  $CO_2$  emissions per capita (tonnes  $CO_2$  per resident) in 2008 were 5.5 tonnes per resident (compared to a national average of 7.4 tonnes per resident).<sup>2</sup>

Temperature records kept at Plymouth show a warming of 0.5°C over the last 25 years. Plymouth's rainfall records show an increased trend since the drought of 1975/76, although there were also periods of increasing rainfall at the start of the Century and in the 1920s. Despite the increasingly warm conditions, the winter of 2006 was cooler than average. The summer of 1995 was the driest on record with only 5.3mm of rainfall and the winter of 1993/94 was the wettest on record with 547mm of rainfall. §

Plymouth is in a good geographical position to utilise solar, wave, tidal, biomass and wind energies. However, currently Plymouth's has no significant renewable energy facilities (Plymouths total renewable energy production in 2006 was only 5.8MWe).<sup>4</sup>

The UK's Climate Projections (UKCP09) shows that the South West region is likely to experience hotter drier summers, warmer wetter winters and rising sea levels. This is likely to have a significant effect on environmental conditions and will increase the impact of human activity on the water environment<sup>5</sup>. In Plymouth, higher summer temperatures are becoming more frequent, and winters are getting wetter. This will have a wide range of consequences – from changes in flood risks from rivers and the sea, to the introduction of new species and health implications from sunlight or food hygiene issues.<sup>6</sup>

- CO2 emissions in the LA area, 2008, http://www.decc.gov.uk/assets/decc/Stat istics/climate\_change/localAuthorityCO2 /460-ni186-per-capita-co2-emissions.xls
- 3. Plymouth 2020 Environment & Sustainability Partnership Climate Change Impacts and Implications fro Plymouth, 2004.

  http://www.plymouth.gov.uk/homepage/environmentandplanning/environmentalissues/climatechange.htm
- Plymouth Renewable Energy, Strategic Viability Study 2007 <a href="http://www.plymouth.gov.uk/070416">http://www.plymouth.gov.uk/070416</a>, ply mouth renewables study final version march 2007-2.pdf
- 5. South West River Basin District River Basin Management Plan, http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/southwest/Intro.aspx
- Action on Climate Change. The First Steps 2009-2011, Plymouths Climate Change Action Plan, http://www.plymouth.gov.uk/acting\_on\_c limate\_change.pdf

# **Coastal Change and Flood Risk**

The main pressures on South West estuaries and coasts are pollution from industrial discharges, nutrient and microbiological contamination from run-off and sewage, sea level rise leading to coastal squeeze and potential over-exploitation of fisheries.<sup>3</sup>

Major threats from climate change: The biggest direct negative effect on Plymouth from climate change would be rising sea levels and consequent flooding.<sup>1</sup>

Flood risks: main sources of flooding are from: direct flooding caused by tide/waves; and indirect flooding caused by the tide submerging drainage outlets. A significant amount of flooding in Plymouth is caused by ineffective drainage and insufficient sewer capacity. Areas in Flood Zone 3 extend along the western, southern and eastern waterfronts of the city.<sup>2</sup>

There is a recorded history of flooding within the Tamar catchment from a range of sources rivers, the estuaries, surface water run-off and sewer systems.

The estuaries contribute to flood risk in the Tamar catchment, making flooding from the rivers worse when high tides coincide with high rainfall. There are over 90km of flood defences in place throughout the catchment; however, over 1600 properties in Plymouth are either at 1% risk every year from river flooding, or at 0.5% risk every year from tidal flooding. <sup>4</sup> After many decades of decline Plymouth is promoting a high profile waterfront regeneration vision to attract inward investment and economic development of the city. Dealing with tidal flood risk is an important consideration.<sup>3</sup>

Catchment Flood Management Plans (prepared by the Environment Agency)<sup>4</sup> and Shoreline Management Plans (prepared by local coastal authorities and the Environment Agency)<sup>5</sup> set out long term policies for flood risk management. The delivery of the policies from these long term plans will help to achieve the objectives of this and subsequent River Basin Management Plans.

# References:

- Plymouth 2020 Environment & Sustainability Partnership Climate Change Impacts and Implications fro Plymouth, 2004.
- Plymouth City Council, Strategic Flood Risk Assessment, R02701R001/Final Draft http://www.plymouth.gov.uk/homepage/ environmentandplanning/planning/plan ningpolicy/ldf/ldfbackgroundreports/bflo
- http://wfdconsultation.environmentagency.gov.uk/wfdcms/en/southwest/In tro.aspx

odriskassessment.htm

- Tamar Catchment Management Plan; http://publications.environment- agency.gov.uk/pdf/GESW1109BOUP-e-e.pdf
- Tamar Estuaries Consultative Forum: http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconserv ation/natureprojects/tecf.htm



# **Material Assets (Transport)**

Principal roads: The trunk road network in Plymouth comprises the A38 which aligns east to west and the A386 which aligns north to south and branches from the A38.1

Principal rail lines: The principal railway passing through Plymouth is the Exeter - Penzance line. The main stop is Plymouth Station close to the city centre. Other stations are mainly clustered to the west of the city.

Principal air ports: Plymouth City Airport is 5km from the city centre. The airport has both military and civilian applications.<sup>1</sup>

Principal ferry ports: Plymouth has good passenger and fright marine port services. Millbay operates regular international passenger services to Roscoff in northern France and Santander in northern Spain. Almost 2.5 million tonnes of marine freight passes through Plymouth each year.<sup>2</sup>

Capacity or congestion issues: Road traffic delays are associated with peak time usage of the A38 Trunk Road. Delays at the A38's city junctions causes delays across the road network notably in the North and East of Plymouth.<sup>3</sup>. There is potential capacity in the rail freight network; although this would require investment to realise. Estimated traffic flows for all vehicle types is 1406 million vehicle kms.<sup>4</sup> 35.45% of Plymouth residents think that over the past three years that the level of traffic congestion has got better or stayed the same.<sup>4</sup> Travel to work distance: Average distance travelled to fixed place of work 13.83 km.<sup>5</sup>. Plymouth is a highly self-contained community with about 80% of people living and working within the city boundary and a relatively high level of public transport usage.<sup>6</sup>

Current issues for transport: There are plans to expand the airport with new terminal facilities and a longer runway. Currently 7000 homes in Plymouth are affected by noise from the airport. 1

#### References:

- Plymouth City Council LTP 2011 to 2026
   Transport Facts and Figures
   <a href="http://www.plymouth.gov.uk/homepage/t-ransportandstreets/transportplanning/proltp/proltpfacts.htm">http://www.plymouth.gov.uk/homepage/t-ransportandstreets/transportplanning/proltp/proltpfacts.htm</a>
- Plymouth City Council, Marine Services, <a href="http://www.plymouth.gov.uk/landingstag">http://www.plymouth.gov.uk/landingstag</a> esandslipways
- 3. Plymouth City Council Local Transport Plan 2006 -2011 http://www.plymouth.gov.uk/homepage/transportandstreets/transportplanning/ltp 2006-2011.htm
- Audit Commission, Plymouth area profile, <a href="http://www.areaprofiles.audit-commission.gov.uk/(bcshuirfoqzyvyycm55fqczn)/DataProfile.aspx?entity=0">http://www.areaprofiles.audit-commission.gov.uk/(bcshuirfoqzyvyycm55fqczn)/DataProfile.aspx?entity=0</a>
- 5. ONS, Travel to work, 2001, http://www.neighbourhood.statistics.gov.uk/dissemination/LeadTableView.do?a= 3&b=276837&c=plymouth&d=13&g=401 185&i=1001x1003x1006&k=travel+to+work&m=0&r=1&s=1245239859648&enc= 1&domainId=15&dsFamilyId=283
- The Draft Regional Spatial Strategy for the South West 2006 -2026 (pg 90) <a href="http://www.southwest-ra.gov.uk/ngcontent.cfm?a\_id=836">http://www.southwest-ra.gov.uk/ngcontent.cfm?a\_id=836</a>

# **Material Assets (Waste Management)**

Waste management facilities: 60 'bring' bank sites; 2 Civic Amenity Recycling Centres (CARCs), 1 Materials Recovery Facility (MRF); 1 composting facility.1 The Chelson Meadow landfill site closed in 2008 and waste is now taken to a transfer station at Chelson Meadow to be bulked up before being transported by lorry to Lean Quarry near Liskeard. This is an interim arrangement until a new partnership waste solution is in place, which is likely to be around 2014.

In 2011 the South West Devon Waste Partnership selected MVV Umwelt as the preferred bidder for the provision of a solution to treat the partnership's residual waste. MVV Umwelt is proposing an energy from waste facility at North Yard, HM Naval Base Devonport, which is in the Weston Mill area of the Naval Base bordering Blackies Wood. Provided planning approval is granted, the intention is to commence construction in 2012 with a view to commencing operations in 2014.<sup>2</sup>

Commercial and industrial waste total: Annual commercial waste arisings were estimated at being between 173,000 and 199,000 tonnes in 2005.  $^{3}$ 

Split between waste management routes: In 2001 134,710 tonnes of commercial waste were managed in Plymouth. 39% of commercial and industrial waste underwent biological treatment; 36% was landfilled; 18% underwent materials recovery; and 7% was composted. These values exclude waste handled at waste transfer stations (45,200 tonnes in 2001-01). (No later commercial and industrial waste arisings data was not identified, consultee input welcome).

Current issues for waste management: To respond to the anticipated growth in waste

# References:

- Plymouth City Council, Municipal Waste Management Strategy 2007-2030, Baseline Report Where we are today, April 2007, http://www.plymouth.gov.uk/supplement ary report 1 baseline report final.pdf
- South West Devon Waste Partnership, http://www.plymouth.gov.uk/homepage/ environmentandplanning/rubbishandrec ycling/jointwastepartnership/swdwp/swd wpnewsevents/swdwplocalsituation.htm
- Entec UK (January 2007). Plymouth Waste Local Development Document: Future Waste Requirements (Update) <a href="http://www.plymouth.gov.uk/future\_waste">http://www.plymouth.gov.uk/future\_waste</a> <a href="maintenant-requirements">e management\_requirements</a> jan 2007
   .pdf
- 4. Entec UK (July 2005) Future Waste



generation and at the same time responding to the requirements of the increasingly stringent targets for recycling and alternatives to landfill.

Requirements,

http://www.plymouth.gov.uk/homepage/environmentandplanning/planning/planningpolicy/ldf/ldfbackgroundreports/brfuturewasterequirementsjuly2005.htm

### **Material Assets (Land Use and Materials)**

Total area: 83 km<sup>2</sup>.1

Major land uses: 6.5km² domestic buildings; 3km² non-domestic buildings; 9.5km² roads; 35km² greenspace; 4km² water; and 6km² other.¹

Area of previously developed land available for redevelopment: In 2007, there were a total of 231ha of previously developed land that may be available for redevelopment. (136ha of derelict and vacant land and buildings and 95ha of land currently in use).<sup>2</sup>

Average population density: 3000 per km<sup>2</sup> in 2002.<sup>3</sup>

#### References:

 ONS, Key Figures for Physical Environment,

http://www.neighbourhood.statistics.gov.uk/dissemination/LeadKeyFigures.do?a =3&b=276837&c=plymouth&d=13&e=8 &g=401185&i=1001x1003x1004&m=0&r =1&s=1249995511942&enc=1

 National Land Use Database, Previously-developed land that may be available for Development: England 2007

http://www.communities.gov.uk/publications/corporate/statistics/previouslydevelopedland2007

ONS,

http://www.statistics.gov.uk/STATBASE/ssdataset.asp?vlnk=7662



### **Cultural Heritage**

Number of Scheduled Ancient Monuments: 37 in Plymouth (predominantly connected with military history), including 3 scheduled monuments within HMNB Devonport (4 scheduled monuments in the South Yard, and 1 in Bull Point).

Number of listed building: over 750 in Plymouth. There are 85 listed buildings in HMNB Devonport (2 of which are Grade I and 23 of which are Grade II\* listed), which is over 11% of the total number of 750 listed buildings in Plymouth. The listed buildings are predominantly located in South Yard and Bull Point, as follows:

	Grade I	Grade II*	Grade II	Total
South Yard	1	13	19	33
Morice Yard	0	7	7	14
North Yard	1	1	2	4
HMS Drake	0	1	13	14
Bull Point	0	1	19	20
TOTAL				85

Number of conservation areas: 14 designated for their special architectural or historic interest. 4

Sites currently at risk: There are 22 sites at risk within Plymouth Unitary Authority on the 2010 English Heritage Register, of which 11 are buildings at risk and 11 are scheduled monuments at risk (although some of the 'buildings at risk' are scheduled)<sup>5, 3</sup>.

Of the buildings at risk, one is grade I and six are grade II\*. Two of the buildings at risk in Plymouth (South Smithery and South Sawmills, both grade II\*) are owned by the MOD and are sited in HMNB Devonport in South Yard. In addition, English Heritage's Biennial Conservation Report<sup>6</sup> also identifies the Master Ropemaker's House (grade II) in South Yard as being at risk. All three of these buildings in the dockyard are unoccupied. Under-use of many of the MOD's designated dockyard buildings (not only those formally identified as being at risk) is a significant cultural issue for the area.<sup>3</sup>

Plymouth City Council also maintain a buildings at risk register (BAR), which provides information on buildings and structures throughout the city that are considered to be 'at risk'. The 2005 Plymouth City Council BAR contains details of 412 buildings or structures considered to be at risk. Of these buildings and structures, 124 are statutory listed (5 Grade I, 15 Grade II\* and 104 Grade II listed). 20 scheduled ancient monuments are included and the remaining 266 entries are buildings/structures considered to be of townscape merit. They are included for their positive contribution locally to the built environment and/or their historic importance.<sup>7</sup>

Other important sites: Plymouth has six registered parks and gardens, five are Grade II (Civic Square; Devonport Park; Ford Park Cemetery; The Hoe, and Plympton House) and one is Grade II\* (Saltram House).<sup>8</sup>

Current issues for cultural heritage: Many of Plymouth's most important buildings are associated with the Dockyard, such as the Royal William Yard and Naval Hospitals and are listed as Grade II\* or Grade I reflecting their significance.<sup>2</sup>

#### References:

- Plymouth City Council, Scheduled
   Ancient Monuments,
   <a href="http://www.plymouth.gov.uk/homepage/creativityandculture/heritageandhistory/historicenvironment/scheduledancientmonuments.htm">http://www.plymouth.gov.uk/homepage/creativityandculture/heritageandhistory/historicenvironment/scheduledancientmonuments.htm</a>
- Plymouth City Council, Heritage, http://www.plymouth.gov.uk/homepage/c reativityandculture/heritageandhistory/hi storicenvironment/listedbuildings.htm
- English Heritage feedback received on the Stage 'A2' SEA Scoping Report, 2011.
- Plymouth City Council, Conservation areas http://www.plymouth.gov.uk/homepage/c reativityandculture/heritageandhistory/hi storicenvironment/conservationareas.ht m
- English Heritage, At Risk Register http://risk.englishheritage.org.uk/2010.aspx?rs=1&rt=0&p n=1&st=a&ua=Plymouth%2c+City+of+( UA)&ctype=all&crit=
- English Heritage (2010) Biennial Conservation Report The Government Historic Estate 2007-2009 Compiled by the Government Historic Estates Unit http://www.helm.org.uk/upload/pdf/EH\_B iennial-report\_2007-09.pdf?1300373851
- Plymouth City Council Buildings At Risk, http://www.plymouth.gov.uk/homepage/c reativityandculture/heritageandhistory/hi storicenvironment/buildingsatrisk.htm
- 8. Plymouth City Council, Registered Parks and Gardens.

http://www.plymouth.gov.uk/homepage/creativityandculture/heritageandhistory/historicenvironment/registeredparks.htm

# Landscape

Number of AONB: There are 2 AONBs in Plymouth: Tamar Valley AONB; and South Devon AONB)<sup>1,2</sup>. Cornwall AONB is to the west of Plymouth and covers 10 stretches of Cornish coastline, the Camel Estuary and Bodmin Moor.<sup>2</sup>

Other areas designated for their landscapes: Dartmoor National Park is to the North East of Plymouth.<sup>2</sup>

### References:

AONB,

 South Devon AONB, http://www.southdevonaonb.org.uk/text.asp?PageId=59. And, Tamar Valley

> http://www.tamarvalley.org.uk/aboutaon b.asp



Other important sites or features: 22.4% of the Plymouth's land area is covered by environment designations (nine SSSIs, nine Local Nature Reserves and nine Community Woodlands). Public parks cover 5.5% of land within the city.<sup>3</sup>

Current issues for landscapes: Features to be sustained and enhanced in Plymouth's landscape character areas include: Historic waterfronts and dockyards surrounding a vast natural harbour; parkland, hilltop planting, tree features, steep wooded slopes, ridges and valleys; skyline of Dartmoor as a backdrop; variety of ecological habitats; and housing estates.2 South Devon AONB has dominant views of Plymouth Sound with its commercial and naval shipping and busy waterfronts. Post WWII reconstruction rebuilt Plymouth with a series of local centres and suburban settlements (the Abercrombie Plan). However suburban settlements now form islands of better planned development in a mass of sprawling, amorphous council estates. A

- Plymouth City Council Nature Conservation, http://www.plymouth.gov.uk/homepage/ environmentandplanning/natureconservation.htm
- Devon County Council (2004). Devon Structure Plan 2001 to 2016 (Appendix 1). (http://www.devon.gov.uk/ app1 structure plan.pdf
- Plymouth City Council, http://www.plymouth.gov.uk/characteristicsplymouth
- Plymouth City Council, Plymouth Rapid Urban Characterisation Study 2005, <a href="http://www.plymouth.gov.uk/homepage/environmentandplanning/planning/planning/planningpolicy/ldf/ldfbackgroundreports/brrapidurbancharacterisation.htm">http://www.plymouth.gov.uk/homepage/environmentandplanning/planning/planningpolicy/ldf/ldfbackgroundreports/brrapidurbancharacterisation.htm</a>



# **Evolution of the Sub-Regional Baseline**

Table C1.2 below sets out the likely evolution of the sub-regional baseline without the implementation of the SDP programme. It is acknowledged that there are information gaps where trends or targets have not been identified in relation to specific issues.

# Table C1.2 Evolution of Baseline Conditions

# **Evolution of the Sub-Regional Baseline - Plymouth**

# **Biodiversity and Nature Conservation**

#### Trends

Biodiversity in Plymouth is generally stable but subject to variations.

Locally, populations of migrating birds are of particular importance as they frequent the estuaries of the Plym and Tamar but local reporting is not currently undertaken.

Regionally, the population of all native birds in the South West showed little or no change between 1994 and 2004. This was below the national trend which showed an increase of almost 6% (Defra/RSPB and British Trust for Ornithology 2006). Longer term trends have, however, revealed a considerable decline of 45% in farmland birds, and 32% in woodland birds between 1970 and 1994 (Defra 2003). This is a much faster decline than the national averages of 5% and 15% respectively (although care needs to be taken with survey comparisons). 1

The South West is one of the most bio-diverse regions in England and has the largest area of semi-natural habitat of any English region. This richness is reflected by the fact that almost 10% of the region by area has been designated as nationally or internationally important sites for wildlife. There have been signs of recovery during the last decade of work for biodiversity, however there is evidence that the region has seen a long term decline in wildlife and that the much less bio-diverse than 50 years ago. Despite this, and due to much conservation effort over the last decade, the region does still retain significant populations of species which are nationally and globally important and notable stretches of habitats.

# Targets:

South West Regional Environment Network aims to: 3

- meet SSSI target by 2010 and halt the decline in farmland birds;
- establish a network of MPAs and MCZs by 2015; and
- increase land from 9%- 20% for resilient habitats and species in urban and rural areas by 2050 through delivery of SW Nature map.

The Devon Biodiversity Action Plan (BAP) prioritises the following key habitats relevant to the maritime environment in estuaries, rocky foreshores, rocky seabeds, otters and atlantic salmon.<sup>4</sup>

Natural England (in its previous role as English Nature) had set conservation targets for large shallow inlets and bays, estuaries, sandbanks slightly covered by sea water at all times and SPA features.<sup>5</sup>

#### References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- 2. http://www.swenvo.org.uk/state-of-the-environment-2010/
- South West Regional Environment Network's Environmental Priorities 2009, http://www.swenvo.org.uk/swren/work/
- Devon Biodiversity Partnership, Devon Biodiversity Action
  Plan
- English Nature, Plymouth Sound and Estuaries European Marine Site Scheme of management (Regulation 34 Habitats Directive)



# **Population**

# **Demographics**

#### Trends:

Plymouth's population has shown some fluctuation over the 1981-2006 period. From a baseline of 253,000 people in 1981, in 2006 Plymouth had witnessed a slight (2.05%) reduction in total population to 248,100. In contrast, the South West had an 15.6% increase in population over the 1981 to 2005 period (4,383,400 in 1981 to 5,067,800 in 2005) and there has also been a 7.7% increase in population nationally (46,820,800 in 1981 to 50,431,700 in 2005). The pattern of male and female populations within Plymouth has fluctuated in line with the city total over the period.  $^{\rm 1}$ 

Plymouth has an increasing trend in the percentage of students gaining five or more GCSEs (A\*-C) from 53% in 2003 to 59.4% in 2006. Plymouth has witnessed a small increase in the percentage of working age population qualified to NVQ level 4 from 18.4% in 1999 to 19.3% in 2006. <sup>1</sup>

Plymouth schools are currently facing: a sharp and continuing decline in pupil numbers; an increasing number of surplus places especially in primary schools; and a large proportion of the school building stock, built mostly in the 1950s and 60s, in poor condition, needing replacement or significant refurbishment. <sup>2</sup>

Plymouth's population is projected to rise to 263,900 by 2025 which represents a projected increase of 7.2% from 2005.  $^{\rm 3}$ 

The projected rise in population to 2025 will not be uniform across the age groups. The percentage of the population that is under 14 will fall by 0.4%, those 15-24 will fall by 8.7%, the rise in the 25-64 age band will slow, but the percentage of over 65s will increase by 40%.  $^3$ 

Plymouth has projected increases in jobs of 42,500 from 135,604 in 2003 to 178,104 by 2026.  $^4$ 

Crime trends in Plymouth as judged by the rate of BCS comparator crime have fallen slightly from 75.1 per 1,000 in 2003/04 to 74.9 per 1,000 in 2006/07. However, during this period fluctuations have been evident. The rate of recorded burglary in Plymouth fell from 18.0 per 1,000 in 1999/2000 to 11 per 1000 in 2006/07 although it has fluctuated during this period. <sup>5</sup>

In 2008-09 local crime mapping figures suggest that the overall crime levels in Plymouth have continued to fall.  $^6$ 

# Targets:

South West Regional Development Agency targets Bristol, Plymouth, Swindon, Exeter and the key Cornish towns in terms of improving transport infrastructure, making city centres more attractive, linking deprived areas to the opportunities provided by growth, enhancing the knowledge base of our businesses, building more affordable homes and increasing the skills and knowledge of our people. <sup>7</sup>

The Plymouth 2020 Partnership sets floor targets including to substantially reduce mortality rates by 40% from heart disease and 20% from cancer by 2010 and 60% of 16 year olds to achieve 5 GCSE A\* - C by 2008.  $^8$ 

#### References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Plymouth City Council, http://www.plymouth.gov.uk/homepage/education/schools/s choolimplementationplan.htm
- Plymouth's Health, Social Care and Well-being Strategy 2008-2020
- 4. Plymouth Local Economic Strategy 2006 2021 & Beyond
- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Devon and Cornwall Constabulary, Local Crime Mapping 2008-09, http://maps.devoncornwall.police.uk/map/plymouth-1/
- SWRDA, The Way Ahead Delivering Sustainable Communities in the South West.
- Plymouth 2020 Partnership, Neighbourhood Renewal Strategy



#### Socio-Economic

#### Trends:

Plymouth's GVA per head indexed, with UK =100 showed a downward trend between 1999 and 2007 decreasing from 84 to  $82^5$ 

The recent economic downturn has affected Plymouth and a recovery is likely to be in line with national predictions. <sup>2</sup>

Employment rate trend in Plymouth between 1999 and 2005 fluctuated but overall was relatively static. <sup>2</sup>

Unemployment is expected to increase as a result of the recent economic downturn. A recovery is likely to occur in line with national trends.  $^3$ 

Plymouth aims to increase its number of available jobs to 178,104 by 2026.<sup>3</sup>

### Targets:

Plymouth CC aims that by 2016 GVA per head in Plymouth to be 100% of UK average (from 90% of UK average in 2002).<sup>4</sup>

Plymouth CC aims that by 2016 have an employment rate of 80% (73% in 2004).  $^4$ 

Plymouth CC aims that by 2016 to have a VAT registered business stock per 1,000 of 210 (163 in 2004).

Plymouth CC aims that by 2016 to have only 9% of workforce with no qualifications (12.5% in 2004).<sup>4</sup>

Plymouth CC aims that by 2016 to have 35% of workforce with NVQ Level 4 qualifications (21% in 2004).<sup>4</sup>

Plymouth CC targets a 2% increase in employment year on year until 2016 and reduction in the economic inactivity rate to 19% by 2016.<sup>4</sup>

#### References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Plymouth City Council, Employment Land Review, http://www.plymouth.gov.uk/homepage/environmentandplanning/planning/planningpolicy/ldf/ldfbackgroundreports/bremploymentlandreview.htm
- Plymouth Local Economic Strategy 2006 2021 and Beyond
- Sub Regional skills and employment analysis 2010
   Plymouth,
   <a href="http://www.swslim.org.uk/downloads/lesbs/plymouth.pdf">http://www.swslim.org.uk/downloads/lesbs/plymouth.pdf</a>

# **Human Health**

### Trends:

Life expectancy in Plymouth is going up overall.

Patterns of illness in Plymouth are changing with an expected increase over the next 20 years of people in the community with common mental illnesses and disability. Such patterns will lead to increased dependence on care services, increased carer burden, increased worklessness due to incapacity and increased costs across all sectors. <sup>1</sup>

In Plymouth, the death rate per 100,000 resident population from circulatory disease (<75s) is decreasing in line with NRF Local Area Agreement (LAA) targets. In 2000 the circulatory disease mortality rate was 132.1 per 100,000 residents, reducing to 94.4 per 100,000 in 2005.  $^{\rm 2}$ 

In Plymouth, the death rate per 100,000 resident population from cancers (<75s) is decreasing. In 2000, the cancer mortality rate was 138.9 per 100,000 residents, reducing to 122.5 per 100,000 in 2005. <sup>2</sup>

In Plymouth there is a trend of increasing health and increasing life expectancy. However:  $^{\rm 3}$ 

the prevalence of disability is set to increase over the next two

### References:

- Plymouth's Joint Strategic Needs Assessment updated February 2008 http://www.plymouthpct.nhs.uk/healthandwellbeing/public
  - http://www.plymouthpct.nhs.uk/healthandwellbeing/publichealth/Pages/healthyplymouth.aspx).
- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Plymouth health Strategy 2008-2020, http://www.plymouthpct.nhs.uk/CorporateInformation/report sandinquiries/Documents/Healthy%20Plymouth%20main% 20web.pdf
- South West Regional Environment Network's Environmental Priorities 2010, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>
- Plymouth's Health, Social Care and Well-being Strategy 2008-2020



decades compounded by an ageing population;

- there is a trend of increasing obesity in the younger population accompanied by an Increase in rates of type 2 diabetes;
- the numbers of people quitting smoking is generally increasing, although the trend is not always true of the most deprived areas; and
- numbers of road traffic accidents are declining.

The natural environment is a natural health service with the potential to make a major contribution to the mental and physical health and wellbeing of everyone in the South West. It is free for everyone to use and enjoy, enriches our knowledge, develops skills, supports cultural activities and is crucial for sustainable living.<sup>4</sup>

#### Targets:

Currently there are two government targets around smoking, one to reduce smoking overall from 28% to 24% by 2010 which nationally Plymouth is on course to meet, the other to reduce rates amongst manual groups from 32% to 26% by 2010, however Plymouth is not on target to meet this target, with levels in 2005 still around 31%.  $^5$ 

Effective planning and delivery for increased provision of, and appropriate access to, natural spaces can also inspire people to develop productive, healthy and socially just communities.<sup>6</sup>

 South West Regional Environment Network's Environmental Priorities 2010, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>

# **Human Health (Noise)**

#### Trends:

In Plymouth there is a general decline in noise complaints, although this trend is subject to variation. <sup>1</sup>

The South West Regional Spatial Strategy (RSS) Sustainability Appraisal report identifies a trend of gradual increasing noise pollution within the region. <sup>5</sup>

Research undertaken by the Chartered Institute of Environmental Health and published in 2004 demonstrate that areas of high density housing such as cities and more industrial areas are at most risk of unacceptable noise. The survey revealed that people living in the South Western part of the region are: <sup>3</sup>

- 32% less likely to make a complaint about industrial noise;
- 18% less likely to make a complaint about commercial/leisure noise (although there are 14% more complaints per million population);
- 47% less likely to make a complaint about domestic noise; and
- 35% less likely to make a complaint about construction/demolition noise.

# Targets:

Plymouth City Council sets out that development proposals will be refused if they cause unacceptable noise, nuisance or light pollution. 4

#### References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Habitat Regulations Assessment of the Plymouth City Council, Millbay and Stonehouse Area Action Plan, Screening Report, May 2007, <a href="http://www.plymouth.gov.uk/070514,rpt,millbayaap\_hra\_screening\_final.pdf">http://www.plymouth.gov.uk/070514,rpt,millbayaap\_hra\_screening\_final.pdf</a>
- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- 4. Plymouth CC, Plymouth Core Strategy Policy CS22
- The South West Regional Spatial Strategy (RSS) Sustainability Appraisal report, <a href="http://www.southwest-ra.gov.uk/ngcontent.cfm?a">http://www.southwest-ra.gov.uk/ngcontent.cfm?a</a> id=682&tt=swra



## Soil and Geology

#### Trends:

The natural environment of the South West provides an immense range of valuable services and benefits for society. These range from the essentials for life, including clean air and water, food and fuel, and essential natural processes, such as climate and flood regulation to things that improve our quality of life and wellbeing, such as recreation and beautiful landscapes.<sup>1</sup>

# Targets:

Devon County Council set out a number of targets: 2

- to strike a balance between the demand for all mineral resources and the need to protect the environment and sustainable development principles;
- to maintain stock of permitted reserves for aggregate minerals;
- to encourage the most appropriate use of all mineral resources and re-use of waste minerals and secondary aggregates;
- to protect the quality and diversity of the County's earth science and nature conservation interest, historic environment, water environment and landscape character;
- · to identify Mineral Working Areas;
- progressive restoration of mineral sites;
- to prevent sterilisation of proven mineral resources; and
- to identify those mineral sites which the County Council will seek to remove the possibility of their opening by the service of Prohibition Orders.

#### References:

- South West Regional Environment Network's Environmental Priorities 2010, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>
- Devon CC, Devon County Minerals Local Plan

### Water

### Trends:

Plymouth has a trend of increasing water consumption.<sup>1</sup>

Bathing waters around Plymouth are generally increasing in water quality (from poor quality in 1988 to excellent quality in 2006). <sup>2</sup>

However in 2008 both bathing waters were rated as 'poor' for water quality (down from excellent since 2004).<sup>3</sup>

River waters around Plymouth are generally increasing in quality.<sup>4</sup>

The South West Region water quality is improving. However locally there are some areas with no net change in poor water quality. The trend is therefore of ongoing point source and diffuse pollution and disruption of naturally purifying and hydrating hydrological cycles as a result of increasing development and agricultural intensification. <sup>5</sup>

The South West Region water demand is forecast to increase by 20% due to population growth. Local water shortages are expected in places due to over abstraction, summer drought, disruption of naturally hydrating hydrological cycles increasing with development and agricultural intensification. <sup>5</sup>

### References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- 3. Environment Agency 2010 <a href="http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=245500.0&y=55500.0&scale=3&layerGroups=default&location=Devonport,%20City%20of%20Plymouth&ep=map&lang=e&textonly=off&topic=coastalwaters#x=247881&y=53844&lg=1,&scale=5</a>
- Source: Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving

http://www.plymouth.gov.uk/homepage/communityandliving/plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm



There have been three pollution inclidents since 2005, two of which were significant and one of which was severe. <sup>6</sup>

The population in the river basin district will continue to increase, with further urbanisation. Agriculture will respond to the changing climate both here and abroad, market conditions, financial incentives and regulatory pressures. Technology and other solutions to address the pressures will improve, but the rate at which some new solutions can be introduced will depend on the economic climate. <sup>10</sup>

#### Targets:

The South West Region aims to manage demand and supply of water to ensure no net increase in demand with population growth by 2020.

The Lyme Bay and South Devon Coastal Group sets out a number of targets:  $^{8} \,$ 

- to maintain bathing water quality;
- to maintain or enhance the recreational amenity values of the coastline:
- to maintain the integrity of nationally and internationally designated sites; and
- to protect nationally important archaeological sites, listed building at risk and conservation areas.

Plymouth CC aims to ensure development causes no unacceptable impact on water or air quality. <sup>9</sup>

By 2015, 22 per cent of surface waters in the South West River Basin District will show an improvement by 2015 for one or more of the elements measured. This translates to nearly 2,800 kilometres of river or canal improved <sup>10</sup>.

By 2015, 42 per cent of surface waters will be in at least good ecological status/potential and 65 per cent of assessed surface waters will be at least good biological status. 57 per cent of groundwater bodies will be at good or better status overall by 2015. 10

By 2015, 24 per cent of surface waters in this catchment will improve for at least one element of good status. Six river water bodies will improve to good ecological status by 2015, including the Tamerton Foliot Stream, where the fish population will improve. One lake will improve to good ecological status, Lower Tamar Lake. As a result of these improvements, 39 per cent of water bodies will achieve good ecological status by 2015. <sup>10</sup>

- South West Regional Environment Network's Environmental Priorities 2010, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>
- Environment Agency (2009) Current maps, http://maps.environment-agency.gov.uk
- South West Regional Environment Network's Environmental Priorities 2009, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>
- 8. The Lyme Bay and South Devon Coastal Group, Lyme Bay and South Devon Shoreline Management Plan
- Plymouth CC, Plymouth City Council Core Strategy -Policy CS22
- 10. <a href="http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/southwest/Intro.aspx">http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/southwest/Intro.aspx</a>

# Air

# Trends:

In the South West Region air quality is generally improving, however there is a trend of increasingly poor air quality locally due to increasing traffic emissions, transport growth and congestion. <sup>1</sup>

# Targets:

Plymouth CC aims to protect people and the environment from unsafe, unhealthy and polluted environments through ensuring development causes no unacceptable impact on water or air quality. <sup>2</sup>

# References:

- South West Regional Environment Network's Environmental Priorities 2009, <a href="http://www.swenvo.org.uk/swren/work/">http://www.swenvo.org.uk/swren/work/</a>
- 2. Plymouth City Council Core Strategy Policy CS22



# Climate Change and Energy Use

#### Trends:

Key findings for South West England, 2080s medium emissions scenario: 2

- the trend is for an increase in winter mean temperature of 2.8°C; it is very unlikely to be less than 1.6°C and is very unlikely to be more than 4.3°C;
- the trend is for an increase in summer mean temperature of 3.9°C; it is very unlikely to be less than 2.1°C and is very unlikely to be more than 6.4°C:
- the trend is for a change in winter mean precipitation of 23%; it is very unlikely to be less than 6% and is very unlikely to be more than 54%; and
- the trend is for a change in summer mean precipitation of -23%; it is very unlikely to be less than -49% and is very unlikely to be more than 6%

Between 2005 and 2007 average commercial and industrial gas usage per customer increased from 595,016 KWh to 744,810 KWh.

Between 2005 and 2007 average commercial and industrial electricity usage per customer decreased from 92,370 KWh to 89,440 KWh.

Between 2005 and 2006 total commercial and industrial energy usage decreased from 1,730.9 GWh to 1,701.5 GWh. 5

# Targets:

Plymouth City Council aim to reduce Plymouth's overall carbon footprint by 20% by 2013, 60% by 2020 and 80% by 2050.  $^3$ 

Plymouth CC aims for: 4

- all proposals for non-residential developments exceeding 1,000 square metres of gross floorspace, and new residential developments comprising 10 or more units (whether new build or conversion) to incorporate onsite renewable energy production equipment to off-set at least 10% of predicted carbon emissions for the period up to 2010, rising to 15% for the period 2010-2016; and
- to ensure building design reduces energy consumption by appropriate methods such as high standards of insulation, avoiding development in areas subject to significant effects from shadow, wind and frost, using natural lighting and ventilation, capturing the sun's heat, where appropriate.

#### References:

- South West Observatory, State of the South West 2010 http://www.swo.org.uk/sotsw2010-online/
- Defra, UKCP09, http://ukcp09.defra.gov.uk/content/view/20/6
- Source: Plymouth City Council, Climate Change Framework 2008-2020 <a href="http://www.plymouth.gov.uk/climate">http://www.plymouth.gov.uk/climate</a> change strategy.pdf
- Plymouth CC, Core Strategy Development Plan Document -Policy CS20
- Department of Energy and Climate Change (2009) Total final energy consumption at regional and local authority level (Regional Energy Consumption Statistics 2006), http://www.decc.gov.uk/en/content/cms/statistics/regional/regional.aspx

# **Coastal Change and Flood Risk**

# Trends:

Absolute sea level (i.e. corrected for land movement) around the South West has risen by around 1 mm/yr over the 20th century (Proudman Oceanographic Laboratory), and there are indications that the increase has been at a faster rate than this in the 1990s and 2000s. The nature of land movement in the South West (where land levels are generally getting lower through time) is likely to enhance the effect of rising sea levels. <sup>1</sup>

The following future scenario has been used in the Tamar catchment flood

### References:

- South West Observatory, State of the South West 2010 http://www.swo.org.uk/sotsw2010-online/
- Tamar catchment flood management plan: http://publications.environmentagency.gov.uk/pdf/GESW1109BOUP-e-e.pdf



management plan: A 20% increase in peak flow in all watercourses due to climate change; a total sea level rise of 900mm by 2100 due to climate change; 7% increase in river flows due to land use change; a 4% increase in river flows in certain locations due to urban development. Plymouth is expected to see the greatest flood risk in the future, with the number of properties at risk of flooding rising from just over 1600 to around 2,800 by 2100.<sup>2</sup>

# Targets:

The Tamar Catchment flood management plan identifes that further action is necessary to reduce flood risks in Plymouth.<sup>2</sup> The objectives for achieving this include:

- Assessing detailed flood risks in Plymouth and developing management plans to help reduce them;
- ensuring development conforms to PPS25 and identifying opportunities through its' implementation;
- working with developers to reduce flood risk elsewhere in Plymouth area; investigating adaptation measures for the mainline railway and the A374 road against increased flooding due to climate change:
- investigating opportunities to create green corridors alongside the rivers:
- investigating opportunities for managed realignment to restore intertidal habitat along Plymouth waterfront and estuaries;
- review ing urban drainage capacity within Plymouth and other affected areas

### **Material Assets (Transport)**

# Trends:

Bus use trend in Plymouth is relatively static, although there is some fluctuation. <sup>1</sup>

Access to local services is showing an increasing trend from 35.45% of people surveyed in 2003/04 reporting that ease of accessing local services had got better or stayed the same to 59% in 2006. <sup>1</sup>

However there appears to be a declining trend in public perceptions of public transport, with 60% of people surveyed in 2006 Plymouth reporting that public transport had got better or stayed the same compared to 75.89% in 2003/04.1

The trend in traffic contention is slightly negative with 32% of people surveyed in 2006 reporting that traffic congestion had got better or stayed the same compared to 35.45% in 2003/04. 1

# Targets:

Plymouth CC has set a target of enabling 60% of journeys within the City to be undertaken by foot, bicycle or by public transport by 2010. <sup>2</sup>

# References:

- Plymouth's Sustainable Community Strategy 2007-2020, http://www.plymouth.gov.uk/homepage/communityandliving /plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- 2. Plymouth CC, Plymouth City Strategy and Action Plan

# **Material Assets (Waste Management)**

# Trends:

Commercial and industrial waste arisings are predicted to rise to between 140,000 and 334,000 by 2026 depending on the areas growth rate.1. The Waste Strategy for the South West Region requires that by 2021 Plymouth recycle or recover 83% of industrial and commercial wastes.1 Commercial and industrial waste management will require an additional 55,000 to

# References:

- Entec UK (January 2007). Plymouth Waste Local Development Document: Future Waste Requirements (Update)
   <a href="http://www.plymouth.gov.uk/future\_waste\_management\_reguirements">http://www.plymouth.gov.uk/future\_waste\_management\_reguirements</a> jan 2007.pdf
- 2. Plymouth's Sustainable Community Strategy 2007-2020,



120,000 tonnes of recycling and composting capacity by 2021 as well as an additional 65,000 tonnes of recovery capacity. 1

The Waste Strategy for the South West Region requires that by 2021 Plymouth recycle or recover 83% of industrial and commercial wastes: 1

- By 2021 Plymouth will require between about 65,000 tonnes and 130,000 tonnes of recycling and composting capacity for industrial and commercial waste. This will increase to between 62,000 tonnes and 147,000 tonnes by 2026. This means that an additional 55,000 to 120,000 tonnes of recycling and composting capacity is required by 2021 for commercial and industrial waste.
- By 2021 Plymouth will require between about 57,000 tonnes and 115,000 tonnes of further recovery capacity for industrial and commercial waste will be required in Plymouth. This will change to between 55,000 tonnes and 130,000 tonnes by 2026. This means that an additional 65,000 tonnes of industrial and commercial recovery capacity is required in Plymouth over by 2021.
- Between 40 000 and 96 000 tonnes of industrial and commercial waste will be sent to landfill every year by 2026.
- Annual commercial waste arisings were estimated at being between 173,000 and 199,000 tonnes in 2005. Commercial and industrial waste arisings are predicted to rise to between 140,000 and 334,000 by 2026 depending on the areas growth rate.

In Plymouth there is a trend of an increasing percentage of household waste being recycled or composted and a decline in the percentage of waste landfilled.  $^{2}$ 

# Targets:

Devon County Council set the following targets with respect to municipal waste: <sup>3</sup>

- municipal recycling/ composting rates 40% by 2009/10;
- reduce the growth of household waste to 1% by 2009/10;
- · emphasise waste as a resource; and
- encourage recovery, diversion of biodegradable, recycling and composting waste programs.

Plymouth CC aims to:4

- allocate land to enable the delivery of facilities which help Plymouth to meet its recycling and recovery targets;
- allocate land in a subsequent AAP or DPD for a recycling centre facility in the north of the city; and
- establish and implement an effective planning framework for the management of waste facilities.

Plymouth CC targets to recycle or compost 33% of municipal waste by 2014/15.  $^{\rm 5}$ 

South West Regional Environment Network's Environmental Priorities states that 'Climate Change is one of the biggest challenges that we face. Reducling damaging climate change and its impact must, therefore, be considered across everything that we do'. <sup>6</sup>

- http://www.plymouth.gov.uk/homepage/communityandliving/plymouth2020/lspcurrentdocuments/lspsustainablecommunitystrategy.htm
- Devon CC, Municipal Waste Management Strategy for Devon
- 4. Plymouth City Council, Plymouth CC Waste Development Plan Document
- Plymouth City Council, Municipal Waste Management Strategy 2007-2030
- South West Regional Environment Network's Environmental Priorities 2010, http://www.swenvo.org.uk/swren/work/



# Material Assets (Land Use and Materials)

#### Trends:

Up to 2016 there are planned to be 13,300 new households in Plymouth. (7,700 from 2016 to and 11,000 from 2021 to 2026). These figures are for Plymouth City only and don't take into account the 5,500 new homes planned (by 2019) for the Sherford New Town, four miles from Plymouth. <sup>1</sup>

Plymouth's LDF Core Strategy aims to deliver 24,500 dwellings between 2006 - 2026 and 130ha of employment land between 2006 - 2026. <sup>2</sup>

In the period to 2016 13,300 new households are planned in Plymouth (with a further 18,700 by 2026). <sup>3</sup>

HM Naval Base Devonport will be the main operating base for Amphibious Shipping, Survey and Hydrographic vessels, for the Type 22 frigates and, for at least the next five years, for seven of the Type 23 frigates. 4

Devonport will also continue to provide world class sea training through Flag Officer Sea Training and will undertake Fleet Time Engineering support for base-ported ships and for visiting sea training vessels. 4

Devonport will also retain and, subject to commercial negotiations, enhance its position as the centre of excellence for Surface Ship and Submarine Deep maintenance activity. 4

Subject to ongoing approvals, Devonport will be developed as the centre of specialisation for Amphibious Operations by moving 1 Assault Group Royal Marines, including the Landing Craft of 10 training Squadron and 539 Assault Squadron currently at Poole and Turnchapel, to Devonport. 4

### Targets:

Plymouth City Council's draft Plymouth Housing Strategy (2008 - 2011) aims to: provide 5,000 new homes by 2011; provide 10,000 new homes by 2016; and an aspiration for 29,500 new homes by 2026.  $^5$ 

Plymouth CC provides the following objectives with respect to housing: <sup>6</sup>

- the delivery of the strategic housing requirement of 1,000 per annum 2006-16 and 1,450 per annum 2016-21 (equating to the draft RSS allocation of 17,250 new homes by 2021);
- at least 30% of new dwellings on qualifying sites to be affordable (equating to at least 3,300 new affordable homes by 2021);
- 80% of new dwellings to be provided on previously developed land (equating to 13,800 homes by 2021); and
- 20% of new dwellings development to be lifetime homes standard (equating to 3,450 homes by 2021).

#### References:

- Plymouth's Health, Social Care and Well-being Strategy 2008-2020).
- Habitat Regulations Assessment of the Plymouth City Council, Millbay & Stonehouse Area Action Plan, Screening Report, May 2007, <a href="http://www.plymouth.gov.uk/070514,rpt,millbayaap">http://www.plymouth.gov.uk/070514,rpt,millbayaap</a> hra screening final.pdf
- Plymouth's Joint Strategic Needs Assessment updated February 2008 <a href="http://www.plymouthpct.nhs.uk/healthandwellbeing/publichealth/Pages/healthyplymouth.aspx">http://www.plymouthpct.nhs.uk/healthandwellbeing/publichealth/Pages/healthyplymouth.aspx</a>
- Maritime Change Program, Minister of Defence Update, May 2009, <a href="http://www.theyworkforyou.com/wms/?id=2009-05-06b">http://www.theyworkforyou.com/wms/?id=2009-05-06b</a> 16WS 1
- SWRDA, draft Regional Spatial Strategy for the South West 2006 – 2026
- Plymouth City Council, Core Strategy Development Plan Document – Strategic Objective 10 (Delivering Adequate Housing Supply)

# **Cultural Heritage**

### Trends:

No Plymouth level trend data identified.

## Targets:

Plymouth CC will measure delivery of cultural and leisure sector projects and against targets to be developed in relation to the Council's work on promoting tourism and leisure trips to the city. The estimated number of

### References:

1. Plymouth CC, Plymouth Core Strategy



# **UNCLASSIFIED**

# Evolution of the Sub-Regional Baseline - Plymouth day visits to the city during 2004 was 2.8 million. Landscape Trends: No Plymouth level trend data identified. Targets: Plymouth CC to protect and support a diverse and multi-functional network of green space and waterscape. References: 1. Plymouth CC, Core Strategy



# Table C.1.3 Current Problems in Sites of Particular Environmental Importance

This section sets out the current condition and potential problems facing SPAs, SACs and Ramsar Sites that could be relevant to the subsequent assessment of the locational options. This is consistent with the requirements of Annex I (d) of the SEA Directive (which requires that existing environmental problems, and in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directive 79/409/EEC and 92/43/EEC are outlined).

SPAs, SACs and Ramsar sites have been selected on the basis of being within 20km of the potential sites for SDP dismantling activities. The selection criterion aims to capture all sites that would be subject to Appropriate Assessment under the Habitat Regulations<sup>2</sup>. Given that effects could be felt downstream of fluvial and tidal zones, a precautionary approach as been taken by adopting a 20km radius rather than the 15km radius usually used in Appropriate Assessment.

Where specific SPA or SAC condition data is not currently available, the aggregate condition of the constituent SSSIs has been used. It is noted that there are limitations to using SSSI condition is a surrogate for SPA condition as conservation and condition indicators vary. However, for the purposes of this assessment SSSI condition is considered to provide an appropriate benchmark of condition.

# Table C1.3 Current Problems in Sites of Particular Environmental Importance

# Sub-Regional Current Problems in Sites of Particular Environmental Importance - Plymouth

### SPA

# **Tamar Estuaries Complex SPA**

The Tamar Estuary lies on the border between Devon and Cornwall on the southern coast of England. The estuary system is a large marine inlet on the English Channel coast comprising the estuaries of the rivers Tamar, Lynher and Tavy which collectively drain an extensive part of Devon and Cornwall. The Tamar River and its tributaries provide the main input of fresh water into the estuary complex, and form a ria (drowned river valley) with Plymouth lying on the eastern shore. The broader lower reaches of the rivers form extensive tidal mud-flats bordered by saltmarsh communities. The mud-flats contain extensive and varied infaunal communities rich in bivalves and other invertebrates, and feeding grounds for waterbirds in numbers of European importance. Saltmarshes provide important feeding and roosting areas for large numbers of wintering and passage waterbirds.

# Condition:

Tamar Estuaries Complex SPA is predominantly in favourable condition. The only areas of degradation are in the Tamar-Tavy Estuary SSSI. Potential risks to the SPA are development resulting in intertidal habitat damage; pollutant leakage; and dredging.



<sup>&</sup>lt;sup>2</sup> Habitat Regulations Assessment is required under Article 6 of the EC Habitats Directive 1992, and under UK law by Regulation 48 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended in 2007).

# Sub-Regional Current Problems in Sites of Particular Environmental Importance - Plymouth

#### SAC

# **Plymouth Sound and Estuaries SAC**

Plymouth Sound and Estuaries, on the south-west coast of England, has been selected for a range of habitats and species including: sublittoral sandbanks; ria estuaries (including very well-developed estuarine salinity gradient); rocky reefs in low salinity estuarine conditions (supporting species such as the hydroid Cordylophora caspia); sheltered marine inlets with little freshwater input (including a range of sponge- and worm-dominated communities on lower shore mixed sediments); various intertidal and subtidal reef biotopes; limestone reefs (one of only two coastal areas in south-west Britain with Devonian limestone); Atlantic salt meadow (including reedbeds supporting the only UK population of triangular club-rush Schoenoplectus triqueter); and shore dock Rumex rupestris (in 1999 comprising 15 colonies and 42 plants).

#### Condition:

Plymouth Sound and Estuaries SAC is predominantly in favourable condition. Areas of minor degradation are in the Tamar-Tavey Estuary SSSI and Wembury Point SSSI. However, the Rame Head and Whitsand Bay SSSI has only 31.67% in favourable condition (although the rest is recovering). Potential risks to the SAC are further port development; recreational mooring; ongoing maintenance dredging; and pollutant leakage.

Both the geology and geography of Plymouth Sound make it very sensitive to oil pollution.

#### South Dartmoor Woods SAC

This complex is representative of old sessile oak woods in south-west England, with regionally important assemblages of lower plants and dry Lobarion communities that are unique in Western Europe. The woods are notable for the variations in stand type that reflect past management (old coppice and high forest) and also include grazed and ungrazed areas. The woodland is part of a complex mosaic that includes heathland and species associated with open ground, such as the high brown fritillary Argynnis adippe and pearl-bordered fritillary butterfly Boloria euphrosyne. Variations also arise due to geology, resulting in the presence of small-leaved lime Tilia cordata, ash Fraxinus excelsior, wild service tree Sorbus torminalis, and small areas of wet woodland dominated by alder Alnus glutinosa and willow Salix spp.

#### Condition:

South Dartmoor Woods SAC is predominantly in favourable condition. The only areas of degradation are in the Sampford Spiney SSSI with 10.38% in recovering condition, and 2.28% in declining condition. Potential risks to the SAC are from overgrazing and uncontrolled fires.

# **Blackstone Point SAC**

This small site supports the largest known extant population of shore dock Rumex rupestris in Devon, and one of the largest concentrations of this species on rocky sea-cliffs in south-west England. In 1999 there were five discrete colonies totalling at least 29 plants, including one large 'clump' (7 x 4 metres) which could have been made up of several individual plants.

# Condition:

Blackstone Point SAC is in favourable condition. There are currently no significant threats to the SAC.

### **Dartmoor SAC**

Dartmoor is representative of: upland wet heath; upland heath; the southernmost blanket bog in Europe; and oak woodland (Wistman's Wood is dominated by pedunculate oak Quercus robur rather than sessile oak Q. petraea), (Dendles Wood is dominated by pedunculate oak Q. robur, but with substantial areas of beech Fagus sylvatica )and (Black Tor Copse has similarities to Wistman's Wood but the bryophyte and lichen assemblages are very rich including nationally-rare species). A valley mire at 280m altitude supports a southern damselfly Coenagrion mercuriale population of 20-100 individuals, first discovered on the site in 1998. The stronger population occurs in the northern portion of the mire, where springs feed shallow soakways that flow through wet heath. The southern part of the mire has a higher water table with Sphagnum bog-mosses dominating.

### Condition:

Dartmoor SAC has large areas in unfavourable recovering condition and significant areas of further decline. Only 6.53% of the South Darmoor SSSI (one of five SSSIs in the SAC) is in favourable condition. In contrast the smaller SSSIs of Leusdon Common and Hembury Woods are 100% in favourable condition. Potential risks to the SAC are from uncontrolled fires; heavy munitions crater damage; and over grazing.



# Sub-Regional Current Problems in Sites of Particular Environmental Importance - Plymouth

#### Ramsar

No Ramsar sites within 20km of DRDL/HMNB Devonport

Condition: NA

(Source: Multi-Agency Geographic Information for the Countryside, <a href="www.magic.gov.uk">www.magic.gov.uk</a>; Joint Nature Conservation Committee, <a href="http://www.naturalengland.org.uk">http://www.naturalengland.org.uk</a>). The Ramsar Convention website, <a href="http://www.ramsar.org">http://www.ramsar.org</a>; and Natural England <a href="http://www.naturalengland.org.uk">www.naturalengland.org.uk</a>).

# **Relevant Sub-Regional Plans and Programmes**

The SEA scoping process needs to identify and review other relevant plans, programmes, policies and strategies (herein after referred to as 'plans and programmes') that are applicable to the SDP and outline the nature of "relationship with other relevant plans and programmes".

# Table C1.4 Relevant Plans, Programmes and Strategies

# **Sub-Regional Plans and Programmes - Plymouth**

# Biodiversity, Flora and Fauna

# **Summary Policy Messages:**

To conserve: large shallow inlets and bays; estuaries; sandbanks slightly covered by sea water at all times; and SPA features.

To protect BAP species and habitats including.

# **SEA objectives link:**

Objective A Biodiversity and Nature Conservation

Objective C Health and Wellbeing

Devon Biodiversity Partnership (1998, revised 2005) Devon Biodiversity Action Plan:

http://www.devon.gov.uk/devon\_biodiversity\_action\_plan.htm

Objectives: The Devon BAP is the agreed source of habitat and species conservation priorities. Some of the key habitats relevant to the maritime environment are:

- estuaries;
- rocky foreshore;
- · rocky seabed;
- otter; and
- atlantic salmon.

Targets: There are no key targets listed.

English Nature (2000) Plymouth Sound and Estuaries European Marine Site Scheme of management (Regulation 34 Habitats Directive): http://www.ukmpas.org/pdf/Plymouth\_Sound\_reg33.pdf

Objectives: The following habitat groups have had conservation objectives set for them:



- large shallow inlets and bays;
- · estuaries;
- · sandbanks slightly covered by sea water at all times; and
- SPA features (nationally important populations of regularly occurring Annex 1 species).

Targets: There are no key targets listed.

Plymouth City Council (2007) Core Strategy Development Plan Document - Policy CS19 (Wildlife).

#### Objectives:

The Council will promote effective stewardship of the city's wildlife through:

- safeguarding national and international protected sites for nature conservation from inappropriate development;
- appropriate consideration being given to European and nationally protected and important species;
- maintaining a citywide network of local wildlife sites and wildlife corridors, links and stepping stones between areas of natural green space;
- ensuring that development retains, protects and enhances features of biological or geological interest, and provides for the appropriate management of these features; and
- ensuring development seeks to produce a net gain in biodiversity by designing in wildlife, and ensuring any unavoidable impacts are appropriately mitigated for.

Supporting wildlife enhancements which contribute to the habitat restoration targets set out in the South West Nature Map and in National, Regional and Local Biodiversity Action Plans.

# **Population**

## **Summary Policy Messages:**

To harness the benefits of population growth, improve economic and employment opportunities, reduce deprivation and ensure full community participation and social justice.

To focus on increase entrepreneurship, enhance tourism and achieve unconstrained participation in the labour market.

# SEA objectives link:

Objective B Population

Objective C Health and Wellbeing

The Way Ahead Delivering Sustainable Communities in the South West:

http://southwest-

 $\label{local-control} $$ra.gov.uk/media/SWRA/RSS\%20Documents/Technical\%20Documents/078TheWayAheadEKOS.pdf$ 

Objectives: Aims to support existing strategies to bring about acceleration in the provision of housing, improved regional productivity, and to harness the benefits of this growth to address regional inequalities and economic under-performance.

Targets: The strategy targeted Bristol, Plymouth, Swindon, Exeter and the key Cornish towns in terms of:

• improving transport infrastructure;



Sub-Regional Plans and Programmes - Plymouth		
	making city centres more attractive;	
	linking deprived areas to the opportunities provided by growth;	
	enhancing the knowledge base of our businesses;	
	building more affordable homes; and	
	Increasing the skills and knowledge of our people.	
South West Regional Development Agency (2004) South West Integrated Regional Strategy: Just Connect 2004-2026	Objectives: To harness the benefits of population growth, enhance the Southwest's distinctive environments, improve economic and employment opportunities, reduce deprivation and ensure full community participation and social justice.	
	Targets: No quantified targets set.	
Devon Strategic Partnership (2008) Devon's Sustainable Community Strategy 2008-2018: http://www.devonsp.org.uk/sustainablecommunitystrategy/outcome s/draftlaapriorities/index.html	Objectives: The priorities set out in the Community Strategy are to improve aspects of the quality of life for everyone in Devon in the following ways:	
S/drattiaaphonites/muex.html	a Growing Economy;	
	a World Class Environment;	
	health and Wellbeing;	
	homes and Housing;	
	a Safer Devon;	
	strong and Inclusive Communities; and	
	inspiring Young People.	
	Targets: There are no key targets.	
South West Sustainability Shaper: http://www.shapersw.net/	Objectives: The Sustainability Shaper (the Sustainable Development Framework for the South West of England) is an evolving tool for the SW region and includes:	
	the South West's sustainability Mission and Principles and Action Frameworks setting out our sustainability priorities; and	
	<ul> <li>resources for a range of people and activities (including sustainability guidance for the delivery of the 'Integrated Regional Strategy').</li> </ul>	
	Sustainability principles include:	
	develop sustainability learning and skills;	
	improve physical and mental well-being;	
	improve equality in meeting basic needs;	
	be resource wise;	
	support thriving low carbon;	
	reduce high carbon travel;	
	use local and ethical goods and services;	
	enhance local distinctiveness and diversity including;	



Sub-Regional Plans and Programmes - Plymouth		
	help everyone to join in public decision-making; and	
	take a long term approach.	
	Targets: No formal targets.	
South West Observatory - State of the South West 2010: http://www.swo.org.uk/sotsw2010-online/	Objectives: A comprehensive report which covers 11 social, economic and environmental topics covering the 2010 state and predicted trends. The document sets the context for policy development in the South West.	
	Targets: There are no key targets listed.	
Plymouth 2020 Partnership (2002) Neighbourhood Renewal Strategy	Objectives: To narrow the gap between the most deprived and best performing neighbourhoods, as part of the Government's aim to ensure people are not seriously disadvantaged where they live within 10-20 years.	
	Targets: Floor targets have been established including to substantially reduce mortality rates by 40% from heart disease and 20% from cancer by 2010 and 60% of 16 year olds to achieve 5 GCSE A* - C by 2008.	
South West of England Regional Development Agency (2006) Regional Economic Strategy for the South West of England 2006 - 2015	Objectives: Provides a framework for all economic development within the southwest regions up to 2015.	
2013	Targets: No specific targets set, but a list of general indicators is provided including increased start up and survival rates of businesses, increased participation in higher education etc.	
South West Regional Development Agency (2004) South West Framework for Employment and Skills Action.	Objectives: Identifies the vision of the labour market in the southwest region.	
	Targets: Emphasis not on specific targets but on general outcomes such as increased employability.	
Plymouth City Council (2006) Plymouth Local Economic Strategy 2006 – 2021 and Beyond: http://www.plymouth.gov.uk/localeconomicstrategy	Objectives: Sets out a clear strategy for transforming Plymouth's economy. It aims to focus on the key sectors of which Plymouth has competitive advantage, increase entrepreneurship, enhance tourism and achieve unconstrained participation in the labour market, among other things.	
	Targets: A list of specific targets including a 2% increase in employment year on year until 2016 and reduction in the economic inactivity rate to 19% by 2016.	

# **Human Health**

# **Summary Policy Messages:**

To address health and well-being related inequalities in all plans and shift focus to prevention and health promotion, particularly in mental health and access to services.

# SEA objectives link:

Objective C Health and Wellbeing

Objective B Population

Devon, Cornwall, Isles of Scilly Joint Emergency Response Protocol (JERP) (2005): http://www.plymouth.gov.uk/jerp.pdf

Guidance emphasises the necessity to establish liaison between all the responders involved in the response from the onset of an emergency and continually throughout at all levels of command. By its achievement each agency will be able to carry out their roles and responsibilities to maximum efficiency as part of a unified joint strategy.



Targets: Guidance document, no formal targets.

Plymouth's Health, Social Care and Well-being Strategy 2008-2020:

http://www.plymouthpct.nhs.uk/CorporateInformation/reportsandinquiries/Documents/Healthy%20Plymouth%20main%20web.pdf

#### Objectives:

- to explicitly address health and well-being related inequalities in all plans through target setting, re-focusing investment and rigorous use of equality impact assessment;
- to shift the focus of investment to address prevention and health promotion, particularly in specified areas;
- · mental health promotion;
- to directly address identified issues of access and take-up of specified services: and
- to further develop services to promote independence.

Targets: No formal targets.

# **Human Health (Noise)**

### **Summary Policy Messages:**

None identified.

# SEA objectives link:

Objective D Noise and Vibration

Objective C Health and Wellbeing

None identified.

None identified.

# **Soil and Geology**

# **Summary Policy Messages:**

To protect the quality and diversity of Devon's earth science interests.

# SEA objectives link:

Objective E Geology and Soils.

Objective C Health and Wellbeing.

Objective A Biodiversity and Nature Conservation.

Devon County Council (2004) Devon County Minerals Local Plan: http://www.devon.gov.uk/index/environmentplanning/planning-system/planning\_minerals\_and\_waste/minerals\_planning/minerals\_local\_plan.htm

Objectives: The objectives of the Mineral Plan are:

- to strike a balance between the demand for all mineral resources and the need to protect the environment and sustainable development principles;
- · to maintain stock of permitted reserves for aggregate minerals;
- to encourage the most appropriate use of all mineral resources and reuse of waste minerals and secondary aggregates;
- to protect the quality and diversity of the County's earth science and nature conservation interest, historic environment, water environment and landscape character;



# **Sub-Regional Plans and Programmes - Plymouth** to identify Mineral Working Areas; progressive restoration of mineral sites; to prevent sterilisation of proven mineral resources; and to identify those mineral sites which the County Council will seek to remove the possibility of their opening by the service of Prohibition Targets: There are no key targets listed. Water **Summary Policy Messages:** To not impinge on navigational access in Plymouth Sound. To maintain bathing water quality. To maintain or enhance the recreational amenity values of the coastline. To maintain the integrity of nationally and internationally designated sites. To protect nationally important archaeological sites, listed building at risk and conservation areas. **SEA objectives link:** Objective F Water Objective C Health and Wellbeing Objective M Cultural Heritage Objective H Energy and Climate Change Objective A Biodiversity and Nature Conservation Plymouth City Council - Core Strategy - Policy CS22 (Pollution) Objectives: Policy seeks to protect people and the environment from unsafe, unhealthy and polluted environments through Ensuring development causes no unacceptable impact on water or air quality. Targets: No formal targets. Plymouth City Council - Core Strategy - Policy CS20 (Sustainable Objectives: Policy states that council will actively promote development Resource Use) which utilises natural resources in as an efficient and sustainable a way as possible. This will include: meeting high water efficiency standards, and incorporating new technologies to recycle and conserve water resources; and promoting the use of Sustainable Urban Drainage Schemes. Targets: No formal targets. South West River Basin Management Plan Objectives: This plan focuses on the protection, improvement and sustainable use of the water environment. Many organisations and individuals help to protect and improve the water environment for the



Targets: No formal targets.

benefit of people and wildlife. River basin management is the approach the Environment Agency is using to ensure our combined efforts achieve the improvement needed in the South West River Basin District.

South West Water Resources Plan 2010-2035

Objectives: The Plan sets out South West Water's strategy for ensuring all customers have a secure supply of water through to 2035 having regard to economics and the potential impact on the environment. This will be achieved by:

- · keeping leakage at or below the economic level;
- water efficiency initiatives; and
- · the introduction of tariffs.

The plan presents an appraisal of supply/demand projections for each Strategic Supply Area (Wimblebal, Colliford and Roadford) and proposes three major water supply initiatives for the South West Region to ensure a sustainable supply. Measures introduced for the Roadford Strategic Supply Area (which includes Plymouth, large parts of Devon and part of Cornwall) comprise company wide measures aimed at increasing water efficiency and implementating water saving measures.

Targets: To maintain a leakage target at 84ml/day in the period to 2015/16 and beyond.

### Air

### **Summary Policy Messages:**

To protect people and the environment from unsafe, unhealthy and polluted environments by ensuring development causes no unacceptable impact on air quality.

# **SEA objectives link:**

Objective G Air Quality

Objective C Health and Wellbeing

Objective J Transport

Objective A Biodiversity and Nature Conservation

Plymouth City Council - Core Strategy - Policy CS22 (Pollution).

Objectives: Policy seeks to protect people and the environment from unsafe, unhealthy and polluted environments through Ensuring development causes no unacceptable impact on water or air quality.

Targets: No formal targets.

Plymouth City Council (2004) Detailed Assessment of Air Quality in Plymouth: http://www.plymouth.gov.uk/airquality.

Objectives: Detailed assessment, which aims to assess the likelihood of the Environment Act's objectives being exceeded for the date specified in the Technical Guidance document.

Targets: Targets fall in line with National Air Quality Strategy.

# **Climate Change and Energy Use**

# **Summary Policy Messages:**

To incorporate renewable energy generation into new large non-residential developments.

To achieve national and regional CO2 emission cuts.

# SEA objectives link:

Objective H Energy and Climate Change



Objective G Air

Objective B Population

Objective F Water

Objective A Biodiversity and Nature Conservation

Plymouth City Council (2004 and 2006) Climate Change: the Impacts and Implication for Plymouth: http://www.plymouth.gov.uk/climate\_change.pdf

Objectives: The report and updates provide an overview of the threats, causes and reality of climate change. There are also a set of recommendations based on both the UK and the South West.

Targets: Notes reductions in CO2 targets from national and regional government.

Plymouth City Council (2007) Core Strategy Development Plan Document - Policy CS20 Sustainable Resource Use.

Objectives: actively promote development which utilises natural resources in as an efficient and sustainable a way as possible. This will include:

- Requiring all proposals for non-residential developments exceeding 1,000 square metres of gross floorspace, and new residential developments comprising 10 or more units (whether new build or conversion) to incorporate onsite renewable energy production equipment to off-set at least 10% of predicted carbon emissions for the period up to 2010, rising to 15% for the period 2010-2016.
- Ensuring building design reduces energy consumption by appropriate methods such as high standards of insulation, avoiding development in areas subject to significant effects from shadow, wind and frost, using natural lighting and ventilation, capturing the sun's heat, where appropriate.

Targets: No formal targets.

Climate Change Working Group - Climate Change The Impacts and Implications for Plymouth:

http://www.plymouth.gov.uk/climate change strategy.pdf

Objectives: The following recommendations are made in the report:

- The responsibility of 'lead organisation' in climate change and sustainable energy matters should remain with the City Council until such time as a more appropriate, alternative, multi-agency organisation can be established to take on this role. It would be logical for Plymouth 2020's Environment and Sustainability Partnership to develop and eventually, undertake this role as it is named as the 'lead organisation' for the achievement of Target 13 (Climate Change) in the City Strategy.
- The Nottingham Declaration on Climate Change (a public statement of commitment) should be signed by Plymouth City Council on behalf of the wider Plymouth 2020 Partnership.
- The elements of the Cities for Climate Change Protection programme should be adopted by both Plymouth City Council and the Plymouth 2020 Partnership. The milestones set out in this programme and, where possible, regional or national UK Climate Change protocols should be the key elements of Plymouth's Climate Change Action Plan.

Targets: No formal targets.

# Coastal Change and Flood Risk

# **Summary Policy Messages:**

To protect Plymouth from coastal erosion and associated effects, whilst maintaining water quality, amenity value and biodiversity.



### **SEA objectives link:**

Objective I Coastal Change and Flood Risk

Objective H Energy and Climate Change

Objective G Air

Objective B Population

Objective F Water

Objective A Biodiversity and Nature Conservation

Lyme Bay and South Devon Coastal Group (1998) Lyme Bay and South Devon Shoreline Management Plan.

Objectives: The shoreline management plan set objectives for the area surrounding Devonport (Mount Battern Point to Cremyll and sets the following objectives for the sustainable management of the shoreline. Specific objectives include:

- to protect Plymouth;
- · to not impinge on navigational access in Plymouth Sound;
- · to maintain bathing water quality;
- to maintain or enhance the recreational amenity values of the coastline:
- to maintain the integrity of nationally and internationally designated sites; and
- to protect nationally important archaeological sites, listed building at risk and conservation areas.

Targets: No specific targets have been set.

South Devon and Dorset Shoreline Management Plan (consultation draft) <a href="http://www.sdadcag.org/docs/html/frameset.htm">http://www.sdadcag.org/docs/html/frameset.htm</a>

In 1998, the original Shoreline Management Plans for the coastline from Durlston Head to Portland Bill, and Portland Bill to Rame Head, were completed and adopted. These identified coastal defence management policies based upon original guidance from MAFF for a 50-year period. Since completion of these SMPs, a number of studies and schemes have been developed based upon the policies it recommended. The outcomes of these studies have been used to inform the development of a SMP review (available on <a href="http://www.sdadcag.org/docs/html/frameset.htm">http://www.sdadcag.org/docs/html/frameset.htm</a>).

Plymouth City Council (2006) Strategic Flood Risk Assessment: http://www.plymouth.gov.uk/homepage/environmentandplanning/pl anning/planningpolicy/ldf/ldfbackgroundreports/bfloodriskassessment.htm.

# Objectives:

- ensure that Plymouth City Council meet its obligations under current planning guidance; and
- provide a reference and policy document to inform local planning policy.

Targets: No formal targets.

Plymouth City Council - Core Strategy - Policy CS21 (Flood Risk).

Objectives: The Council will support development proposals that avoid areas of current or future flood risk, and which do not increase the risk of flooding elsewhere. This will involve a risk based sequential approach to determining the suitability of land for development. Development in high risk flood areas will only be permitted where it meets the certain prerequisites.

Targets: No formal targets.



Durlston Head to Rame Head Shoreline Management Plan.

Objectives: The assessment (Plan) aims to manage risks by using a range of methods which reflect both national and local priorities, in order to:

- reduce the threat of flooding and erosion to people and their property;
- Benefit the environment, society and economy, in line with the Government's 'sustainable development principles.'

Targets: No formal targets.

Environment Agency (December 2009) *Tamar Catchment Flood Management Plan* <a href="http://publications.environment-agency.gov.uk/pdf/GESW1109BOUP-e-e.pdf">http://publications.environment-agency.gov.uk/pdf/GESW1109BOUP-e-e.pdf</a>

Objectives: The role of CFMPs is to establish flood risk management policies which will deliver sustainable flood risk management for the long term. This CFMP identifies flood risk management policies to assist all key decision makers in the catchment. Flooding within the Tamar catchment can be attributed to flooding from the rivers, estuaries, surfacewater runoff and drainage systems.

Targets: No formal targets.

# **Material Assets (Transport)**

#### **Summary Policy Messages:**

To reduce the rate of growth of traffic congestion; improve road safety; improve air quality; and support and sustainable growth.

#### SEA objectives link:

Objective J Transport

Objective C Health and Wellbeing

Objective A Biodiversity and Nature Conservation

Objective B Population

Plymouth City Council (2006) Local Transport Plan 2006 to 2011: http://www.plymouth.gov.uk/ltp2006-2011

# Objectives:

- · to improve accessibility and social inclusion;
- · to reduce the rate of growth of traffic congestion;
- · to improve road safety;
- to improve air quality and the environment;
- to support Plymouth's urban renaissance and sustainable growth;
- to improve quality of life; and
- to make maintenance more efficient and effective.

Targets: Plan has a number of targets designed to meet the above objectives. However a key target is:

 The Plymouth City Strategy and Action Plan have set a target of enabling 60% of journeys within the City to be undertaken by foot, bicycle or by public transport by 2010.



#### **Material Assets (Waste Management)**

#### **Summary Policy Messages:**

To ensure sufficient wastes management capacity to meet Plymouths needs.

#### **SEA objectives link:**

Objective K Waste

Objective C Health and Wellbeing

Objective A Biodiversity and Nature

Devon County Council (2005) Municipal Waste Management Strategy for Devon.

Objectives: The waste management strategy (which includes the Waste Local Plan adopted in June 2006) key objective is to achieve the targets set out below.

Targets: The strategy sets waste reduction targets to be reviewed every 5 years including:

- municipal recycling/ composting rates 40% by 2009/10;
- reduce the growth of household waste to 1% by 2009/10;
- · emphasise waste as a resource; and
- encourage recovery, diversion of biodegradable, recycling and composting waste programs.

Plymouth City Council (2008) Plymouth's Waste Development Plan Document:

http://www.plymouth.gov.uk/waste\_dpd\_council\_version1-2.pdf.

Objective: This document provides a part of Plymouth's Local.Development Framework. It sets out to provide the following:

- Allocating sufficient and appropriate land within the city that is capable
  of accommodating a range of strategic waste management and
  treatment facilities. Providing sufficient capacity to meet Plymouth's
  needs and, if possible, additional capacity to manage and treat waste
  from adjoining areas.
- Providing a positive planning framework to support the accommodation of sustainable commercial and industrial waste management facilities. Providing local waste management facilities, either on strategic waste management sites or at a range of other smaller sites.
- Providing a positive planning policy framework that enables sustainable waste-related development, this will have an acceptable impact on local and global environmental quality.

#### Target:

- the allocation of land to enable the delivery of facilities which help Plymouth to meet its recycling and recovery targets;
- the allocation of land in a subsequent AAP or DPD for a recycling centre facility in the north of the city; and
- establishing and implementing an effective planning framework for the management of waste facilities.

Plymouth City Council (2007) Municipal Waste Management Strategy 2007-2030:

http://www.plymouth.gov.uk/waste\_management\_strategy\_2007-

Objective: Strategy is intended as a guiding document for the future management of waste within Plymouth, and sets out 'how' waste will be managed over the period 2007 - 2030. The guidance outlined in this



2030.pdf

document is at a strategic level.

Targets:

The Strategy provides for a number how future waste provision in Plymouth is to be managed and uses targets to outline how this is to be achieved. For instance the Plymouth Council targets to recycle or compost 33% of municipal waste by 2014/15.

#### Material Assets (Land Use and Materials)

#### **Summary Policy Messages:**

To ensure all communities enjoy the benefits of further development, including rural parts of the region.

For Plymouth to continues its renaissance and becomes the economic hub of the far South West;

To develop necessary infrastructure to support growth.

#### SEA objectives link:

Objective L Land Use and Materials

Objective B Population

Objective A Biodiversity and Nature

Government Office for the South West (2001) Regional Planning Guidance 10: Regional Planning Guidance for the South West (to be replaced by the Regional Spatial Strategy) Objectives: The regional planning guidance covers the following topics:

- the Natural and Built Environment;
- the Economy;
- · tourism, Culture, Leisure and Sport;
- · housing;
- · transport; and
- infrastructure and Resources.

Targets: Specific targets for region's districts are contained within the respective topic sections.

Plymouth City Council (1993)

Plymouth's Local Agenda 21 Plan: http://www.plymouth.gov.uk/localagenda21

Objectives: The plan sets out sustainability principles for Plymouth and is used to advise on the balance between environmental, economic and social priorities in Plymouth. It includes a number of objectives under these headings.

Targets: There are no key targets listed although there are 39 indicators.

Plymouth City Council - Plymouth Housing Strategy 2008 – 2011. http://www.plymouth.gov.uk/housingstrategy Objectives: The Housing Strategy is based upon the following strategic housing principles:

- places and communities;
- · affordable housing and housing needs;
- housing choice;
- housing conditions in the private sector; and
- landlord role and stock transfer.

Targets: The following targets are provided in the Strategy coming out of



# **Sub-Regional Plans and Programmes - Plymouth** the Core Strategy: 5,000 new homes by 2011; 10,000 new homes by 2016; 17,250 new homes by 2021; and 29,500 new homes by 2026. Plymouth City Council (2007) Core Strategy Development Plan Objectives: Document - Strategic Objective 10 (Delivering Adequate Housing the delivery of the strategic housing requirement of 1,000 per annum Supply) 2006-16 and 1,450 per annum 2016-21 (equating to the draft RSS allocation of 17,250 new homes by 2021); at least 30% of new dwellings on qualifying sites to be affordable (equating to at least 3,300 new affordable homes by 2021); 80% of new dwellings to be provided on previously developed land (equating to 13,800 homes by 2021); and 20% of new dwellings development to be lifetime homes standard (equating to 3,450 homes by 2021). Plymouth City Council (2007) Core Strategy Development Plan Objective: The Core Strategy sets out a spatial planning framework for the long term development of the city, ensuring that investment decisions are Document: http://www.plymouth.gov.uk/homepage/environmentandplanning/pl not made in isolation, but are properly co-ordinated, with a focus on anning/planningpolicy/ldf/ldfcorestrategy.htm promoting the principles of sustainable development. It has been prepared taking into account the views of all sections of the community and stakeholders, as well as maintaining consistency with national and regional guidance. This constitutes part of the Plymouth Local Development Framework.

#### **Cultural Heritage**

#### **Summary Policy Messages:**

To improve knowledge of the historic environment and place conservation at the heart of urban renewal.

To increase understanding of coastal and maritime historic environment.

To remove physical, cultural and social barriers which inhibit access, understanding or enjoyment of the South West's historic environment.

To improve management of the historic environment across the South West.

#### **SEA objectives link:**

Objective M Cultural Heritage

English Heritage (2004) A Strategy for the Historic Environment in the South West

Objectives: The strategy aims to promote the importance of the Historic Environment on the success of the region, and has the following objectives:

Targets: Numerous targets are included in the respective topic sections of the Strategy, key ones including housing allocations and area visions.

- continue to improve our knowledge of the historic environment;
- put conservation at the heart of urban renewal, and improve appreciation of rural heritage resources;



- increase understanding of coastal and maritime historic environment and wetland landscapes as a matter of urgency;
- promote landscape sensitive design;
- promote the use of traditional conservation and management skills;
- ensure that the education sector in the South West takes full account of the value of the historic environment;
- remove physical, cultural and social barriers which inhibit access, understanding or enjoyment of the South West's historic environment; and
- tackle the legacy created by poor management of the historic environment across the South West.

Targets: There are no key targets listed.

Plymouth Core Strategy (2007) – Strategic Objective 8 (Delivering Cultural / Leisure Facilities and the evening /night-time economy)

Objectives: To facilitate the creation of Plymouth as a vibrant waterfront city with a thriving cultural and leisure sector and a diverse, safe, balanced and socially inclusive evening/night economy. This will be achieved by:

- establishing and promoting one or more sustainable cultural quarters as centres for arts, culture and entertainment for the city;
- promoting the waterfront regeneration areas as locations for leisure, culture and entertainment amenities;
- promoting the development of the Life Centre at Central Park;
- promoting local culture and leisure venues in other parts of the city to enhance local provision; and
- promoting the development of a balanced evening/night-time economy within the City Centre and waterfront regeneration areas.

Targets: Progress towards achieving this objective will be measured against delivery of cultural and leisure sector projects and against targets to be developed in relation to the Council's work on promoting tourism and leisure trips to the city. The estimated number of day visits to the city during 2004 was 2.8 million.

#### Landscape

# **Summary Policy Messages:**

To protect and support a diverse and multi-functional network of green space and waterscape.

To provide sustainable management of the Tamar Area of Outstanding Natural Beauty.

#### SEA objectives link:

Objective N Landscape and Townscape

Objective A Biodiversity and Nature Conservation

Objective B Population

South West Regional Assembly. Regional Strategy for the South West Environment 2004-2014.

Objectives: The strategy sets out a vision of a region where people benefit from an excellent environment now and in the future. The strategy sets out a number of environmental topics and objectives and is supported by the annual document 'The State of the Environment 2006'.



# **UNCLASSIFIED**

Sub-Regional Plans and Programmes - Plymouth		
	Targets: There are no key targets listed.	
Tamar Valley AONB Partnership (2009) Tamar AONB Management Plan 2009-2014: http://www.tamarvalley.org.uk/themesec.asp?pid=1&sid=36	Objectives: The plan outlines the management objectives for Tamar Area of Outstanding Natural Beauty, including landscape management, AONB proofing, improving understanding and awareness, and sustainable management.  Targets: There are no key targets listed.	
Plymouth City Council (2007) Core Strategy - Policy CS18 (Plymouth's Green Space)	Objectives: Sets out criteria and a methodology for how the Council will protect and support a diverse and multi-functional network of green space and waterscape.  Targets: No formal targets.	



# C2 Fife - Sub Regional Information

# **Table C2.1** Baseline Information

# Sub-Regional Baseline - Fife

#### **Biodiversity and Nature Conservation**

Number of SSSIs: 48 SSSIs covering around 7,715ha (approximately 5.62% of Fife). 1

Number of SACs: two SACs covering around 3,244ha (approximately 2.36% of Fife). <sup>1</sup>

Number of SPAs: two SPAs covering around 4,342ha (approximately 3.16% of Fife). <sup>1</sup>

Other important sites: one RAMSAR site (4,270ha); three country parks (489ha); 31 gardens and designated landscapes (4,179ha); seven local nature reserve (1,650ha); and one regional park (6,058ha). <sup>1</sup>

Current issues for biodiversity, flora and fauna: Fife's coastland and wetlands are important sites for migrating wildfowl and breeding seabird populations. The environmental problems and threats affecting biodiversity in Fife include; fragmentation of habitats due to development pressures; non native invasive species; climate change and alteration of phenology (timing of flowering, breeding, migration); agricultural practices; and land and freshwater pollution (including nutrient enrichment). <sup>2</sup>

#### References:

 Scottish Natural Heritage, Areas of Protected Sites by Local Authority, July 2009.

http://gateway.snh.gov.uk/discoverer/vie wer?cn=cf\_a102&nlsl=engb&pg=1&qp\_As~20at=31-JUL-2009&wbk=PROTECTED\_AREAS\_AN D\_SITES\_SUMMARY\_V3&wsk=140

And: Scottish Natural Heritage, Number of Protected Sites by Local Authority, July 2009

http://gateway.snh.gov.uk/discoverer/vie wer?cn=cf\_a102&nlsl=engb&pg=1&qp\_As~20at=31-JUL-2009&wbk=PROTECTED\_AREAS\_AN D\_SITES\_SUMMARY\_V3&wsk=57

2. Fife Council, State of the Environment Report, 2007,

http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1

#### **Population**

# Demographics

Resident population of 363,500.

48.3% male and 51.7% female. 1

64.8% of population is of working age. (65.8% of males and 63.9% of females).1

78.4% of working age population is economically active. 1

71.1% of working age population is in employment. <sup>1</sup>

8.3% of working age population is unemployed. 1

Of those of working age: 34.2% have NVQ4 and above; 55.1% have NVQ3 and above; 71.2% have NVQ2 and above; 82.2% have NVQ1 and above; 7.8% have other qualifications; and 10% have no qualifications.  $^1$ 

The crime rate is not significantly different to the Scottish average.<sup>3</sup>

Total crime per 10,000 population in 2005-06 was 850. 4

#### References:

- NOMIS, official labour market statistics, Fife, https://www.nomisweb.co.uk/reports/lmp
  - https://www.nomisweb.co.uk/reports/lmj /la/2038432135/report.aspx?town=fife
- Audit Scotland, Fife Council, Audit of Best Value and Community Planning, March 2009, <a href="http://www.audit-scotland.gov.uk/docs/local/2009/bv\_090312\_fife\_em.pdf">http://www.audit-scotland.gov.uk/docs/local/2009/bv\_090312\_fife\_em.pdf</a>
- Scotland Public Health Observatory, Health and Wellbeing Profile 2008, <a href="http://www.scotpho.org.uk/home/Comparativehealth/Profiles/chp\_profiles.asp">http://www.scotpho.org.uk/home/Comparativehealth/Profiles/chp\_profiles.asp</a>
- Scottish National Statistics, <a href="http://www.sns.gov.uk">http://www.sns.gov.uk</a>



Fife Council's education services provide for over 55,000 pupils in 142 primary schools, 19 secondary schools, 16 stand-alone nurseries and six special schools. <sup>2</sup>

#### Socio-Economics

In 2009, per capita GVA in Fife and Clackmannanshire was £14,539. This trend has shown a steady year-on-year increase, up from £10,439 in 2000<sup>3</sup> The per-head GVA index is 70.8, compared to the UK baseline of 100 and an index of 73.0 for the area in 2000.

In 2009 the median full-time gross hourly pay in Fife was £11.89 (compared to a national median of £12.47). This compares to £11.67 in 2008 for the area (and a national median of £12.01).  $^3$ 

In January - December 2009 Fife had an average unemployment rate of 8% compared to a Great British rate of 7.7%. This compares to January - December 2008, when Fife had an unemployment rate of 5.7% compared to a British rate of 5.7%.

Fife is more dependent on manufacturing-intensive occupations for employment than Scotland as a whole but is seeing a shift to a more modern service economy. Specialist manufacturing in defence, marine engineering and electronics remain important. But the legacy of vacant industrial property is giving way to modern offices, financial services and call centres.<sup>2</sup>

Fife has a total of 130,300 jobs with a job density<sup>4</sup> of 0.61 (compared to 0.8 in Scotland and 0.79 in Great Britain). <sup>3</sup>

In 2009 Fife had a lower percentage of the workforce employed in: transport, communications, finance and IT than either Scotland or Great Britain. Fife had a high percentage of the workforce employed in public administration, education, health, manufacturing and other services compared to Scotland or Great Britain. <sup>3</sup>

#### References:

- ONS, Regional, sub-regional and local gross value added (GVA), December 2009, http://www.statistics.gov.uk/pdfdir/gva12 10.pdf
- Fife Council, Single Outcome Agreement, 2009-2012, Fife Council, Single Outcome Agreement
- NOMIS, official labour market statistics, Fife, <a href="https://www.nomisweb.co.uk/reports/lmp">https://www.nomisweb.co.uk/reports/lmp</a> /la/2038432135/report.aspx

#### **Human Health**

Life expectancy at birth for males of 76.1 years (2007 -2009) (compared to 75.4 in Scotland). <sup>1</sup>

Life expectancy at birth for females of 80.4 years (2007 - 2009) (compared to 80.1 in Scotland).<sup>1</sup>

554 coronary heart disease admissions rate/100,000: 2008 (556 in Scotland). <sup>2</sup>

279 cerebrovascular disease admissions rate/100,000: 2008 (277 in Scotland). <sup>2</sup>

3,178 all cancer rate/100,000 population: 2008 (2,729 in Scotland) 2

Health hazard to the general public from monitored levels of radionuclides in Fife is considered very small.  $^{\rm 3}$ 

All-cause mortality (all ages), and mortality rates from heart disease, stroke and cancer (under-75s), are all significantly better than, or not significantly different to, the Scotland average. 4

In 2009 3.8% of the local area was in the 15% most health deprived data zones.

# References:

- Life Expectancy for Administrative Areas within Scotland 2007 – 2009, General Register Office for Scotland; <a href="http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-admin-areas/07-09/le-admin-areas-07-09.pdf">http://www.gro-scotland.gov.uk/files2/stats/life-expectancy-admin-areas/07-09/le-admin-areas-07-09.pdf</a>
- Scottish Neighbourhood Statistics, Health, http://www.sns.gov.uk/Downloads/AdHo cChoose.aspx
- Standing Conference of Local Authorities in the Forth Estuary, Radioactivity Monitoring April 2007 -

<sup>&</sup>lt;sup>4</sup> The density figures represent the ratio of total jobs to working-age population. Total jobs includes employees, self-employed, government-supported trainees and HM Forces.



<sup>&</sup>lt;sup>3</sup> This is the GVA per capita figure for the NUTS 3 geography of Clackmannanshire and Fife; the smallest geography for which such data are available.

In the same period, 1.55% of deprivation measured data zones were in the 10% most health deprived data zones.

In the same period, 3.97% of deprivation measured data zones were in the 15% most health deprived data zones.

In the same period, 7.73% of deprivation measured data zones were in the 20% most health deprived data zones.  $^{6}$ 

Health in Fife is improving. Average life expectancy in Fife is above average; however there is a high degree of health inequality across Fife. In 2008 the total mortality rates per 100,000 head of population under 75 years old was 362.3. However, in the least deprived 20% of areas the rate was 230, whilst in the most deprived 20% of areas, the rate was 566.  $^4$  In Fife, in 2005, the top three causes of death were: diseases of the circulatory system, neoplasms (tumours or abnormal growth of tissue) and diseases of the respiratory system. Fife had 57 GP practices in 2008 (1,397 patients per GP).  $^5$ 

Over one-third of people (35.6%) live within 500m of a derelict site (Scotland 27.3%). Compared to the Scotland average of 15.0%, 10.3% of the population live in the 15% 'most access deprived' areas in Scotland. $^4$ 

Site specific nuclear safety reports are available quarterly from the Health and Safety Executive. <sup>7</sup>

#### March 2008,

http://www.fife.gov.uk/publications/index.cfm?fuseaction=publication.pop&publd= E9CB64D2-E118-36FC-E9DB07952A0CB3A2

- Scotland Public Health Observatory, Health and Wellbeing Profile 2008, <a href="http://www.scotpho.org.uk/home/Compa">http://www.scotpho.org.uk/home/Compa</a> rativehealth/Profiles/chp profiles.asp
- 5. Fife Council, Know Fife, http://knowfife.fife.gov.uk
- Scottish Index of Multiple Deprivation 2009, http://www.scotland.gov.uk/Publications/ 2009/10/28104046/0
- Health and Safety Executive, Quarterly Reports, http://www.hse.gov.uk/nuclear/llc/2008/index.htm

#### **Human Health (Noise)**

Major sources of noise: A90 north of the Forth Bridge <sup>1</sup>

Current issues for noise: Noise pollution caused by the growth in road transport, congestion is a key issue for Fife. In Fife in 2006, the road with the highest traffic flow was the A90 north of the Forth Road Bridge. In 2007-08 Fife Council received 325 non-domestic noise complaints, one of which resulted in formal action being taken. <sup>2</sup>

Total non-domestic noise complaints: 325 in 2008/09 (compared to 305 in 2007/08)<sup>3</sup>

#### References:

1. Fife Council, State of the Environment Report, 2007,

http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1

- Fife Council, Statutory Performance Indicators, 2008-09, http://www.fife.gov.uk/uploadfiles/publica tions/c64\_SPIBOOKLETFINAL2008-091.pdf
- Audit Scotland, Statutory Performance Indicators, <a href="http://www.audit-scotland.gov.uk/performance/docs/2008/council/comp/ProtSFf08.xls">http://www.audit-scotland.gov.uk/performance/docs/2008/council/comp/ProtSFf08.xls</a>

# **Soil and Geology**

Predominant geology: The area is dominated by rocks of the Devonian and Carboniferous periods, with approximately 75% of the area underlain with sedimentary rocks and 20% of the area underlain with igneous rocks of these periods. <sup>1</sup>

Topographic features: Geologically, the area is defined by two parallel fault lines, approximately 50 miles apart, between which land has subsided, creating an ancient rift valley (the Midland Valley). The Midland Valley is, however, quite diverse in character ranging from low lying arable farmland to large areas of upland pasture and moorland. <sup>1</sup>

Geological designations: The area of Clackmannanshire and Fife have 24 SSSIs designated

# References:

- SNH, Fife Landscape Character
   Assessment, David Tyldesley and Associates (1999),
   <a href="http://www.snh.org.uk/pdfs/publications/review/113.pdf">http://www.snh.org.uk/pdfs/publications/review/113.pdf</a>
- JNCC, Geological Conservation Review, http://www.jncc.gov.uk/default.aspx?pag



for their geology.

Other important features: Notable features occur where the underlying igneous rock protrudes through the sedimentary layers. Around much of the eastern and southern coast of Fife there is an almost continuous terrace of flat land raised above current sea level. Alluvial deposits and soils occur along the valley floors and lock basins, with occasional areas of peat. <sup>1</sup>

Current issues for soils and geology: Fife has approximately 7,000 sites potentially affected with contamination, mainly as a result of its industrial heritage.  $^3$ 

e=4177&authority=UKM22

3. Fife Council, State of the Environment Report, 2007,

http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1

#### Water

Major surface water features: River Ore, the River Eden and the River Leven. 1

Major ground water features: major aquifers including the Knox Pulpit Formation and other associated Devonian aquifers. 

1

Water quality: Water quality in Fife is relatively good. In 2007, the 80% of bathing waters in Fife meet quality standards. In 2006 609km of rivers were sampled for quality. 62% were rated excellent; 42% were rated as good; 26% were rated fair; and 0% were rated seriously polluted. <sup>2</sup> In 2008 the Lower Forth Estuary in Rosyth was classified by SEPA as having an overall status of Good with High confidence with overall ecological status of Good and overall ecological status of Pass. Pressures on this water body include abstraction for the production of non-renewable electricity and point source pollution from sewage disposal, however measures, such as changing time/frequency of discharge, have been agreed to mitigate these effects <sup>3</sup>

Protected water features: Isle of May SAC; Firth of Tay and Eden Estuary SAC; Firth of Tay and Eden Estuary SPA; Firth of Forth SPA; Cameron Reservoir SPA; Forth Islands SPA; South Tayside Goose Roosts SPA; and Loch Leven SPA.

In 2007, radioactive discharge licences to water were issued to Rosyth Royal Dockyard Ltd. <sup>4</sup>

General problems affecting the water environment include; point source pollution, diffuse pollution, changes to water bodies resulting from engineering works, and building on flood plains.<sup>1</sup>

#### References:

1. Fife Council, State of the Environment Report, 2007,

http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1

- Fife Council, Know Fife, http://knowfife.fife.gov.uk
- SEPA, Water Body Information Sheet http://apps.sepa.org.uk/rbmp/pdf/200435
   .pdf
- 4. SEPA, Scottish Pollutant Release Inventory,

http://apps.sepa.org.uk/SPRIPA/Search/ ByLocalAuthority/Criteria.aspx

#### Air

Air quality: Air quality in Fife is generally good. In 2005 annual average background levels were: PM10: 11.8 µgm-3; Carbon monoxide (CO): 0.12mgm-3; Benzene: 0.15µgm-3; 1, 3-butadiene: 0.03 µgm-3; Nitrogen dioxide (NO2): 5.69µgm-3; Annual average total NO<sub>X</sub>: 7.25 µgm-3. No equivalent Combined Air Quality Index data is available for Scotland.

Within Fife District there is 1 Air Quality Management Area (AQMA) within Bonnygate, Cupar<sup>3</sup>. However, there are no AQMA's covering Rosyth dockyard or its vicinity.

Major sources of air pollution: Fife has localised areas of elevated air quality pollutants associated with road transport. Longannet Power Station in Fife is also a major source of air pollution.<sup>4</sup>

In 2007, radioactive discharge licences to air were issued to Rosyth Royal Dockyard Ltd. <sup>5</sup> Industrial emissions have diminished significantly in Fife as a result of the reduction in heavy industry. The decrease in coal use in Fife, and across Scotland, has lead to a corresponding decrease in sulphur dioxide emissions, and lessened the acidification of natural systems.<sup>2</sup>

#### References:

- Fife Council, Air Quality Strategy, <a href="http://www.fifedirect.org.uk/atoz/index.cf">http://www.fifedirect.org.uk/atoz/index.cf</a> m?fuseaction=service.display&objectid= 9BEA61F5-84B3-4566-A6306430709B15B7
- Fife Council, State of the Environment Report, 2007, <a href="http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd=1155288E-DA38-0392-2D23E6CA90FF3AD1">http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd=1155288E-DA38-0392-2D23E6CA90FF3AD1</a>
- Fife Council, Bonnygate AQMA order, http://www.fife.gov.uk/publications/index.cfm?fuseaction=publication.pop&pubid= <u>9BC9C454-D24F-006A-2D604662DA3FA429</u>



# 4. SEPA Air Quality Report, 2007, http://209.85.229.132/search?q=cache:f Ocuu5BxlkJJ:www.sepa.org.uk/air/idoc.a shx%3Fdocid%3D5813436f-75a4-44c4b8e1-98a5b4eef486%26version%3D1+defra+days+of+moderate+or+high+A EA+Energy+and+Environment+fife&cd= 9&hl=en&ct=clnk&gl=uk 5. SEPA, Scottish Pollutant Release Inventory, http://apps.sepa.org.uk/SPRIPA/Search/ ByLocalAuthority/Criteria.aspx

#### **Climate Change and Energy Use**

Total energy consumption: 13,397.4 GWh in Fife (2007). This is comprised of 7,110.3 GWh for the industrial/commercial sector, 3779.7 GWh for the domestic sector and 2507.4 GWh for the transport sector.<sup>1</sup>

Split between energy sources: 50% natural gas; 32% petroleum products; 13% electricity; 5% coal; and 0.22% renewables and waste. <sup>1</sup>

Total commercial and industrial electricity usage per customer: In 2007 Fife total energy consumption per capita was higher than the Scottish average, but lower than the national totals (37,300 kWh in Fife compared to 30,900 kWh in the Scotland and 28,000 kWh in Great Britain).<sup>1</sup>

Total commercial and industrial gas usage per employee: In 2007, Fife Total commercial and industrial gas consumption per employee was significantly higher than the Scottish and national totals (28,300 kWh in Fife compared to 10,600 kWh in Scotland and 8,945 kWh in Great Britain).

Total fuel usage: In 2008 road transport in Fife used 182,000 tonnes of fuel. Of this 67.91% was attributable to movement of people and 32.09% was attributable to movement of freight. <sup>1</sup>

Total carbon dioxide emissions: In 2007, Fife produced a total of 3,587 kt CO2. 50.2% of CO2 emissions were attributed to commercial and industrial activities (45.4% nationally). <sup>2</sup>

Total end user CO2 emissions per capita (tonnes CO2 per resident) in 2007 were 9.9 tonnes per capita (compared to a national average of 8.4 tonnes per resident). <sup>2</sup>

#### References:

- Department of Energy and Climate
  Change (2010) Total final energy
  consumption at regional and local
  authority level (Regional Energy
  Consumption Statistics 2007),
  http://www.decc.gov.uk/en/content/cms/
  statistics/regional/regional.aspx; and
  Department of Business, Enterprise and
  Regulatory Reform (BERR) Energy
  Consumption at Regional and Local
  Authority Level, 2008
  http://www.berr.gov.uk/energy/statistics/regional/index.html
- Local and Regional CO2 Emissions
   Estimates for 2005-2007
   http://www.decc.gov.uk/en/content/cms/statistics/climate\_change/gg\_emissions/uk\_emissions/2007\_local/2007\_local.aspx

#### **Coastal Change and Flood Risk**

Flood risks: In 2006, 0.8% of dwellings were within a coastal flood risk area. <sup>1</sup>The Indicative River & Coastal Flood Map (Scotland) shows that Rosyth dockyard lies within the 1 in 200 year (0.5% annual probability) flood envelope, highlighting that the dockyard may be at medium to high risk of coastal flooding.<sup>2</sup>

Major threats from climate change: Fife has a relatively long coastline and therefore many areas are at risk from rising sea levels and increased storm surges. <sup>2</sup>

3% of dwellings were within a fluvial flood risk area. 4

In Fife, most watercourses are small and fast flowing and flooding is usually caused by short duration intense rainfall. Of the two larger rivers in Fife, the Leven and Eden, the latter is historically subject to significant flooding from long duration rainfall, however, the Leven shows little tendency to flood. Tidal flooding is an issue along Fife's coastline. <sup>3</sup>

#### References:

- Scottish Neighbourhood Statistics, Fife, <a href="http://www.sns.gov.uk/AnRep/AreaTree.asp">http://www.sns.gov.uk/AnRep/AreaTree.asp</a>
- SEPA, Indicative River & Coastal Flood
   Map,
   http://go.mappoint.net/sepa/
- Fife Council, State of the Environment Report, 2007, <a href="http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&pubid=1155288E-DA38-0392-">http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&pubid=1155288E-DA38-0392-</a>



# Sub-Regional Baseline - Fife 2D23E6CA90FF3AD1 4. Fife Council, Flood Alleviation Report, 2007, http://www.fifedirect.org.uk/uploadfiles/publications/c64 FifeFloodAlleviationReport2007.pdf 5. Scottish Neighbourhood Statistics, Fife, http://www.sns.gov.uk/AnRep/AreaTree.asp

# **Material Assets (Transport)**

Principal roads: The trunk road network in Fife comprises the M90 and A90 which align north to south, and the A985 which aligns east to west along the firth of forth. The vast majority of freight transported in Fife is over short distances by road with an average journey distance of 84km.<sup>1</sup>

Principal rail lines: North of Scotland rail line and East of Scotland rail line. In addition to the main rail routes there is a local 'Fife Circle' route, but while the south and central areas of Fife are well connected by rail, the west of Fife, Levenmouth and the East Neuk area are not.<sup>2</sup>

Principal air ports: Fife has a small airport at Glenrothes (Fife airport). Good transport links are also available to airports located at Edinburgh and Glasgow.

Principal ferry ports: Fife has 13 harbours and piers. The Port of Rosyth is the base for daily ferry sailing to Zeebrugge and is also visited by a number of cruise ships each year.<sup>3</sup>

Capacity or congestion issues: 2007/08; 10% of driver journeys delayed due to traffic congestion. Significant areas of congestion are clustered around Dunfermline Town and Rosyth, mainly associated with traffic over the Forth Bridge. 4.1

Travel to work distance: Average distance travelled to place of work or place of study in Fife was 13.00km (2001 Census data).<sup>5</sup>

Current issues for transport: Overall in Fife, traffic and congestion are on the rise, while public transport usage is decreasing. <sup>1</sup> 32.8 % of roads needed maintenance (red and amber classification) in 2008. <sup>4</sup>

#### References:

- I. Fife Council, State of the Environment Report, 2007, http://fifedirect.org.uk/publications/index. cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1
- Audit Scotland, Fife Council, Audit of Best Value and Community Planning, March 2009, <a href="http://www.audit-scotland.gov.uk/docs/local/2009/bv\_090312">http://www.audit-scotland.gov.uk/docs/local/2009/bv\_090312</a> fife em.pdf
- Fife Council, Local Transport Strategy for Fife 2006 – 2026, <a href="http://www.fife.gov.uk/news/index.cfm?fuseaction=feature.display&objectid=ED-FE41B3-E7FE-C7EA-05E36A05EA6F61FE">http://www.fife.gov.uk/news/index.cfm?fuseaction=feature.display&objectid=ED-FE41B3-E7FE-C7EA-05E36A05EA6F61FE</a>
- 4. Scottish National Statistics, http://www.sns.gov.uk
- General Register Office for Scotland, Scotland's Census Results, Key Statistics Settlements and Localities Scotland - 25 March 2003 <a href="http://www.gro-scotland.gov.uk/files/key-stats-chareas.pdf">http://www.gro-scotland.gov.uk/files/key-stats-chareas.pdf</a>

#### **Material Assets (Waste Management)**

Waste management facilities: two landfill sites; 11 recycling centres; around 350 recycling points; one main composting site; two private company composting sites, one biomass incinerator; and one co-incineration plant.<sup>1</sup>

Commercial and industrial waste total: 422,919 tonnes in 2006-07.2

Split between waste management routes: Of the municipal fraction (28,117 tonnes), 12% was recycled, 0% was composted and 88% was landfilled). <sup>2</sup>

There were 52 waste management sites in Fife that were actively receiving waste in 2006. The total annual capacity of all licensed/permitted sites (except incinerators and other thermal

#### References:

 Fife Council, State of the Environment Report, 2007,

http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1. And SEPA, Fife

<u>2D23E6CA90FF3AD1</u>. And SEPA, Fite Strategic Waste Management Review, 2008,

www.sepa.org.uk/waste/waste\_data/was



treatment plants) operational in 2006 was 2,968,730 tonnes.

Within a 15km radius of Rosyth, there are 6 waste transfer stations, 1 landfill site, 3 multiple activity sites, 1 pet cemetery/crematorium, 1 civic amenity/recycling centre, 1 aerobic digestion site and 3 metal recycling sites.<sup>3</sup>

Current issues for waste management: To respond to the anticipated growth in waste generation and at the same time responding to the requirements of the increasingly stringent targets for recycling and alternatives to landfill.

te\_data\_reports/idoc.ashx?docid=502f5 d8e-599a-4924-87cbd3c6f9d96af1&version=-1 - 30 Nov 2008 - 1255k – Preview

- SEPA, 2006-07 waste data, http://www.sepa.org.uk/waste/waste\_data\_a/waste\_data\_reports/waste\_managem\_ent\_reviews.aspx
- SEPA, Waste management facilities in Fife <a href="http://www.sepa.org.uk/waste/waste\_infrastructure\_maps/local\_authority\_maps.aspx">http://www.sepa.org.uk/waste/waste\_infrastructure\_maps/local\_authority\_maps.aspx</a>.

# Material Assets (Land Use and Materials)

Total area: 1,325 km<sup>2</sup>

Major land uses: Fife is comprised mainly of open countryside, and the built up area accounts for 11% of total land surface.<sup>2</sup> The predominant land uses are agriculture, urban development, mineral working, industry and forestry.<sup>3</sup>

Area of previously developed land available for redevelopment: In 2008 Fife had 725.64ha of derelict land and 98.7ha of vacant urban land.<sup>4</sup>

Average population density: 265 per km<sup>2</sup> in 2002. <sup>1</sup>

#### References:

- ONS, http://www.statistics.gov.uk/STATBASE/ ssdataset.asp?vlnk=7662
- Fife Council, Single Outcome
   Agreement, 2008-2011,
   http://www.improvementservice.org.uk/library/577-single-outcome-agreements/666-single-outcome-agreements-2008-2011/view-category/-1/
- Scottish Natural Heritage, Fife
   Landscape Character Assessment,
   1999,
   <a href="http://www.snh.org.uk/publications/online/LCA/fife.asp">http://www.snh.org.uk/publications/online/LCA/fife.asp</a>
- Enviroline, derelict and vacant land, <u>www.scotland.gov.uk/stats/envonline/\_d</u> ata/LANDderelictandvacant.xls

# **Cultural Heritage**

Number of Scheduled Ancient Monuments: 260 1

Number of listed building: 4,910 1

Number of conservation areas: 48 1

Sites currently at risk: 179 buildings on the buildings at risk register of Scotland.<sup>2</sup>

Other important sites: two designated wreck sites; 25 archaeological areas of regional importance; and 31 garden and designed landscapes sites. 1

Current issues for cultural heritage: There is prolific evidence of early settlement throughout the entire area and Fife. Threats to cultural heritage in Fife include: permanent setting change from mineral extraction and further urban development.<sup>3</sup>

#### References:

- Fife Council, State of the Environment Report, 2007, <a href="http://fifedirect.org.uk/publications/index.">http://fifedirect.org.uk/publications/index.</a>
  - nttp://firedirect.org.uk/publications/index. cfm?fuseaction=publication.pop&publd= 1155288E-DA38-0392-2D23E6CA90FF3AD1
- 2. Buildings at Risk Register for Scotland,
  - http://www.buildingsatrisk.org.uk/BAR/re turnsearch.aspx?region=Fife&div=&clas s=ALL&category=AT%20RISK&Page=1 &Numlmg=20
- 3. Scottish Natural Heritage, Fife Landscape Character Assessment,



Sub-Regional Baseline - Fife		
	1999, http://www.snh.org.uk/publications/on- line/LCA/fife.asp	
Landscape		
Number of AONB: Fife has no national scenic areas. <sup>1</sup>	References:	
Other areas designated for their landscapes: six Areas of Great Landscape Value (AGLV) (covering 70,640ha) and six Regionally Important Geological Sites (RIGS) (covering 186ha). Other important sites or features: Fife is comprised mainly of open countryside, and the built up area accounts for 11% of total land surface. 2	<ol> <li>Scottish Natural Heritage, map of national scenic areas, http://www.snh.org.uk/pdfs/nsa/NSAspe cialqualityproject.pdf</li> <li>Fife Council, State of the Environment Report, 2007, http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&amp;pubid= 1155288E-DA38-0392-2D23E6CA90FF3AD1</li> </ol>	

Table C2.2 below sets out the likely evolution of the sub-regional baseline without the implementation of the SDP programme. It is acknowledged that there are information gaps where trends or targets have not been identified in relation to specific issues.

# Table C2.2 Evolution of Baseline Conditions

# **Evolution of the Sub-Regional Baseline - Fife**

#### **Biodiversity and Nature Conservation**

#### Trends:

There is a trend of increasing fragmentation of habitats due to development pressures. This trend is likely to be somewhat less pronounced in the future, due to a range of biodiversity initiatives and projects within the area, however such actions are unlikely to halt or reverse the trend. 1

There is a trend of increasing proliferation of non native invasive species. This trend may be exacerbated by climate change. <sup>1</sup>

There is likely to be a long term trend of biodiversity change as a result of climate change. Changes in environmental conditions are likely to cause some species to increase in prominence at the expense of species less suited to the environmental changes. It is likely that sea level rise and changing climatic conditions will result in the loss of some habitats from the area. <sup>1</sup>

There is a trend of declining biodiversity as a result of some agricultural practices.

# References:

- Fife Structure Plan Strategic Environmental Assessment Environmental Report - December 2008 (incorporating February 2009 updates), <a href="http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-plan/FifeSP/FifeSEAreport">http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-plan/FifeSP/FifeSEAreport</a>
- Fife Local Biodiversity Partnership, Fife Local Biodiversity Action Plan



Such changes are likely to be less pronounced in the long term due to a growing emphasis on environmental stewardship promoted by the Scottish Government.

There is likely to be a trend of improved condition of designated sites and European Protected Species as a result of management strategies. <sup>1</sup>

#### Targets:

The Fife Local Biodiversity Partnership provides specific targets and objectives with reference to different forms of biodiversity. These largely involve their protection and expansion.<sup>2</sup>

#### **Population**

#### **Demographics**

#### Trends:

Fife is an area with a growing population which has reached at least 375,000 and is still expanding (Fife Council, Fife Structure Plan 2006-2026).

The General Register Office for Scotland (GROS) predicts that Fife's population will grow by 10.1% to 398,608 in 2033.against a growth of 7.3% for Scotland. <sup>4</sup>

Total crime rates per 10,000 population have gradually increased from 660 in 1997-08 to peak in 2004-05 at 983 before starting a declining trend to 665 in 2008-09.  $^3$ 

#### Targets:

No relevant targets identified

#### Socio-economics

#### Trends:

In Fife, there is a trend of the legacy of vacant industrial property is giving way to modern offices, financial services and call centres. Between 1998 and 2008 employment sectors have shifted away from manufacturing towards increased employment in the service industries and public administration, education and health.

Between 2001 and 2008, the employment rate has fluctuated but shows a gradually increasing rate. The rate was 72.4 in 2001 (with a peak of 77.9 in 2004) and ending on 76.5 in 2008.<sup>3</sup> This is unlikely to continue under recession conditions.

#### Targets:

Fife Council sets out the following key economic targets:

- increase the number of employees in medium and large enterprises by 10% (6,000 jobs);
- 80% of the working age population in employment;
- attract private sector investment through Invest in Fife of £550m;
- double the amount of business expenditure in research and development to £36m;
- grow Fife's tourism sector revenue by 20% (£51m); and

#### References:

- 1. A Stronger future for Fife, Fife's Community Plan
- Audit Scotland, Fife Council, Audit of Best Value and Community Planning, March 2009, <a href="http://www.audit-scotland.gov.uk/docs/local/2009/bv">http://www.audit-scotland.gov.uk/docs/local/2009/bv</a> 090312 fife em.pdf
- 3. Scottish National Statistics, <a href="http://www.sns.gov.uk">http://www.sns.gov.uk</a>
- General Register Office for Scotland, 2008-based Population Projections.

#### References:

- Fife Council, Single Outcome Agreement, 2008-2011, <a href="http://www.improvementservice.org.uk/library/577-">http://www.improvementservice.org.uk/library/577-</a>
  - single-outcome-agreements/666-single-outcome-agreements-2008-2011/view-category/-1/
- Fife Council, Growing Fife's Future Fife's Economic Strategy 2009-20
  - . Scottish National Statistics, http://www.sns.gov.uk



increase the number of people employed in green jobs by 2,000.

#### **Human Health**

#### Trends:

The trend in Fife is gradually improving health. Between 1995 and 2004, death rates for the four main causes of death in Fife (cancer, heart disease, cerebrovascular disease and respiratory disease) decreased. Deaths from heart disease fell by 36%. Deaths from cerebrovascular disease and respiratory disease fell by 25%.

There is a trend of increasing life expectancy. 1

There is a trend of a slight increasing cancer registrations in the Fife population (from 503 per 100,000 in 2000-2004 to 515 per 100,000 in 2001-2005).

There is a trend of improved perceptions of community safety. Between 2000 and 2006 fear of crime across the whole of Fife fell from 58% to 45.9%.

There is a trend of falling crime rates in Fife. Crime fell in Fife in almost all categories for five successive years.<sup>3</sup>

Between 2002 and 2008 coronary heart disease hospital admissions have declined from 652 per 100,000 population to 554.

Between 2002 and 2008 cerebrovascular disease hospital admissions have declined from 292 per 100,000 population to 279. (However there was a small increase in rates between 2006 and 2007; the trend is downwards, however the trend is not statistically significant).

Between 2002 and 2008 cancer hospital admissions have increased from 2,842 per 100,000 population to 3.171.

Between 2002 and 2008 respiratory disease hospital admissions have increased from 1,343 per 100,000 population to 1,473.

Between 2002 and 2008 digestive system disease hospital admissions have remained generally declined (following periods of increase) with 2,808 per 100,000 population in 2002 and 2,115 in 2008.

Between 2004 and 2009 the number of GP practices has remained relatively constant (57 in 2009).  $^{4}$ 

#### Targets:

Reduce the percentage of the adult population who smoke to 22% of adults by  $2010.^2$ 

#### References:

- Fife Council, Single Outcome Agreement, 2009-2012, http://www.cvsfife.org/publications/draftsoa.pdf
- Fife Council, Single Outcome Agreement, 2009-2012 (draft), <a href="http://www.cvsfife.org/publications/draftsoa.pdf">http://www.cvsfife.org/publications/draftsoa.pdf</a>
- Fife Constabulary, Annual Report 2009-10, http://www.fife.police.uk/PDF/annualreport2009\_1 0.pdf
- 4. Scottish National Statistics, <a href="http://www.sns.gov.uk">http://www.sns.gov.uk</a>

#### **Human Health (Noise)**

Trends:

No relevant noise trend data identified.

Targets:

No relevant targets identified

References:

N/A



#### Soil and Geology

#### Trends:

Soil erosion and loss of organic matter are established trends that are likely to continue. However prioritisation of developments onto brownfield sites could slow the trend. <sup>1</sup>

# Targets:

Safeguard soil quality, quantity and function.

Reduce levels of brownfield, derelict and contaminated land in the plan area <sup>1</sup>

Fife Council aims for mineral excavation to take place in the most sustainable locations in a sustainable manner.<sup>2</sup>

#### References:

- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010, http://www.fifedirect.org.uk/uploadfiles/publication s/c64\_PostAdoption-
  - FinalisedPostAdoptionSEAStatement-January20101.pdf
- 2. Fife Council, Fife Minerals Local Plan

#### Water

#### Trends:

Between 1950 and 1970 there was 57% reduction in ponds in Fife. However between 1990 and 1998 there was no significant change in pond numbers. 1

There is a general trend of increasing freshwater quality due to reduced agricultural and point source pollution of freshwater as a result of river basin management plans.<sup>2</sup>

#### Targets:

- limit water pollution to levels that do not damage natural systems;
- maintain water abstraction, run-off and recharge within carrying capacity (including future capacity) maintain and restore key ecological processes (e.g. hydrology, water quality, coastal processes);
- protect and, where necessary, enhance waterbody status; and
- reduce/manage flood risk.<sup>3</sup>

#### References:

- Fife Council, State of the Environment Report, 2007,
  - http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&pubid=1155288E-DA38-0392-2D23E6CA90FF3AD1
- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010, http://www.fifedirect.org.uk/uploadfiles/publication s/c64 PostAdoption-
  - FinalisedPostAdoptionSEAStatement-January20101.pdf

#### Air

#### Trends:

Air pollution is expected to increase as a result of industry growth, energy generation and road traffic growth. 1

Overall improved public transport should mitigate negative effects. <sup>2</sup>

#### Targets:

- to maintain and improve air quality;
- limit air pollution to levels that do not damage natural systems 50; and
- limit air emissions to comply with air quality standards<sup>2</sup>

#### References:

- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010,

http://www.fifedirect.org.uk/uploadfiles/publications/c64\_PostAdoption-

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# Climate Change and Energy Use

Trends: References:



Key findings for Scotland East, 2080s medium emissions scenario: 4

- the trend is for an increase in winter mean temperature of 2.2°C; it is very unlikely to be less than 1.0°C and is very unlikely to be more than 3.7°C;
- the trend is for an increase in summer mean temperature of 3.5°C; it is very unlikely to be less than 1.8°C and is very unlikely to be more than 5.7°C;
- the trend is for a change in winter mean precipitation of 0%; it is very unlikely to be less than -6% and is very unlikely to be more than 6%;
- the trend is for a change in summer mean precipitation of -17%; it is very unlikely
  to be less than -33% and is very unlikely to be more than 0%;
- between 2005 and 2007 average commercial and industrial gas usage per customer increased from 1,439,961 KWh to 1,845,037 KWh;
- between 2005 and 2007 average commercial and industrial electricity usage per customer decreased from 88,409 KWh to 78,124 KWh; and
- between 2005 and 200 total commercial and industrial energy usage increased from 5,910.6 GWh to 7,110.3 GWh. <sup>3</sup>

There is likely to be a trend of increasing energy demand. However, an increasing proportion of energy is likely to be generated from renewable sources.<sup>1</sup>

Fife is expected to become warmer and wetter in the winter, with hotter and drier summers. Though difficult to predict, extreme weather events such as localised heavy rainfall are likely. This will mean more:

- flooding;
- mudslides;
- land subsidence;
- · infrastructure damage; and
- pests like midges surviving through milder winters.<sup>2</sup>

#### Targets:

- to reduce the cause and effects of climate change;
- reduce greenhouse gas emissions; and
- reduce vulnerability to the effects of climate change e.g. flooding, disruption to travel by extreme weather, etc.

- Fife Council, Fife Structure Plan SEA 2008, <a href="http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-plan/FifeSP/FifeSEAreport">http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-plan/FifeSP/FifeSEAreport</a>
- Fife Council, Climate Change, Carbon and Energy, http://www.fife.gov.uk/topics/index.cfm?fuseaction =page.display&pageid=E2A8E526-65BF-00F7-DA6238F1EB3894F6&subjectid=430EB347-005B-8681-1629D8206303D4C8
- Department of Business, Enterprise and Regulatory Reform (BERR) Energy Consumption at Regional and Local Authority Level, 2007 <a href="http://www.berr.gov.uk/energy/statistics/regional/index.html">http://www.berr.gov.uk/energy/statistics/regional/index.html</a>
- Defra, UKCP09, <a href="http://ukcp09.defra.gov.uk/content/view/20/6">http://ukcp09.defra.gov.uk/content/view/20/6</a>
- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010, http://www.fifedirect.org.uk/uploadfiles/publication s/c64\_PostAdoption-FinalisedPostAdoptionSEAStatement-January20101.pdf

#### Coastal Change and Flood Risk

#### Trends:

Sea level change central projection between 1990 and 2080 medium emissions scenario:24.2cm <sup>4</sup>

There is likely to be a general trend of increasing coastal water quality due the requirements of the WFD. However, shipping, particularly in the inner Forth Estuary will continue to pose a risk of point source pollution. Concerns have also been raised about an increase in flood risk with development in the east and north of the area potentially affecting the River Eden catchment.

#### References:

- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010, <a href="http://www.fifedirect.org.uk/uploadfiles/publications/c64">http://www.fifedirect.org.uk/uploadfiles/publications/c64</a> PostAdoption-



Climate change is likely to result in a trend of increasing flood risk throughout Fife. This trend is likely to be exacerbated by development on flood planes and low lying coastal regions. <sup>1</sup>

Within the Rosyth area the still-water tide levels based on the approximate peak for 1 in 200 year and 1 in 1000 years are 4.52mAOD and 4.64mAOD, respectively. This extreme tide level is based upon the POL112 method (Proudman Oceanographic Laboratory, Internal Document 112), but it does not take storm surge or wave action into consideration.

UKCP09 (U.K. Climate Projections 2009) projects the sea level rise relative to the 1990 sea level height, to be  $10.5-18~\rm cm$  by 2050, and  $23.4-39.2~\rm cm$  by 2095, depending on the emissions scenario modelled.

#### Targets:

- limit water pollution to levels that do not damage natural systems;
- maintain water abstraction, run-off and recharge within carrying capacity (including future capacity) maintain and restore key ecological processes (e.g. hydrology, water quality, coastal processes);
- protect and, where necessary, enhance waterbody status; and
- reduce/manage flood risk. <sup>3</sup>

- <u>FinalisedPostAdoptionSEAStatement-</u> January20101.pdf
- Fife Council, Fife Structure Plan 2006 2026 Post Adoption SEA 2010, <a href="http://www.fifedirect.org.uk/uploadfiles/publications/c64">http://www.fifedirect.org.uk/uploadfiles/publications/c64</a> PostAdoption-FinalisedPostAdoptionSEAStatement-January20101.pdf
- Defra, UKCP09, <a href="http://ukcp09.defra.gov.uk/content/view/20/6">http://ukcp09.defra.gov.uk/content/view/20/6</a>
- 5. SEPA (from consultation)
- UKCP09 Maps and Key Findings http://ukclimateprojections.defra.gov.uk/content/vi ew/972/499/

#### **Material Assets (Transport)**

#### Trends:

Car ownership, use and the distances travelled by cars each year is increasing.<sup>1</sup>

There is likely to be a trend of increasing road transport journeys and increased congestion on Fife's roads.<sup>2</sup>

#### Targets:

Fife Council set the following targets:

- a 40% reduction in the number of people killed or seriously injured (KSI);
- a 50% reduction in the number of children killed or seriously injured;
- a 10% reduction in the slight injury casualty rate;
- halt the decline in walking;
- maintain the percentage of walk trips to work at 15%; and
- increase cycling to key Public Transport Interchanges by 10% by 2011.<sup>3</sup>

#### References:

- Fife Council, State of the Environment Report, 2007, <a href="http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&pubid=1155288E-DA38-action=publicatio
  - action=publication.pop&publd=1155288E-DA38-0392-2D23E6CA90FF3AD1
- Fife Council, Local Transport Strategy for Fife 2006-2026

# Material Assets (Waste Management)

#### Trends:

There is a trend towards more sustainable waste management. It is likely that policy requirements will drive greater proportions of waste management towards reuse and recycling and away from landfill. <sup>1</sup>

As of 2008 Fife had four active landfills, Lochhead landfill, Valley Ash Lagoons, Longannet Point Ash Lagoons and Lower Melville Wood. The remaining capacities were 2,920,702, 7,528,000, 100,000 and 265,875 tonnes respectively (Valley Ash

#### References:

- Fife Council, Fife Structure Plan SEA 2008, http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-plan/FifeSP/FifeSEAreport
- 2. SEPA, Landfill Capacity Report for Scotland, 2008
- 3. Scottish Government, Scotland National Waste



and Longannet are not included in the report due to being for in-house waste only).2

#### Targets:

Targets are to conform to the objectives of Scotland's National Waste Plan:

- provide widespread segregated kerbside waste collections across Scotland (to over 90% of households by 2020);
- aim to stop growth in the amount of municipal waste produced by 2010;
- achieve 25% recycling and composting of municipal waste by 2006, and 55% by 2020 (35% recycling and 20% composting);
- · recover energy from 14% of municipal waste; and
- reduce landfilling of municipal waste from around 90% to 30%.<sup>3</sup>

#### Plan

#### Material Assets (Land Use and Materials)

#### Trends:

An area with a growing population which has reached at least 375,000 and is still expanding. The General Register Office for Scotland (GROS) predicts that Fife's population will grow by 10.1% to 398,608 in 2033.<sup>2</sup>

The situation in Fife reflects the overall Scottish trend which is one of increasing urbanisation with 1,403 hectares of agricultural land given over to roads, housing or industry in 2002–2003 (a 140% increase since 1989-1990); <sup>3</sup>

The area of derelict and vacant land in Fife has fluctuated between 1999 to 2007. Overall, the area of derelict land has changed little from 772ha to 757ha between 1999 and 2007. However, the number of derelict sites has increased from 96 to 159 from 1999 to 2006. The area of vacant land has decreased more significantly, from 203ha to 114ha between 1999 and 2006. The number of vacant sites also decreased from 80 to 68 in the same time period.<sup>3</sup>

Between 2002 and 2009, the area of vacant land increased from 80ha to 83ha, however this has declined following greater increases over the years between 2002 and 2008

Between 2002 and 2009, the area of derelict land increased from 528ha to 731ha.<sup>4</sup>

#### Targets:

Fife Council indicates the district is to provide 35,200 new homes between 2006 and 2026  $^{\rm 1}$ 

#### References:

- Fife Council, Fife Structure Plan 2006-2026
- 2. General Register Office for Scotland, 2008-based Population Projections.
- Fife Council, Single Outcome Agreement, 2008-2011, http://www.improvementservice.org.uk/library/577single-outcome-agreements/666-single-outcomeagreements-2008-2011/view-category/-1/
- 4. Scottish National Statistics, <a href="http://www.sns.gov.uk">http://www.sns.gov.uk</a>

#### **Cultural Heritage**

#### Trends:

No relevant cultural heritage trend data identified

#### Targets:

- protect and, where appropriate, enhance or restore the historic environment;
- preserve historic buildings, archaeological sites and other culturally important features:
- · promote access to the historic environment; and

#### References:

 Fife Council, Fife Structure Plan 2006 - 2026 Post Adoption SEA 2010,

http://www.fifedirect.org.uk/uploadfiles/publications/c64\_PostAdoption-

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improve the enjoyment and understanding of the historic environment.

#### Landscape

#### Trends:

Fife's Wetlands appear to be declining due to changes in habitat distribution and land use (based on Phase I survey data from Fife Council for 1995 and 2003).

There is a trend of increasing development pressure on landscapes. However effects are likely to be minimised by strategic location of developments away from sensitive landscapes.<sup>2</sup>

#### Targets:

- to conserve and enhance landscape character and scenic value of the area;
- protect and enhance the landscape everywhere and particularly in designated areas;
- · value and protect diversity and local distinctiveness; and
- improve the quantity and quality of publicly accessible open space.

#### References:

 Fife Council, State of the Environment Report, 2007, <a href="http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publid=1155288E-DA38-">http://fifedirect.org.uk/publications/index.cfm?fuseaction=publication.pop&publid=1155288E-DA38-</a>

0392-2D23E6CA90FF3AD1

January20101.pdf

 Fife Council, Fife Structure Plan 2006 - 2026 Post Adoption SEA 2010, http://www.fifedirect.org.uk/uploadfiles/publication s/c64\_PostAdoption-FinalisedPostAdoptionSEAStatement-

# **Current Problems in Sites of Particular Environmental Importance**

This section sets out the current condition and potential problems facing European designated Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites, that could be relevant to the subsequent assessment of the locational options. This is consistent with the requirements of Annex I (d) of the SEA Directive (which requires that existing environmental problems, and in particular, those relating to any areas of particular environmental importance, such as areas designated pursuant to Directive 79/409/EEC and 92/43/EEC are outlined).

SPAs, SACs and Ramsar sites have been selected on the basis of being within 20km of the potential sites for SDP dismantling and interim storage activities. The selection criterion aims to capture all sites that would be subject to Appropriate Assessment under the Habitat Regulations<sup>5</sup>. In recognition that effects could have effects downstream of fluvial and tidal zones, a precautionary approach as been taken by adopting a 20km radius rather than the 15km radius usually used in Appropriate Assessment.

Where specific SPA or SAC condition data is not currently available, the aggregate condition of the constituent SSSIs has been used. It is noted that there are limitations to using SSSI condition is a

<sup>&</sup>lt;sup>5</sup> Habitat Regulations Assessment is required under Article 6 of the EC Habitats Directive 1992, and under UK law by Regulation 48 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended in 2007).



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surrogate for SPA condition as conservation and condition indicators vary. However, for the purposes of this assessment SSSI condition is considered to provide an appropriate benchmark of condition.

# Table C2.3 Current Problems in Sites of Particular Environmental Importance

# Sub-Regional Current Problems in Sites of Particular Environmental Importance - Fife

#### **SPA**

#### Loch Leven SPA

Loch Leven lies midway between the Forth and Tay estuaries in east-central Scotland. It is about 15km² in extent and is the largest naturally eutrophic loch in Britain and Ireland. It is relatively shallow and is surrounded by farmland, with a diverse aquatic flora and shoreline vegetation. The loch contains several islands, the largest of which, St Serf's Island, has an area of about 46ha. The site supports internationally important wintering populations of water birds (swans, geese and ducks).

#### Condition:

Loch Leven SPA is in favourable condition with the exception of Whooping Swan populations which are in decline. Potential risks to the SPA are from visitors and runoff from surrounding farm land.

#### Forth Islands SPA

The Firth of Forth Islands are located in or near to the Firth of Forth on the east coast of central Scotland. The SPA comprises a number of separate islands or island groups, principally Inchmickery (together with the nearby Cow and Calves) off Edinburgh, Fidra, Lamb and Craigleith together with the Bass Rock off North Berwick, and the much larger Isle of May in the outer part of the Firth. The site also includes additional other small islands. The inner islands are very low lying whilst those in the outer Firth are higher, steeper and rockier. This applies especially to the Bass Rock which is a volcanic plug rising to over 100m, and to the Isle of May, which is surrounded by cliffs up to 50m. The islands support important numbers of a range of breeding seabirds, in particular terns, auks and gulls. The colony of Gannets Morus bassanus is the largest on the east coast of the UK. The seabirds feed outside the SPA in nearby waters, as well as more distantly in the North Sea.

#### Condition:

Forth Islands SPA is in favourable condition, although two breeding bird populations are in decline (Kittiwake and Shag). Potential risks to the SPA are from visitors and pollutant leakage from the mainland or shipping affecting the surrounding waters.

# Firth of Forth SPA

The Firth of Forth is located on the east coast of central Scotland. It is a complex estuarine site, stretching for over 100km from the River Forth at Stirling eastwards past Edinburgh and along the coasts of Fife and East Lothian to a wide estuary mouth. A wide range of coastal and intertidal habitats is found within the site, including saltmarshes, dune systems, maritime grasslands, heath and fen, cliff slopes, shingle and brackish lagoons. Extensive mud-flats occur particularly in the Inner Firth, notably at Kinneil Kerse and Skinflats on the south shore and Torry Bay on the north shore. Typically, the flats support a rich invertebrate fauna, with Eelgrass Zostera spp. growing on the main mud-flats, both features providing important food sources for the large numbers of migrating and wintering water birds that depend on the estuary. In the Outer Firth, the shoreline diversifies, with sandy shores, some rocky outcrops, mussel beds and some artificial sea walls. The North Berwick coast includes cliffs and dune grassland, with extensive dune systems at Aberlady. The Firth is of major importance for a rich assemblage of water birds in the migration periods and through the winter, including divers, sea-ducks, geese, other ducks, waders and terns. Some of these species, notably the sea-ducks and divers, also feed, loaf and roost outside the SPA in the open waters of the estuary.

#### Condition:

Firth of Forth SPA is in favourable condition. Potential risks to the SPA are from coastal industrial development; localised tipping; pollutant leakage; and sea level rise. Shoreline industrial development is subject to rigorous planning control and demonstration of appropriate emergency contingency planning.

#### Imperial Dock Lock, Leith SPA

Site designated for breeding Common Tern Sterna hirundo.

No JNCC description (designated following review process).

#### Condition:

Imperial Dock Lock, Leith SPA is in favourable maintained condition.

As an entirely man-made structure with little vegetation this site is at low risk from any degradation of habitat. However as it is in the centre of an active industrial area



# Sub-Regional Current Problems in Sites of Particular Environmental Importance - Fife

(Leith Docks) it is at great risk of disturbance.

Although terns are generally sensitive to disturbance this colony appears to be resiliant to disturbance from port activities and has been steadily increasing in size. A few years ago a gantry crane was built on the quayside adjacent to the colony and although it has not been operated regularly, use of the crane seems to be increasing. Regular monitoring of the colony during the breeding season should highlight any increased disturbance from this source.

#### SAC

No SAC sites within 20km of RRDL Rosyth.

#### Condition:

N/A

#### Ramsar

#### Firth of Forth

A large coastal area comprising a complex of estuaries, mudflats, rocky shorelines, beaches and saltmarshes, including many fragmentary bits of shoreline considered to act as a single ecological unit. Several large urban areas, including Edinburgh, are adjacent to the site and include areas of heavy industry and well-used maritime shipping lanes. The site provides habitat for large numbers of wintering waders and wildfowl, many in nationally and internationally important numbers, and a number of aesthetic, archaeological, sporting and recreational interests lend added value. Coastal industrial development is seen as a source of pressure but is subject to detailed planning control, and the potential for rising sea levels are foreseen in "planned retreat" coastal realignment schemes.

#### Condition:

The site is not currently subject to adverse ecological change

No factors (past, present or potential) identified which adversely affect the site's ecological character.

#### Loch Leven

The site, the largest nutrient-rich lake in Britain, is an excellent example of a wetland with multiple uses in balance with its natural heritage interest. Consisting of several islands surrounded by damp pasture, the site is of national entomological importance and includes several nationally rare species of aquatic flora. The loch provides feeding, roosting and wintering sites for internationally important numbers (averaging 18,463 individuals in winter) of swans, geese and ducks. Human activities include intensive trout fishing, bird hunting, and general recreation.

# Condition:

The site is not currently subject to adverse ecological change

No factors (past, present or potential) identified which adversely affect the site's ecological character.

(Source: Multi-Agency Geographic Information for the Countryside, <a href="www.magic.gov.uk">www.magic.gov.uk</a>; Joint Nature Conservation Committee, <a href="http://www.ramsar.org">http://www.ramsar.org</a>; and Scottish Natural Heritage <a href="www.snh.gov.uk">www.snh.gov.uk</a>).

# **Relevant Sub-Regional Plans and Programmes**

The SEA scoping process needs to identify and review other relevant plans, programmes, policies and strategies (herein after referred to as 'plans and programmes') that are applicable to the SDP and outline the nature of "relationship with other relevant plans and programmes".



# Table C2.4 Relevant Plans, Programmes and Strategies

# **Sub-Regional Plans and Programmes - Fife**

#### **Biodiversity and Nature Conservation**

#### **Summary Policy Messages:**

To protect BAP species and habitats.

#### **SEA objectives link:**

Objective A Biodiversity and Nature Conservation

Objective C Health and Wellbeing

Fife Local Biodiversity Action Plan (2009-2011)

#### Objectives:

- translate national targets for species and habitats, as specified in the UK Action Plan, into
  effective action at the local level;
- stimulate effective local working partnerships to ensure that programmes for biodiversity conservation are developed and maintained;
- raise awareness of the need and responsibilities for biodiversity conservation and enhancement in the local context;
- identify biodiversity resources and priorities in the local area;
- identify targets for species and habitats important to the local area, including both the rare and the common, according to local circumstances;
- ensure that delivery mechanisms for conservation and enhancement of biodiversity resources are promoted and understood at the local level; and
- provide a local basis for monitoring progress in biodiversity conservation.

Targets: Specific targets and objectives are made with reference to different forms of biodiversity.

#### **Population**

#### **Summary Policy Messages:**

To make Fife a stronger, more flexible and diverse economy, with improved skills, education, and safety.

To provide an entrepreneurial environment that promotes innovative companies.

To develop physical and electronic infrastructure to ensure Fife's businesses are connected to the global economy.

#### SEA objectives link:

Objective B Population

Objective C Health and Wellbeing

Fife Community Plan 'A Stronger Future for Fife' 2004.

# Objectives:

We plan to deliver our shared vision of a Stronger Future for Fife by:

- building a stronger, more flexible and diverse economy;
- · improving health and wellbeing in Fife;
- creating a well-educated and skilled Fife;



- · sustaining and improving our environment; and
- · making Fife's communities safer.

Targets: No formal targets.

#### Growing Fife's Future - An Economic Development Strategy for Fife 2005-15

Objectives: The Strategy will contribute to improved growth and productivity in Fife by focussing on three broad strategic objectives:

- growing businesses providing an entrepreneurial environment which delivers innovative companies growing in scale;
- learning and skills developing skills to make best use of human capital and prepare Fife's residents for tomorrow's labour market; and
- global connections focusing on physical/electronic infrastructure to create world class locations and ensuring Fife's businesses are connected to the global economy.

Targets: Sub targets are included within the above objectives.

#### **Human Health**

#### **Summary Policy Messages:**

To improve health and wellbeing across the population and over the whole of a person's life, including by empower individuals and communities to make healthy choices.

To improve housing conditions, recognising the significant impact this can have on an individual's health.

#### **SEA objectives link:**

Objective C Health and Wellbeing

Objective B Population

#### Fife Emergency Planning Unit

Objectives: The Unit is required:

- to co-ordinate, advise and implement Fife Council's Integrated Emergency Management policy in response to any emergency that may require the mobilisation of Fife Council's staff or resources;
- to provide information, advice and assistance on all aspects of emergency management;
- to deliver integrated emergency management training to Council Services employees and the Voluntary Sector;
- to plan and organise emergency exercises both in-house and in partnership with other agencies:
- to preserve life and property;
- · to mitigate the harmful effects of the emergency on the environment;
- to bring about a swift return to normal life for the communities and environment affected; and
- to encourage all agencies and organisations to prepare for their role.

Targets: No formal targets.

#### A Healthier Future for Fife (2007-2010)

#### Objectives:

 improve health and wellbeing across the whole population and over the whole of a person's life;



- reduce the gap in health between people living in different parts of Fife and between different groups of people within Fife - focusing on improving the health and wellbeing of individuals and groups who face the greatest health inequalities and barriers to inclusion;
- empower individuals and communities to make healthy choices;
- reduce the number of people who develop long-term conditions such as diabetes, stroke, coronary heart disease, cancer and respiratory disease - in order to ensure the people of Fife live longer and healthier lives; and
- continue to improve housing conditions, recognising the significant impact this can have on an individual's health.

Targets: No formal targets.

#### **Human Health - Noise**

#### **Summary Policy Messages:**

No noise plans or programmes identified.

#### SEA objectives link:

Objective D Noise and Vibration

Objective C Health and Wellbeing

No noise plans or programmes identified.

No noise plans or programmes identified.

# **Soil and Geology**

# **Summary Policy Messages:**

To prevent further land contamination.

To encourage voluntary remediation.

To encourage the development of "brownfield" sites.

# SEA objectives link:

Objective E Geology and Soils.

Objective C Health and Wellbeing.

Objective A Biodiversity and Nature Conservation.

Fife Minerals Local Plan (2004)

Objective: Plan seeks to achieve a balance between meeting the requirement for minerals and environmental protection thereby ensuring that any development takes place in the most sustainable locations and in a more sustainable way.

Targets: No formal targets

Fife Contaminated Land Inspection Strategy, review 2010

Objective: In accordance with the statutory regime, Fife Council seeks:

- to protect human health;
- to protect the water environment.
- to protect designated ecosystems;
- to prevent damage to property;



- to prevent further land contamination;
- · to encourage voluntary remediation;
- to encourage the development of "brown-field" sites, and

Targets: No formal targets.

#### Water

#### **Summary Policy Messages:**

To have regard to a development's anticipated demand for water and drainage (including the need for Sustainable Urban Drainage Systems (SUDS)).

#### **SEA objectives link:**

Objective F Water

Objective C Health and Wellbeing

Objective M Cultural Heritage

Objective H Energy and Climate Change

Objective A Biodiversity and Nature Conservation

Fife Structure Plan - Policy SS1: Settlement Development Strategy Objectives: Policy sets out that the Council will have regard to the anticipated demand for water and drainage and the need for Sustainable Urban Drainage Systems (SUDS) to address surface water run-off and to contribute to sustainable development and nature conservation and enhancement.

Targets: No formal targets.

#### Air

#### **Summary Policy Messages:**

To meet air quality objectives included in the Air Quality Regulations.

#### SEA objectives link:

Objective G Air

Objective C Health and Wellbeing

Objective J Transport

Objective A Biodiversity and Nature Conservation

Fife Council - Air Quality Review And Assessment Progress Report for Fife Council 2009

Objectives: The fourth round of air quality review and assessment, in which sources of air pollutant emissions are reassessed to identify whether the situation has changed since the previous round, and if so, what impact this may have on the likelihood of compliance with Air Quality Strategy objectives.

Targets: Report reviews Fife against a number of air quality strategy objectives.



#### **Climate Change and Energy Use**

#### **Summary Policy Messages:**

To achieve national CO2 emission cuts.

To minimise the environmental impact of energy supply.

To encourage low carbon and energy efficient new developments and renewable energy use.

#### **SEA objectives link:**

Objective H Energy and Climate Change

Objective G Air

Objective B Population

Objective F Water and Drainage

Objective A Biodiversity and Nature Conservation

Fife Structure Plan 2006-2026 - Policy R1: Wind Turbines

Objectives: Policy grants preference to commercial wind farms within an identified broad area of search. Within such areas, proposals are most likely to be supported where:

- the landscape is capable of accommodating them;
- through careful siting within the landform and high quality of design and materials, they
  respect the key features and character of the landscape and minimise their impact on the
  landscape and wider environment;
- they do not have a significant detrimental effect on the amenity of nearby residents;
- they do not have a detrimental impact on groundwater resources or private water supplies; and,
- they are not located on migratory flight paths of birds nor located on flight paths between breeding and feeding areas or on the breeding areas themselves.

Targets: No formal targets.

# Fife Council Environmental Policy 2009

# Objectives:

- respond to the national aim of reducing CO2 emissions to combat global climate change by integrating carbon management into Council business and implementing action to reduce emissions:
- lead the development and implementation of an effective Fife-wide sustainable energy strategy that will minimise the environmental impact of energy supply and use and ensure affordable and secure energy supplies are available to Fife's communities;
- encourage low carbon and energy efficient new developments and renewable energy use through appropriate land use policy and planning; and
- · recover heat and energy from municipal waste.

Targets: No formal targets.

#### Coastal Change and Flood Risk

#### **Summary Policy Messages:**

To direct development type within the coastal area of Fife.



#### **SEA Objectives Link:**

Objective I Coastal Change and Flood Risk

Objective F Water

Objective H Energy and Climate Change

Fife Structure Plan 2006-2026.

Objective:

The relative prosperity and environmental quality of East Fife's coastal communities has not been matched in other Fife coastal stretches. From Leven to Rosyth, many of the communities have significant regeneration needs. There are a range of major development opportunities within this area for housing, employment, leisure and retail.

Targets: No formal targets.

#### **Material Assets (Transport)**

#### **Summary Policy Messages:**

To improve access to all key services; limit the growth in the use of driver only car trips; encourage more sustainable travel for new and existing developments; promote efficient movement of freight; and encourage transfer of freight goods from road to rail, sea and pipeline.

#### **SEA objectives link:**

Objective J Transport

Objective C Health and Wellbeing

Objective A Biodiversity and Nature Conservation

Objective B Population

Fife Structure Plan 2006-2026 - Proposal PT1: Transport Proposals.

Objectives: This Proposal sets out a number of transport proposals for the region. Of particular note are the following national/international proposals:

- new multi-modal cross-Forth bridge and associated approach networks at Queensferry initial feasibility study with potential for a new bridge within the Plan period;
- segregated public transport corridor through the Forth Bridgehead Area, including the existing Dunfermline Eastern Expansion area, with potential to link to a further Forth crossing; and
- passenger rail on Dunfermline-Kincardine-Alloa-Stirling line.

Targets: No formal targets.

Local Transport Strategy for Fife 2006-2026

Objectives:

- to improve access to all key needs and services for all. (including employment, education, health and leisure opportunities).
- to improve safety for all forms of transport;
- to limit the growth in the use of driver only car trips, especially for commuting, by encouraging more use of public transport, and car sharing;
- to manage and maintain road networks in an acceptable, safe and sustainable condition;
- to encourage more sustainable travel for new and existing developments;
- to widen travel choice through the provision of integrated transport networks;



- to encourage walking and cycling for short trips and as part of an integrated journey to promote a healthier lifestyle;
- to work with passenger transport operators to develop an integrated public transport system;
- to promote efficient movement of freight and encourage transfer of goods from road to rail, sea and pipeline; and
- to maintain access for essential private vehicle users, whilst restraining the capacity for driver only car commuting in congested locations.

#### Targets:

Plan includes a number of targets to achieve above objectives including funding and outcomes.

#### **Material Assets (Waste Management)**

#### **Summary Policy Messages:**

To ensure that waste management systems are developed in accordance with the best practicable environmental option (BPEO), which includes the principles of sustainable development and integrated waste management.

#### **SEA objectives link:**

Objective K Waste

Objective C Health and Wellbeing

Objective A Biodiversity and Nature

#### Fife Area Waste Plan (2006)

Objectives: Key aims are:

- set out in detail the existing waste management infrastructure and arrangements, develop the
  principles and plan or progress in waste management in the medium and long terms to meet
  current and future legislative requirements and the objectives of the National Waste Strategy:
  Scotland:
- ensure that the waste management system developed is in accordance with the best practicable environmental option (BPEO), which includes the principles of sustainable development and integrated waste management, and makes the maximum possible contribution to reducing society's environmental impact at an acceptable cost;
- provide a clear framework for stakeholders to judge the future development of waste management services in Fife, and to guide both local authority Integrated waste management plans and private investment decisions;
- ensure that development planning policy in Fife is consistent with, and contributes to, the overall aims of the National Waste Strategy and the Fife AWP;
- maximise the opportunities for Fife businesses arising from sustainable waste management, including the not-for-profit sector;
- enable all key stakeholders the opportunity to input to the area waste planning process;
- ensure that the area waste planning process offers a clear, transparent and informative approach that is demonstrable to local stakeholders;
- raise public awareness of the future challenges in implementing the AWP and promote active participation by all stakeholders in meeting the objectives; and
- maintain regular review of new waste management technologies to ensure the continued BPEO for Fife in the longer term.



**Targets:** Objectives are in keeping with wider national waste management targets.

#### Material Assets (Land Use and Materials)

#### **Summary Policy Messages:**

To promote development consistent with achieving thriving and sustainable communities.

#### SEA objectives link:

Objective K Land Use and Materials

Objective B Population

Objective A Biodiversity and Nature

Fife Structure Plan 2006-2026

Objective: The Plan sets out the following vision for Fife:

A location of first choice in east central Scotland to live, work, play, learn and invest. An attractive place, with thriving and sustainable communities and a diverse environment. An area with a growing population which has reached at least 375,000 and is still expanding. A place where people can achieve their full potential through education, skills and career development.

Targets: Fife district itself is to provide 35,200 new homes between 2006 and 2026.

#### **Cultural Heritage**

#### **Summary Policy Messages:**

To protect heritage features during development.

#### SEA objectives link:

Objective M Cultural Heritage

Fife Structure Plan - Policy SS1 (Settlement Development Strategy).

Policy SS1 sets out the Council will have regard to the protection of built heritage or natural environment features.

Targets: No formal targets.

#### Landscape

# Summary Policy Messages:

To safeguard and improve the character and distinctiveness of Fife's landscapes and coastline.

To improve and restore degraded landscapes in Fife.

# SEA objectives link:

Objective N Landscape and Townscape

Objective A Biodiversity and Nature Conservation

Objective B Population



Fife Structure Plan - Chapter 4 (Safeguarding and Improving Fife's Environment).

Objectives: Policy objectives are as follows.

- safeguarding and improving the character and distinctiveness of Fife's landscapes and coastline, including the landscape setting of towns and villages;
- improving and restoring degraded landscapes;
- protecting and enhancing the natural environment including Fife's biodiversity and geological heritage;
- · encouraging woodland planting in appropriate locations;
- protecting and enhancing the historic and built environments which give Fife its sense of place; and
- ensuring development positively contributes to Fife's sense of place.

Target: No formal targets.

