

Chapter 5: High Quality Environments

Figure or Table	Advancing Together Indicator	YNY Baseline	YNY Latest Data	YNY Change on Baseline	YNY Progress	Y&H Baseline	Y&H Latest Data	Y&H Change on Baseline	Y&H Progress
Table 5.2	Biodiversity: Percentage of Sites of Special Scientific Interest in favourable condition	19%	21%	+2pp	☺	24%	33%	+9 pp	☺
Figure 5.1	Water Quality: River quality - Percentage length good or fair biological quality	96%	96%	-	☺	80%	91%	+11 pp	☺
Figure 5.2	Water Quality: River quality - Percentage length good or fair chemical quality	92%	96%	+4pp	☺	82%	89%	+7 pp	☺
Figure 5.3	Waste: Total household waste per person per year (kg)	520	561	+41kg	☹	477	492	+15 kg	☹
Figure 5.4	Waste: Household waste recycled per person per year (kg)	35	97	+62kg	☺	29	71	+42 kg	☺

Other Advancing Together High Quality Environments Indicators – Data not available for York and North Yorkshire	
Biodiversity: Woodland bird population index	Not available at sub-regional level
Air Quality: Days when air pollution is moderate or higher	Not available at sub-regional level
Emissions: CO ₂ emissions per head (kg)	Not available at sub-regional level
Energy Consumption: Regional Energy Consumption billed to end-user (GWh)	Not available at sub-regional level
Energy Consumption: Energy produced from renewable sources as a proportion of regional energy consumption (%)	Not available at sub-regional level

Table 5.2 – Baseline 2004. Latest data is 2006. Source: English Nature, January 2006.
 Figure 5.1 - Baseline 1998. Latest data is 2004. Environment Agency.
 Figure 5.2 – Baseline 2000. Latest data is 2004. Environment Agency.
 Figure 5.4 - Baseline 1998/99. Latest data is 2003/04 Source: DEFRA, Municipal Waste Survey.
 Figure 5.5 - Baseline 1998/99. Latest data is 2003/04 Source: DEFRA, Municipal Waste Survey.

- ☺ - significant change in the right direction.
- ☺ - little or no change.
- ☹ - significant change in the wrong direction.

pp – percentage point difference

Chapter 5: High Quality Environments

Advancing Together Vision

Yorkshire and Humber will have high quality natural and man-made environments.

Delivering high quality environments in Yorkshire and Humber entails protecting and enhancing our rich and varied environmental assets. To do this we will use resources wisely and efficiently, minimise pollution, and protect and enhance biodiversity. We will pursue good quality development and enhance poor quality environments in town and country. We will give urgent attention to tackle the causes and impacts of climate change, reduce waste and manage it sustainably, and safeguard threatened wildlife and landscape heritage.

This chapter supports the measurement of Advancing Together indicators thirteen to eighteen. It utilises environmental data available for York and North Yorkshire to assess how sub-region performs in terms of biodiversity, river, land and air quality, waste management, energy and emissions.

Historic Environment

There is a wide range of influences such as geology and landform which has affected settlement and land use in York and North Yorkshire; this has led to the wide ranging Historic Environment which is evident. There are 13,839 listed buildings across the sub-region, 43% of the region as a whole.

Table 5.1: Historic environment assets in York and North Yorkshire, 2004

Historic environments assets	Number in York and North Yorkshire	Total in Yorkshire and Humber	% of total in York and North Yorkshire
Listed Buildings (all grades)	13,839	31,866	43%
Scheduled Ancient Monuments	1780	2,663	67%
Registered Parks and Gardens (all grades) and Battlefields	50	129	39%
Conservation areas	295	779	38%
World Heritage Sites	1	2	50%

Source: Heritage Counts, The State of Yorkshire's Historic Environment Report, 2005.

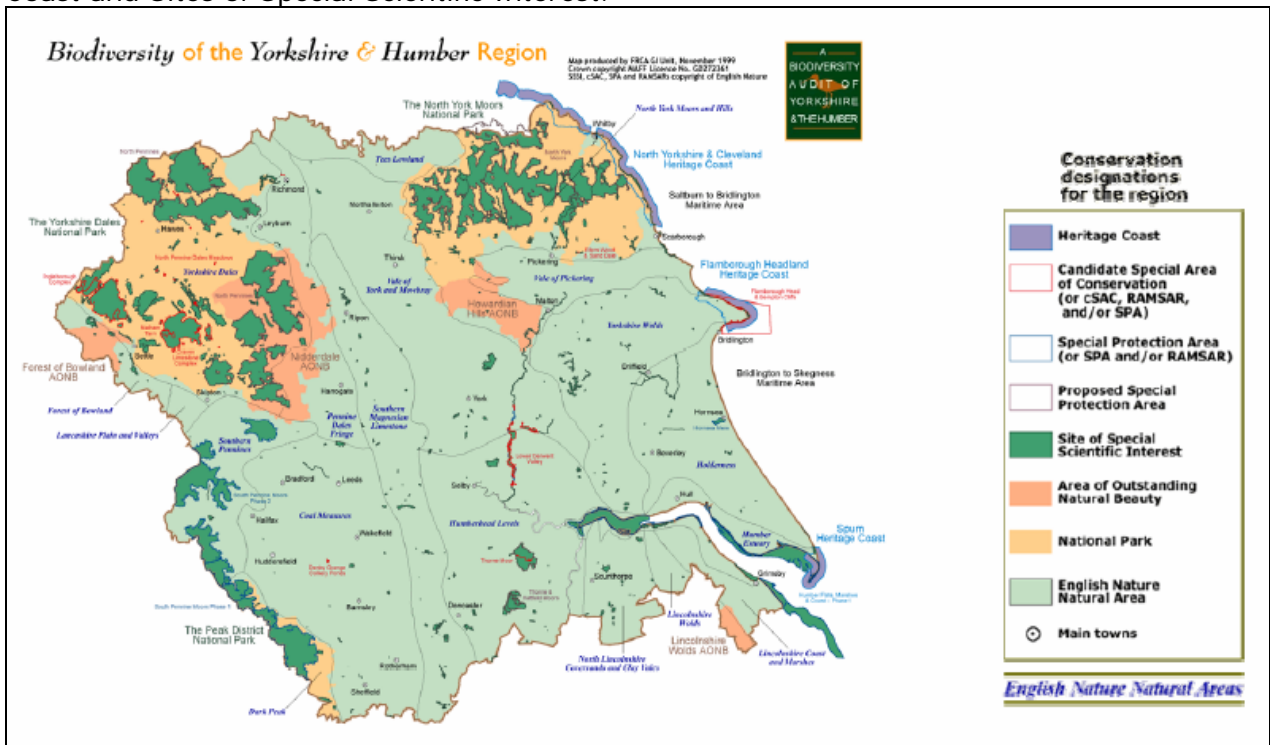
Further information about the Historic Environmental Assets of York and North Yorkshire is outlined in the First Class Quality of Life chapter.

A Bio-diverse and Attractive Natural Environment

A Bio-diverse environment is described as having a richness and variety of plants, birds, animals, fish and insects that exist throughout the world. Biological diversity is a limited natural resource that once lost cannot be replaced.

The Yorkshire and Humber Biodiversity Forum produce a Biodiversity Audit for the region which outlines a comprehensive review of the most important habitats and species in the Yorkshire and Humber Region, to assist the conservation of biodiversity. This work is supported at a local level by the Local Biodiversity Action Plans (LBAPs) which have been produced within most Local Authority areas and National Parks in the sub-region.

The map below was produced as part of the Biodiversity Audit and outlines areas of bio-diverse importance across the region. It highlights the National Parks, areas of Heritage Coast and Sites of Special Scientific Interest.



Priority Habitats

Priority Habitat in the sub-region is dominated by Sites of Special Scientific Interest (SSSI), English Nature assess the condition of SSSIs through monitoring of presence, absence and abundance of indicator species for each type of habitat and also against measures of physical condition. The Government's Public Service Agreement (PSA) target is to have 95% of the SSSI area in favourable or recovering condition by 2010. The following table outlines the condition of SSSIs, in York and North Yorkshire 20% of SSSIs were in a favourable condition, which is lower than the regional average however the high percentage in the Humber does distort this average.

Table 5.2: Condition of Sites of Special Scientific Interest, 2005

Area	% meeting PSA target	% favourable	% unfavourable recovering	% unfavourable no change	% unfavourable declining	% destroyed / part destroyed
Yorkshire and Humber	58.31%	32.11%	26.20%	36.28%	5.41%	0.01%
York and North Yorkshire	55.79%	20.68%	35.11%	40.44%	3.76%	0.00%
The Humber	94.93%	91.75%	3.18%	2.15%	2.91%	0.02%
West Yorkshire	17.46%	1.84%	15.62%	77.39%	5.09%	0.06%
South Yorkshire	42.49%	16.16%	26.33%	33.08%	24.43%	0.00%

Source: English Nature, January 2006

Advancing Together Indicator 15b

Also a Regional Sustainable Development Framework Indicator

Woodland Cover and Access

The national Forestry Strategy recognises that Woodlands and forests can provide timber, enhance the beauty of the countryside, revitalise derelict and degraded landscapes, reduce pollution, improve health, and enhance wildlife habitats. Woodlands can also generate employment, provide opportunities for sporting and recreational activities, and improve the quality of life in and around towns and cities by screening development and improving the setting for housing and industry. Few other land uses can boast such a diverse range of benefits.

Regional Forestry Strategy

The Regional Forestry Strategy 'The Value of Trees in Our Changing Region' was published in July 2005 and provides a strategic framework for the future management of trees and woodlands in Yorkshire and Humber region. It marries national priorities with local aspirations and identifies where a regional approach can add value. Above all, it demonstrates how we can help secure a more sustainable future for our region by maximising the benefits that trees and woodlands offer.

Woodland Cover

The total area of woodland in York and North Yorkshire (based on individual areas of > 0.1 hectares) in 2002 was 59,661 hectares, which equates to 66% of the regional total (The National Inventory of Woodland and Trees 2002). This is not surprisingly due to the rural nature of the sub-region and the location of the national parks. There has been a slight decrease from the 1999 figure of 7.3% to 7.2%. The Humber sub-region has particularly low woodland coverage at 2.4%. The Regional Spatial Strategy has set a target of increasing woodland area in the region to 6.5% by 2016, requiring an additional 11,000 hectares of woodland.

Table 5.3: Area of woodland by sub-region, 1999 and 2002

Area	Total Woodland Cover 1999 (hectares)	Total Woodland Cover 2002 (hectares)	% Cover 1999	% Cover 2002
Yorkshire and Humber	92,083	90,641	6.0	5.8
Humber	9,081	8,871	2.6	2.4
North Yorkshire	60,843	59,661	7.3	7.2
South Yorkshire	11,551	11,465	7.4	7.4
West Yorkshire	10,606	10,643	5.3	5.2
England	1,096,885	1,096,885	8.4	9.0

Source: Forestry Commission 2002; Government Office for Yorkshire and the Humber.

[This is a Regional Sustainable Development Framework Indicator](#)

Woodland Access

Farmland and Woodland Birds

The Advancing Together Indicator 15a measures the Woodland bird population index. This is also a Regional Sustainable Development Framework Indicator. The monitoring of bird populations are regarded as good indicators of the broad state of wildlife and the countryside, because they are wide-ranging in habitat distribution and tend to be at or near to the top of the food chain. However due to difficulties in measuring bird populations this indicator is not available at the sub-regional level.

Agri-Environment Schemes

Agri- Environment schemes provide the opportunity to develop and enhance wildlife habitats through environmentally beneficial practices on farmland.

Environmental Stewardship

Environmental Stewardship was launched in 2005 and is comprised of three elements; Entry Level Stewardship (ELS), which is open to all farmers and land managers who want to deliver a basic level of environmental management above that of Good Farming Practice, Organic Entry Level Stewardship (OELS) is open to all farmers registered with an organic inspection body but who are not receiving aid under any of the organic aid schemes. (NB. throughout this document references to 'ELS' should be taken to refer to both OELS and ELS). Higher Level Stewardship (HLS) is open to those farmers who want to deliver higher levels of environmental management.

The Objectives of Environmental Stewardship are:

- Wildlife conservation
- Maintenance and enhancement of landscape quality and character
- Protection of the historic environment
- Promotion of public access and an understanding of the countryside (HLS only)
- Resource protection.

There are also two secondary aims:

- Flood Management
- Conservation of Genetic Resources

Environmental Stewardship is the key delivery tool for a number of Government targets and Strategies, including the Strategy for Sustainable Farming and Food, the England Biodiversity Strategy and the Sustainable Development Strategy. It will contribute to a number of Public Service Agreement (PSA) targets.

Existing Schemes

The Environmentally Sensitive Areas Scheme (ESA) was introduced by MAFF in 1987 to encourage farmers to help safeguard the countryside in areas where the landscape, wildlife or historic interest is of national importance. There are now 22 ESA's in England, covering some 10% of agricultural land. The Countryside Stewardship Scheme (CSS) operates countrywide outside ESAs and provides payments to enhance and conserve landscapes, wildlife and history.

The following table shows the number of educational access sites and those who provide permissive access for walks or rides by sub-region. York and North Yorkshire has the highest number within each category however the rurality of the sub-region is the obvious determinant.

Table 5.4: Permissive access via Environmentally Sensitive Areas and Countryside Stewardship Schemes, 2005

Area	Educational access sites	Walks and rides
York and North Yorkshire	42	167
South Yorkshire	19	24
West Yorkshire	12	20
Humber	13	52

Source: Department for Environment, Food and Rural Affairs, 2005.

The Organic Farming Scheme has been replaced by the Organic Entry Level Stewardship which is part of the Environmental Stewardship Scheme. However the scheme helped farmers to adopt the main components of an organic farming system.

Minimal Pollution Levels

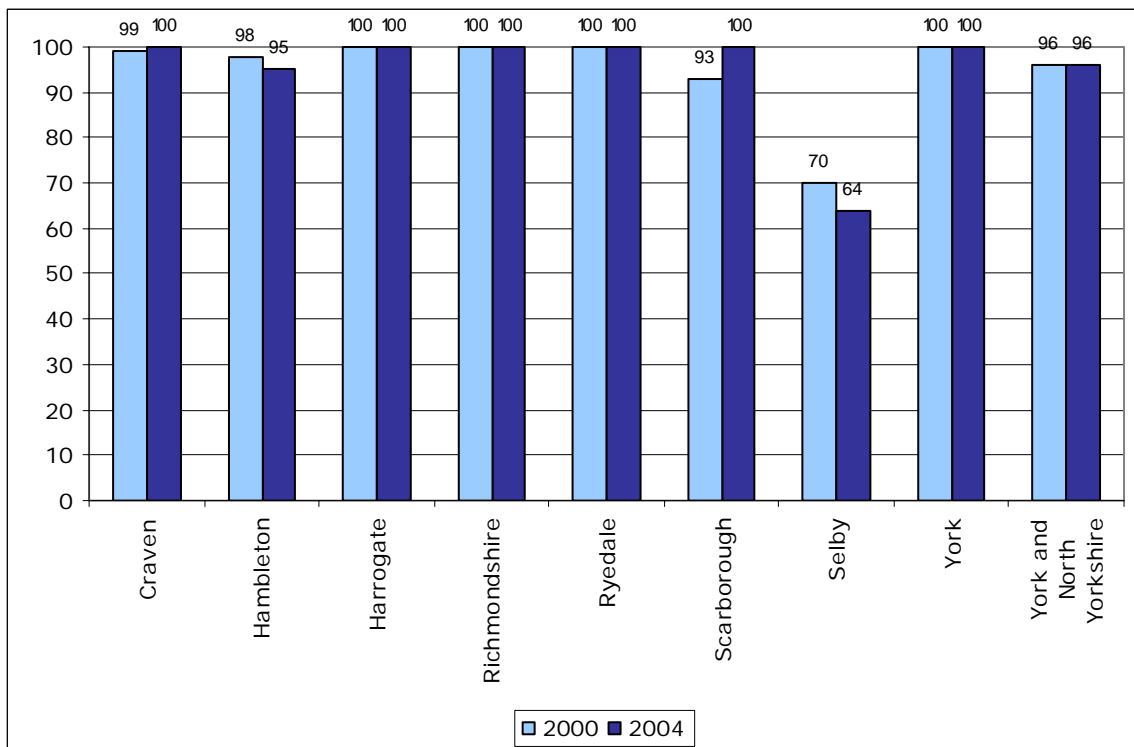
Inland Waters, Estuary and Bathing Water Quality

Rivers play a vital role in our lives; they supply water to our homes and industry and are important for watering livestock and crops. They support wildlife and are places we can enjoy for walking, boating and fishing. Rivers carry away surplus water from our roads, houses and fields, including treated discharges from sewage works and industrial sites.

Inland Waters

Rivers across the region are monitored to assess their chemical and biological quality. Rivers are then classified as 'good', 'fair', 'poor' or 'bad', waters classified as 'good' chemical quality will support good trout fisheries and waters classified as 'fair' will support good populations of coarse fish such as roach, bream, carp and barbel. The following figure shows the percentage of total river length which was assessed as having good or fair biological quality. In 2004 96% of river length within York and North Yorkshire is classified as good or fair. Across the sub-region quality does vary from 64% in Selby to 100% in a number of districts. Only Hambleton and Selby districts experienced a decline in quality over the period 2000-2004, with Craven and Scarborough demonstrating an increase.

Figure 5.1: Percentage total river length of good or fair biological quality, 2000 and 2004

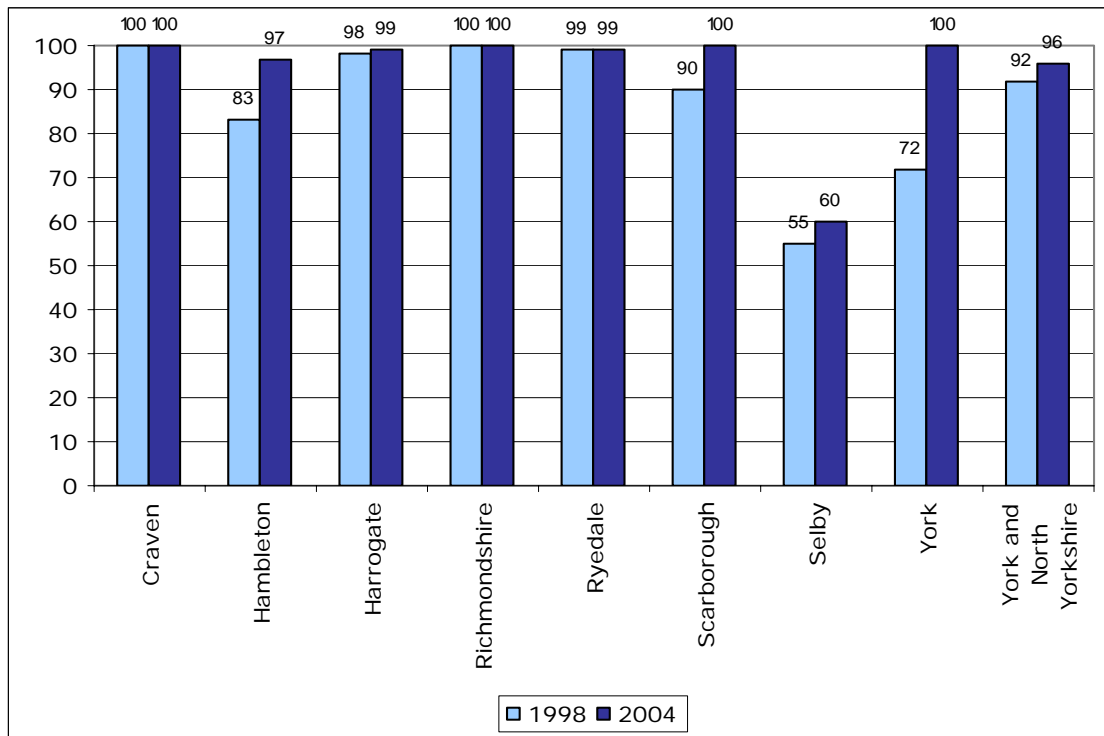


Source: Environment Agency, 2005

In terms of the chemical quality again 96% of the river length across York and North Yorkshire is classified as good or fair, at a local level the percentage of good or fair river length ranges from 60% in Selby to 100% across a number of districts. For this measure none of the districts demonstrated a decline over the period 1998 – 2004, with Hambleton

and York demonstrating quite large increases in quality. The chemical and biological quality of rivers in York and North Yorkshire are set against different baselines because the same baseline was not available for both sets of data.

Figure 5.2: Percentage total river length of good or fair chemical quality, 1998 and 2004



Source: Environment Agency, 2005

Bathing Waters

York and North Yorkshire has a large stretch of rugged coastline with a backdrop of the North York Moors National Park and is the setting for a number of resorts and fishing villages. This is a coastline of high cliffs and rocky shores, rich in flowers and wildlife.

There has been general improvement in the water quality at the sub-region's beaches with Scarborough North Bay and Whitby achieving Blue Flag Status for the last two years. However there have been some problems improving water quality at Staithes due to the proximity of seabirds and agricultural pollution. In general up until 2002 there has been steady improvement however it appears from the figures for 2003 that overall there has been a slight decline in quality.

Table 5.5: Water Quality for beaches in York and North Yorkshire 1999-2003

Beaches	1999	2000	2001	2002	2003
Cayton Bay	G	G	E	E	G
Filey	G	G	G	G	E
Robin Hoods Bay	G	G	G	G	G
Runswick Bay	Closed	G	G	E	G
Sandsend	G	G	E	E	E
Scarborough North Bay	G	G	E	E (bF)	E (bF)
Scarborough South Bay	G	G	G	G	G
Staithes	P	P	G	G	P
Whitby	G	G	E	E (bF)	E (bF)

Source: Environment Agency and ENCAMS 2003

Key: E = Excellent G = Good P = Poor bF = Blue Flag Status

Air Quality

Poor air quality can result from a number of different factors such as hot weather but also traffic emissions. This can cause a wide range of health problems, mainly associated with breathing difficulties.

Air quality is monitored by the Department for Environment, Food and Rural Affairs (DEFRA) at a number of urban and rural sites across the England and Wales to provide an air quality indicator at a national and regional level. There is difficulty in providing air quality data using this indicator at a sub-regional and local level.

However every local authority within the sub-region has reviewed and assessed air quality against a number of standard objectives and common pollutants and this exercise can be used to highlight air quality trends. Craven, Hambleton, Harrogate, Richmondshire, Ryedale and Selby have completed this review and concluded that there is no requirement for a declaration of an Air Quality Management Area (AQMA). Scarborough is currently evaluating the need for an AQMA and in York due to the levels of nitrogen dioxide breached in several areas of the city an AQMA was declared in 2002. This will lead to a further review of air quality and the production of an Air Quality Action Plan with appropriate reduction targets set.

Carbon Emissions

DEFRA has produced a series of data which outlines indicative Carbon Dioxide Emissions estimates at the local and regional level. Analysis per capita highlights differences across the districts ranging from 7.7 in York to 19.8 tonnes in Selby. The regional average is 11.5 tonnes per capita.

Table 5.6: Carbon Dioxide Emissions by Local Authority

Area	Industry and Commercial	Domestic	Road Transport	Land Use Change	Total	Population Thousands ⁽¹⁾	Per capita CO ₂ (tonnes)	Domestic per capita CO ₂ (tonnes)
Yorkshire and Humber	31,516	13,864	11,164	1,278	57,822	5,009	11.5	2.8
Craven	141	163	196	23	523	54	9.7	3.0
Hambleton	287	295	427	140	1149	85	13.5	3.5
Harrogate	428	486	625	83	1622	153	10.6	3.2
Richmondshire	125	152	273	70	620	50	12.4	3.1
Ryedale	219	179	215	142	755	51	14.7	3.5
Scarborough	346	315	194	61	917	107	8.6	3.0
Selby	815	250	375	77	1517	77	19.8	3.3
York	610	504	263	25	1402	183	7.7	2.8

Source: DEFRA, Local and Regional CO₂ Emissions Estimates for 2003

Ecological Footprints

The Ecological Footprint is a tool which is used to measure the consumption of natural resources and the impact that this has on the global environment. This tool enables individuals and organisations to assess whether current consumption patterns are within the limits of the planet, and what action needs to be taken as a consequence in order to work towards a sustainable community. As individuals consume goods, resources and ecological services which are exported from all over the planet, the impact which is exerted not only affects the immediate area but the whole of the planet on a global scale. The Ecological

Footprint takes account of the environmental impact of transport, waste disposal, consumables, food consumption and residential energy amongst other indicators.

Ecological Footprints allow consumption of resources to be measured and compared against other residential areas and other countries. The Ecological Footprint of the UK is 5.4 global hectares per person (a global hectare is a hectare whose biological productivity equals the global average), and according to the Living Planet Report, 2004, is amongst the highest 15 countries on a per person basis along with America (9.5 gha), Kuwait (9.4 gha), Australia (7.8 gha) and France (5.9 gha). The world average is 2.2 gha.

The table below shows the Ecological Footprints of the sub-region. According to this data, York and North Yorkshire does have a higher footprint than the UK average, 5.4 gha per person, whilst the rest of the region falls in under this average. Harrogate has the highest footprint at 5.67, whilst York has the lowest at 5.38.

Table 5.7: Ecological Footprints in hectares per person, 2006

Area	Environmental Footprint (gha/capita)
Craven	5.46
Hambleton	5.63
Harrogate	5.67
Richmondshire	5.57
Ryedale	5.49
Scarborough	5.42
Selby	5.44
York	5.38
York & North Yorkshire	5.51
The Humber	5.23
South Yorkshire	5.24
West Yorkshire	5.19

Source: WWF, Stockholm Environment Institute, 2006

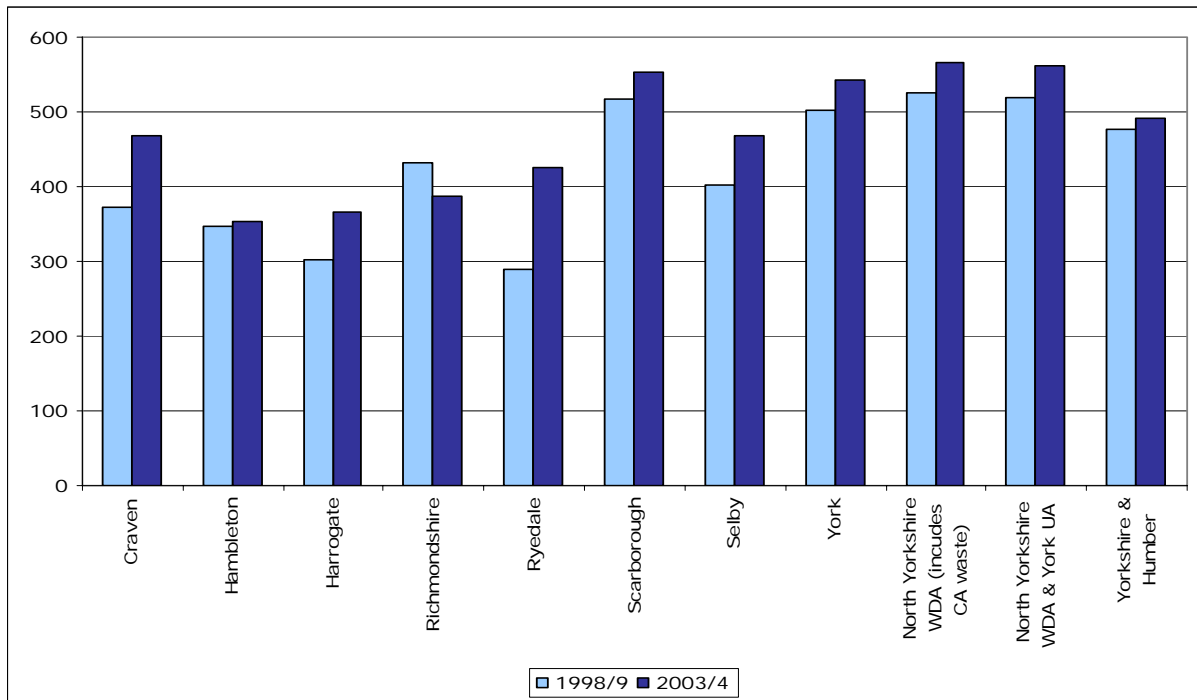
Prudent and Efficient Use of Energy and Natural Resources with Minimal Production of Waste

Waste and Recycling

Household Waste

Municipal waste includes household waste and other waste collected by local authorities. DEFRA collects data from local authorities on household waste in the Municipal Waste Survey and results are presented in the Figure 5.3 below. Since 1998/99 household waste per person has increased by 8%. It is important to note the sub-regional figure is an average of North Yorkshire Waste Disposal Authority (WDA) and York UA and includes all waste. The districts figures exclude Civic Authority (CA) waste, which is run by the WDA.

Figure 5.3: Total Household Waste 1998/99 and 2003/04 (kg/person/year)

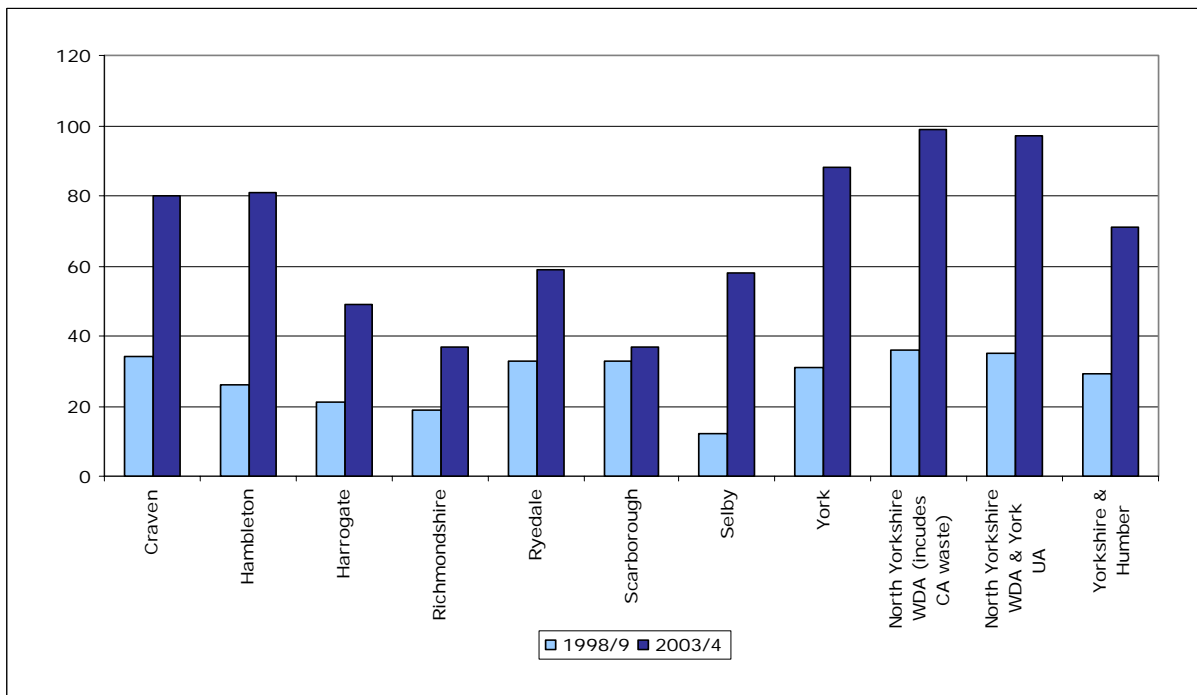


Source: DEFRA, Municipal Waste Survey 2003/04

Advancing Together Indicator 16a

Also a Regional Sustainable Development Framework Indicator

Figure 5.4: Household Waste Recycled or Composted 1998/99 and 2003/04 (kg/person/year)



Source: DEFRA, Municipal Waste Survey 2003/04

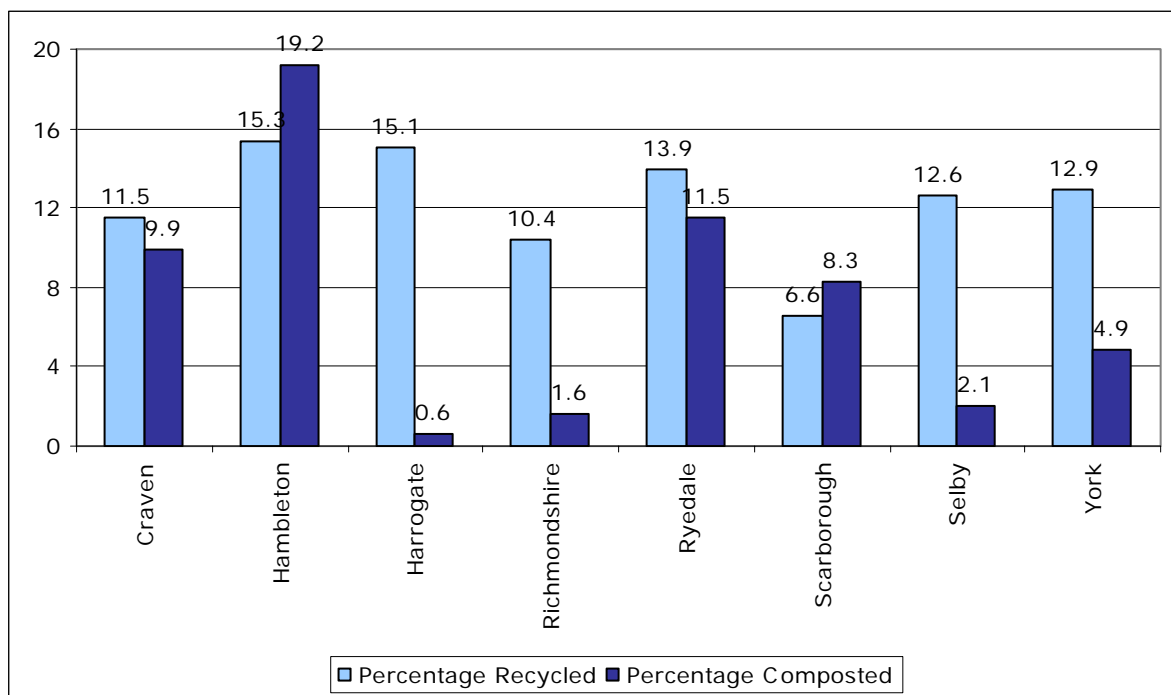
Advancing Together Indicator 16b

Also a Regional Sustainable Development Framework Indicator

Over the same period recycling and composted waste has increased by 177%, which shows substantial increases in the levels of recycling across the sub-region. At a district level Scarborough has the lowest levels of recycling or composting.

The local authorities across the sub-region have been given challenging statutory targets for household waste by DEFRA. The following figure outlines the percentage of household waste which is recycled or composted. Recycling levels across the sub-region vary with Hambleton and Harrogate having the highest levels, Scarborough and Richmondshire have comparatively low levels.

Figure 5.5: Household Waste Recycled and Composted



Source: ODPM, Best Value Performance Indicators 2004/05

Energy

Energy consumption is an essential feature of daily life: in the home, at work, in industry, and in the way people travel and enjoy leisure time. However the use of energy is widely taken for granted and there is a lack of awareness about how energy is generated and used.

York and North Yorkshire currently produces far more energy than it consumes and this is the same case for the region as a whole. This is because there are two coal fired power stations which are located in the sub-region; Eggborough (1960MW capacity) and Drax (3750MW capacity). Both these plants lie within the district of Selby. The level of renewable energy generation within the sub-region is very low, with less than 10MW of energy being generated from renewable energy schemes. These schemes range from a single windfarm, landfill gas schemes, and individual wind turbines and small-scale solar installations. (Source: Delivering Sustainable Energy in North Yorkshire, Recommended Planning Guidance, October 2005.)

Energy Consumption

Electricity

The following table shows the level of domestic and commercial electricity use across the sub-region. The York and North Yorkshire currently produces far more electricity than it consumes and this is the same case for the region as a whole. The districts with the highest electricity consumption are Harrogate and York, with the more rural districts of Richmondshire and Craven using around a quarter of this amount.

Table 5.8: Electricity Consumption in York and North Yorkshire

Area	Domestic Sales 2003 - GWh	Commercial Sales 2003 - GWh	Total Sales 2003 - GWh	CO2 Emissions Equivalent
York and North Yorkshire	1667	2174	3841	1,652,000
Craven	124	138	262	114,000
Hambleton	196	259	454	195,000
Harrogate	335	409	744	320,000
Richmondshire	115	107	222	95,000
Ryedale	125	165	290	125,000
Scarborough	252	316	568	244,000
Selby	166	332	498	214,000
York	354	448	802	345,000

Source: Delivering Sustainable Energy in North Yorkshire