SOUTH TYNESIDE

local development framework

THE NEW DEVELOPMENT PLAN FOR YOUR BOROUGH

South Tyneside Council







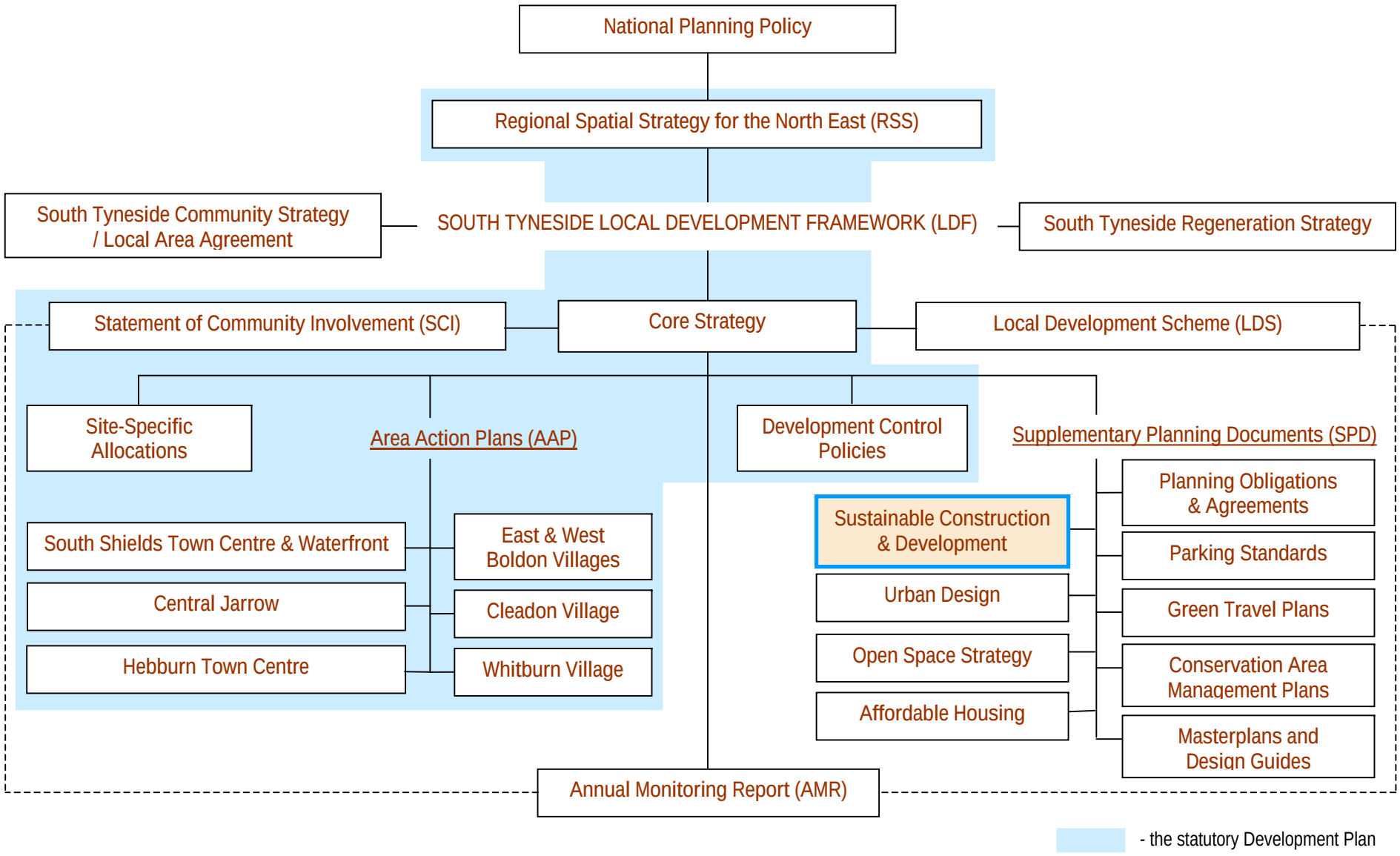


Final ADOPTED Version

SPD 1
Sustainable Construction and Development

June 2007

South Tyneside Local Development Framework – Family Tree



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Section 1: Introduction

1.1 Everything we do is about achieving "a better future for South Tyneside's people". That is our vision for the Borough. To deliver a better future, one of our big challenges is to make South Tyneside a place where people choose to live, work and visit. This means developing new and exciting buildings whilst preserving our beautiful coastline and countryside. It also means ensuring a quality range of homes, shops and businesses, parks and public spaces, all linked by an excellent transport system. All of these things need to be delivered through the planning system, and in particular the South Tyneside Local Development Framework (LDF). This will guide the future development and use of land and buildings in the Borough over the next 10-15 years, and replace the existing Unitary Development Plan (UDP).

1.2 Sustainable construction lies at the heart of the Borough's future development. This Supplementary Planning Document (SPD) advises applicants on the importance of sustainable development and the need to integrate more sustainable construction techniques into their development proposals.

1.3 All applicants should take account of the guidance in this SPD, in order to ensure that their development proposal demonstrates and meets the principles of sustainable construction and development. Certain large-scale or significant developments will also require a Sustainability Statement in support of their planning application. The advice throughout this SPD and the Sustainability Checklist in Appendix 1 provide additional guidance that you may find helpful in completing a Sustainability Statement. For more information on Sustainability Statements and the developments to which they apply, see sections 6 and 7.

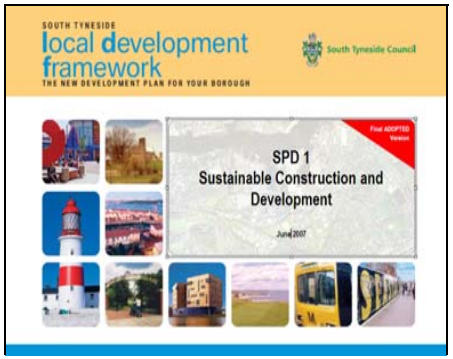
1.4 SPD 1 seeks to apply the principles of the regionally agreed document *Building-in Sustainability: A guide to sustainable and construction development in the North East* to the Borough of South Tyneside. It also applies the pioneering *London Renewables* document on sustainable construction already implemented by the London Energy Partnership (see Sustainability Checklist in Appendix 1). The application of sustainable construction techniques can generate a number of benefits for everyone, whether developers, businesses or residents.

1.5 For the region as a whole, and the local area in particular, they can:

- Provide an attractive, productive and healthy environment
- Enhance the accessibility of the location
- Increase energy efficiency and help to tackle fuel poverty
- Create a quality design rooted in the North East's traditions
- Tackle security fears, and
- Contribute to the reduction of carbon dioxide (CO_2) emissions

1.5 For developers and investors they can deliver:

- A smoother ride through the planning process
- Reduced investment risk
- Comparable construction costs, and
- Enhanced image and improved marketability



Section 2: History of this Supplementary Planning Document

2.1 SPD 1 forms part of South Tyneside's emerging development plan – the Local Development Framework (LDF) – and promotes sustainable construction and development throughout the Borough.

2.2 In 2004, draft Supplementary Planning Guidance 16: Sustainable Development (SPG 16) was published and formed part of the Unitary Development Plan (UDP). The UDP is the adopted development plan for the whole of South Tyneside and is being replaced over the next 2 to 3 years by the LDF. The consultation responses to draft SPG 16 can be viewed in Appendix 4.

2.3 The Planning and Compulsory Purchase Act 2004 introduced LDFs throughout England (see Section 4) and so SPG 16 was developed into the first draft SPD 1. The consultation responses to the first draft SPD 1 can be viewed in Appendix 4.

2.4 SPD 1 has been further developed in accordance with national, regional and local planning policy and guidance (see sections 3, 4 and 5) and a background schedule linking the Document to national and local planning policy is found in Appendix 5. This SPD also develops the concept of a Sustainability Checklist and Sustainability Statement in more detail (see Appendix 1). A Sustainability Appraisal on this SPD was undertaken in January 2007 (Appendix 2) and the Statement of Consultation can be viewed in Appendix 3.

Section 3: Government Policy on Sustainable Development

3.1 The UK Sustainable Development Strategy *Securing Our Future* (March 2005) sets out five guiding principles to achieving sustainable development for the UK. These are:

- Living within environmental limits: Respecting the limits of the planet's environment, resources and biodiversity – to improve our environment and ensure that the natural resources needed for life are unimpaired and remain so for future generations.

- Ensuring a strong, healthy and just society: Meeting the diverse needs of all people in existing and future communities, promoting personal well-being, social cohesion and inclusion, and creating equal opportunity for all.

- Achieving a sustainable economy: Building a strong, stable and sustainable economy which provides prosperity and opportunities for all, and in which environmental and social costs fall on those who impose them (the 'polluter pays' principle), and efficient resource use is incentivised.

- Promoting good governance: Actively promoting effective, participative systems of governance in all levels of society – engaging people's creativity, energy and diversity.

- Using sound science responsibly: Ensuring policy is developed and implemented on the basis of strong scientific evidence, whilst taking into account scientific uncertainty (through the precautionary principle), as well as public attitudes and values.

3.2 Recent changes to the planning system have brought sustainability to the forefront of planning. The Planning and Compulsory Purchase Act 2004 requires regional and local plans to be prepared with a view to achieving sustainable development.

3.3 Planning Policy Statement 1 (PPS 1) *Delivering Sustainable Development* provides guidance on the contribution that planning can make. A draft PPS Supplement on Planning and Climate Change was published for consultation in December 2006, which supplements PPS 1.

UK Sustainable Development Strategy

Planning and Compulsory Purchase Act 2004
Clause 39: *"Sustainable development is the core principle underpinning planning. At the heart of sustainable development is the simple idea of ensuring a better quality of life for everyone, now and for future generations."*

PPS 1 Delivering Sustainable Development

PPS 1 Supplement: Planning and Climate Change

PPS 3 Housing

PPS 6 Planning for Town Centres

PPS 9 Biodiversity and Geological Conservation

PPS 10 Planning for Sustainable Waste Management

PPS 12 Local Development Frameworks

PPG 13 Transport

PPG 15 Planning and the Historic Environment

PPG 16 Archaeology and Planning

PPS 22 Renewable Energy

PPS 23 Planning and Pollution Control

PPS 25 Development and Flood Risk

Circulars 01/01 and 09/05: Arrangements for Handling Heritage Applications

By Design: Urban design in the planning system – towards better practice

English Heritage Guidance

Shared Interest: Celebrating investment in the historic environment (2006)

Heritage Works: the use of historic buildings in regeneration – a toolkit of good practice (2006)

3.4 PPS 1 is based upon six key principles:

- Development plans should ensure the pursuit of **integrated sustainable development**;
- Development plans should contribute to **global sustainability**;
- A **spatial approach** should be at the heart of planning for sustainable development;
- Plans should promote **high quality**, **inclusive design**;
- Plans should include **clear inclusive access policies**; and
- The **community** should be involved in setting the vision for plans.

Sustainability principles are also embodied in other national Planning Policy Statements (PPSs), Planning Policy Guidance Notes (PPGs) and other guidance – see left-hand margin.

Section 4: The Development Plan

4.1 The Government has introduced a new type of development plan known as the Local Development Framework (or LDF for short). The LDF will set out the strategy, policies and proposals by which all planning applications for development will be assessed. The existing *South Tyneside Unitary Development Plan* (UDP) was adopted in October 1999 and relevant parts of this will retain development plan status until parts of the new system are adopted. Many of the UDP's policies are still valid and will continue to be used in determining planning applications during this transitional period, alongside the emerging *Regional Spatial Strategy for the North East* (RSS) and national Government planning guidance. Policies that relate to this SPD are listed in Appendix 5.

4.2 The first LDF Development Plan Documents under the new system are at various stages of development:

- *Statement of Community Involvement* (Adopted, July 2006)
- *Core Strategy* (Adopted, June 2007)
- *South Shields Town Centre and Waterfront Area Action Plan* (Submission Draft, July 2007)
- *Hebburn Town Centre Area Action Plan* (Submission Draft, July 2007)

4.3 SPD 1 is in support of the following Development Plan policies:

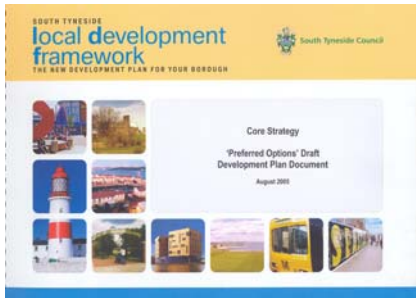
Regional Spatial Strategy for the North East (Submission Draft*)

2	Sustainable Development
9	Protecting and Enhancing the Environment
24	Delivering Sustainable Communities
34	Historic Environment
39	Sustainable Energy Use
40	Renewable Energy Generation
41	Planning for Renewables
42	Onshore Wind Development
46	Sustainable Waste Management
47	Waste Management Provision

- *South Tyneside LDF Core Strategy* (Adopted)
  - ST2 Sustainable Urban Living
- *South Tyneside UDP* (Adopted)
  - ENV5 Principles of Good Design and Access ('saved' policy)

Consequently, if any applications do not demonstrate to be as sustainable as possible, they are liable to be refused planning permission as contrary to the twelve key policies above.

* Regional Spatial Strategy Modifications published May 2007.



4.4 SPD 1 assists especially in interpreting LDF Core Strategy Policy ST2 'Sustainable Urban Living', which states that:

High quality in sustainable urban living will be promoted by ensuring that:

A highest standards of urban design are promoted so that buildings and their settings make a positive contribution to the local area;

B the use of environmentally sound and energy efficient construction materials and operational techniques are achieved and that developers work towards low carbon and zero carbon standards;

C on-site generation of renewable energy is maximised, with a target of 10% of each scheme's energy requirements;

D use of 'sustainable urban drainage systems', including 'grey water recycling' and other technologies are made where appropriate

E priority is given to alternative modes of transport to the private car, and access by:
i) requiring travel plans for development which would have significant transport implications;
ii) enhancing electronic communications infrastructure;

F the need to design out crime and eliminate the fear of crime has been addressed;

G buildings and their settings are designed to be flexible, enabling them to adapt to future needs and to take into account the needs of all users; and

H all development is encouraged to incorporate biodiversity and geodiversity at the design stage.

4.5 SPD 1 assists in interpreting other policies in the LDF's Core Strategy:

- ST1 Spatial Strategy for South Tyneside
- SC1 Creating Sustainable Urban Areas
- EA1 Local Character and Distinctiveness
- EA4 Biodiversity and Geodiversity
- EA5 Environmental Protection
- EA6 Planning for Waste

In addition, the guidance throughout this SPD and the Sustainability Checklist (Appendix 1) are based on the 22 spatial objectives of the LDF (see Paragraph 6.6).

To gain maximum benefit, this SPD needs to read in conjunction with ***Building-In Sustainability***. Pages 115-117 give full details of a number sustainable construction assessment checklists and methodologies. The document can be accessed online at: www.buildinginsustainability.co.uk

Or by contacting:

Building-In Sustainability
Environment & Technical Services Department
Durham County Council
County Hall
Durham
DH1 5UQ

Telephone: 0191 383 3646 or 0191 383 3837
Fax: 0191 383 4096
Email: bis@durham.gov.uk

Work is already underway on a complementary manual: *North East Regional Sustainable Construction*.

DEFRA's *Climate Change: The UK Programme 2006* can be accessed online at www.defra.gov.uk

BREEAM sets out a series of best practice criteria against which the environmental aspects of building design and operation can be assessed. One key document is *EcoHomes 2006 – The environmental rating for homes* and can be viewed online at: www.ecohomes.org

Further details can be obtained by contacting the BREEAM Office:

Telephone: 01923 664 462
Email: ecohomes@bre.co.uk

Information about the *Code for Sustainable Homes* can be viewed at the Department for Communities and Local Government website: www.communties.gov.uk

Section 5: Building-In Sustainability

5.1 SustaiNE (the Regional Round Table for Sustainable Development) produced *Building-In Sustainability* in 2002 as the definitive regional document on sustainable construction. It was produced by the Llewellyn-Davies consultancy on behalf of a regional partnership led by Durham County Council.

5.2 This regionally agreed guide aims to:

- Advance the understanding of sustainable development among the many organisations and individuals involved in the development process;
- Encourage developments which safeguard the environment, whilst protecting and enriching it for future generations;
- Provide practical advice to encourage and inspire the application of sustainable development thinking to each situation and locality;
- Illustrate how sustainable development can be applied at each stage, from site identification to re-use and regeneration; and
- Give examples of best practice and issues from the North East.

5.3 Its vision for the North East is "*A region where present and future generations have a high quality of life: where there is an integrated approach to achieving social, economic and environmental goals; and where global responsibilities are recognised."*

5.4 Key parts of SustaiNE's *Building-In Sustainability* are incorporated into the sustainable development principles of SPD 1 (see Section 5). This assists in meeting targets in national strategies, for example:

- The Department for the Environment, Food and Rural Affairs' Climate Change Programme (DEFRA);
- Standards such as the Building Research Establishment Environmental Assessment Method (BREEAM); and
- The Code for Sustainable Homes.

Further information on the above can be found in the left-hand margin.

Local Examples of Good Practice

Middlefields, South Shields
The wind turbine at South Tyneside Council's Middlefields Depot site was installed in May 2006

Eco Centre, Hebburn
This acclaimed building is the headquarters of Groundwork South Tyneside and is made entirely from recycled materials and sustainable sources – power is generated by the on-site wind turbine, photovoltaic cells (solar panels) and ground source heat pump

Section 6: The Aims and Application of this Supplementary Planning Document

6.1 SPD 1 aims to raise the standard of built development in South Tyneside. The document seeks to:

- Raise awareness to developers and applicants on the full range of more environmentally-friendly methods and techniques available, by relating to the key principles of local, regional and national planning policy throughout this guidance and the Sustainability Checklist (Appendix 1); and
- Require applicants for certain larger scale or significant schemes to demonstrate the sustainability credentials of their development proposals as part of the process of applying for planning permission, by completing a Sustainability Statement and submitting it with their planning application.

6.2 Sustainability Statements enable applicants to demonstrate how their scheme meets the key sustainability objectives outlined in national, regional and local planning policy. There are 22 sustainable development principles and objectives that underpin the aim of this SPD, based on the 22 spatial objectives of the LDF – see Paragraph 6.6. The types of development required to complete a Sustainability Statement are outlined in Paragraph 6.3 below.

6.3 The following types of larger scale or significant development (outline or full application) will be required to demonstrate their sustainability principles by means of completing a Sustainability Statement:

a) Residential development comprising more than 10 dwellings or on a site of more than 0.5 hectares;
b) Non-residential development comprising more than 1,000 square metres of gross floor space or on a site of more than 1 hectare;
c) All applications for minerals, waste or energy development;
d) All applications where the submission of an Environmental Statement, Retail Impact Assessment or a Transport Assessment is required; and
e) Any combination of applications that will (over phases) meet any of the above limits.

Note: It is not intended that the Sustainability Statement should duplicate information supplied in other statements and assessments – it should simply indicate where the information could be found.

For outline planning applications the developer will, where the energy demands of the development cannot be reasonable calculated, undertake an initial feasibility study on energy demand and use of renewable energy technologies in the form of an interim energy statement.

Local Examples of Good Practice

Monkton Cokeworks Reclamation, Hebburn
Business park development site incorporating new community woodland and a network of strategic and local recreational routes

Green Business Park, Jarrow
Proposed flagship Green Business Park along the bank of the River Tyne at Jarrow Staithes (note: concept drawing only)

6.4 The Sustainability Checklist (Appendix 1) focuses on seven sustainable development themes, which should be incorporated into the Sustainability Statement where required. These are

1) Energy efficient design and layout
2) Energy efficiency and conservation
3) Renewable energy
4) Energy statements
5) Sustainable construction
6) Water efficiency and conservation, and
7) Sustainable waste management.

6.5 From time to time, the 22 sustainable development principles and objectives listed below in Paragraph 6.7 may give rise to certain conflicts. For example, the ease of access and movement around a building or a site may conflict with crime prevention measures – such issues will need to be resolved on a case-by-case basis. Answers provided in the Sustainability Statement will help determine whether the planning proposal/application is a sustainable form of development, or establish what measures need to be taken to improve the sustainability of the proposal.

6.6 South Tyneside Council will also welcome the voluntary submission of Sustainability Statements for smaller or less sensitive proposals, which are not covered by any of the criteria in Paragraph 6.3. The information submitted in the completed Sustainability Statement will be used to assess how your scheme meets national, regional and local planning policies, especially those highlighted throughout this SPD. It will be considered, along with all other material planning considerations, in coming to a decision on your application.

6.7 You should also explain how your proposal satisfies/relates to these 22 sustainable development principles and objectives:

1	Create and retain wealth
2	Help businesses start up, grow and develop
3	Ensure high and stable levels of employment so everyone can share and contribute to greater prosperity
4	Establish and retain a flexible and highly skilled workforce through training and education
5	Encourage self-sufficiency and local production in the Borough
6	Prevent deterioration and where possible improve local air quality levels for all
7	Protect and enhance the quality of the Borough's land and groundwater, rivers and seawaters
8	Protect and enhance the Borough's coastline and water frontage
9	Reduce the causes and the impacts of climate change
10	Protect and enhance the Borough's bio-diversity and geology
11	Protect and enhance the Borough's diversity of cultural heritage
12	Ensure good accessibility for all to jobs, facilities, goods and services in the Borough
13	Minimise the amount of waste produced and promote sustainable waste management
14	Make prudent use of natural resources
15	Promote sustainable and high standards of design and enhance the natural and built environment
16	Protect and enhance the quality and distinctiveness of the Borough's land and landscapes
17	Maximise the opportunity to redevelop previously developed land
18	Ensure everyone has the opportunity of living in a decent and affordable home and tenure of choice
19	Reduce crime and anti-social behaviour and the fear of crime and anti-social behaviour
20	Improve health and well being and reduce inequalities in health care and access to it for all
21	Promote equality and diversity and protect and strengthen community cohesion
22	Increase public involvement in decision making and civic activity

6.8 It is vital to consider all of the sustainable development principles and objectives embedded in this SPD in your planning application, so that your proposal demonstrates that it is as sustainable as possible.

Section 7: Advice for Planning Applicants

7.1 Sustainable development can be defined simply as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development is identified as the foremost priority in the strategy behind South Tyneside Council's Adopted LDF Core Strategy (Paragraph 2.2, June 2006). It is also enshrined as *"the core principle underpinning planning"* in Paragraph 3 of Planning Policy Statement 1 *Delivering Sustainable Development*, and a statutory duty as defined in the Planning and Compulsory Purchase Act 2004.

7.2 The Sustainability Checklist in Appendix 1 can be used as a reference to ensure that your proposal demonstrates the principles of sustainable development as much as possible. The Sustainability Checklist links the sustainable development principles of local, regional and national planning policy. All developments are therefore required to demonstrate that they accord with the sustainable development requirements for new developments set out within the Government's national planning policies, as well as the regional and local development plan policies within the RSS, UDP and LDF.

7.3 Planning applicants for certain types of larger scale or significant development (outline or full application) will be required to complete a Sustainability Statement, which demonstrates the sustainability principles of the proposed development. The Sustainability Checklist outlines what information should be included in a Sustainability Statement, and sets out certain thresholds for minimum sustainability standards in respect of particularly significant development proposals. Sustainability Statements will be required for:

- Residential development comprising more than 10 dwellings or on a site of more than 0.5 hectares;
- Non-residential development comprising more than 1,000 square metres of gross floor space or on a site of more than 1 hectare;
- All applications for minerals, waste or energy development;
- All applications where the submission of an Environmental Statement, Retail Impact Assessment or Transport Assessment is required; and
- Any combination of applications that will (over phases) meet any of the above limits.

7.4 If you have not done everything you can to comply with this SPD, your proposed development could be refused permission as being contrary to Policy ST2 of the LDF Core Strategy, 'saved' Policy ENV5 of the adopted Unitary Development Plan, or the Development Plan's supporting policies referred to in Section 4. South Tyneside Council will also welcome the voluntary completion of the Sustainability Statement for smaller or less sensitive proposals that are not covered by any of the above criteria.

7.5 Information submitted in the Sustainability Statement will be considered, along with all other material planning considerations, in coming to a decision on your planning application.

Appendix 1 – Sustainability Checklist

Introduction

Sustainable Development Themes

1. Energy Efficient Design and Layout
1.1 Maximising the use of natural systems
1.2 Maximising the use of natural ventilation and shading

2. Energy Efficiency and Conservation
2.1 Using less energy
2.1 Supplying energy efficiently

3. Renewable Energy
3.1 About renewable energy
3.2 Capital costs
3.3 Saleable benefits
3.4 Renewable technologies

4. Energy Statements
4.1 Requirements for energy statements
4.2 Estimating delivered energy demand
4.3 Reducing carbon emissions and applying renewable technologies

5. Sustainable Construction
5.1 Waste
5.2 Materials and resources
5.3 Procurement of materials

6. Water Efficiency and Conservation
6.1 Incorporating water saving devices
6.2 Making use of alternative water resources
6.3 Sustainable Urban Drainage Systems (SUDS)
6.4 SUDS – The benefits
6.5 SUDS – Adoption and future maintenance

7. Sustainable Waste Management
7.1 Storage and recycling facilities
7.2 Composting

Annexes

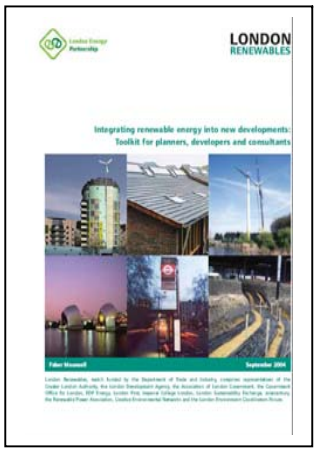
A Structuring Energy Statements
B Delivered Energy Benchmark Figures for Different Building Types
C Calculating the Reduction of Baseline Carbon Emissions
D Guidance for Developers and Planners
E List of Useful Sources and Contacts

IMPORTANT NOTE

The detailed guidance contained within this Sustainability Checklist is not exhaustive. A developer is advised to make their own investigations of any alternative methods for delivering the core sustainable development objectives and outcomes.

Key Reference

A key source of this Sustainability Checklist is *London Renewables – Integrating renewable energy into new developments: Toolkit for planners, developers and consultants*, which was published by the London Energy Partnership in association with Faber Maunsell in September 2004.



The document can be viewed online at:
http://www.london.gov.uk/mayor/environment/energy/docs/renewables_toolkit.pdf

Introduction

This Sustainability Checklist outlines South Tyneside Council's priorities on how sustainable development should be embodied within new development proposals. The Sustainability Checklist should be used as a guidance document by developers to help them with the preparation and submission of their Sustainability Statements.

A Sustainability Statement is required for all major planning applications as defined in paragraphs 6.3 and 7.3 of this SPD. A Sustainability Statement should include:

- An Energy Statement
- A Site Waste Management Plan
- A Materials Procurement Strategy, and
- A Sustainable Urban Drainage Programme

Unless a developer can demonstrate that their development scheme delivers the sustainable development objectives outlined within this Sustainability Checklist, it is likely that planning permission will be refused on the grounds that the proposed development does not meet the Council's sustainable development objectives, contrary to Development Plan policies ST1, ST2, SC1, EA1, EA4, EA5 and EA6 of the Local Development Framework Core Strategy, and 'saved' Policy ENV5 of the adopted Unitary Development Plan, which seek to promote sustainable development.

Policy ST2 of the adopted LDF Core Strategy states that developments should provide a minimum of 10% energy supply from renewable sources on-site.

In addition, SPD 1 requires that all large scale or significant development proposals, as outlined in paragraphs 6.3 and 7.3 of this SPD, are required to produce 10% energy supply from renewable sources on-site.

Where considered appropriate, South Tyneside Council will ensure the implementation of sustainable methods of construction, energy efficiency, water usage, renewable energy and waste reduction, through the imposition of planning conditions or, where appropriate, planning obligations (refer to SPD 4 on Affordable Housing and SPD 5 on Planning Obligations).

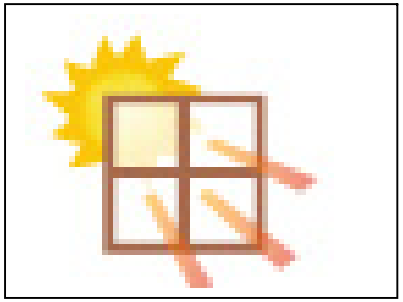
The Sustainability Checklist is split into seven themes, which provide guidance on matters of: efficiency in energy, water, design and layout; renewable energy and conservation; energy statements; and sustainable construction and waste management. A core principle that underpins all of these sustainable development objectives is the need to use less energy, by being efficient in when, how and where we use energy.

Sustainable Development Themes

1. Energy Efficient Design and Layout

1.1 Maximising the use of natural systems

1.1.1 Developers will be expected to pay special attention to the orientation of the development to ensure maximum passive solar gain through the use of natural ventilation, airflow through the building, and minimising the overshadowing of adjoining buildings. Where possible, buildings should be orientated so that the main living spaces face towards the south/southwest, in order to gain maximum solar gain.



1.1.2 Passive Solar Design involves:

- Direct systems allow solar energy to penetrate directly into the building. For example, useful daylight should penetrate 3 to 6 metres inside a building from the windows.
- Semi-direct systems use an intermediate space between external glass and the internal space to regulate energy penetration.
- Indirect systems capture solar energy using a storage mass element and circulate using conduction, convection and radiation.
- Natural systems employ woody deciduous planting to provide shade in the summer whilst letting the sun through in the winter.

1.1.3 How to maximise the use of natural systems:

- Where possible, orientate buildings to face the south/southwest.
- Shading to keep out summer sun but allowing the penetration of winter sun. This can be achieved with south facing shading and lateral external shade structures that allow low angled sun to penetrate into the building, whilst blocking out higher angled summer sun.
- For east-west facing windows, external vertical shading structures can help to block out the sun as it tracks diagonally across the planes throughout the day.
- Medium and high-density developments should use courtyards, balconies and other potential sunspaces to deliver solar gain.

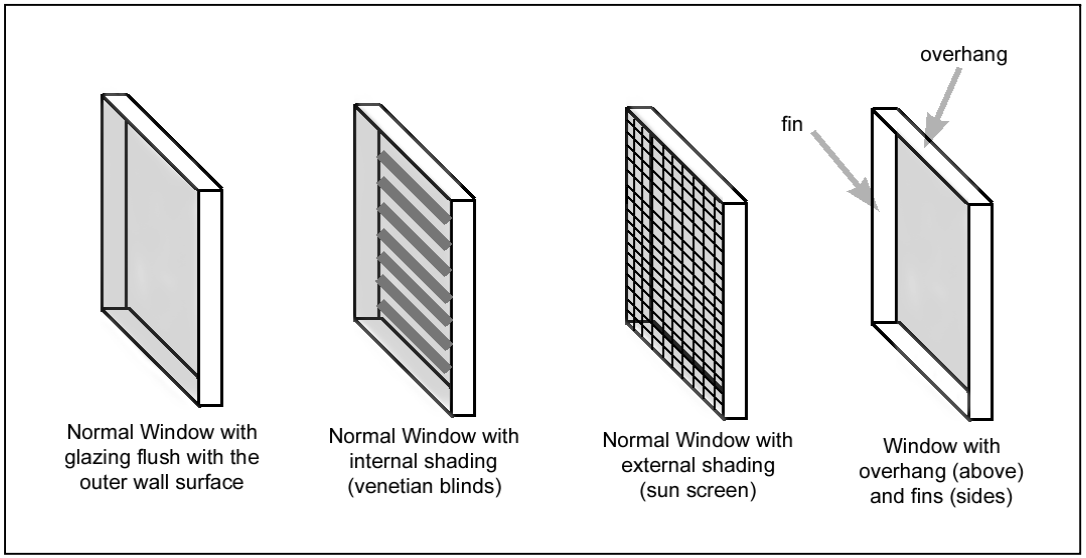
1.2 Maximising the use of natural ventilation and shading

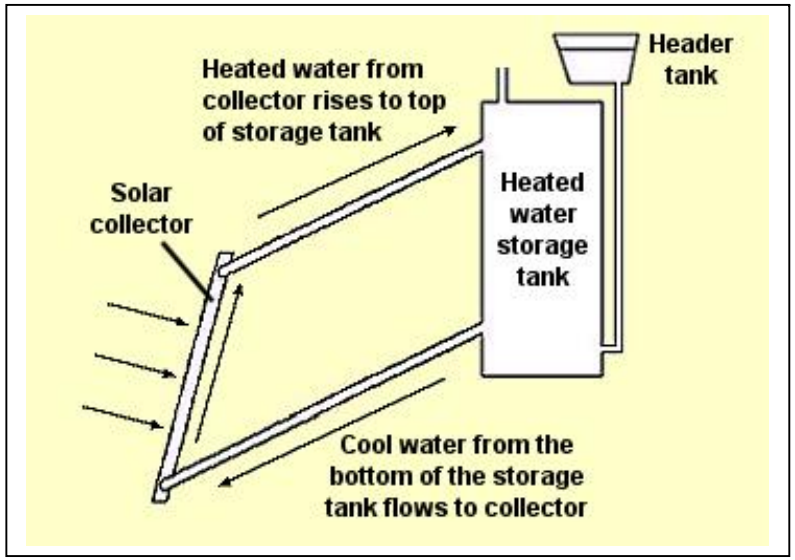
1.2.1 Reducing the reliance of mechanical ventilation and cooling systems complements the principles of Passive Solar Design and reduces energy consumption. Natural ventilation and shading involves:

- Allowing cool air at night to be drawn into the building at a low level, and for normal convection currents to encourage the air upwards through the building and ejected at a high level.
- Shading to allow for shade in summer but allowing weaker winter and evening sun to penetrate the building, thereby increasing heat and light input into the building.
- Minimising the need for artificial cooling.

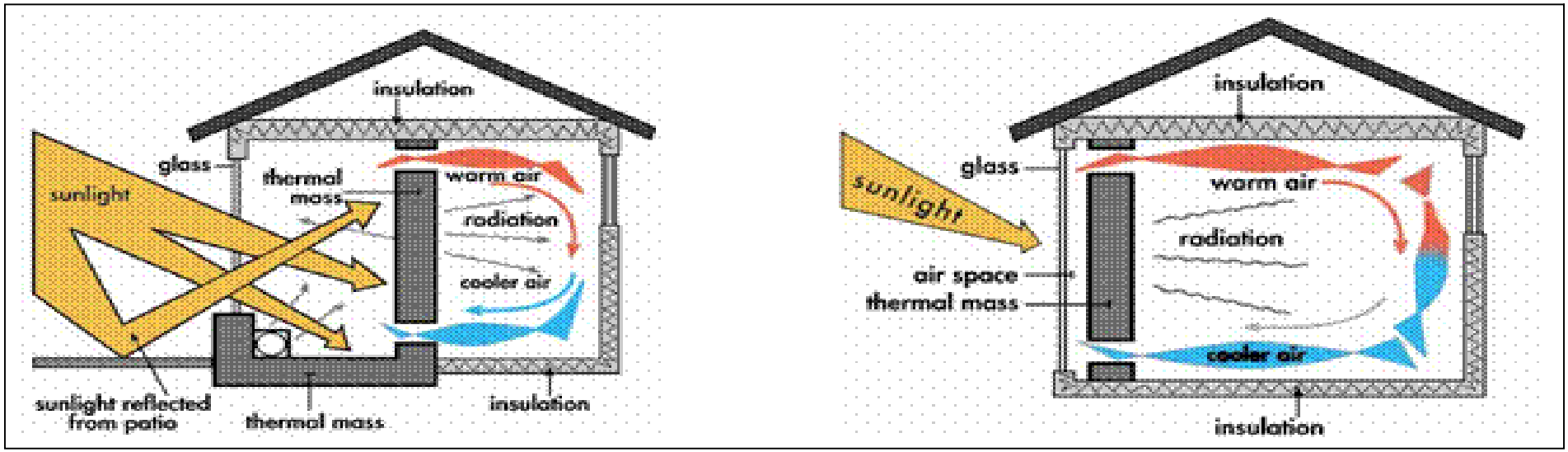
1.2.2 How to maximise natural ventilation and shading (see lower left diagram):

- Solar siphons to drive natural ventilation (see lower right diagram).
- Opening windows and wall vents to allow air to enter the building.
- Incorporating purpose-designed vents at roof level to allow air to leave the building.
- Devices such as louvers (see upper left image), external blinds and eaves, solar films and screens, along with strategically placed deciduous planting to shade glazed areas.
- Green roofs, i.e. vegetated building surfaces can minimise solar gain and slow storm water run-off.
- Light-coloured external materials and façades can reduce the need for artificial cooling.

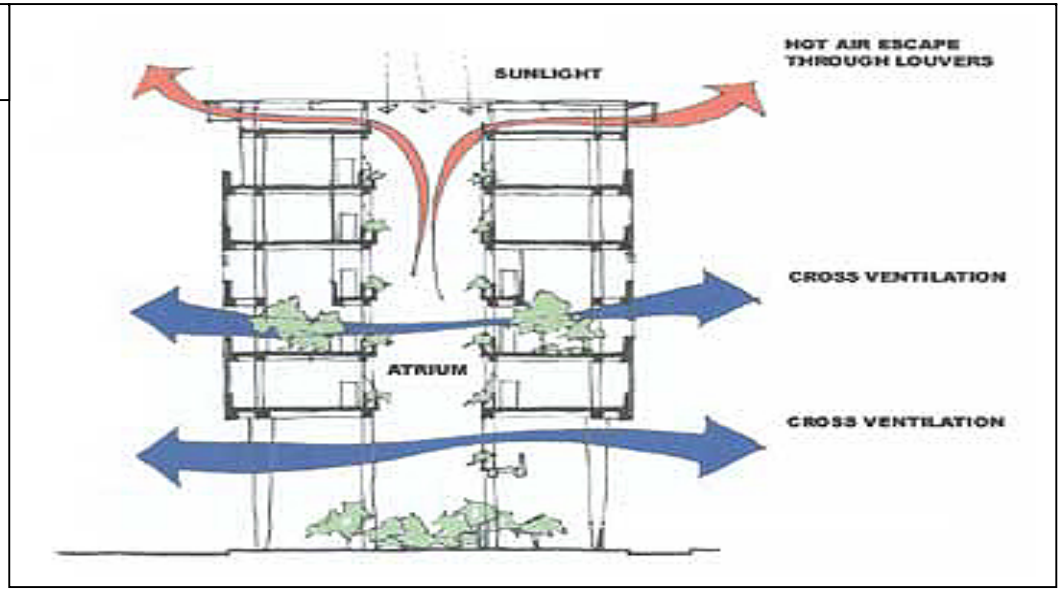




Below: Passive Solar Design – the left diagram shows a Direct System, the right shows an Indirect System (see Paragraph 1.1.2)



Right: Maximising Natural Ventilation and Shading (see paragraphs 1.2.1 and 1.2.2)



U-values relate to the overall coefficient of heat transmission from a building and indicate the heat flow through materials – the higher the figure, the higher the heat loss.

Values vary for each particular material and method of construction, i.e. walls, floors, roofs, doors and windows.

The new Code for Sustainable Homes is a national standard for sustainable design and construction of new homes across the UK.

The new voluntary code will:

- Allow developers to obtain a 'star rating' for any new home that demonstrates its environmental performance against the Code
- Provide valuable information to home buyers, and
- Offer builders a tool to differentiate themselves in sustainability terms

Full Technical Guidance on how to comply with the Code was published in March 2007 and can be viewed online at: http://www.planningportal.gov.uk/england/professionals/en/1115314116927.html

2. Energy Efficiency and Conservation

2.1 Using less energy

2.1.1 Carbon dioxide emissions can be reduced through the minimisation of energy use by way of energy efficient design and technology. The majority of energy consumption occurs during the life of a building and buildings actually account for nearly half of total energy consumption in the UK. The energy efficiency of a building is determined largely by its design, the choice of materials (including their thermal mass) and the choice of plant equipment. The use of timed fans, pumps and controls that respond to the occupancy of the building, along with the education of users, all contribute to using less energy. Designs should allow for the maximum use of low carbon techniques, such as optimising U-values (see left-hand margin for definition) and natural ventilation. Increasing the energy efficiency of a building reduces its overall energy requirements and thus its carbon footprint. This reduction makes it easier for developers to provide a greater proportion of the development's energy demands through on-site renewable energy production.

2.1.2 For residential developments of more than 50 units, whether proposed as part of a single planning application or developed in phases as part of a larger development scheme, 25% of new dwellings must be expected to achieve a 3-star sustainability rating, as set out in the Code for Sustainable Homes.

2.1.3 Typical energy efficient technologies and methods for dwellings include:

- Insulation in walls, roof and floors can be improved above Building Regulation standards to decrease the need for heating. General Information Leaflet 72 of the Housing Energy Efficiency Best Practice Programme has established 'Best Practice' and 'Advanced' insulation standards for new homes.
- Ventilation systems that provide a continuous controlled supply of fresh air through trickle vents in windows, which extract moisture from kitchens and bathrooms. Very low energy extractor fans are now available, as are passive ventilation systems that use natural stack effect to extract air through ducts to the roof. To reduce energy demand, humidity sensors should control ventilation.
- Mechanical ventilation systems are now available, which use heat exchangers to remove heat from the exhaust air and supply it to incoming air. If installed, these should have a heat exchanger efficiency of at least 65%.

Building Regulation standards for non-domestic buildings are shown in the left-hand margin on the following page.

Insulation Standards

These should be provided, which exceed the minimum requirements set out in Part L2 of Building Regulations; excessive areas of glazing should be avoided.

Airtight Construction

Chartered Institution of Building Service Engineers (CIBSE) TM2319 sets out good and best practice air permeability rates for different building types; the best practice rates should be adopted for all buildings. Air permeability targets should be established for new buildings in line with Best Practice and tests carried out to demonstrate compliance.

Natural Ventilation

CIBSE Application Manual TM10 provides detailed guidance on the design of naturally ventilated buildings and helps to identify in what circumstances natural ventilation is likely to be effective. Good Practice Guide 23726 provides similar information. Effective window design is essential in naturally ventilated buildings. Windows should allow ease of control for the building's occupants, regardless of subsequent desk arrangements.

Mechanical Ventilation

The main uses of energy for both mechanical cooling and for air conditioning are the fans needed to circulate the air. Energy Efficiency Good Practice Guide 257 provides details on reducing energy use for mechanical ventilation systems.

2.2 Supplying energy efficiently

2.2.1 In energy efficiency terms, buildings can benefit from a centralised heating system with individual time and temperature controls for each area. These systems need to be well designed and fit-for-purpose. In terms of reducing carbon emissions, the use of electric heating should be avoided. New developments should incorporate tri-generation of Cooling Heat and Power (CCHP) or Combined Heat and Power (CHP) wherever feasible. If CCHP or CHP is not feasible, the developer will be expected to provide clear and sound evidence why neither can be incorporated.

2.2.2 For new dwellings developers should consider gas-heating systems. The use of electrical heaters contributes to higher carbon dioxide (CO_2) emissions per unit of energy delivered to a building than for gas, hence electric heating systems should be avoided unless served by heat pumps or renewable energy. Where electric heat pumps are used, the efficiency of the heat pump can balance out additional CO_2 emissions.

2.2.3 If central heating systems are installed they should be designed to the Central Heating Systems Specifications Best Practice Standards (13). Boilers should also be selected to have reduced oxides of nitrogen emissions. Condensing boilers 15 are recommended, as they can be up to 30% more efficient than standard boilers if operating correctly.

2.2.4 Community or District Heating uses a central boiler plant or building based systems to supply heat to dwellings via insulated underground water mains. Having one central boiler plant:

1. Provides greater flexibility to change fuel sources in the future;
2. Reduces maintenance costs, particularly for housing associations or local authorities that are obliged to undertake annual inspections of individual gas appliances;
3. Allows better matching of heat generation to demand, resulting in general improvements in efficiency; and
4. Allows bulk purchasing of fuel, potentially leading to reduced running costs for occupants.

2.2.5 The developer would need to identify or set-up a company (such as an Energy Services Company) to install, manage and operate the scheme, including billing tenants and homeowners for the energy used. The capital cost of a community heating system, taking into account the installation of the heat main, is likely to be more than individual boilers. The main factor affecting cost is the density of homes and the number of connections that need to be made to the underground heat main. If connections can be kept to a minimum and distribution pipe work runs above ground where possible, costs can be reduced.

2.2.6 Combined Heat and Power (CHP) units generate electricity locally so that waste heat can be used for beneficial purposes. Where all the waste heat generated can be used, CHP units will have overall efficiencies of up to 80% to 85%, compared to 35% to 40% for conventional power stations. CHP systems produce roughly twice as much waste heat as they generate electricity. To be economically viable they require a large and constant demand for heat. This can sometimes make their application to energy efficient new housing problematic. Current insulation standards mean the requirement for space heating is very low and demand is present for only part of the year. The only constant source of heat demand is for domestic hot water and in terms of reducing CO_2 emissions much of this demand could be met by the use of solar water heating instead (in low rise dwellings). For CHP systems to be economically viable they need to run for at least 4,000 hours per year. They are more suitable for leisure centres with swimming pools and hospitals that have a high, year-round heat demand, or in mixed-use developments with suitable heat demands.

2.2.7 Low energy lighting uses just one fifth of the energy of conventional tungsten filament bulbs and lasts approximately eight times longer. Where external lighting is provided, this should use compact fluorescent lamps and be equipped with appropriate presence-detection and daylight cut-off devices.

2.2.8 Fuel cell system technologies provide high efficient means of heath and electricity generation, with very low levels of harmful atmospheric emissions. Where fuel cell technology is not feasible, however, its future inclusion should be considered as an option of being incorporated into the development.

2.2.9 Although not necessarily a planning issue, new residential developments could consider incorporating Smart Meter Technology. This allows householders to be able to accurately measure energy used in terms of money, kWh and CO_2 emissions, as well as assess the effectiveness of energy use reduction methods. New electricity meters, known as 'smart meters', if incorporated, should have a visual display in a prominent position.

2.2.10 For non-domestic buildings developers should consider using:

- Efficient Heating Systems

  The most appropriate and efficient form of heating for a building will vary depending on the use to which the building is to be put. For buildings that are used intermittently (such as churches) or which have large air volumes (such as industrial units) radiant heating may be an effective form of heating. For buildings that are used more regularly, and those with smaller air volumes, conventional, central hot water systems will be more effective. For non-domestic buildings with varying loads, modular boilers should be used to prevent frequent inefficient operation at part load. Condensing boilers, with their higher seasonal efficiency, should be used in place of a conventional boiler plant. Where condensing boilers are installed, weather compensation and under floor heating will improve efficiency by reducing water flow temperatures.

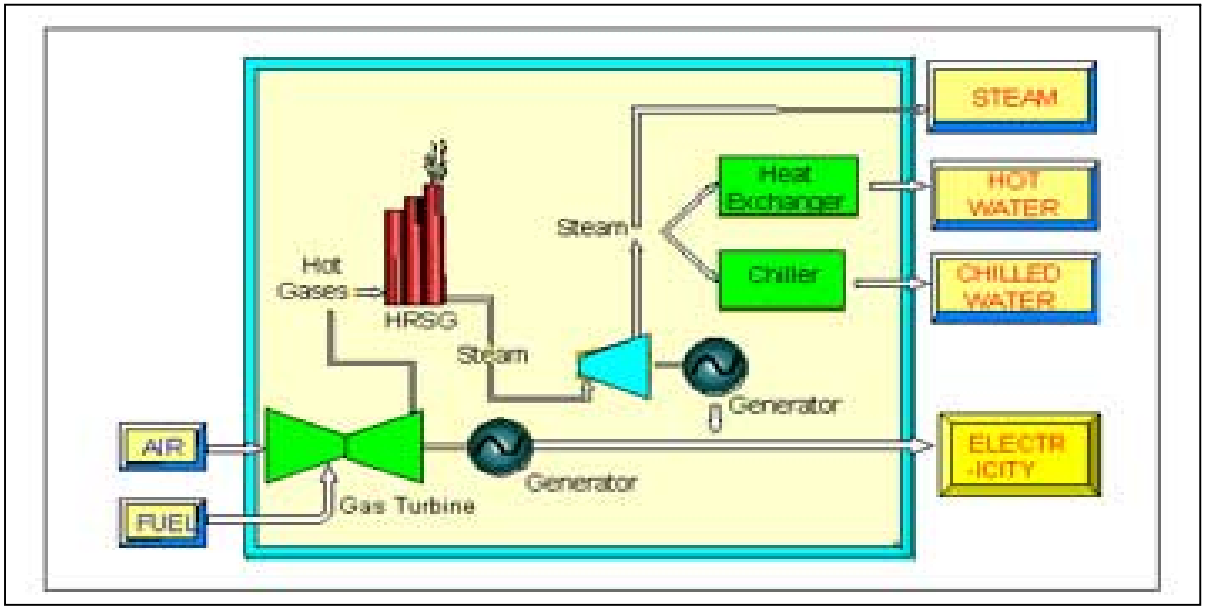
- Reduced Cooling Demand

  The increased use of electrical equipment, such as personal computers and photocopiers, in buildings has lead to a general increase in the use of air conditioning. The energy use in typical air-conditioned office buildings is approximately double that of naturally ventilated office buildings. The need for air-conditioning or the size of the systems installed can be reduced by:
  - Controlling solar gains through glazing;
  - Selecting equipment with reduced power requirements (e.g. flat screen monitors, etc.);
  - Separating high heat load processes (including industrial processes, mainframe computers, large photocopiers etc) from office accommodation;
  - Making use of thermal mass and night ventilation to reduce peak temperatures;
  - Providing effective natural ventilation;
  - Reducing lighting loads; and
  - Installing effective lighting controls and shading techniques for the windows.

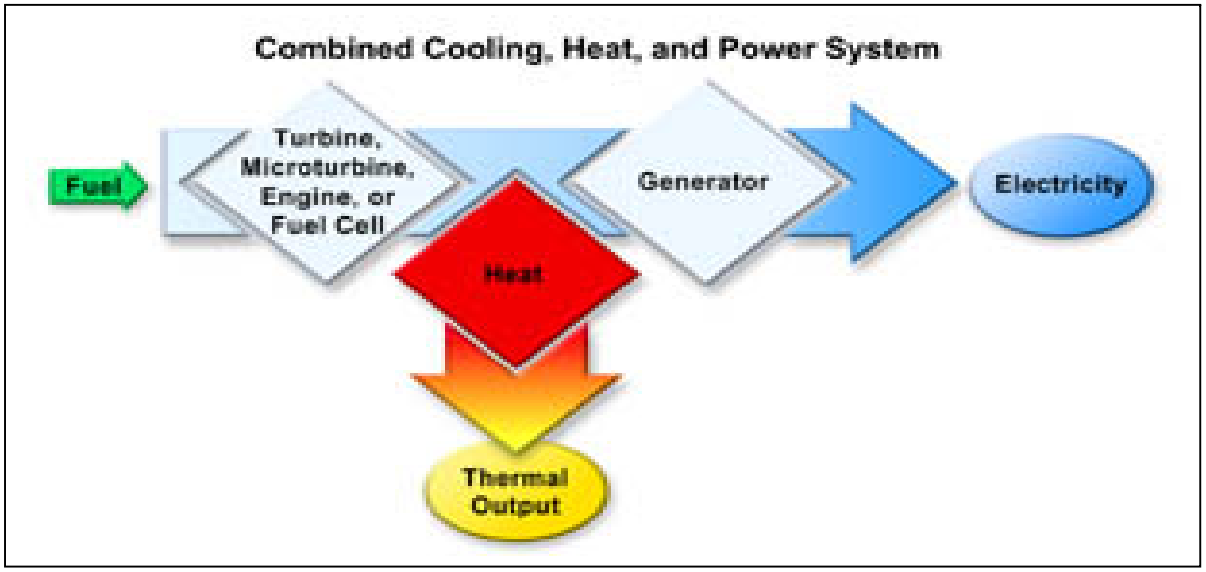
  Alternatively, air conditioning could be considered as being incorporated into a new development if it is balanced by reduced heating costs and zero carbon emissions from sources of renewable energy.

- Reduced Energy Demand For Lighting

  There are various ways to make maximum use of daylight whilst avoiding excessive solar gain:
  - Using task lighting to reduce background luminance levels;
  - Installing energy efficient luminaries with a high light output ratio;
  - Selecting lamps with a high luminous efficacy; and
  - Providing effective controls that prevent lights being left on unnecessarily.



Left: Tri-generation of Cooling Heat and Power and Combined Heat and Power (see Paragraph 2.2.1)



Left: Combined Cooling Heat and Power System (see Paragraph 2.2.6)

3. Renewable Energy

3.1 About renewable energy

3.1.1 Developers will be required to show how they will generate at least 10% of a scheme's total energy demands (calculated as carbon units) from on-site renewable energy sources. Renewable energy can be obtained from a variety of sources, and the choice of which technologies to use should be based upon a mix of the feasible technologies that can achieve the greatest reduction in carbon dioxide emissions.

3.1.2 In most applications of renewable energy in buildings, there are no risks of complete loss of heating or electricity supply, as the renewable sources have conventional back-up, such as electricity from the national grid connection or heating from parallel systems. Most of these technologies are mature and have been in successful operation for many years either in the UK or in Europe.

3.2 Capital costs

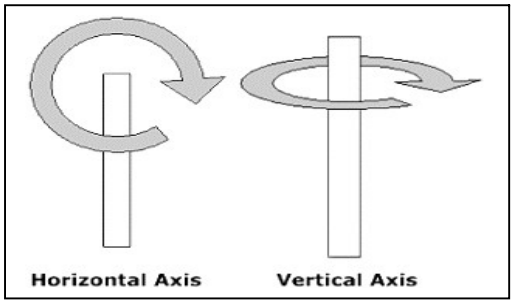
3.2.1 Renewable energy systems vary greatly in their capital cost. Grants are available in some instances to reduce capital costs and guaranteed premium electricity prices are a mechanism that may be used in the future. All renewable energy sources apart from biomass products are free (sun, wind, ground heating and cooling, etc.). Renewable energy systems may not be considered expensive if the 'invisible' costs of fossil fuel use are taken into account, such as global warming, depletion of limited resources and extraction pollution. *These 'invisible' costs are one of the reasons for the promotion of renewable energy sources.*

3.2.2 Most renewable energy related to buildings needs little organisational support as energy is used in the building, and surplus can be exported to the national grid via an individual meter. Where an area or community scheme generates electricity, as with a CHP system or wind generator, an organisation will need to be set up to manage the system and export the electricity to the national grid.

3.3 Saleable benefits

3.3.1 Where a developer wishes to present a sustainable image to attract clients who have a similar commitment, renewable energy installations will be a valuable asset – particularly the more visible ones such as photovoltaics and wind turbines. Such a client is likely to be willing to pay a small premium for a building with integrated renewables and will be interested in the long term running cost benefits (compared with many other green elements). Equally, this can be an important advantage if the building is considered more attractive, and thus can be sold or rented more quickly. Renewable energy is also a future proofing strategy against future fuel price and climate change levy increases. Where life cycle costings are used, renewables will certainly increase value.

Eco Centre wind turbine, Hebburn, South Tyneside



Watts and Mega Watts

The Watt (W) is the International System of Units derived unit of power, equal to one joule per second. A Joule is the work done or energy required to exert a force.

The Mega Watt (MW) is equal to one million Watts (10^6).

3.3.2 It is likely that a combination of renewable technologies may be required in order to meet the required proportion of delivered energy for the site.

3.3.3 Most of the technologies are compatible for use within a development made up of different building types. Some technologies, however, such as combined heat and power and solar water heating, should not be used on the same building (both provide hot water).

3.4 Renewable technologies

3.4.1 Renewable energy technologies should be considered for inclusion by developers. These can deliver a number of benefits, including:

- A smoother ride through the planning process
- Reduced investment risk
- Comparable construction costs, and
- Enhanced image and improved marketability

3.4.2 Wind energy is one of the most cost effective methods of renewable power generation. Wind turbines can produce electricity without carbon dioxide emissions, ranging from Watts to Mega Watt outputs. The electricity generated can either link to the national grid or charge batteries.

3.4.3 Modern quiet wind turbines are becoming viable in low-density areas. Ease of maintenance and immediate connection to the national grid or directly for use of the electricity in a building can make them cost effective, despite lower wind speeds than in open areas. Wind turbines are generally less suited to dense urban areas as their output will be affected by potentially lower and more disrupted wind speeds, and the use of larger more cost effective machines may be prohibited by their proximity to some building types. However, small turbines can be used in inner-city areas. Small turbines can also be mounted on buildings. There are currently few practical installations of roof-mounted wind turbines in the UK, but it is anticipated that this will be a growing market and a number of companies are marketing small roof-mounted turbines. Horizontal axis wind turbines are most common, however, vertical axis turbines are also available (see left image and diagram).

3.4.4 The Carbon Trust/Energy Trust gives a cost range of £2,500 to £5,000 per kilo Watt hour (kWh) installed. Alternatively, a 'merchant wind' system can be set up whereby a separate company pays for building and running the wind turbine(s), with the developer/client providing the land and signing a contract to buy the electricity generated by the turbine(s) for a fixed period (usually a minimum of 12 years).

The British Wind Energy Association has an online database at www.bwea.com and can be used to predict the approximate wind speed at a particular set of co-ordinates at different heights.

The Department for Trade and Industry (DTI) has a series of grant schemes and a list of registered installers and products that must be used by those applying to such programmes. Further information can be obtained online at: www.lowcarbonbuildings.co.uk

3.4.5 Wind turbines are available with outputs ranging from 600 Watts to 3.6 Mega Watts. See definition in left-hand margin. The main factor affecting the output of wind turbines is the average wind speed. This varies for different areas of the UK but increases with the height of the turbine above ground level. Local topography can significantly impact upon local wind speeds. A small difference in wind speed will make a large difference to output.

3.4.6 Photovoltaic systems (see two left images) convert energy from the sun into electricity through semi-conductor cells. Systems consist of semi-conductor cells connected together and mounted into modules. Modules are connected to an inverter to turn their direct current (DC) output into alternating current (AC) electricity for use in buildings. Photovoltaics supply electricity to the building they are attached to or to any other load connected to the electricity grid. Excess electricity can be sold to the national grid when the generated power exceeds the local need. Photovoltaic systems require only daylight, not sunlight to generate electricity (although more electricity is produced with more sunlight), so energy can still be produced in overcast or cloudy conditions. Photovoltaics are generally blue/grey in colour and can be used successfully in all parts of the UK.

3.4.7 Photovoltaic panels come in modular panels which can be fitted to the tops of roofs (looking similar to a roof light) and in slates or shingles which are an integral part of the roof covering (looking similar to normal roof tiles). Photovoltaic cells can be incorporated into glass for atria walls and roofs or used as cladding or rain screen on a building wall - this is particularly suitable for prestige offices. They can also be attached to individual items such as streetlights, parking meters, motorway noise barriers or the sides of bridges.

3.4.8 Photovoltaic systems can be discreet through being designed as an integral part of the roof. An 'invisible' design using slates or shingles as opposed to an Architectural Statement is likely to be preferable if in a sensitive area, such as a conservation area.

3.4.9 Ideally photovoltaics should face between southeast and southwest, at an elevation of about 30-40°. However, in the UK even flat roofs receive 90% of the energy of an optimum system. They are particularly suited to buildings that use electricity during the day – e.g. offices, retail units and schools.

3.4.10 The size of a photovoltaic installation is expressed by its kilo Watt peak (kWp) potential, which is an indication of how much electricity the system could generate at peak or optimum conditions. As a rough rule of thumb the Department for Trade and Industry estimates that a typical 1kWp system in the UK could be expected to produce between 700 to 750 kWh/year of electricity (new data is pending), although some technologies will generate considerably more than that. The performance depends more on location, orientation and whole system design than it does on cell type.

The British Photovoltaic Association has a list of members on its website and the online database of members allows searching by particular location: www.greenenergy.org.uk/pvuk2/about/index.html

The DTI Solar Grants website has a list of registered installers and products at: http://www.est.org.uk/housingbuildings/funding/solarpv/. It is a condition of the photovoltaic grants scheme that systems must be designed and commissioned by accredited organisations.

3.4.11 The two main benefits of incorporating photovoltaics into a development are the production of free electricity and the consequent saving of carbon emissions. Photovoltaics:

- Are straightforward to install as they are modular and light;
- Are technically-reliable; are generally guaranteed to last 20 to 25 years (but are expected to last longer);
- Avoid climate change levy for non-domestic buildings;
- Allow architectural integration as they can be added almost invisibly to buildings;
- Can be used as a design element or can lead the architectural concept of a building; and
- Allow excess electricity to be sold to the national grid.

3.4.12 Solar water heating systems use the energy from the sun to heat water, most commonly in the UK for hot water needs. The systems use a heat collector, generally mounted on the roof in which a fluid is heated by the sun. This fluid is used to heat up water that is stored in either a separate hot water cylinder or a twin coil hot water cylinder inside the building.

3.4.13 There are two types of collectors used for solar water heating applications:

- The flat plate collector is the predominant type used in domestic systems, as they tend to be cheaper.
- Evacuated tube collectors are generally more expensive due to a more complex manufacturing process (to achieve the vacuum), but manufacturers generally claim better winter performance.

3.4.14 Ideally, the collectors should be mounted on a south-facing roof, although southeast/southwest facing will also function successfully, at an elevation of between 10° and 60°. The panels can be bolted onto the roof or integrated into the roof with lead flashings. They look similar to roof lights.

3.4.15 Solar water heating systems are suitable for any building type that has sufficient year round hot water needs (ideally during the day), and a suitable south-facing roof of sufficient size. This technology is particularly suitable for low-density housing developments. Retail units or offices with canteens and washrooms and/or showers may also have a suitable demand for hot water. Where possible, solar water heating systems should be placed on roof areas not visible to the road or sight line of other buildings. Some systems can be integrated to the roof. The systems are no more intrusive than a roof light (window in the roof) when roof-integrated.

3.4.16 Costs are in the range £2,500 to £4,000 for a fully installed individual flat plate standard household system and £2,850 to £3,500 for a fully installed individual evacuated tube standard household system. Discounts, starting at 10%, are likely to be available for bulk purchases.

The DTI has a list of registered installers and products that must be used by those applying to the programme. Further information can be obtained online at: www.lowcarbonbuildings.co.uk

The Solar Trade Association has a list of members on its website: http://www.greenenergy.org.uk/sta/

Members must agree to abide by a code of conduct.

3.4.17 A 4m² collection area will provide between 50% and 70% of a typical home's hot water requirements depending on the quantity of hot water required and the timing of that requirement. The system is particularly beneficial for dwellings where residents are at home using hot water during the day, for example, young families or the elderly. Savings from solar water heating are difficult to predict and will in practice depend on how much water the occupants use and at what times they use it.

3.4.18 The Energy Efficiency Commitment Scheme bases savings from solar water heating on an average figure of 454kWh/year saving per square metre of flat plate collector or 582kWh/year per square metre for an evacuated tube system. Assuming a 4 square metre system, this would provide a saving in energy use of 1,816kWh/year and 2,328kWh/year respectively for the two systems, 34% to 44% of an average modern house space and water heating demand. The same Energy Efficiency Commitment Scheme base savings can be applied for commercial systems; an average figure of 454kWh/year saving per square metre of flat plate collector.

3.4.19 Systems should be in locations that will be unshaded at all times of the day if possible. Gable roofs, chimneys, trees and other buildings in the vicinity should be identified as potentially shading the modules. They may cause the performance of the system to drop in the early morning or late afternoon. There needs to be space for a preheat cylinder in or close to the roof space. Solar water heating systems are most commonly fitted with standard boilers, rather than combination boilers due to the requirement for a hot water tank. However, there are a number of manufacturers that make combination boilers specifically designed to take preheated water from solar water systems.

3.4.20 Biomass can be burnt directly to provide heat in buildings. Wood (from forests, urban tree pruning, farmed coppices or farm and factory waste) is the most common fuel and is used commercially in the form of wood chips or pellets, although traditional logs are also used.

3.4.21 There are two methods of using biomass heating in housing, single room heaters or stoves, and boilers, with biomass replacing gas or oil. Both systems can be designed to burn smokeless to comply with the Clean Air Acts. Boilers can be fed automatically by screw drives from fuel hoppers. This typically involves daily addition of bagged fuel to the hopper. Electric firing and automatic de-ashing are also available.

3.4.22 For non-domestic applications, biomass boilers replace conventional fossil fuel boilers and come with the automated features mentioned above. Fuels other than wood, such as straw can also be used.

3.4.23 Biomass is normally considered a carbon neutral fuel, as the carbon dioxide emitted on burning has been (relatively) recently absorbed from the atmosphere by photosynthesis and no fossil fuel is involved. The wood is seen as a by-product of other industries and the small quantity of energy for drying, sawing, pelleting and

delivery are discounted. Biomass from coppicing is likely to have some external energy inputs, for fertiliser, cutting, drying etc. and these may need to be considered in the future. For the purposes of this checklist, all biomass fuels are considered to have zero net carbon emissions.

3.4.24 Biomass heating is theoretically applicable to any building requiring heat. However, practical constraints suggest that it is currently most applicable to lower density situations due to fuel supply and storage issues. The most common application of biomass is as one or more boilers in a sequenced (multi-boiler) installation where there is a communal (i.e. block or district) heating system. There must be a local and adequate supply of appropriate biomass fuel (normally wood chips or pellets) and room for delivery and storage. For individual houses, room stoves or central heating boilers are available but with the same constraints relating to fuel supply.

3.4.25 Biomass boilers replace conventional boilers and have no aesthetic impact. The additional capital costs of biomass boiler systems, including fuel storage and automatic feeding, range from around £2,000 for a single house, to £30,000 to supply 33% of the heating for a standard office of 3,000 square metres. Biomass fuels, unlike other renewable fuel sources, will have to be bought unless they are obtained as waste material from another organisation. Prices vary depending on the type and distance for delivery and may be similar to other solid fuels.

3.4.26 Issues to be considered with biomass heating are fuel availability, delivery and storage, and the need to commission the boilers and service them at regular intervals. Arrangements for ash disposal and de-coking must be made. For individual domestic use of biomass boilers, and even more so room stoves, the occupants must be willing and capable of managing fuel supply, ash removal and disposal. Domestic biomass boilers require considerably more space than a conventional boiler and cannot normally be located in a standard modern kitchen.

Ground source heating

3.4.27 Ground source heat pumps are used to extract heat from the ground to provide space and water heating to both individual houses and any type of non-domestic building. Heat pumps take in heat at a certain temperature and release it at a higher temperature, using the same process as a refrigerator. As the ground stays at a fairly constant temperature throughout the year heat pumps can use the ground as the source of heat. The ground temperature is not necessarily higher than ambient air temperature in winter but it is more stable, whereas air has a vast temperature range. This makes system design more robust.

3.4.28 Water (or another fluid) is circulated through pipes buried in the ground and passes through a heat exchanger in the heat pump that extracts heat from the fluid. The heat pump then raises the temperature of the fluid via the compression cycle to supply hot water to the building as from a normal boiler.

3.4.29 Most heat pumps are electrically driven but other systems can use waste heat or burn fossil fuels such as gas. The measure of the efficiency of a heat pump is given by the Co-efficient of Performance (CoP), which is defined as the ratio of the heat output, divided by quantity of energy put in. CoPs of three or more should be achievable with ground source heat pump systems, giving good energy and running cost savings.

3.4.30 The heat pump can replace the boiler in a single house but in larger non-domestic buildings it is likely to be one of a number of modular boilers, depending on what proportion of the heat demand it is designed to satisfy. The optimal use of the heat pump system under floor heating ensures, as this is run at lower temperatures, the operation of the heat pump is more efficient. Electrically driven heat pumps should be very reliable but require maintenance to keep to full CoPs.

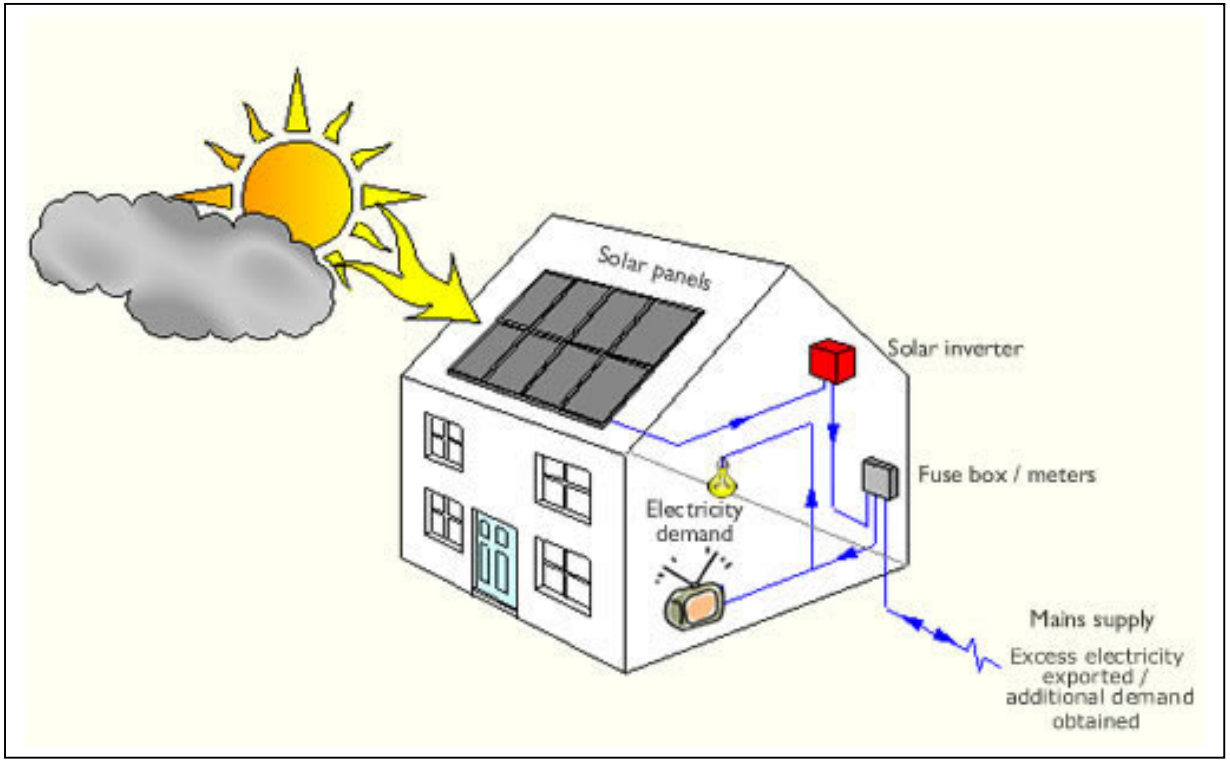
3.4.31 The ground pipe system can be horizontal or vertical. For horizontal systems, a coiled pipe network is buried at around two metres depth below ground level, thus requiring a large area of open space depending on the size of the system. For vertical systems, the pipes are placed in holes bored straight into the ground to a depth of 15 to 150 metres depending on ground conditions and size of system. Vertical systems thus require very little ground space but do require access for the drilling rig at the construction stage, though this is unlikely to be greater than for normal construction vehicles.

3.4.32 Whilst a ground source heat pump is clearly not a wholly renewable energy source as it uses electricity, the renewable component is considered as the heat extracted from the ground. It is measured as the difference between heat output, less the primary electrical energy input. It may be possible to combine the use of ground sources for both heating and cooling, using the same mechanical equipment.

3.4.33 Ground source heat pump systems can be used in individual houses, blocks of flats with communal heating and almost any size of non-domestic building. A particular use is where natural gas is not available making the ground source heat pump more economic. Ground source heat pumps cannot be seen from the outside of the building, so aesthetic design is not an issue.

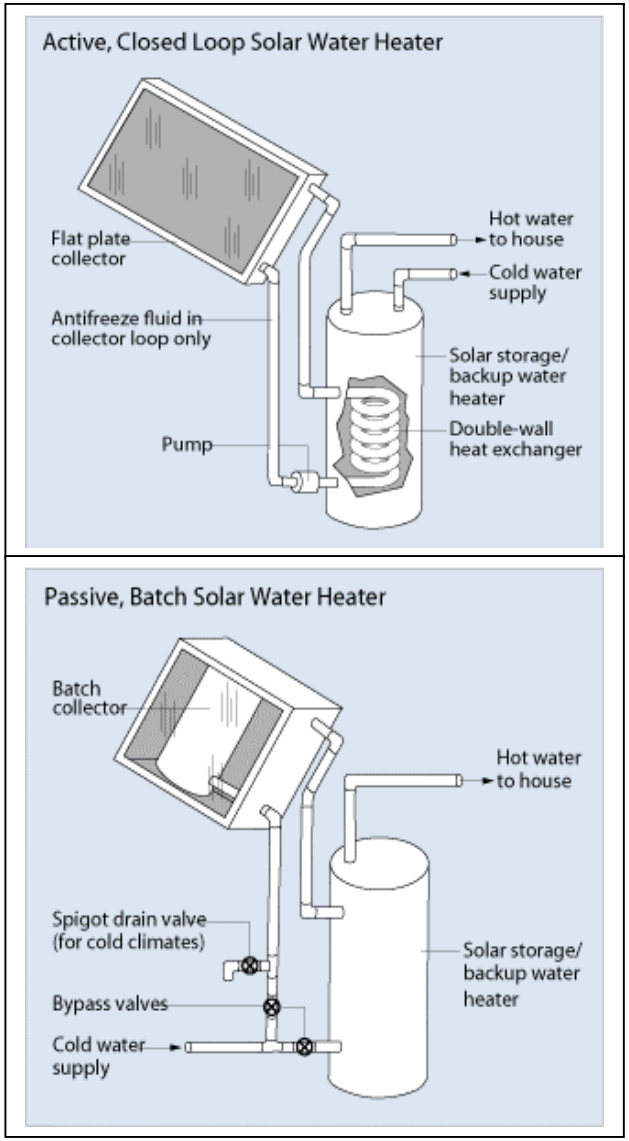
3.4.34 The main additional cost in a ground sourced heat pump system is the installation of the pipes in the ground, which depends on the ground conditions and length or depth requiring installation. The additional cost for an individual house is around £2,500 and to supply 50% of the heating demand of a 3,000 square metre office building, it could be around £50,000.

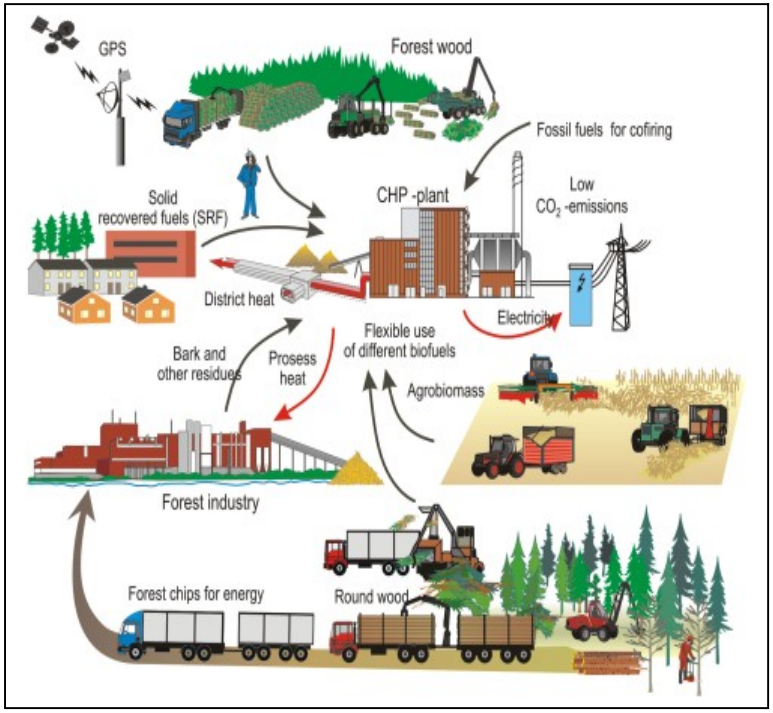
3.4.35 Technical feasibility will depend on access for the ground pipe system, either an area for a horizontal system or access to drill for vertical pipes. For a large individual house, a horizontal pipe system would require a garden area of up to 100 square metres. Ground conditions will also affect ease of construction and performance of the system. Areas of solid rock will be more expensive to drill through. A detailed ground survey will be needed to determine the suitability of any particular site, having regard to ground conditions as well as to underground obstructions such as sewers and tunnels. Different temperature conditions will be suitable for different types of heating, for example, under floor heating, medium temperature radiators and hot water heating.



Above: **Photovoltaic System** showing how solar energy can generate electricity for a building and feed into a mains supply (see paragraphs 3.4.8 to 3.4.15)

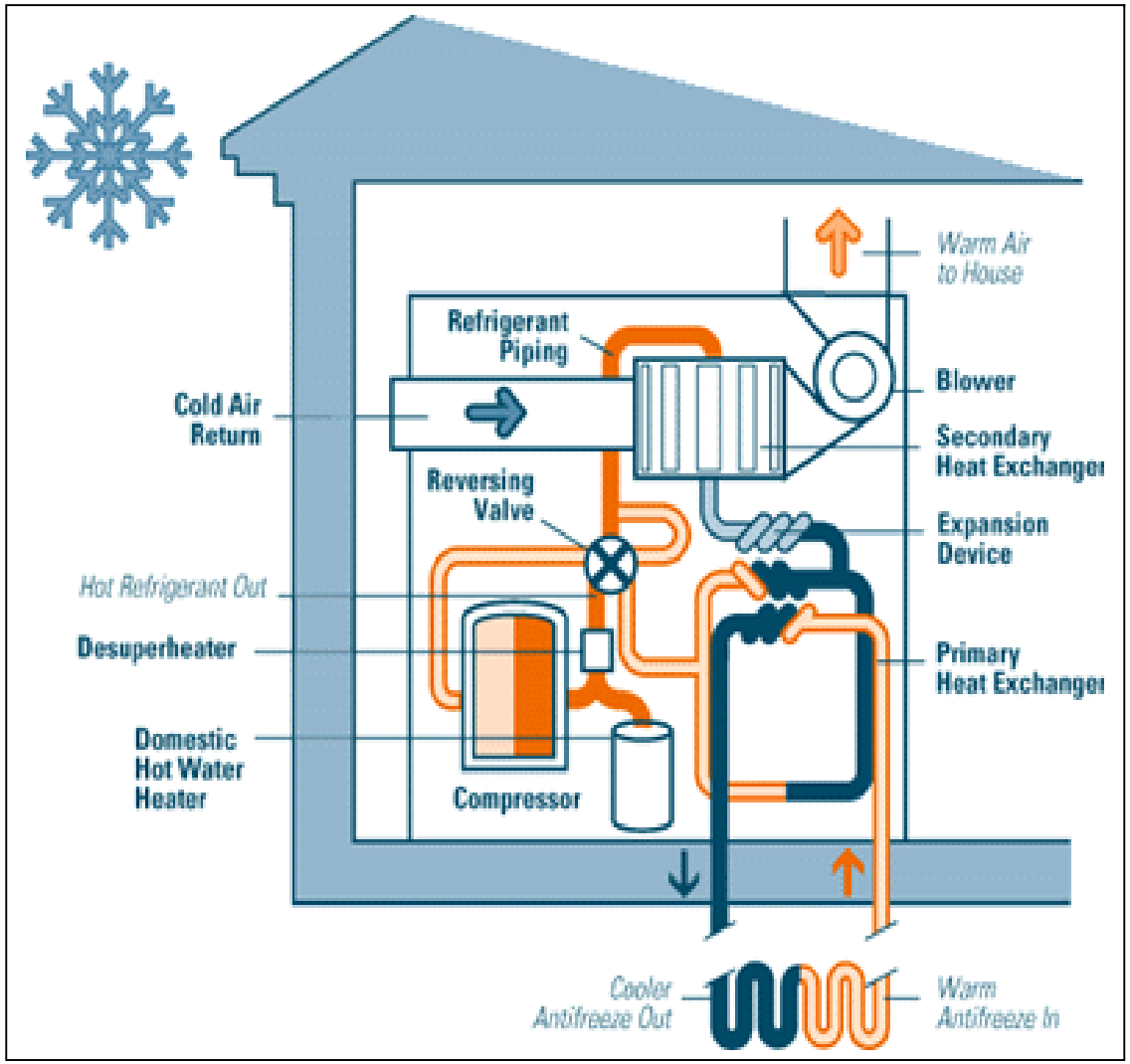
Below: **Active and Passive Solar Water Heating Systems** (see paragraphs 3.4.16 to 3.4.25)





Above: **Biomass** – the use of wood as a fuel (see paragraphs 3.4.26 to 3.4.32)

Below: **Ground Source Heating** (see paragraphs 3.4.33 to 3.4.41)



Key Contacts

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4. Energy Statements

4.1 Requirements for energy statements

4.1.1 For those developments outlined in paragraphs 6.3 and 7.3, all developers will be required to submit an Energy Statement, which should provide a full and detailed account of the development's energy demands. For outline planning applications the developer will, where the energy demands of the development cannot be reasonable calculated, undertake an initial feasibility study on energy demand and use of renewable energy technologies in the form of an Interim Energy Statement. A suggested structure for Energy Statements is contained within Annex A.

4.1.2 An energy statement should include:

- An Executive Summary: The baseline emissions of the proposed development in kilo Watt hours (kWh) and as a percentage of carbon dioxide along with the savings from energy efficiency and renewable energy. Key energy efficient design measures include heating and cooling systems incorporating (CHP), and the choice of renewable energy technology.
- Energy Demand Assessment: The completion of the tables to demonstrate the likely heating, cooling and electricity demand. This will help identify the technical feasibility of energy efficient and renewable technologies, and identify where the applicant can make the most effective energy and carbon emission savings in a scheme. It will also validate whether the 10% target for the reduction of carbon emissions from renewable energy technologies has been achieved.
- Renewable Energy Technologies: A consideration of each of the renewable energy technologies mentioned in Section 3 (Renewable Energy) of the Sustainability Checklist to demonstrate whether they are feasible for the proposed development.

4.1.3 The Council's Energy Conservation Officer and the North East Energy Saving Trust will be asked to comment on energy statements, as will the Council's Building Control Group to ensure that they are comprehensive assessments for reducing energy consumption. See left-hand margin for contact details.

4.2 Estimating delivered energy demand

4.2.1 The delivered energy demand of a development needs to be estimated, possibly at a stage when detailed design will not have been carried out. For this reason, energy benchmark figures are provided for 55 different building types in Annex B, along with the calculation process for determining the annual baseline carbon emissions. Housing benchmark figures for energy demand are not given, but baseline annual carbon emissions are given for medium density housing and town centre residential tower blocks.

Estimating Delivered Energy Demand

Dwellings
Use the Standard Assessment Procedure (SAP) calculations required by regulation (which covers space heating and hot water) and Building Research Establishment Domestic Energy Model 12 (BREDEM-12) for other end uses. A number of domestic software models implement the BREDEM-12 calculations, e.g. National Home Energy Rating Builder. Model results can be obtained at outline planning stage by modelling a number of representative dwelling types based on a developer's standard specification or by using existing SAPs already calculated for existing developments with similar house/flat types.

Commercial, industrial and other buildings
Developers can adopt the benchmarks published in Annex B for their building type, or choose to calculate their own predicted delivered energy requirements.

All buildings
Modelling in line with the standards set out in CIBSE Applications Manual AM11: Building energy and environmental modelling, ISBN 0 900953 85 3. Clarke, JA and Maver, TW (1991).

4.2.2 The delivered energy requirement should include the kilo Watt hours delivered energy predicted for each fuel (e.g. electricity and gas) for each building type on the site plus the predicted delivered energy requirement for other structures and private infrastructure, including for example, flood and car park lighting, and other energy-using features etc that will form part of the developers design proposals. While the energy use of public infrastructure is likely to be negligible, developers should consider opportunities surrounding public infrastructure such as railway sidings, noise barriers and street furniture (e.g. lampposts, bus stops and shelters). In certain circumstances these provide cost effective methods for providing a proportion of energy demand through renewable energy.

4.2.3 Developers may choose to use tailored benchmarks, software models or dynamic simulation models for calculating the energy requirements of their site. They should state what method they have used when reporting energy requirements in their energy statement.

4.2.4 At other times, tailored benchmarks may not be considered appropriate because delivered energy requirements need to be estimated for a particular building, structure or feature not included in the tables, or perhaps because energy efficiency techniques or technologies other than renewables (including CHP) are considered more appropriate. These should be taken into account before calculating the carbon emissions baseline and considering the application of renewables, in order to meet any applicable targets for emissions reduction.

4.2.5 Industrial buildings and other buildings with predictable end-use demands (e.g. hospitals, swimming pools, etc.) should also include both process heat and electricity demand where the building end-use is known AND IN ALL CASES a nominal base load demand.

4.2.6 Where a calculation method or software model does not include all energy end-uses known to be present in the building, these must be estimated separately and added to the model results to arrive at the predicted fossil fuel and electricity demand.

4.2.7 Annex B gives a summary of published delivered energy benchmarks for a variety of building types. The benchmarks include private infrastructure energy use. The 'good' benchmark has been selected to give the best technical representation of current building regulations while not being too onerous a target for developers. It is recognised that some of these benchmarks indicate energy consumption higher than modern buildings due to the date of their publication. These will be upgraded as information becomes available. Should you wish to check for updated publications, the notes to the table provide details.

Estimating delivered energy demand

Offices

The Carbon Performance Rating for offices as set out in BRE Digest 457 CI/SfB (R3). Grigg, PF (2001). A declaration to this effect would be expected as part of their planning application. The final total annual energy demand calculated for ANY commercial, industrial or other building should include energy use for ALL the following end uses where they are known to be present:

- Space heating and hot water
- Gas and/or electric catering
- Refrigeration/cooling
- Fans, pumps and controls
- Humidification
- Lighting and office equipment
- Centralised ICT (server room) and communications equipment, and
- Other miscellaneous electricity

4.3 Reducing carbon emissions and applying renewable technologies

4.3.1 Once the total annual carbon emissions for the proposed development have been calculated it is then possible to calculate the baseline reduction of carbon emissions. SPD 1 expects a reduction of 10% for major development applications. To reduce carbon emissions the next step is to consider the various renewable energy technologies that are appropriate for the type of development. Refer to Section 3 (Renewable Energy) of the Sustainability Checklist. Various technologies can be used to calculate the most efficient and cost effective way of meeting the carbon emission reduction target. Annex C demonstrates how to make these calculations and gives a worked example of a development that includes renewable energy technologies.

5. Sustainable Construction

5.1 Waste

5.1.1 As part of the construction phase the use of prefabricated materials and consolidation centres can contribute to waste reduction. The preparation of a Site Waste Management Plan (SWMP) will be required for all new major development applications and should identify quantities and types of construction and demolition waste, and demonstrate how off-site disposal of waste will be minimised and managed. As part of the SWMP, developers will be expected to demonstrate that they have considered the use of pre-fabricated elements and modern methods of construction where appropriate to reduce total energy used, and where these are sourced.

Note: For an outline-planning application, a Site Waste Management Plan may be imposed as a planning condition where the full details of the proposal are yet to be determined.

5.2 Materials and resources

5.2.1 Developers should consider the use of materials that not only meet the material specifications for the proposed development, but at the same time give consideration to the use of materials that have a low embodied impact, such as the use of recyclable materials, sustainable timber, and insulating materials which do not contribute to stratospheric ozone depletion. Embodied energy is a measure of the energy required to manufacture a product. A product that requires large amounts of energy to obtain and process the necessary raw materials, or a product that is transported long distances during processing or to market, will have a high-embodied energy level. Buildings could be constructed from thermally massive materials that store heat during warm conditions and release heat at cooler times. In addition, all buildings enclosed in a 300-millimetre insulation jacket will be more energy efficient.

5.3 Procurement of materials

5.3.1 The repair, adaptation and re-use of existing buildings should always be considered first, on the basis that the existing fabric embodies environmental capital that requires energy and materials to replace. If redevelopment is considered feasible, however, the simple procurement and selection of materials can help to minimise energy demand from the outset, which takes into account whole life energy principles. For major developments, developers will be expected to submit a Materials Procurement Strategy and should include the following principles:

- Where demolition or conversion of existing buildings is involved the developer will be expected to recover and re-use materials from the site as part of the re-development proposals, wherever possible. A pre-demolition audit should be undertaken to identify value and recovery options for existing materials.
- Optimise the use of re-cycled materials and select materials that are appropriate to the building's use, thereby minimizing new aggregate use.

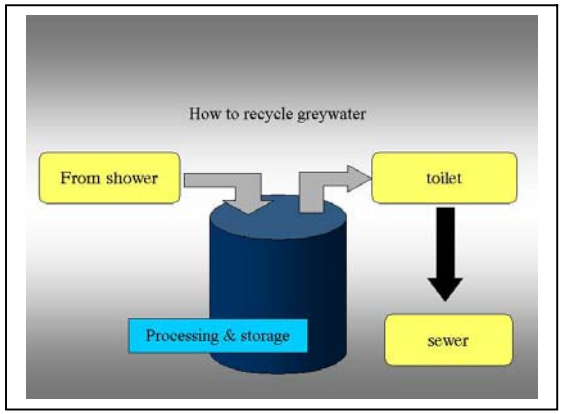
- Maximise the proportion of materials and components that can be re-used at the end of the building's life – by designing for deconstruction and disassembly, and avoid using materials that are difficult to recycle.
- Materials that have low-life cycle environmental and toxicity impacts – extraction, processing, manufacture, transportation and disposal (low carbon input).
- Maximise the use of timber from the Forest Stewardship Council or from another source that has a sustainable purchasing policy. The Department for the Environment, Food and Rural Affairs (DEFRA) has created a Central Point of Expertise on Timber Procurement, which offers on-line advice on procurement.
- Minimise using materials such as aluminium and concrete with high-embodied energy, unless a whole life energy or technical case exists.
- Optimise the use of local materials to reduce transportation impacts.
- Where the procurement of materials that minimise energy demand conflicts with other planning priorities and objectives, the developer will be expected to demonstrate why such materials cannot feasibly be incorporated into the development. An example may be where a development that involves changes to a listed building, or a building within conservation area, would be adversely affected if materials of low energy embodiment were used. In such instances the Local Authority will take into consideration matters of historic conservation and heritage importance, which may take precedence over other sustainable development objectives.

6. Water Efficiency and Energy Conservation

6.1 Incorporating water saving devices

6.1.1 The simple use of water saving devices within major developments can avoid water wastage and developers will be expected to:

- Incorporate low flush toilets, such as dual flush toilets with flush volumes as low as 4 to 2 litres, and waterless urinals for buildings with high occupancy rates.
- Use taps that are spray or low flow taps, self-closing or infrared controlled with flow restrictors, set to ensure minimal consumption of water per use.
    - Install low water use white goods, such as washing machines and dishwashers.
    - Install low-flow showerheads and low volume baths.
    - Recycle water used in swimming pools with treatment systems.



6.2 Making use of alternative water resources

6.2.1 Developments of 10 dwellings or more will be expected to look into the feasibility of utilising rainwater harvesting, and water recycling wherever possible to reduce the use of potable water. This should include:

- Using harvested rainwater for flushing toilets, watering plants and gardens, topping up garden ponds, and wetland habitats. These systems should be connected to the mains supply.
- Grey water recycling that is filtered and treated before being used again for toilet flushing or other non-potable activities such as watering the garden or washing the car. This can be achieved by passing grey water through a black water recycling system that breaks down the solids and purifies the water ready for re-use. See left diagram.
- The use of Sustainable Urban Drainage Systems, such as porous paving for large expanses of hard surfaces or swales and balancing pond to control surface water run-off.
- Water butts (rainwater tanks), which slow down run-off and can be used for gardens and lawns.

6.3 Sustainable Urban Drainage Systems (SUDS)

6.3.1 Development can harm our water resources if a traditional approach to drainage is adopted. Removing water from the site as quickly as possible causes a range of impacts:

- Increased run-off resulting from more extensive hard paving and roofing can increase the risk of flooding downstream, as well as causing sudden rises in water levels and flow rates as the water is discharging into watercourses.
- Surface water run-off can contain contaminants such as oil, organic matter and toxic metals. Although often at low levels, cumulatively they can result in poor water quality in rivers and streams, adversely affecting bio-diversity and amenity value. After heavy rain, the first flush is often highly polluting.

- By diverting rainfall to piped systems, the amount of water infiltrating the ground is reduced, depleting ground water and reducing flows in watercourses in dry weather.
- SUDS are designed with three objectives in mind: 1) To control the quantity of run-off from a development; 2) to improve the quality of the run-off; and 3) to enhance the nature conservation, landscape and amenity value of the site and its surroundings.

6.3.2 SUDS deal with run-off as close to its sources as possible and balance all three objectives, rather than focusing only on flood prevention. In recognition of this applicants should, in the first instance, aim to incorporate SUDS into their development proposals. SUDS are also considered suitable for mitigating adverse impacts and supporting water-conservation objectives.

6.4 SUDS – The benefits

6.4.1 Implementing SUDS may lead to cost savings, for example, by avoiding or reducing the need for gully pots, constructing or requisitioning surface water sewers, and piped connections to distant outfalls.

6.4.2 SUDS can be designed cost-effectively to work with retained natural features such as ditches or ponds, and to form an integral part of hard and soft landscaped areas. In this way, they can contribute towards an attractive scheme that enhances the nature conservation and amenity value of the development, while also re-cycling the valuable water resource.

6.4.3 The Council will expect major and significant planning applications, as defined in paragraphs 6.3 and 7.3, whether outline or detail, to demonstrate how a more sustainable approach to drainage has been incorporated into their development proposals, through the submission of a Sustainable Urban Drainage Programme. This should include sufficient detail to demonstrate how to control the quality or run-off from a development, improve the quality of run-off, and enhance the nature conservation, landscape and amenity value of the site and its surroundings. Where it is not possible or feasible to submit detailed drainage designs for the development, the Council will impose planning conditions requiring such details to be provided prior to the commencement of development on site. Such conditions will only be appropriate where sufficient evidence has been submitted with the application to indicate that sustainable urban drainage techniques have been included from the out-set in the design process, and can be accommodated into the design and layout of the proposed development without significant modification.

6.5 SUDS – Adoption and future maintenance

6.5.1 In the early stages of design, consideration should be given to the arrangements for adoption and future maintenance of the system. This is likely to influence the design just as much as technical considerations.

7. Sustainable Waste Management

New developments have a major role to play in producing less waste, and dealing more effectively with the waste that they produce. This applies to all stages of development, design, construction and operation. Developers will be expected to demonstrate how the following sustainable waste management principles have been integrated into their development:

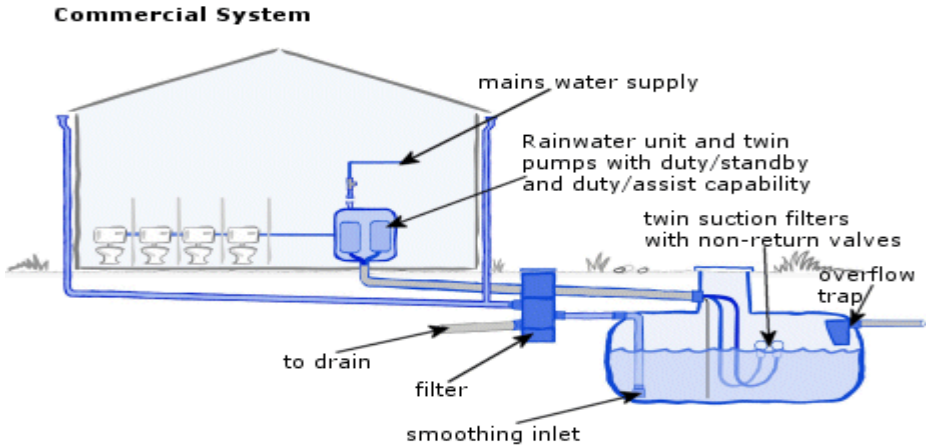
7.1 Storage and recycling facilities

7.1.1 The design of individual or shared waste sorting and recycling facilities, such as storage bins in kitchens and integrating recycling bins or composting areas into the building or site fabric. Provision of local shared recycling centres for mixed use developments to provide for the recycling of glass, paper, plastics, cans and clothing. Provision should be made for a local shared recycling facility at a rate of one site per 500 persons, or per 1,000 habitable rooms. Suitable recycling storage facilities should also be incorporated into non-domestic developments.

7.2 Composting

7.2.1 For new residential developments of 10 dwellings or more, where the properties have rear or side gardens, the provision of composting facilities should be provided for each dwelling house (see image below).

Below: Rainwater Harvesting as an alternative water resource (see Paragraph 6.2.1)



ANNEXES

Annex A: Guidance on Preparing Energy Statements

This Annex provides more detailed guidance on addressing the energy hierarchy and provides a model structure for energy statements, which developers may wish to use to present their energy assessments.

Suggested outline structure

1. Executive Summary
   The following information should be set out:

   - Energy demand – completion of the following table is recommended:

	Kilo Watt hours (kWh)	Carbon Dioxide (CO_2) (%)
Baseline emissions		
Savings from energy efficiency		
Savings from Renewable energy		

   - Key energy efficient design measures
   - Heating and cooling system incorporated (including outcome of CHP/tri-generation feasibility study)
   - Choice of renewable energy technology

2. Energy Demand Assessment
   Applicants should complete the following table to demonstrate the likely heating, cooling and electricity demand. The purpose of this information is to help identify the technical feasibility of energy efficient and renewable energy technologies, and to identify where an applicant can make the most effective energy and carbon emissions savings in a scheme. It will also validate whether a scheme achieves the 10% target for reduction in carbon emissions from renewable energy technologies.

	Baseline scheme		Proposed Scheme		Change	
	kWh	Kilograms (kg)/CO_2	kWh	kg/CO_2	kWh	kg/CO_2
Electricity						
Heating						
Cooling						
Total						

Energy efficiency savings summary

	Amount	Percentage (%)
Reduction in energy demand (kWh)		
Reduction in CO_2 emissions		

Renewable energy savings
Carbon dioxide emissions reductions

	Amount (kg CO_2/year)	Percentage (%)
Required CO_2 reductions from renewable		10%
Proposed CO_2 reductions from renewables		
	Amount (kWh)	Percentage (%)
Required energy generation from renewables		10%
Proposed energy generation from renewables		

3. Energy efficient design

Part L Building Regulations 2006 is the baseline standard that all new buildings must meet. The LDF's policies are not in place to duplicate regulations. Energy Statements should therefore set out the architectural and building fabric measures specific to the scheme and demonstrate the extent to which they exceed building regulations. Applicants are encouraged to demonstrate site-specific or innovative measures that show energy efficiency is fundamental to a scheme's design.

4. Heating and cooling systems

All major planning applications should demonstrate how they have applied the heating and cooling hierarchy. In particular, all applications should investigate the feasibility of Combined Heat and Power (CHP) and tri-generation. These technologies are technically dependent on available power, heating and cooling loads. Where a mixed-use scheme is proposed, applicants should demonstrate a site-wide consideration of energy.

5. Renewable energy technologies

Energy Statements should set out consideration of each renewable energy technology. Where the 10% target has not been achieved, scheme-specific justification is required. All technologies listed in the Sustainability Checklist are considered potentially technically feasible. In particular, wind and biomass should not be rejected on generic planning grounds, and applicants are expected to demonstrate limitations, or discuss them at the pre-application stage.

6. Conclusions and Commitments

To assist in the completion of the Energy Statement the following fundamental principles should be borne in mind:

- Major planning applications should demonstrate that the feasibility of energy efficiency measures and renewable energy technologies have been investigated, and the incorporation of one is not sufficient justification to reject the other, where it is feasible to incorporate both energy efficiency and renewable energy.
- Applicants should apply the sequence of (1) using less energy, (2) using renewable energy and (3) supplying energy efficiently. For the purposes of calculating the proportion of energy demand met by renewable energy technologies, the required energy from renewable sources is determined once the reduction in demand from (1) and (3) have been calculated.
- Green tariff electricity is not counted towards the consideration of on-site generation or of a scheme's ability to meet the 10% target.

Outline planning applications

Outline planning applications need to fully consider and commit to energy measures. Depending on the matters to be considered, applicants should still undertake initial feasibility work on all the aspects set out above. The Energy Statement should address a site-wide energy strategy to form the framework of consideration for reserved matters applications. The structure should be the same as set out for full planning applications. Planning conditions will be used to ensure that reserved matters applications contain an energy strategy that demonstrates consistency with the outline energy strategy.

The use of planning conditions

For full planning applications, planning conditions will be used to secure the outcome of proposed energy efficiency and renewable energy measures in detailed designs and to ensure that commitments are implemented. Conditions will not be used to secure feasibility work to determine energy efficiency and renewable energy measures for a scheme.

Annex B: Delivered Energy Benchmarks for Different Building Types

The table below shows a summary of published delivered energy benchmarks for a variety of building types. The benchmarks include private infrastructure energy use. The 'Good' benchmark has been selected to give the best technical representation of current building regulations while not being too onerous a target for developers. It is recognised that some of these benchmarks indicate energy consumption higher than modern buildings due to the date of their publication. These will be upgraded as information becomes available.

Building types (corresponding to planning use classes)	Building sub-types (examples)	Gas Good Benchmark kWh/square metre/year	Electricity Good Benchmark kWh/square metre/year	Benchmark Source	Benchmark Date
Care homes, sheltered housing	Nursing/residential care home	375	42	EEO IEE	1994
Cinemas, theatres, bingo, pool & bowling halls etc.	Theatres	420	180	EEO IEE	1994
Cinemas, theatres, bingo, pool & bowling halls etc.	Cinemas	515	135	EEO IEE	1994
Cinemas, theatres, bingo, pool & bowling halls etc.	Social Clubs	140	60	EEO IEE	1994
Cinemas, theatres, bingo, pool & bowling halls etc.	Bingo Halls	440	190	EEO IEE	1994
Financial & Professional services buildings	Post offices	140	45	EEO IEE	1994
Financial & Professional services buildings	Banks & Building Societies	70	70	EEO IEE	1994
Financial & Professional services buildings	Agencies	150	55	EEO IEE	1994
Financial & Professional services buildings	Post offices (all electric)	0	80	EEO IEE	1994
Financial & Professional services buildings	Banks & building societies (all electric)	0	100	EEO IEE	1994
Financial & Professional services buildings	Agencies (all electric)	0	90	EEO IEE	1994
Financial & Professional services buildings		63	71	BMI	1999
Financial & Professional services buildings		0	122	BMI	1999
Hospitals	Small acute hospital (<25,000m³)	406	45	EEO IEE	1994
Hospitals	Small acute (>25,000m³)	466	60	EEO IEE	1994
Hospitals	Long stay hospital	414	41	EEO IEE	1994
Hotels & hostels	Smaller hotel	240	80	EEO IEE	1994
Hotels & hostels	Business or holiday hotel	260	80	EEO IEE	1994
Hotels & hostels	Luxury hotel	300	90	EEO IEE	1994
Housing (see notes)				EEO IEE	1994
Industrial Buildings	General manufacturing	225	65	EEO IEE	1994
Industrial Buildings	Factory – office	150	72	EEO IEE	1994
Industrial Buildings	Light manufacturing	175	43	ECG 019	1998
Prestige Offices	Type 4	114	234	EEO IEE	1996
Primary & secondary schools	Primary or middle school	137	20	EEO IEE	1996
Primary & secondary schools	Secondary school without swimming pool	151	22	EEO IEE	1996
Primary & secondary schools	Secondary school with swimming pool	172	26	EEO IEE	1997
Primary & secondary schools	Primary schools	126	20	ECG 073	1997
Primary & secondary schools	Secondary schools	136	24	ECG 073	1994
Restaurants, pubs, bars etc	Restaurant with bar	1100	650	EEO IEE	1994
Restaurants, pubs, bars etc	Fast-food restaurant	480	820	EEO IEE	1994

Retail buildings	Department stores	194	237	BMI	1999
Retail buildings	Department stores (all electric)	0	209	BMI	1999
Retail buildings	DIY stores	149	127	BMI	1999
Retail Units	Book stores (all electric)	0	210	BMI	1999
Retail Units	Catalogue stores	37	83	BMI	1999
Retail Units	Catalogue stores (all electric)	0	100	BMI	1999
Retail Units	Butchers (all electric)	0	475	BMI	1999
Retail Units	Clothes shops	65	234	BMI	1999
Retail Units	Clothes shops (all electric)	0	270	BMI	1999
Retail Units	Electrical goods rental (all electric)	0	281	BMI	1999
Retail Units	Electrical goods retail (all electric)	0	172	BMI	1999
Retail Units	Frozen food centres (all electric)	0	858	BMI	1999
Retail Units	Off-licences (all-electric)	0	475	BMI	1999
Retail Units	Shoe shops (all electric)	0	197	BMI	1999
Sports centres & health clubs	Sports facility with a pool	215	75	ECG 051	1998
Sports centres & health clubs	Sports facility with a pool	360	150	ECG 051	1998
Sports centres & health clubs	Swimming pools only	775	165	ECG 051	1998
Standard offices	Type 3	97	128	ECG 019	1998
Standard offices	Type 2	79	54	ECG 019	1998
Standard offices	Type 1	79	33	ECG 019	1998
Storage & distribution warehouses	Storage & distribution warehouses	135	29	EEO IEE	1994
Storage & distribution warehouses	Distribution warehouses	103	53	BMI	1999
Storage & distribution warehouses	Distribution warehouses (all electric)	0	55	BMI	1999
Superstores	Supermarkets	200	915	BMI	1999
Superstores	Supermarkets (all electric)	0	1034	BMI	1999

Notes: Medium Density Housing Annual Carbon Emission Benchmark = 9.04 kilograms Carbon/square metre gross internal floor area
Town Centre Residential Tower Annual Carbon Emission Benchmark = 8.82 kilograms Carbon/square metre gross internal floor area

ECG *Energy Consumption Guide*: www.actionenergy.org.uk/Action+Energy/AE+resources/default.htm

EEO *Energy Efficiency Office*, original publisher of energy benchmarks, superseded by the Energy Efficiency Best Practice Programme, now Action Energy (see web link above)

IEE *Introduction to Energy Efficiency* (typically two editions per building type under this title, superseded by Energy Consumption Guides for some building types)

BMI BMI Special Report: Energy Benchmarking in the Retail Sector. *Building Maintenance Information* – Royal Institute of Chartered Surveyors Building Cost Information Service

Calculating the Baseline Carbon Emissions of the Site

The kilo Watt hours delivered energy requirements for each fuel for each building proposed on the site needs to be converted to baseline carbon emissions using a standard carbon factor:

Delivered Energy Requirements x Carbon Factor* = Baseline Carbon Emissions (kilograms of Carbon/square metre/year)

*Carbon emissions factor derived from current Building Regulations (2005)

Annex C: Calculating the Reduction of Baseline Carbon Emissions

The following quantities appear in the calculations:

Quantity	Units
Building annual carbon emissions rate	kilograms of Carbon/square metre floor area (kgC/m² floor area)
Build cost rate	Pounds (£)/square metre gross internal floor area (GIFA)
Renewable energy system	System size (kilo Watt (kW) or square metre panel area)/square metre floor area)
Annual carbon savings rate in kilograms	kgC/m² floor area
Annual carbon savings as a percentage of base emissions	Percent (%)
Renewables cost rate per functional unit panel area	£/unit system size (kW or m²)
Renewables cost rate per square metre of building floor area	£/m² floor area
Building floor area for a building type	m² floor area
Site base annual carbon emissions	kgC/year
Carbon emissions reduction target	%
Site annual carbon emissions reduction target	kgC/year
Building annual carbon emissions reduction achieved by applying a technology to a building type	kgC/year
Percentage of a building type with a technology	%
Site annual carbon emissions reduction achieved	kgC/year
Total renewable energy system size when applying a system size technology to a building type	kW or m² panel area

Calculation Method

1. Calculate baseline carbon emissions for the site

Add all the annual baseline carbon emissions of each type of building to get the site's Total Annual Baseline Carbon Emissions:

Annual baseline carbon emissions of each building
=
Floor area of building
x
Baseline carbon emissions for that building type
(i.e. delivered energy requirements x carbon factor)

2. Determine the annual carbon emissions reduction target for the site

Annual carbon emissions reduction target (kgC/year)
=
Carbon reduction target (%)
x
Total annual baseline carbon emissions

3. Decide which renewable technologies will be considered for each building type

Choose appropriate renewable sources using guidance in Section 3 (Renewable Energy) of the Sustainability Checklist.

4. Calculate the annual carbon emissions reduction of each of the renewable sources

Building annual carbon emissions reduction
=
Proportion of total area to which technology is applied
x
Total area of that building type on the site
x
Annual carbon savings rate for the technology in this scenario

5. Calculate the total annual carbon emissions reduction achieved by applying all renewable sources

Site annual carbon emissions reduction
=
Sum of building annual carbon emissions reductions for each renewable source applied

6. Compare the annual carbon emissions reductions achieved, with the annual carbon emissions reduction target
If the combination of renewable sources does not meet the applicable target, repeat choices and calculation from steps 3 to 6 until the target is achieved.

Worked Example: Mixed-use development of 70 dwellings with overall average GIFA of 76m² and 500m² of flexible office space:

a) Calculate Baseline Carbon Emissions for Site

(i) Total building floor areas:
- Housing: 70 dwellings x 76m²: 5,320m²
- Offices: 500m²

(ii) Baseline carbon emissions for that building type:
- Housing: 9.04 kgC/m²
- Offices: 8.06 kgC/m²

(iii) Site's baseline annual carbon emissions:

Annual Baseline carbon emissions of housing = 48,093 kgC/year
=
Floor area of building = 5,320m²
x
Baseline carbon emissions for that building type = 9.04 kgC/m²

Annual Baseline carbon emissions of offices = 4,030 kgC/year
=
Floor area of building = 500m²
x
Baseline carbon emissions for that building type = 8.06 kgC/m²

Total: 48,093 kgC/year + 4,030 kgC/year = 52,123 kgC/year

b) Determine the annual carbon emissions reduction target for the site

Annual Carbon Emissions Reduction Target (kgC/year) = 5,212 kgC/year
=
Carbon Reduction Target = 10%
x
Total Annual Baseline Carbon Emissions = 52,123 kgC/year

c) Decide which renewable technologies will be considered for each building type

- The developer decides to look at applying solar water heating to a row of 15 houses that account for 25% of the housing floor area
- Communal biomass heating to one block of 12 managed flats accounting for 12.5% of total housing area
- Roof-top photovoltaic system for 75m² of same managed block of flats

d) Calculate the annual carbon emissions reduction of each of the renewable sources

- Solar Water Heating:

Building annual carbon emissions reduction 1,436 kgC/year
=
Proportion of total area to which technology is applied = 25%
x
Total area of that building type on the site = 5,320
x
Annual carbon savings rate for the technology in this scenario = 1.08

- Communal Biomass Heating:

Building annual carbon emissions reduction 2,986 kgC/year
=
Proportion of total area to which technology is applied = 12.5%
x
Total area of that building type on the site = 5,320
x
Annual carbon savings rate for the technology in this scenario = 4.49

- Photovoltaic roof system

Building annual carbon emissions reduction 848 kgC/year
=
Proportion of total area to which technology is applied = 75m²
x
Annual carbon savings rate for the technology in this scenario = 11.3

e) Calculate the total annual carbon emissions reduction achieved by applying all renewable sources

Site annual carbon emissions reduction = 5,270 kgC/year
=
Sum of building annual carbon emissions reductions for each renewable source applied = 1,436 kgC/year + 2,986 kgC/year + 848 kgC/year

f) Compare the annual carbon emissions reductions achieved, with the annual carbon emissions reduction target

If the combination of renewable sources does not meet the applicable target, repeat choices and calculation from steps 3 to 6 until the target is achieved.

The 5,270 kgC/year reduction exceeds the 5,212 kgC/year target. The developer can now explorer the cost implications of this package or renewables and/or try other options.

Annex D: Guidance for Developers and Planning Professionals

a) Guidance for Developers on including Renewable Technologies into Development Proposals

1 Draw up a shortlist of renewable technologies to study. Consider the site location and the types of buildings in the proposed development and draw up a shortlist of renewable energy technologies that will be the subject of further feasibility studies.

2 Calculate the annual predicted energy demand of the site in kWh for each fuel (e.g. gas and electricity) *after* the application of suitable energy efficiency measures and technologies. Energy benchmarks for a range of building types as well as guidance on available and preferred methods for estimating building energy demand if the benchmarks are not considered appropriate can be found within Annex B.

3 Calculate the baseline carbon emissions of the development, i.e. the carbon emissions arising from the predicted use of energy in all the buildings, structures and infrastructure in the proposed development. Guidance on the selection and use of carbon emissions factors can be found within Annex B.

4 Calculate the contribution of each proposed renewable energy technology to reducing the baseline carbon emissions of the development. Guidance on how to calculate the baseline reduction in carbon emissions and the use of renewable energy technologies can be found within Annex C.

5 Calculate the costs of technically feasible renewable technologies. Annex E provides a list of useful contacts and sources, which may be able to offer assistance with renewable energy.

6 Assess the benefits of technically feasible renewable technologies. Developers should consider the potential benefits of renewables to themselves and others, as part of the process of deciding which technologies to include in development proposals.

7 Calculate the reduction of baseline carbon emissions for the development achieved by applying the proposed renewable technologies. The preceding steps should generate the information required by the developer to make decisions on which renewables to include in development proposals. The final calculation step is to combine the results of applying the selected technologies to the one or more building types, structures, etc. in the development to calculate the overall reduction in carbon emissions achieved.

8 Include renewables proposals in the planning application.
Annex C gives a suggested structure for the content and format of an energy statement including renewable energy technologies.

b) Guidance for Planning Professionals on including Renewable Technologies into Development Proposals

1 Raise awareness with developers and their consultants at the earliest possible stage and indicate how the Sustainability Checklist will be used in determining an application, and to which policies it will be tied. This should preferably be at the pre-application stage, but could also be when requesting further information.

2 Assess renewables proposals included in the planning application. When an application comes in check:

a) Baseline carbon emissions
b) The target carbon emissions reduction for the site
c) Calculate contribution of proposed renewable technologies to b)
d) Calculate total carbon emissions reduction achieved
e) Compare d) with b)

3 Involve the Council's Energy Conservation Officer and Building Control Team to assist with the interpretation of Sustainability Statements.
If the developer has provided a clearly set out energy assessment which follows the methodology outlined in Section 4 (Energy Statements) of the Sustainability Checklist, it may not be necessary to check all the calculation steps.

4 Liaise and negotiate with applicants to secure changes in line with local, regional and national planning policies where necessary.

Annex E: List of Useful Sources and Contacts

Association for Environmental Conscious Building	www.aecb.net
Beddington Zero Energy Development	www.bedzed.org.uk
Building-In Sustainability	www.buildinginsustainability.co.uk
Building Research Establishment	www.bre.co.uk
Carbon Trust	www.thecarbontrust.co.uk
Central Point of Expertise on Timber Procurement	www.proforest.net/cpet
Centre of Alternative Technology	www.cat.org.uk
Chartered Institution of Building Services Engineers	www.cibse.org
CIRIA	www.ciria.org.uk
Combined Heat and Power Association	www.chpa.co.uk
Commission for Architecture and the Built Environment and CABESpace	www.cabe.org.uk
Constructing Excellence	www.constructingexcellence.org.uk
Construction Resources	www.ecoconstruct.com
Energy Saving Trust	www.est.co.uk
English Heritage	www.english-heritage.org.uk
Environment Agency	www.environment-agency.gov.uk

Faber Maunsell	www.fabermaunsell.com
Forest Stewardship Council	www.fsc.org
Green Building Store	www.greenbuildingstore.co.uk
Greenroofs	www.greenroofs.com
Housing Corporation	www.housingcorp.gov.uk
Inter-Project Resources	www.interproject.co.uk
LEARN: Low Energy Architecture Research Unit of the London Metropolitan University	www.learn.londonmet.ac.uk
Lifetime Homes	www.lifetimehomes.org.uk
Livingroofs	www.livingroofs.org
Recycled Products Guide	www.recycledproducts.org.uk
Secured by Design	www.securedbydesign.com
Sustainable Homes	www.sustainablehomes.co.uk
Sustainability Works	www.sustainabilityworks.org.uk
UK Government Sustainable Development	www.sustainable-development.gov.uk

Appendix 2: Sustainability Appraisal

Appendix 2: Sustainability Appraisal Report (January 2007)

1. Introduction

The Purpose of this Report

This report provides the conclusions of the appraisal of the Supplementary Planning Document on Sustainable Construction and Development (SPD1) Draft version as at 29th January 2007.

Introduction to Sustainable Development

A widely used definition of sustainable development is *"Development which meets the needs of the present without compromising the ability of future generations to meet their own needs".*

Sustainable Development, as defined by Government in Planning Policy Statement 1 Delivering Sustainable Development should be pursued *"…in an integrated way through a sustainable, innovative and productive economy that delivers high levels of employment, and a just society that promotes social inclusion, suitable communities and personal well being, in ways that protect and enhance the physical environment and optimise resource and energy use."*

The new Sustainable Development Strategy *Securing Our Future: delivering the UK Sustainable development strategy* was published in March 2005. Four priority areas for immediate action are contained within this, which at the same time recognise a need for changing behaviour to bring about long-term sustainability improvements. The four areas for action are:

- Sustainable Consumption and Production
- Climate Change and Energy
- Natural Resource Protection and Environmental Enhancement, and
- Sustainable Communities

Appropriate Assessment

Articles 6(3) and 6(4) of the European Directive 92/43/EC on the conservation of natural habitats and of wild fauna and flora ('the Habitats Directive') requires land use plans to ensure that the protection of the integrity of Designated European Sites is part of the planning process. The process of ascertaining any effects on site integrity is known as Appropriate Assessment.

Appropriate Assessment (AA) and Sustainability Appraisal (SA) are two separate processes with their own legal requirements. Nonetheless draft guidance from the Department of Communities and Local Government *Planning for the Protection of European Sites: Appropriate Assessment* recommends that they be undertaken in conjunction and that evidence gathered to inform a SA should also inform an AA and vice-versa.

There is a three-stage approach, usually involving:

- Screening to identify any likely impacts of the plan on Designated European Sites either alone or in combination with other plans or projects;
- Appropriate Assessment, where there are any likely significant impacts of their effect on the structure of the Sites and their conservation objectives; and,
- Mitigation of any such impacts and mitigation.

At all stages the precautionary principle is applied in making such judgements.

In the case of SPD 1, it was concluded at the screening stage that none of the impacts of the Document would in any way affect the protection of the integrity of the Designated European Sites. This was owing to the fact that SPD 1 is process-based and does not contain land use policies, allocations or proposals. The Document is primarily concerned with assisting in interpreting LDF Core Strategy Policy ST2 and other Development Plan policies, by providing guidance on promoting sustainable development and construction. Of note, the LDF Core Strategy has already been subject to the AA process. Furthermore, Appropriate Assessment *may* be required for some significant applications.

Overview of this Integrated Sustainability Appraisal and Strategic Environmental Assessment

This is the South Tyneside Sustainable Construction and Development Supplementary Planning Document (SPD) Sustainability Appraisal Report. It sets out the Sustainability Appraisal (SA) process that was followed. It also provides contact details and how to comment on the document during the public consultation period. This SA Report incorporates an Environmental Report under the Environmental Assessment of Plans and Programmes Regulations 2004 No. 1633.

Background

The Sustainable Construction and Development SPD, along with other planning documents from the emerging South Tyneside Local Development Framework (including 'saved' policies from the Unitary Development Plan), will be a material consideration in determining planning applications and assessing their sustainable credentials. It is intended to adopt this Document by the end of May 2007.

The purpose of the guidance is primarily to make development in South Tyneside more sustainable. It seeks to ensure that all development proposals are fully informed by national, regional and local planning policy and advice on sustainable construction and development. In particular, planning applications above *certain specified* thresholds (see sections 6 and 7 of the main body of SPD 1 for definitions) will only be validated if they are accompanied by completed Sustainability Statements. The information submitted in these Statements will then be used to assess how well each proposal conforms with the Development Plan.

This SPD provides the detail to implement 'saved' UDP Policy ENV5 and LDF Core Strategy Policy ST2. There are also a number of other, complementary policies within the Core Strategy, such as those dealing with sustainable urban areas, local character and distinctiveness, biodiversity/geodiversity, protecting natural resources and planning for waste that, when implemented, will also maximise the sustainability impact of this document.

The SPD will be subject to consultation as part of the LDF process, although Office of the Deputy Prime Minister (ODPM) guidance for Supplementary Planning Documents suggests that the consultation group be narrower in focus than for Development Plan Documents (such as the Core Strategy, Area Action Plans and Site-Specific Allocations), as there is likely to be more focused, particular interest in a document of this type.

The Purpose and Scope of the Sustainability Appraisal

The purpose of the Sustainability Appraisal (SA) is to promote sustainable development through better integration of sustainability considerations into the final preparation and adoption of the Sustainable Construction and Development SPD. A non-mandatory Strategic Environmental Assessment and SA were completed for the LDF Core Strategy Submission Draft, which commenced public examination in October 2006. The scoping report developed for the Core Strategy by Entec UK has been transferred to this SA to avoid any duplication of effort, as the baseline and appraisal framework are the same.

The SA considers the SPD's implications from a social, economic and environmental perspective, by assessing the draft SPD against available baseline data and sustainability objectives.

SAs are mandatory for SPDs under the requirements of the Planning and Compulsory Purchase Act 2004. Appraisals of SPDs should also fully incorporate the requirements of the European Directive 2001/42/EC, known as the Strategic Environmental Assessment (SEA) Directive. The Environmental Assessment of Plans and Programmes Regulations 2004 transpose this Directive into English law.

The Directive seeks to promote sustainable development and in consequence, this appraisal considers the effects of policies on social, economic and environmental objectives that collectively define sustainability within the district. Where those effects are considered likely to be significantly detrimental, mitigating measures are proposed. These will take the form of proposed amendments to the document's wording.

There will always be significant tensions in the process of appraisal. The process makes explicit the potential conflict between economic growth and environmental impacts. Whilst these cannot always be resolved, the appraisal, in highlighting these is able to provide this information to decision-makers. Decisions can then be taken that are informed, based on evidence and that have sought to balance potentially competing interests.

Whilst no local authority plan can claim to ever achieve sustainability, its contribution towards realising sustainability can always be improved. For South Tyneside, this completed SA aims to aid this process.

Entec UK Ltd (Entec) assisted South Tyneside with the SA of the LDF Core Strategy and the first two Area Action Plans, and this methodology has informed subsequent development plan and supplementary planning documents in a consistent and independently devised process.

Approach to the work

The work comprised the following stages:

- Appraisal of the SPD's contribution to the economic, social and environmental objectives (including some consideration of an alternative option).
- Completion of the SA Report that focuses upon the key sustainability issues arising from the appraisal and any proposed mitigation measures.

Appraisal of SPD's Sustainability Performance

The appraisal focuses upon the whole Document, rather than Policy ST2 in the LDF Core Strategy or 'saved' Policy ENV5 of the Unitary Development Plan. Both of those were subject to appraisal regimes that were in force at the time that they progressed through the development plan process towards adoption.

The sustainability performance of the SPD was evaluated using the same appraisal framework used to complete the appraisal of the Local Plan, which is contained within the Scoping Report. Close attention was paid to the appraisal findings of those policies related to sustainable construction in the LDF Core Strategy. Some attention was also given to the relative merits of a 'reasonable alternative'.

The framework is intended to allow the potential impacts to be assessed against the 22 Sustainability Appraisal (SA) objectives, as listed in Paragraph 7.6 (Section 7 of the main body of SPD 1). The matrix developed includes the SA objectives, baseline information, indicators and commentary including suggested mitigation measures, as well as the appraisal itself. The criteria used to aid the appraisal covered the following issues:

- Timing of Effect – does the effect occur immediately or later, and does it last indefinitely or only temporary?
- Severity of Effect – will the overall effect be marginal or significant?
- Cumulative and Synergistic Effects – does the effect exceed some threshold that results in some significant impact?
- Direction of Effort – is the policy moving towards or away from the sustainability objective?
- Trans-boundary Effects – does the effect impact on adjoining authorities or regions?
- Urban/Rural Effects – will the policy have different impacts on the core urban settlements and the outlying urban fringe areas?

A list of the 22 sustainability objectives (which are set out in full in the separate Sustainability Appraisal Matrix) for the South Tyneside LDF and used to appraise this SPD have been produced by analysing objectives from the following documents:

- UK Sustainable Development Strategy – Securing Our Future (HM Government, 2005)
- Regional Planning Guidance for the North East (2002);
- Submission Draft Regional Spatial Strategy and associated Sustainability Appraisal (June 2005);
- Integrated Regional Matrix and Framework (SustaiNE, 2004);
- South Tyneside Unitary Development Plan and accompanying Environmental Appraisal (1999);
- Submission Draft South Tyneside LDF Core Strategy and associated Sustainability Appraisal documents (March 2006);
- South Tyneside Regeneration Strategy (2004); and
- SEA Directive requirements.

The SEA Directive requires that the assessment should include:

"The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors" (Annex 1f of the SEA Directive).

For each objective, a number of key questions are also presented, to help identify the different issues to be considered and provide more detail on the purpose of the objective.

The Appraisal Workshop

The workshop to appraise this SPD was held at the TEDCO Business Centre in South Shields on Monday 8th January 2007. The workshop included four officers who were not directly involved in the production of the document. The workshop was attended by:

- Ben Stubbs, Planning Policy Officer, South Tyneside Council
- Helen Wiltshire, East Team Area Planning Officer, South Tyneside Council
- Peter Howson, Asset Management Team Leader, South Tyneside Council, and
- Richard Fishwick, Assistant Business Development Officer, South Tyneside Council

In addition, the workshop was facilitated by:

- David Winder, Senior Planning Policy Officer, South Tyneside Council, and
- Sean Wilson, Planning Policy Officer, South Tyneside Council

Completion of the SA Report

The findings of the appraisal are presented in this report and is structured from this point as:

- The completed SA Matrices (Table A2.2)
- Key findings of the SA process
- Identification of any missed opportunities and changes/mitigation recommendations (Table A2.1)

The Council has the opportunity to respond to the comments made in this report; however, it remains at the Council's discretion whether it decides to accept or decline the proposed amendments to the SPD. The final Document is, however, obliged to contain a schedule of all the comments made in the consultation, how they were taken account of and why.

2. Key Findings of the Sustainability Appraisal

Overview

This section provides the evidence base for the prediction and assessment of the potential effects of the Sustainable Construction and Development SPD.

This SPD contains two main sections:

1) The first part (main chapters) outlines the importance of sustainable development in general and highlights national, regional and local planning policy and advice, including the emerging South Tyneside Local Development Framework, emerging Regional Spatial Strategy for the North East and national Planning Policy Statement 1 *Delivering Sustainable Development*.

2) The second part (appendices) contains this SA report, previous consultation exercise responses and a list of useful contact details for sustainable construction departments, agencies and companies. It also provides comprehensive information on Sustainable Construction by means of a Sustainability Checklist.

   The Sustainability Checklist gives advice on how developers can incorporate sustainable construction methods into their proposal. Developers who ignore the advice in the Sustainability Checklist risk a refusal of planning permission on the grounds that their proposal is contrary to 'saved' Policy ENV5 of the Unitary Development Plan, Policy ST2 of the LDF Core Strategy or other development policies specifically mentioned in the SPD. In particular, developers proposing schemes above a certain threshold (see sections 6 and 7 of the main body of SPD 1) will be required to complete a Sustainability Statement and demonstrate as much as possible how their scheme is considered to be sustainable, based on the advice in this SPD, in order to validate their applications.

This document was appraised in its entirety and the following matrix (Table A2.2) provides scoring detail which includes a measure of significance, timing duration of effect, an indication as to whether the effect is trans-boundary or cumulative and whether the effect is likely to have a positive or negative impact. Commentary is also included within the final column of the matrix as a justification for the scoring and to flag up any mitigation measures and recommendations on how certain aspects of the policy can be improved.

The supporting information within the SPD was also considered during the appraisal, although not appraised separately.

Summary of the Potential Effects of the SPD

This section provides a summary of the overall, likely effects of the draft SPD as a whole and highlights the significant potential environmental, economic and social effects of implementing it.

An alternative option has also been considered to implementation of the SPD, which is a 'business as usual' approach. This option relates to the existing policy framework in place concerning sustainable construction and development, which is primarily the South Tyneside Unitary Development Plan (UDP), and has been prepared within the framework of national planning policy and the old style Strategic Guidance for Tyne & Wear (1990).

Under the 'business as usual' scenario, sustainable construction and development would be judged solely in terms of the policies in the UDP. Primarily 'saved' Policy ENV5 (Principles of Good Design and Access), but also associated 'saved' policies including:

- Policy ENV1 – Towards Sustainable Development;
- Policy ENV3 – Reducing Unsustainability;
- Policy ENV4 – Improving the Built Environment;
- Policy NR1 – The Sustainable Use of Natural Resources; and
- The development control considerations policies in the individual topic chapters (e.g. ED2, H2, RL2, SC2, T2 and S2).

While this approach is straightforward it assumed that planners using the policies were familiar with the sorts of measures that might be taken to make developments more sustainable. In practice this was often found not to be the case, and it was thus decided that supplementary material was needed. Initially this was prepared under the previous development plans regime and the draft guidance was the subject of a consultation period in Summer 2004 as Supplementary Planning Guidance

Note 16. The provisions of the Planning and Compulsory Purchase Act 2004 relating to Local Development Frameworks came into effect on 30 September 2004. The initial work was, however, carried forward to link to the emerging LDF Core Strategy, the Submission Draft of which is subject to independent examination and commenced in October 2006.

The main outcomes of the appraisal of the SPD options are summarised below (Table A2.1). These indicate areas where the effects will potentially have a positive impact. It also highlights those areas where there is potential to impact negatively, or for the SPD to have a potentially uncertain impact in these cases and where appropriate, mitigation measures are proposed to improve the impact of the SPD.

Table A2.1: Recommended Actions to Improve the Sustainability of SPD 1

Objective	Issues Arising	Recommended Action	Action Taken
15. To promote sustainable design and enhance the natural and built environment	SPD does not in itself promote the aspiration of high quality design. Design and sustainable construction should be complementary towards one another but there are also potential conflicts.	SPD ought to promote this objective. Insert references to key design guidance, including development in sensitive areas and highlight potential conflicts.	Inserts – references to key design guidance added to document in sections 1 and 3.
18. To ensure everyone has the opportunity of living in a decent and affordable homes and tenure of choice	No direct relationship between the SPD and objective but potential detrimental impact on affordability.	SPD ought to promote this objective. Insert references to affordability, including emerging SPD on Affordable Housing.	Inserts – references to emerging Affordable Housing SPD added to document in Appendix 1 (Introduction).

Key to Sustainability Appraisal Matrix (Table A2.2, below)

A A	Move away significantly	**A**	Move away marginally	**T**	Move towards marginally	**T T**	Move towards significantly	**X**	No Relationship	**?**	Uncertain	✓	Operates at this timescale	**-**	Not Applicable

Table A2.2: Sustainability Appraisal Matrix

SPD 1: Sustainable Construction and Development	**Questions**	**Timescale**		**Impact**	**Scale**			**Rural**	**Urban**	**Commentary**
Sustainable Development Objectives		**Short term**	**Long term**	**Severity**	**Cumulative**	**Local**	**Trans-boundary**			
1. To create and retain wealth	Will new businesses be created? Will it generate sustainable economic growth? Will it generate new employment? Will it increase average household income?	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	The SPD will potentially create employment and business opportunities in the longer-term. However, there may be some limited longer-term opportunities. This may just be an overall balancing out due to restrictions on future development, for example, limited employment land availability, restricted housing figures, etc. Viability – potential difficulties in meeting this objective due to cost issues and added expense in development costs. Such issues will probably be negative in the short term but positive in the longer-term. The overall impact would be insignificant.
2. To help businesses start up, grow and develop	Will it stimulate an entrepreneurial culture? Will it improve business development and enhance competitiveness? Will it promote growth in key sectors? Will it encourage business diversity?	**X**	✓	**T**	**T**	**T**	**T**	**X**	**T**	Sustainable Construction is a potential growth sector but this would probably take the form of 'spin-off' employment in South Tyneside. Business start-ups generally have a 12 to 18 month payback period and usually this is in the region of 5 to 7 years for energy efficiency costs. Other cost issues include accommodation/rent. Competitiveness – potential for South Tyneside

SPD 1: Sustainable Construction and Development Sustainable Development Objectives	Questions	Timescale		Impact	Scale			Rural	Urban	Commentary
		Short term	Long term	Severity	Cumulative	Local	Trans-boundary			
										as a 'green' business location, including those businesses attracted from outside of the Borough. The overall impact would be positive.
3. To ensure high and stable levels of employment so everyone can share and contribute to greater prosperity	Will this reduce outward migration? Will this reduce unemployment rates? Will this increase employment rates? Will this reduce the rate of worklessness?	X	✓	X	X	X	T	X	X	There is potential for growth in the specialist construction industry but this is likely to be located outside South Tyneside due to required expertise. An expected maintained employment rate combined with limited land available for new development and outward migration could well result with an overall neutral (albeit 'sustainable') effect.
4. To establish and retain a flexible and highly skilled workforce through training and education	Will it improve people's skills? Will it improve educational performances against the national average? Will it encourage retention of people with higher-level skills? Will this encourage links between education and employment at all educational levels? Will this encourage social inclusion?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and the fact that relevant skills are located outside of the Borough may further enforce this. SPD 1 is unlikely to achieve this objective. However, it may also be possible by taking into account wider regeneration initiatives, such as the proposed Green Business Park at Jarrow, which is outside the scope of this SPD.
5. To encourage self-sufficiency and local production in Borough	Will it encourage self-sufficiency and local production in South Tyneside?	X	✓	T	T	T	T	T	T	This relates to objectives 1 to 4 and could be achieved, for example, through the anticipated 10% of on-site renewable energy generation for major developments. There would be implications for the whole Borough and the scale would be trans-boundary

SPD 1: Sustainable Construction and Development Sustainable Development Objectives	Questions	Timescale		Impact	Scale			Rural	Urban	Commentary
		Short term	Long term	Severity	Cumulative	Local	Trans-boundary			
										(for example, input into the National Grid). The overall impact would be positive.
6. To prevent deterioration and where possible improve local air quality levels for all	Will it prevent deterioration or improve local air quality?	✓	✓	TT	TT	TT	T	T	T	As Objective 9. The effects of SPD 1 on this objective would be positive overall, i.e. marginal in the initial period but more significant in the longer-term. The scale would be cumulative – for example, transport initiatives and Air Quality Management Areas (AQMAs).
7. To protect and enhance the quality of the Borough's land and groundwater, rivers and seawaters	Will it reduce pollution of land, groundwater, rivers and the sea? Will it protect and enhance the quality of the Borough's groundwater, rivers and seawaters? Will it encourage use of the Borough's natural assets?	X	✓	T	T	T	T	T	T	There may be significant impacts on Sustainable Urban Drainage Systems (SUDS), arising from potential difficulties in techniques/practice – for example, surface water run-off rates. However, the overall impact would be positive.
8. To protect and enhance the Borough's coastline and water frontage	Will it manage the coastline in accordance with the Shoreline Management Plan? Will it reduce and minimise the risk to people and properties of flooding? Will it reduce the risk of damage to property by storm events?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective, especially with relation to the coastal areas of the Borough. Such issues are covered elsewhere (for example, Core Strategy, Site-Specific Allocations and Area Action Plan Development Plan Documents). There is limited linkage with Objective 7 (SUDS).

SPD 1: Sustainable Construction and Development Sustainable Development Objectives	Questions	Timescale		Impact	Scale					Commentary
		Short term	Long term	Severity	Cumulative	Local	Trans-boundary	Rural	Urban	
9. To reduce the causes and the impacts of climate change	Will it lead to an increased proportion of energy needs being met from renewable sources? Will it reduce greenhouse gas and CO_2 emissions in line with national targets? Will it improve the Standard Assessment Procedure rating of housing in the Borough?	✓	✓	TT	TT	TT	T	T	T	As Objective 6. The effects of SPD 1 on this objective would be positive overall, i.e. marginal in the initial period but more significant in the longer-term. The scale would be cumulative – for example, transport initiatives and AQMAs.
10. To protect and enhance the Borough's biodiversity and geology	Will it protect and enhance the Borough's biodiversity? Will it protect and enhance the Borough's designated sites of scientific and natural resource interest? Will it protect and strengthen populations of priority species and enhance priority habitats?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Core Strategy, Site-Specific Allocations and Area Action Plan Development Plan Documents). Landscaping and screening have been considered but these will have minimal impact in terms of this objective.
11. To protect and enhance the Borough's diversity of cultural heritage	Will it protect and enhance the Borough's diversity of cultural heritage? Will it protect and enhance the Borough's sites and features of historical and archaeological importance? Will it encourage the interpretation and use of cultural assets in the Borough?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Conservation Area Management Plan Supplementary Planning Documents).

SPD 1: Sustainable Construction and Development	Questions	Timescale		Impact	Scale					Commentary
Sustainable Development Objectives		Short term	Long term	Severity	Cumulative	Local	Trans-boundary	Rural	Urban	
12. To ensure good accessibility for all to jobs, facilities, goods and services in the Borough	Will it encourage travel (domestic and freight) by means other than private car or HGV? Will it help to reduce traffic congestion and improve road safety? Will it encourage mixed-use development in accessible locations? Will it encourage and promote the use of e-infrastructure including broadband ICT? Will it ensure good accessibility for all to jobs, facilities, goods and services in the Borough to appropriate standards?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Core Strategy, Site-Specific Allocations and Area Action Plan Development Plan Documents). Locational factors have been considered but these will have minimal impact in terms of this objective.
13. To minimise the amount of waste produced and promote sustainable waste management	Will it ensure that the management of waste is consistent with the waste management hierarchy (avoid, reduce, re-use, recycle and residual disposal through the Best Practical Environmental Option)? Will it encourage more recycling/composting? Will it reduce waste production? Will it divert waste from landfill?	✓	✓	T	T	T	T	T	T	There are potential difficulties in differentiating between Sustainable Waste Management (SWM) and landfill waste – for example, checks and vetting procedures, planning enforcement and specialist professional knowledge. Financial incentives/disincentives apply for SWM/non-SWM – screening, recycling, landfill, etc. If SWM is enforceable, SPD 1 will create positive impacts.
14. To make prudent use of natural resources	Will it minimise the use of water?	✓	✓	T	T	X	T	T	T	The supply of water is potentially more localised.
	Will it minimise the demand for raw and finite materials?	✓	✓	T	T	T	T	T	T	Raw and finite materials are available at a much lower level than, for example, the sourcing of water within the Borough.
	Will it minimise the use of fossil fuels?	✓	✓	T	T	X	T	T	T	The suitable sourcing of building materials should be encouraged but also in accordance with current EU Regulations, which restricts a developer's ability to declare the specific origin of

SPD 1: Sustainable Construction and Development	Questions	Timescale		Impact	Scale					Commentary
Sustainable Development Objectives		Short term	Long term	Severity	Cumulative	Local	Trans-boundary	Rural	Urban	
										building materials. The overall impact of SPD 1 on this objective would be positive.
15. To promote sustainable design and enhance the natural and built environment	Will it encourage high-quality design?	✓	✓	A	A	A	X	A	A	<u>Design</u> SPD 1 does *not* in itself promote the aspiration of high quality design but <u>ought</u> to encourage it – i.e. design should not take the form as an add-on. Design and sustainable construction should be complementary towards one another but there are potential conflicts – there is a need to create a real balance between sustainable construction and 'good' design. Further guidance should be available in SPD 1 for developments in sensitive areas, such as listed buildings and conservation areas and their settings. <u>Energy Efficiency</u> Marginal positive impact in the initial period but more significant in the longer-term. <u>Natural and Built Environment</u> Marginal positive impact towards the natural but marginal negative impact against the built environment. See Design, above. <u>Building Materials and Methods</u> Marginally towards in the short term and potentially significant in the longer-term – enforceability issues (as in Objective 13).
	Will it encourage higher-density development in accessible locations?	X	X	X	X	X	X	X	X	
	Will it promote the construction of homes and commercial buildings to recognised energy efficiency standards, e.g. Eco-Homes and BREEAM?	✓	✓	T	T	T	T	T	T	
	Will it enhance the existing natural and built environment?	✓	✓	T	T	T	T	T	T	
	Will it encourage use of recycled and sustainable building materials and construction methods?	X	✓	T	TT	T	T	T	T	

SPD 1: Sustainable Construction and Development	Questions	Timescale		Impact	Scale					Commentary
Sustainable Development Objectives		Short term	Long term	Severity	Cumulative	Local	Trans-boundary	Rural	Urban	
16. To protect and enhance the quality and distinctiveness of the Borough's land and landscapes	Will it minimise development of Greenfield land? Will it encourage the remediation of potentially historically affected land? Will it protect special landscape features? Will it maintain or enhance the Borough's stock of trees?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Core Strategy, Site-Specific Allocations and Area Action Plan Development Plan Documents).
17. To maximise the opportunity to redevelop previously-developed land	Will it maximise the use of previously-developed land?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Core Strategy, Site-Specific Allocations and Area Action Plan Development Plan Documents).
18. To ensure everyone has the opportunity of living in a decent and affordable homes and tenure of choice	Will it encourage a mix of housing types, sizes and tenures that meet identified needs? Will it ensure adequate provision of affordable housing? Will it reuse existing housing stock where appropriate?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Supplementary Planning Document on Affordable Housing). However, there may be a potential detrimental impact on affordability – for example, costs incurred from sustainable construction methods.
19. To reduce crime and anti-social behaviour and the fear of crime and anti-social behaviour	Will it reduce crime and anti-social behaviour levels and the fear of these activities? Will it encourage community-led safety? Will it promote the adoption of design measures that reduce crime and the opportunity for it?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Supplementary Planning Document on Urban Design and community safety initiatives).

SPD 1: Sustainable Construction and Development Sustainable Development Objectives	Questions	Timescale		Impact	Scale			Rural	Urban	Commentary
		Short term	Long term	Severity	Cumulative	Local	Trans-boundary			
20. To improve health and well-being and reduce inequalities in health care and access to it for all	Will it improve access to equal health care for all? Will it reduce health care inequalities among all groups of the Borough? Will it promote a healthier lifestyle with facilities and opportunities for recreation and leisure for all?	X	✓	T	T	T	T	T	T	Lower carbon emissions and improvements in local air quality overall will have a positive impact in the longer-term, However, there is no direct relationship between SPD 1 and the objective's link to accessibility to health care and facilities.
21. To promote equality and diversity and protect and strengthen community cohesion	Will it promote equality throughout the Borough? Will it address the needs of minority groups within the Borough?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective.
22. To increase public involvement in decision making and civic activity	Will it encourage participation in public consultation at all ages and all levels? Will it encourage community inclusion? Will it encourage public empowerment?	X	X	X	X	X	X	X	X	There is no direct relationship between SPD 1 and this objective and such issues are covered elsewhere (for example, Statement of Community Involvement). However, the community has the opportunity to be involved throughout the consultation of SPD 1.

Conclusions on the Performance of the SPD

As should be expected from a Document on Sustainable Construction and Development the SPD performs well both in the short and long term against the sustainable development objectives, by shedding light on the practical measures that can be taken in pursuit of development plan policies. In this way it assists three main groups of people: 1) those who submit planning applications, 2) those who scrutinize them, and 3) the general public. The SPD conforms to the policy framework (contained within the 'business as usual' option), but moves beyond this to give a much greater degree of certainty about the sorts of sustainable measures which will be required to comply with 'saved' UDP Policy ENV5, LDF Core Strategy Policy ST2 and associated material. It will, therefore, enable clearer planning control and ensure that development is more sustainable. The effect of this will be most marked in the medium to longer term as policies are applied consistently.

There are unlikely to be any potentially **significant** negative impacts arising from the implementation of the SPD. Impacts are likely to be positive. It is difficult to make specific judgments regarding the extent of the impact, as the number and scale of applications that will be obliged to submit Sustainability Statements is unknown. The most positive impacts appraised were for objectives such as encouraging self-sufficiency and local production (5), improving local air quality (6), reducing the causes and impacts of climate change (9), promoting sustainable waste management (13), and improving health and well-being (20). The appraisal process has drawn attention to the need to establish or consolidate potentially positive economic and social benefits of the SPD. However, the SPD could benefit here from further cross-reference to associated strategies (such as the Urban Design Framework and emerging Supplementary Planning Document on Affordable Housing). This will maximise the potential positive outcome of planning decisions and in turn, assist in management decision-making.

Does this SA comply with the SEA Directive?

Whilst the term 'sustainability appraisal' has been around for a number of years, it is with the implementation of the SEA Directive that the process has moved from being solely a qualitative process to one that relies more substantively on an evidence base. The guidance from the ODPM has detailed how SAs could be undertaken in a manner to include the requirements of the SEA Directive. The ODPM guidance details the following four phase in the process of developing a Local Development Document:

- Pre-production – evidence gathering (including establishing the social, economic and environmental baseline);
- Production – preparation and refinement of issues and options, assessing effects, determining preferred options, consultation and submission of development documents;
- Examination – representations, independent examination and binding report; and
- Adoption – adoption and monitoring.

For each of these stages, there are a number of requirements outlined in the integrated SA/SEA guidance.

Appendix 3: Statement of Consultation

Appendix 3: Statement of Consultation for Supplementary Planning Document 1: Sustainable Construction and Development

1. Introduction

The Statement of Consultation describes the consultation that has been undertaken in the preparation of Supplementary Planning Document 1: Sustainable Construction and Development (SPD 1) of the South Tyneside Local Development Framework. This is in accordance with the Planning and Compulsory Purchase Act 2004 and the Town and Country Planning (Local Development) (England) Regulations 2004 (Part 5).

In 2004 the Government introduced a new type of development plan known as the Local Development Framework (LDF). A key part of the LDF is SPD 1, which supports several strategic policies set out in the Development Plan (notably Core Strategy Policy ST2), and provides detailed guidance about sustainable construction and development. This SPD and all other documents of the South Tyneside LDF are prepared and developed in an open, inclusive and fair manner.

The Statement of Consultation sets out how we have consulted on SPD 1 at pre-adoption stage, as required under Regulation 17 "Public Participation". It also details the way in which representations were incorporated into the final draft version, subsequently adopted by the Council, as prescribed in Regulation 18 "Representations on Supplementary Planning Documents".

2. The Consultation Process

The draft SPD was made available for public consultation for 4 weeks from Monday 29th January to Monday 26th February. The Regulations prescribe that a four to six week period is adequate for SPDs. A report updating Council Members on the progress of SPD 1 was also presented to Planning Committee on 16th February 2007.

2.1. Which bodies were consulted

A comprehensive group of bodies was consulted in the preparation of this SPD, in accordance with the Act and Regulations. Annex E of Planning Policy Statement 12: Local Development Frameworks sets out which bodies should be consulted for Local Development Documents, and this provided the base for the consultation of SPD 1.

Specific consultation bodies included:

- The Regional Planning Body – Government Office for the North East
- North East Assembly
- Gateshead Council
- Newcastle City Council
- North Tyneside Council

- City of Sunderland
- The Environment Agency
- English Heritage
- Natural England
- ONE North East, and
- NPower Renewables

General and other consultees included:

- Architectural and Archaeology Society
- Carbon Trust
- Commission for Architecture and the Built Environment
- Durham Wildlife Trust
- Energy Saving Trust
- English Partnerships
- Friends of the Earth
- Home Builders Federation
- Housing Corporation
- Port of Tyne Authority
- Sanderson Weatherall Limited
- South Tyneside Groundwork, and
- SustaiNE

The Council involved a number of other stakeholder groups who expressed a specific interest in the preparation of SPD 1, as well as Council officers and Members. All applicants/ agents who submitted major development planning applications (as defined in SPD 1) over the course of the 18 months leading up to the consultation were also invited to comment on the draft SPD. A full list of those consulted is set out in Annex 1 of this Statement.

2.2. Where the draft SPD 1 was made available

Copies of the draft Management Plan were made available for inspection free of charge at the following locations:

- South Tyneside Council Offices between the hours of 8.30am and 4.30pm Monday to Friday
  - Town Hall and Civic Offices, Westoe Road, South Shields, NE33 2RL
  - Jarrow Town Hall, Grange Road, Jarrow, NE32 3PH
  - Hebburn Civic Centre, Campbell Park Road, Hebburn, NE31 2SW

- South Tyneside Council Offices between the hours of 8.30am and 4.30pm Monday to Friday
  - Boldon Lane Library, Boldon Lane, South Shields, NE34 0LZ
  - Chuter Ede Library Access Point, Chuter Ede Community Centre, Galsworthy Road, South Shields, NE34 9UG
  - Cleadon Park Library, Sunderland Road, South Shields, NE34 6AS
  - East Boldon Library, Boker Lane, East Boldon, NE36 0RY
  - Hebburn Library, Station Road, Hebburn, NE31 1PN
  - Jarrow Library, Cambrian Street, Jarrow, NE32 3QN
  - Primrose Library, Glasgow Road, Jarrow, Primrose, NE32 4AU
  - South Shields Central Library, Prince George Square, South Shields, NE33 2PE
  - Whitburn Library, Mill Lane, Whitburn, SR6 7EN

In addition, the draft Document was also available on request free of charge for residents or organisations within South Tyneside and could be downloaded from the Council's website at www.southtyneside.info/planning. A charge applied for any other requests made from those located outside of the Borough.

A Statutory Notice advertising the consultation was placed in 'The Shields Gazette' on Monday 29th January 2007. The wording of the advertisement is replicated in Annex 2 of this Statement.

2.3. How we consulted

Consultation letters and copies of the draft SPD were sent to all those organisations and individuals noted in Section 2.1 and the full consultees list set out in Annex 1 of this Statement.

3. Key Messages from the Consultation

At the close of the consultation period, a total of 9 external consultees responded (6 by post and 3 via email). The table below presents the comments received and any actions taken, where relevant.

Annex 1: Bodies, Groups and Individuals Consulted as part of the Consultation Process

Consultees list for SPD 1: Sustainable Construction and Development				
Title	Name		Position	Organisation
External – Specific, General and Other Consultees				
Ms.	Mary	Edwards	Planning Team – Regional Group	Government Office for the North East
Mr.	Malcolm	Bowes	Assistant Director	North East Assembly
Mr.	Derek	Quinn	Group Director	Gateshead Council
Mr.	John	Edwards	Senior Policy Officer	Newcastle City Council
Mr.	Ian	Ayris	Historic Environment Manager	Newcastle City Council
Mr.	Paul	Dillon	Assistant Planning Manager	North Tyneside Council
Mr.	Gary	Clasper	Principal Planner	City of Sunderland
Ms.	Sarah	Wickerson	Planning Liaison Officer	Environment Agency
Mr.	Alan	Hunter		English Heritage
Ms.	Jenny	Loring	Government Team	Natural England, North East Region
Mr.	Andy	Groves	Planning and Transport Manager	ONE North East
Mr.	Andy	Bower	Renewables Developer	nPower Renewables
				Architectural and Archaeology Society
				Carbon Trust
Ms.	Liz	Brown	Inclusive Environments Group	Commission for Architecture and the Built Environment
Mr.	Jim	Cokill		Durham Wildlife Trust
				Energy Saving Trust
Mr.	Steve	Gawthorpe	Area Director North East	English Partnerships
				Friends of the Earth
Ms.	Gina	Bourne	Regional Planner – Northern Region	Home Builders Federation
Ms.	Lindsay	Greenwood	Director – Investment & Regeneration North	Housing Corporation
Mr.	Brian	Darling	Estates Manager	Port of Tyne Authority
Mr.	John	Craig		Sanderson Weatherall Ltd.
Mr.	Lionel	Hehir		South Tyneside Groundwork
Mr.	Steve	Bhowmick		SustaiNE

External – Applicants and Agents				
Mr.	Adrian	Hollingsworth		
				Angus Leybourne Architects
				George Wimpey North Ltd.
Ms.	Jane	Massey		Ian Darby Partnerships
				Ian Belsham Chartered Architects
				St. Aidan's Court (South Shields) Ltd.
				Mario Minchella Architect
Mr.	M	Long		Lancing Homes
	TS	Palmer		MWE Architects
Mr. & Mrs.		Morton		
				Gary Craig Architectural Services
	KW	Reader		
				Ryder HKS Ltd.
Mr.	M	Bradshaw		Building Design Partnership
Mr.	Elliot	Ward		City and Northern Developments
Mr.	S	Kendal		Ian Belsham Associates
				Alston Murphy Associates
				TTH Architects
Mr.	G	Parfitt		Harlow Printing Ltd.
				Whelan Construction
	Peter	Holmes		North East Property Partnership
				Bett Homes NE Ltd.
				Signet Planning
				UK Land Estates
				Leftbank Developments Ltd.
				The Graham Bolton Planning Partnership Ltd.
				Bellway Homes Ltd./ Enterprise 5 Housing Association
				Halsall Lloyd Partnership
				South Shore Development (Monkton) Ltd.
				Priority Sites Ltd.
Mr.	S	Salmond		Chipchase Associates Ltd.
				Gladman Homes

				City & Northern Projects Ltd.
	Sarah	Green		South West Law
	Natalie	Mongan		
Mr.	S	Conlan		Red Fox Nurseries
				Malcolm Scott Consultants Ltd.
				Taylor Woodrow Developments
Mr.	I	Lyle		England & Lyle
Mr.	J	Johnson		Persimmon Homes
				Persimmon Homes (NE) Ltd.
Mr.	Kevin	Richardson		Barratt Newcastle
				Riverside Developments UK Ltd.
				Martin Robinson Chartered Planning Consultant
Mr.	R	Gibson		Endeavour Housing Association
Mr.	K	Handy		HMH Architects
				Northern Trust Co. Ltd.
				DTR Ormrod
	Liza	Cook		Smiths Gore
				The World Trade Group
				DKS Architects
				Wearmouth Architectural Design
				Lumsden & Carroll Construction Ltd.
				Durham Diocesan Board of Finance
				Silvester Ashton Partnership
Internal – South Tyneside Council				
Ms.	Irene	Lucas	Chief Executive	South Tyneside Council
Ms.	Diane	Wood	Assistant Chief Executive - Policy	South Tyneside Council
Mr.	Keith	Harcus	Assistant Chief Executive - Performance	South Tyneside Council
Ms.	Amanda	Skelton	Executive Director – Neighbourhood Services	South Tyneside Council
Mr.	David	Slater	Executive Director – Regeneration and Resources	South Tyneside Council
Mr.	Kim	Bromley-Derry	Executive Director – Children and Young People	South Tyneside Council
Mr.	Rick	O'Farrell	Head of Enterprise and Regeneration	South Tyneside Council
Ms.	Lynda	Fothergill	Head of Communications	South Tyneside Council
Mr.	Paul	Walker	Head of Regulatory Services	South Tyneside Council

Ms.	Sylvia	Brown	Head of Community Services	South Tyneside Council
Ms.	Tony	Duggan	Head of Cultural Services	South Tyneside Council
Mr.	Keith	Hannah	Head of Directorate Support – Neighbourhood Services	South Tyneside Council
Mr.	Mike	Conlon	Head of Change Management	South Tyneside Council
Mr.	Ian	Cansfield	Acting Strategic Policy Manager	South Tyneside Council
Ms.	Kath	Lawless	Development Control Manager	South Tyneside Council
Mr.	Guy	Currey	Economic Development Manager	South Tyneside Council
Mr.	Gordon	Atkinson	Area Planning Team Leader – East Team	South Tyneside Council
Mr.	John	Bundock	Area Planning Team Leader – West Team	South Tyneside Council
Mr.	Steve	Landells	Deputy Area Planning Team Leader – West Team	South Tyneside Council
Ms.	Kate	Elder	Policy & Innovation Officer	South Tyneside Council
Mr.	Jamie	McDonald	Asset & Capital Manager	South Tyneside Council
Mrs.	Pat	Richardson	Research Assistant	South Tyneside Council
Mr.	Andrew	Whittaker	Waste Services Manager	South Tyneside Council
Mr.	Matthew	Hawking	Senior Countryside Officer	South Tyneside Council
Ms.	Kate	Curry	Strategic Housing Policy Officer	South Tyneside Council
Mr.	John	Edwards	Transport Futures Manager	South Tyneside Council
Mrs.	Ruth	Sutcliffe	Transport Futures Officer (Development Control)	South Tyneside Council
Mr.	Les	Milne	Urban Design Manager	South Tyneside Council
Mr.	Martin	Eggenton	Senior Enforcement Officer	South Tyneside Council
Mr.	Roger	Gill	Policy Officer	South Tyneside Council
Mr.	Mike	Linsley	Social Inclusion Policy Officer	South Tyneside Council
Mr.	Alan	Richardson	Team Leader – Area Co-ordination	South Tyneside Council
Mr.	David	Bowman	Information Manager	South Tyneside Council
Mr.	Ian	Rutherford	Environmental Protection Team Leader	South Tyneside Council
Ms.	Veronica	Jukes	Senior Environmental Protection Officer	South Tyneside Council
Mr.	Chris	Clarke	Regeneration Manager	South Tyneside Council
Ms.	Clare	Rawcliffe	Countryside Officer	South Tyneside Council
Ms.	Lisa	Roberts	Rights of Way Officer	South Tyneside Council
Mr.	Kevin	Broadbent	Transport Policy Manager	South Tyneside Council
Mr.	Simon	LeJeune	Deputy Area Team Leader – East Team	South Tyneside Council
Mr.	Peter	Howson	Asset Management Team Leader	South Tyneside Council
Ms.	Claire	Cardinal	Economic Regeneration Project Manager	South Tyneside Council
Mr.	Paul	Graves	Economic Regeneration Project Manager	South Tyneside Council

Ms.	Vicky	Smith	Economic Regeneration Officer – Regeneration Strategy	South Tyneside Council
Mr.	Andrew	Wainwright	Environmental Health Manager	South Tyneside Council
Mr.	David	Brooks	Trading Standards and Licensing Manager	South Tyneside Council
Mr.	Ian	Wilkinson	Building Control Manager	South Tyneside Council
Mr.	Ben	Broome	Solicitor	South Tyneside Council
Ms.	Julie	Turner	Consultation Officer	South Tyneside Council
Ms.	Tracey	Moore	Youth Participation Co-ordinator – Youth Parliament	South Tyneside Council
Mr.	Adrian	Smith	Corporate Policy Manager	South Tyneside Council
Mr.	Peter	Cunningham	Area Team Officer – West Team	South Tyneside Council
Ms.	Suzanne	McDermott	Area Team Officer – West Team	South Tyneside Council
Mr.	Simon	Jobe	Area Team Officer – West Team	South Tyneside Council
Mr.	Malcolm	Watson	Area Team Officer – West Team	South Tyneside Council
Ms.	Christina	Snowdon	Area Team Officer – West Team	South Tyneside Council
Mr.	Garry	Simmonette	Area Team Officer – East Team	South Tyneside Council
Ms.	Val	Brown	Senior Area Team Officer – East Team	South Tyneside Council
Ms.	Christine	Matten	Area Team Officer – East Team	South Tyneside Council
Mr.	James	Thorpe	Area Team Officer – East Team	South Tyneside Council
Mr.	Helen	Wiltshire	Area Team Officer – East Team	South Tyneside Council
Mr.	Gary	Baker	Planning Assistant – West Team	South Tyneside Council
Ms.	Rekha	Begum-Hussein	Planning Assistant – East Team	South Tyneside Council
Mr.	Mark	Lawson	Enforcement Officer	South Tyneside Council
Mr.	Mike	Dillon	Head of Social Inclusion and Achievement	South Tyneside Council
Ms.	Christine	Smith	Head of Transition & Wellbeing	South Tyneside Council
Ms.	Gill	Rollings	Head of Directorate Support	South Tyneside Council
Ms.	Melanie	Holland	Strategic Housing Policy Manager	South Tyneside Council
Internal – Members of the Council				
Cllr.	Paul	Waggot	Leader of the Council	South Tyneside Council
Cllr.	Iain	Malcolm	Deputy Leader of the Council	South Tyneside Council
Cllr.	Michael H	Clare	Lead Member – Environment, Housing & Transport	South Tyneside Council
Cllr.	Eddie	McAtominey	Lead Member – Jobs, Enterprise & Regeneration	South Tyneside Council
Cllr.	Jim	Sewell	Lead Member – Culture & Wellbeing	South Tyneside Council
Cllr.	Bill	Brady	Lead Member – Equality & Diversity	South Tyneside Council
Cllr.	Joanne	Bell	Lead Member – Safer & Stronger Communities	South Tyneside Council

Cllr.	Tom	Hanson	Lead Member – Independent and Healthy Lives	South Tyneside Council
Cllr.	Jim	Foreman	Lead Member – Children & Young People	South Tyneside Council
Cllr.	Alex	Donaldson	Lead Member – Resources	South Tyneside Council
Cllr.	William J	Troupe		South Tyneside Council
Cllr.	Joe	Kidd		South Tyneside Council
Cllr.	Olive	Punchion		South Tyneside Council
Cllr.	Ernest	Gibson		South Tyneside Council
Cllr.	John T	Haram		South Tyneside Council
Cllr.	Audrey	McMillan		South Tyneside Council
Cllr.	John A	Wood		South Tyneside Council
Cllr.	John	Anglin		South Tyneside Council
Cllr.	Edward	Malcolm		South Tyneside Council
Cllr.	Joan M	Meeks		South Tyneside Council
Cllr.	Marjorie M	Robinson		South Tyneside Council
Cllr.	Enid	Hetherington		South Tyneside Council
Cllr.	Ken	Hickman		South Tyneside Council
Cllr.	Jane	Branley		South Tyneside Council
Cllr.	Allen	Branley		South Tyneside Council
Cllr.	Victor R	Thompson		South Tyneside Council
Cllr.	Bill	Lynch		South Tyneside Council
Cllr.	Alison	Strike		South Tyneside Council
Cllr.	Donald	Wood		South Tyneside Council
Cllr.	Jeffrey	Milburn		South Tyneside Council
Cllr.	David	Potts		South Tyneside Council
Cllr.	Shirley	Stratford		South Tyneside Council
Cllr.	Tracey	Dixon		South Tyneside Council
Cllr.	Peter	Boyack		South Tyneside Council
Cllr.	George	Elsom		South Tyneside Council
Cllr.	Gordon H	Finch		South Tyneside Council
Cllr.	Jim	Capstick		South Tyneside Council
Cllr.	Lawrence	Nolan		South Tyneside Council
Cllr.	Arthur C	Meeks		South Tyneside Council
Cllr.	Eileen	Leask		South Tyneside Council
Cllr.	John	McKie		South Tyneside Council

Cllr.	Joe	Abbott		South Tyneside Council
Cllr.	Joe	Atkinson		South Tyneside Council
Cllr.	John G	McCabe		South Tyneside Council
Cllr.	Nancy	Maxwell		South Tyneside Council
Cllr.	Alan	Kerr		South Tyneside Council
Cllr.	Joan	Lewis		South Tyneside Council
Cllr.	Masie	Stewart		South Tyneside Council
Cllr.	Tom	Defty		South Tyneside Council
Cllr.	Moira	Smith		South Tyneside Council
Cllr.	Steve	Harrison		South Tyneside Council
Cllr.	Barrie	Scorer		South Tyneside Council
Cllr.	Jim	Perry		South Tyneside Council
Cllr.	Emma L	Lewell		South Tyneside Council
			Members Library	South Tyneside Council

Annex 2: Advertisement Wording of the Statutory Notice – Proposals Matters and Consultation (as appeared in 'The Shields Gazette', Monday 29th January 2007)

SOUTH TYNESIDE COUNCIL

THE TOWN AND COUNTRY PLANNING (LOCAL DEVELOPMENT) (ENGLAND) REGULATIONS 2004

LOCAL DEVELOPMENT FRAMEWORK FOR SOUTH TYNESIDE COUNCIL:

NOTICE OF MATTERS AND STATEMENT OF AVAILABILITY OF DOCUMENTS UNDER REGULATION 17

SUPPLEMENTARY PLANNING DOCUMENT 1: SUSTAINABLE CONSTRUCTION AND DEVELOPMENT

South Tyneside Council has prepared a Draft Supplementary Planning Document on Sustainable Construction and Development (SPD 1).

This seeks to add additional material in support of Policy ST2 in the Local Development Framework Core Strategy (Sustainable Urban Living). The Document is available for inspection free of charge at the following locations:

South Tyneside Council Offices
(between the hours of 8:30 am and 4:30pm Monday to Friday)
Town Hall and Civic Offices, Westoe Road, South Shields
Jarrow Town Hall, Grange Road, Jarrow
Hebburn Civic Centre, Campbell Park Road, Hebburn

South Tyneside Libraries
(during normal opening hours)
Boldon Lane Library Boldon Lane, South Shields, NE34 0LZ
Cleadon Park Library Sunderland Road, South Shields, NE34 6AS
East Boldon Library, Boker Lane, East Boldon, NE36 0RY
Hebburn Library, Station Road, Hebburn, NE31 1PN
Jarrow Library, Cambrian Street, Jarrow, NE32 3QN
Primrose Library, Glasgow Road, Jarrow, Primrose, NE32 4AU
South Shields Central Library, Prince Georg Square, South Shields, NE33 2PE
Whitburn Library, Mill Lane, Whitburn, SR6 7EN

The Document is also available on request free of charge for residents or organisations within the Borough (a charge applies for any other requests) from the postal or e-mail addresses below or can be downloaded from the Council's website at http://www.southtyneside.info/planning
Representations on the Document are invited and can be made in writing to the address below or via e-mail to ldf@southtyneside.gov.uk or via the response page on the website.

Representations can be made between 29th January and 26th February 2007.

The Supplementary Planning Document will be reviewed in the light of comments made, prior to being adopted by the Council. The adopted version must include a statement setting out: who was consulted; how those persons were consulted; a summary of the main issues raised in those consultations; and how those issues have been addressed in the adopted SPD.

Representations on the current document may be accompanied by a request to be notified when the revised document has been adopted by the Council.

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Appendix 4: Responses to Final Draft SPD 1 (January 2007)

Appendix 4: Responses to Final Draft SPD 1 – January 2007

Reference	Respondent	Comments	Council Response
SPD1/Jan07/01	Mary Edwards, Planning Team, Regional Group, Government Office for the North East	Letter received advising on the Town and Country Planning (Local Development) (England) Regulations 2004 and procedural matters to be taken into account for the production of SPDs.	Noted. The preparation of SPD 1 fully complies with the procedural and consultation matters set out in the Regulations.
SPD1/Jan07/02	Sarah Wickerson, Planning Officer, Environment Agency	The Environment Agency strongly supports this document. We feel that this is an excellent guide to developers who are perhaps new to incorporating renewables into their developments. We also strongly support the idea of developers having to complete a Sustainability Statement that will hopefully make the process of incorporating renewables into developments more transparent and effective.	Comments noted.
		We appreciate the focus of this document on construction techniques and the use of renewable energy technologies in new developments, and the logic behind doing so. We would however like to mention that there are of course other aspects of sustainable construction and design relating to the adaptation and mitigation of the effects of climate change, such as increased flood risk, biodiversity loss, etc. We will expect these to be addressed in other LDF documents, particularly in the forthcoming Development Control policy document.	Such issues will be covered across the other emerging LDF documents in accordance with national, regional and local planning policy.
		Current national guidance encourages Local Authorities to aim towards making developments as sustainable as possible. Although this document is a great step towards achieving this, we would like to encourage you to take this document and push it even further along these lines to achieve a more significant and measurable impact on future developments in South Tyneside.	It is intended that SPD 1 will be subject to an early review, taking into account regional and national planning policies and how the Document works in practice. This will include opportunities to promote sustainable construction and development even further in those proposals that fall outside of the current thresholds.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/02 (cont)	Sarah Wickerson, Planning Officer, Environment Agency (cont)	It is mentioned that only 20% of planning applications would require a Sustainability Statement. We would ask that you consider widening the scope of the applications requiring this statement, perhaps to all applications other than minor applications.	See Council Response about the review of SPD 1 (above).
		In Paragraph 2.1.2 you've suggested that for residential developments of over 100 units, the developer must ensure that 25% of these units achieve a 3-star sustainability rating. It is my understanding that this figure was derived from the London Renewables Plan.	The 3-star sustainability rating figure for 25% of units is derived from the London Renewables Plan.
		If you consider that only 20% of applications would require a Sustainability Statement, and that many of those would be smaller developments of less than 100 units, I believe that although it's excellent to have a target such as this, it might prove to have very little local impact in practice. We feel that this requirement should be amended to apply to applications for developments of over 50 residential units.	Agreed – Paragraph 2.1.2 (Appendix 1) will be amended to apply to all new residential developments of over 50 units, replacing the initial figure of over 100 units.
		Currently, *Building a Greener Future: Towards zero carbon development* has been released by the Department for Communities and Local Government for consultation. In this document, it is suggested that all new residential developments will be required to meet the 3-star sustainability rating by 2010. Using this as a guide, we feel that the suggested amendment to Paragraph 2.1.2 would more accurately reflect the current trend in national policy.	Paragraph 2.1.2 is to be amended (see Council Response above).

Reference	Respondent	Comments	Council Response
SPD1/Jan07/03	Signet Planning for: • NJW Developments Ltd; • David Barlow Homes; • Gladedale (Newcastle) Ltd	I set out below a number of objections in respect of the plan's soundness and how it accords with National and Regional planning policy, and suggest that some of the requirements presented in the Document are overly onerous to developers in seeking planning permission. NJW Developments Ltd/David Barlow Homes/Gladedale (Newcastle) Ltd also suggest that the Document is being produced prematurely ahead of National Planning Guidance.	SPD 1 is in support of LDF Core Strategy Policy ST2 (Sustainable Urban Living). The Planning Inspectorate has recently reported (March 2007) that all the policies contained within the Core Strategy as 'sound'. Policy ST2 satisfies the various tests of soundness, including the test on compliance with Government policy. It is considered that the Document is not onerous to developers, or indeed premature, taking into account its context and the Government's national target for all new homes to be 100% zero carbon by 2016. For clarification and referencing purposes, the replicate wording of LDF Core Strategy Policy ST2 is to be included within Section 4.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/03 (cont)	Signet Planning for: • NJW Developments Ltd; • David Barlow Homes; Gladedale (Newcastle) Ltd (cont)	The Document is heavily based on the regional study *Building-In Sustainability*. It is understood that *Building-In Sustainability* is a document produced by Llewelyn Davies on behalf of a regional partnership led by Durham County Council. Following the completion of the guide, it was adopted by SustaiNE, which comprises many of the members of the former North East Round Table and has been working towards a vision for a 'sustainable future for the North East'. *Building-In Sustainability* has not been publicly consulted upon, pursuant to this, nor has it been adopted by the Regional Assembly or any other planning body as a material consideration in planning applications. In respect of this matter, and by the requirements of PPS 12 (Local Development Frameworks), reliance upon such documentation is not in conformity with national planning guidance.	*Building-In Sustainability* informed SPD 1 and the SustaiNE partnership involved agreements from a wide range of partners, including the House Builders Federation. This is the third round of consultation on various drafts of SPD 1 and there have been no objections to the planning status of *Building-In Sustainability* in either of the previous two formal consultation periods. The London Renewables Plan also informed SPD 1, especially the guidance set out in Appendix 1 – Sustainability Checklist. Furthermore, the Mayor of London published the climate change action plan *Action Today to Protect Tomorrow* in February 2007, which defines further the significance of the London Renewables Plan. As noted above, SPD 1 supports and provides guidance on the implementation of LDF Core Strategy Policy ST2. The preparation of SPD 1 is therefore considered to be in conformity with Government policy, including PPS 12.
		Whilst it is appreciated that many of the requirements identified in the Draft SPD are in accordance with matters raised in the Draft Supplementary PPS 1 (Climate Change), Government guidance does not require applicants to submit a stand alone Sustainability Statement.	*goes beyond the RSS alone: the guidance and LDF Core Strategy Policy ST2 and the North East*

Reference	Respondent	Comments	Council Response
SPD1/Jan07/03 (cont)	Signet Planning for: • NJW Developments Ltd; • David Barlow Homes; Gladedale (Newcastle) Ltd (cont)	Furthermore, the Draft SPD requires applicants to demonstrate sustainable construction methods, which are a matter for consideration under building regulations and are not required for the purposes of planning permission. In respect of this matter, the Draft Supplement to PPS 1 states at Paragraph 31: "Planning Authorities should not need, however, to devise their own standards for the environmental performance of individual buildings as these are set out nationally through the Building Regulations".	The requirements of SPD 1 link to LDF Core Strategy Policy ST2. SPD 1 does not devise its own building regulations or other environmental performance standards.
		In further support of this statement, it is also noted at Paragraph 38 of the Draft PPS 1 Supplement that: "It is not necessary to use planning conditions to control those aspects of a building's construction and fitting that will be required to be in place to meet environmental standards set through the Building Regulations".	The submission of Sustainability Statements for major proposals will be required before any planning decision is given. SPD 1 is in conformity with the Draft PPS 1 Supplement, which states that compliance is best secured through positive intervention (Paragraph 39) and that planning conditions/obligations should only be used to secure the longer-term management and maintenance aspects of a development (Paragraph 38).
		In respect of this requirement for Sustainability Statements and in particular, the reference to sustainable construction methods, it is in NJW Developments Ltd opinion that the Draft SPD 1 is not in conformity with national planning guidance identified in the PPS 1 Supplement.	SPD 1 is in conformity with the PPS Supplement. Part 4 states that planning has a different but at the same time complementary focus to building regulations (Paragraph 5), and that planners should engage constructively and imaginatively with developers to encourage the delivery of sustainable buildings (Paragraph 6). Sustainability Statements are a mechanism by which to interpret PPS 1, the Draft Supplement and LDF Core Strategy Policy ST2.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/03 (cont)	Signet Planning for: • NJW Developments Ltd; • David Barlow Homes; Gladedale (Newcastle) Ltd (cont)	It is acknowledged that the Submission Draft RSS does seek applicants to submit a Sustainability Statement for major planning applications. However, this issue has been considered during the RSS Examination in Public and it is noted in the RSS EiP Panel Report that there "was a lack of clarity on the application of the Sustainability Statement".	Sustainability Statements do not rely on the requirements of the emerging RSS alone as they act as a means to interpret 'sound' LDF Core Strategy Policy ST2 and are also supported by the North East Assembly. Furthermore, the Local Government White Paper encourages Local Authorities not to delay areas of work in seeking to combat climate change.
		It also states that there is potential for conflict with Environmental Impact Assessment requirements. Subsequent to this, Recommendation 3.1(d) of the Panel Report states, "Delete all reference to a requirement to submit a Sustainability Statement".	The Panel Report considered the potential conflict with RSS Environmental Impact Assessments an issue. This was due to a lack of clarity on matters of applying Sustainability Statements in practice as a region-wide requirement. However, the requirement for these statements at the local level (such as SPD 1) was not dismissed. See Council Response above about the current role of Sustainability Statements.
		On the basis of emerging policy, in particular the Draft PPS 1 Supplement and the RSS Panel Report, it is considered that the publication of SPD 1 is at this stage premature given that its requirements are over and above that being identified in emerging National and Regional policy. It is considered that further consultation on the Document should be held in abeyance until such time as the PPS 1 Supplement and revised RSS have been published and can therefore inform policy at the local authority level. Notwithstanding the prematurity of the Document, it is considered that by the requirements of PPS 12 the Document is not in conformity with National and Regional policy and is therefore not sound. On this basis, NJW Developments Ltd/David Barlow Homes/Gladedale (Newcastle) Ltd object to the further consultation and publication of the Document at this stage.	SPD 1 seeks to promote sustainable development and construction within South Tyneside and address the causes of Climate Change with urgency, as also noted in the Local Government White Paper. The Document is not considered premature as it is in conformity with 'sound' LDF Core Strategy Policy ST2 and accords with matters raised in PPS 1 (Climate Change) and the Draft Supplement. The Document will undergo an early review to take into account the role of emerging national and regional planning policy and guidance, including the RSS and PPS 1 Supplement.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/04	Brian Paget, Resident of South Tyneside	My main concern with the Draft Document is that in terms of using regulation to achieve sustainability, the Document does not go far enough, or is strong enough, particularly in relation to house building. If South Tyneside Council genuinely wants to play an effective part in combating climate change and tackling fuel poverty, then this needs to be reflected in a planning approach which makes low energy, low emissions and environmental sustainability the prime drivers in all new developments.	SPD 1 will be subject to an early review, taking into account the role of emerging national and regional planning policies, and implementing their requirements effectively. This will include opportunities to review the scope of the current thresholds where considered appropriate. In addition, various aspects of sustainable construction and development will be covered across other emerging LDF documents.
		The UK's homes are responsible for 27% of the UK's CO_2 emissions. SPD 1 outlines the framework for sustainable planning for the next ten to fifteen years, and any properties constructed over that period are likely to last between thirty and fifty years. This is exactly the timescale we have to do something about reducing our greenhouse gas emissions. To meet the challenge of climate change, tough expectations must be set now.	SPD 1 seeks to reduce greenhouse gas emissions in all new major developments, as well as promote this aspiration in smaller-scale developments that are outside of the current thresholds.
		Section 7.3, sub-section (a) only subjects "Residential development comprising more than 10 dwellings or on a site of more than 0.5 hectares". This should be replaced with "All residential developments". All new developments should be required to demonstrate their sustainability principles, if at the very least to ensure that there is a standard approach to all residential developments.	The requirement is in line with the definition of major development proposals, whilst the current thresholds within SPD 1 are to remain pending an early review.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/04 (cont)	Brian Paget, Resident of South Tyneside (cont)	This issue represents the main theme of my comments on SPD 1. Whilst SPD 1 concentrates mainly on large-scale developments, the omission of smaller residential developments should not be allowed. The excellent information in the SPD 1 Draft on building techniques like Passive House illustrates that there is no reason why any new development, irrespective of size, should be exempt from an expectation of high sustainability standards. Indeed, the Passivhaus concept is not new, and has been around since the 1980's and relies on little in terms of innovative technology.	The thresholds contained within SPD 1 will be reviewed to reflect emerging national, regional and local planning policy and guidance.
		Similarly, Section 7.8, the text "South Tyneside Council will also welcome the voluntary submission of Sustainability Statements for smaller or less sensitive proposals" (with the phrase "less sensitive" in the existing text being particularly ambiguous) should be replaced with "South Tyneside Council requires the submission of Sustainability Statements for all proposals". Section 8.3 should be changed to reflect the changes in Sections 7.3 and 7.8. The bullet "Residential development comprising more than 10 dwellings or on a site of more than 0.5 hectares" should also be changed to "All residential developments."	The requirement for Sustainability Statements to be submitted for major development proposals is in general conformity with current national, regional and local planning policy and guidance. There are opportunities to widen the thresholds under the early review of SPD 1. Refer to Environment Agency comments and responses above.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/04 (cont)	Brian Paget, Resident of South Tyneside (cont)	It should be noted that in the Introduction of the Checklist, reference is made to: • Draft SPD 4 on Affordable Housing • Draft SPD 5 on Planning Obligations Since these documents are not available for scrutiny at this stage, it should be recognised that contributors to the Draft consultation should be allowed to review the Sustainable Construction and Development SPD if the content of SPD 4 and SPD 5 has an impact on SPD 1. Similarly, PPS 1 (Planning and Climate Change) is still at a draft stage and any modifications to PPS 1 which impact on SPD 1 should be available for further review.	Reference is already made to SPDs 4 and 5 within the Introduction to the Sustainability Checklist (Appendix 1). Draft SPD 4 was consulted on from 4th December 2006 to 25th January 2007 and consultation on Draft SPD 5 is expected to take place during spring 2007. As noted above (Signet Planning), the Local Government White Paper encourages Local Authorities not to delay areas of work in seeking to combat climate change.
		Section 2.1.2 states, "25% of new dwellings will be expected to achieve a 3-star sustainability rating, as set out in the Code for Sustainable Homes". There is no sound reason why all new properties shouldn't achieve the highest standard. Anything less represents a failure to properly address the impact of homes on climate change, especially considering that these properties are likely to be around for at least fifty years. It is a rule of thumb that this year's high standards are next year's minimum requirements. There is no technological or practical reason why the highest sustainability standards should not be aimed for now. South Tyneside has already lost valuable opportunity to introduce effective sustainability objectives in current projects like Westoe Crown and Cleadon Park.	Full technical guidance on how to comply with the voluntary Code for Sustainable Homes will inform an early review of SPD 1. Of note, Housing Corporation guidance on design and sustainability standards have been adopted and the Eco-Homes Very Good Standard will be achieved in Phase 2 of the Cleadon Park Regeneration Project, South Shields.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/04 (cont)	Brian Paget, Resident of South Tyneside (cont)	Aiming for the 3-star sustainability rating as the minimum bar is hardly challenging, as it represents a mediocre target when the Code for Sustainable Homes goes up to a maximum of 6 stars, which represents a zero carbon home. Considered in these terms, a target of only 3 stars for only 25% of new builds is risible, and will have little or no impact on sustainability objectives for new dwellings. Communities Secretary Ruth Kelly proposed on December 3rd 2006 that all new homes would have to be carbon neutral by 2016. The best way to achieve this is to set a high target now. Consequently, I suggest that this sentence in 2.1.2 be changed to "all new dwellings will be expected to achieve a 6-star sustainability rating, as set out in the Code for Sustainable Homes."	The 3-star sustainability rating for 25% of new builds is achievable with regard to LDF Core Strategy Policy ST2. At the present time, a 6-star sustainability rating is considered over-ambitious, taking into account the initial guidance currently available. SPD 1 will be subject to an early review and will reflect the requirements of the Code for Sustainable Homes as this develops further.
		Section 2.2.1 states, "New developments should incorporate tri-generation of Cooling Heat and Power (CCHP) or Combined Heat and Power (CHP) wherever feasible. If CCHP or CHP is not feasible, the developer will be expected to provide clear and sound evidence why neither can be incorporated". I feel this text is important enough to merit an additional subsection of it's own, and changing the text "will be expected to", to a more assertive "must".	Agreed – to modify the text "will be expected" to the suggested "must be expected" within Appendix 1, Section 2 (Energy Efficiency and Conservation). The current format of the Sustainability Checklist will remain, pending an early review.
		As well as methods of reducing energy use, it is also important for the householder to be able to accurately measure the energy used by the home in 'real time', otherwise there is no frame of reference for the householder to establish accurate energy usage or assess the effectiveness of energy use reduction methods.	This is not necessarily a planning issue (see further response below). Agreed – to insert a reference about smart meter technology in Appendix 1, Section 2.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/04 (cont)	Brian Paget, Resident of South Tyneside (cont)	Current energy meters exist purely for the benefit of the energy suppliers. The existing situation of a 'meter under the stairs' puts energy usage meters out of view of the householder, which reinforces an 'out of sight, out of mind' mentality. A study in 1987 found that more than 50% of adults do not know where their meters are, and that 45% cannot read them. This situation no doubt benefits the suppliers, as a customer who doesn't know the price of what they are using is likely to use more. New electricity metering products, known as 'smart meters', are now available (such as the Electrisave) which give a householder a display in real time on how much energy is being used in terms of money, kWh and CO_2 emissions. For such meters to be of practical use, they should have a visual display in a prominent position, such as a hallway. The usefulness of a display of energy usage was shown in a study of household whose cookers were fitted with electricity meters. The study, published in *Energy & Buildings*, Volume 35 (2003), found that the energy used for cooking in these households reduced by 15%. Other studies show that household smart meter usage reduces household electricity consumption by around 12%. To meet this requirement, I suggest adding a new section and planning requirement, "All new properties should incorporate smart meter technology with meters displayed in a prominent position."	This is not a planning issue – see Council Response and action above.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/05	Alan Hunter, Regional Planner, English Heritage (North East Region)	Although it has been something of a struggle, important regional documents such as Regional Planning Guidance and the emerging RSS, the Regional Economic Strategy, and the Integrated Regional Framework are now beginning to acknowledge that the sustainability agenda has a heritage dimension to it. LDFs are, thankfully, also beginning to pick up this message. We have argued that our historic environment is a finite resource that, once lost, is lost forever.	Comments noted.
		I am pleased to see that the Draft Document does make reference to the safeguarding of heritage assets as an integral part of the thought-process involved in designing schemes. What perhaps needs to be given more emphasis, however, is that heritage conservation is not the same as heritage avoidance. Too many still consider the historic environment to be a constraint, whereas there are in fact very many examples of the way in which historic buildings in particular can be satisfactorily incorporated into development and regeneration schemes. It is this positive and constructive message that needs to come across more clearly in the SPD.	SPD 1 seeks to safeguard the Borough's historic built environment. The Document cross-refers to PPG 15 (Planning and the Historic Environment) and Circulars 01/01 and 09/05 (which both deal with Arrangements for Handling Heritage Applications). SPD 1 is also in support of LDF Core Strategy Policies SC1 (Creating Sustainable Urban Areas) and EA1 (Local Character and Distinctiveness). Furthermore, the Process Diagram at Section 6 highlights the potential for refurbishment over new-build at the design stage.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/05 (cont)	Alan Hunter, Regional Planner, English Heritage (North East Region) (cont)	To illustrate the point I draw your attention to Appendix 1, Paragraph 5.3.1 where the emphasis is on the recovery and re-use of materials from a site as a part of any redevelopment scheme. The correct way to approach this matter would be firstly to give consideration to the repair, adaptation and re-use of the existing building(s) on the basis that the existing fabric embodies environmental capital which requires energy and materials to replace. It is worth noting that the Panel Report of July 2006 following the Examination in Public of the Draft RSS recommended that Policy 2(f) be amended to more overtly refer to the prudent use of existing buildings as well as the prudent use of resources.	SPD 1 focuses primarily on new developments and cross-refers to national planning policy, including PPG 15 (see comment above). The Document is in support of the RSS, including Policy 2 (Sustainable Development) and the Panel Report's recommendation for Part 2(f) to make better use of resources and the built fabric. Agree – to insert a reference to the repair, adaptation and re-use of existing buildings within Paragraph 5.3.1, Appendix 1.
		This paragraph also expresses the view that sustainable development objectives may have to be sacrificed in order to accommodate the conservation imperative. For the most part I contend that it is not a matter of balancing one requirement or demand in favour of another: rather it is a case of respectfully integrating them both.	SPD 1 seeks to integrate successfully sustainable construction techniques in areas of historic conservation and heritage importance. The preservation and enhancement of the historic built environment is also a significant sustainable development objective.
		I enclose for your attention a copy of the English Heritage position statement on *Regeneration and the Historic Environment*. I would also refer you to the following two documents, which you can view from their websites. The key messages are that historic places are generally capable of adaptation and re-use and can help to create successful, indeed exciting and spiritually uplifting, schemes. • Shared Interest: Celebrating investment in the historic environment English Heritage (2006) • Heritage Works: the use of historic buildings in regeneration – a toolkit of good practice RICS, BPF, English Heritage, Drivers Jonas (2006)	Comments noted. References to the English Heritage guidance is to be added at Section 3.
		Paragraph 4.5 should include reference to PPG 16 dealing with Archaeology and Planning.	Agreed – to insert a reference to PPG 16 in the margin at Section 3.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/05 (cont)	Alan Hunter, Regional Planner, English Heritage (North East Region) (cont)	Paragraph 5.3 identifies the key Development Plan policies contained within the Draft RSS. To that list I would add Policy 34 concerning the historic environment.	Agreed – to insert a reference to RSS Policy 34 at Paragraph 4.3 (Section 4).
		Paragraph 8.3 concerns the submission of a Sustainability Statement with certain kinds of development. Again, I draw your attention to the recommendation of the Panel following the Examination in Public of the Draft RSS that Policy 2 be amended to remove any reference to a requirement to submit a Sustainability Statement.	The North East Assembly supports the role of Sustainability Statements and this concept does not rely on the outcome of the emerging RSS. The requirements of SPD 1 on Sustainability Statements will assist with interpreting 'sound' LDF Core Strategy Policy ST2.
SPD1/Jan07/06	Pat Ritchie, Director of Strategy and Development, ONE North East	As you are aware One NorthEast is responsible for taking forward the review of the existing Regional Economic Strategy (RES) on behalf of North East England. The RES sets out how greater and sustainable prosperity will be delivered to all of the people of the North East over the period to 2016. In accordance with the requirements of the above regulations, the Agency has considered the Document in the context of the RES.	Comments noted.
		One NorthEast welcomes and endorses your Council's intention to provide a SPD on sustainable construction and development. We also welcome the Council's requirement through this document for developers of large scale/significant schemes to provide a Sustainability Statement to accompany their planning applications, which will demonstrate the sustainability 'credentials' of proposals.	Comments noted.
		The Sustainability Checklist included in the Document will provide a useful reference tool for developers. It is important that the checklist should be compatible with regional advice, which it is understood, will soon be available.	The Draft SPD has been informed by national, regional and local planning policy. Further information and guidance about Sustainability Checklists for the North East is due to be published at the end of 2007 and SPD 1 will undergo a review to ensure full compliance.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/06 (cont)	Pat Ritchie, Director of Strategy and Development, ONE North East (cont)	The Sustainability Checklist focuses on the sustainable development themes of energy, waste and water with annexes covering technical calculations. However, there does not appear to be any setting of targets for renewables or percentage recycled content by value or guidance relating to demolition. It is considered that the inclusion of these aspects is important to the success of the SPD's aims.	There is opportunity to include such information in the review of SPD 1.
SPD1/Jan07/07	Tracy Jones, Planning and Transport Advisor, Natural England (North East Region)	Natural England will work for people, places and nature to enhance biodiversity, landscapes and wildlife in rural, urban, coastal and marine areas; promoting access, recreation and public well-being, and contributing to the way natural resources are managed so that they can be enjoyed now and by future generations.	Comments noted.
		Work is currently in progress to develop the Natural England objectives for spatial planning. Our aspirations for the planning system are likely to be based around key principles which seek to deliver high quality design and development, increased protection and enhancement for the environment and protected areas, a better quality of life for all and sustainable development.	Comments noted.
		The following advice in response to your consultation is based on the Natural England objectives and our emerging planning principles. In addition our comments have been informed by the guidance document *Environmental Quality in Spatial Planning* (the Countryside Agency/English Heritage/English Nature/the Environment Agency, June 2005), which contains the integrated views of the above agencies' approaches to the new spatial planning system. Supplementary File 14 of *Environmental Quality in Spatial Planning* Checklist for local development documents will be used by Natural England to assess all LDF consultation papers.	Comments noted.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/07 (cont)	Tracy Jones, Planning and Transport Advisor, Natural England (North East Region) (cont)	In the guidance document *Environmental Quality in Spatial Planning* it is emphasised that plans and strategies should be objective-led and suggested that the plan making system should strive to achieve development that is: • More sustainable; both in built form and location; • Respects the ability of the environment to accommodate change (including climate change); • Avoids damage to and increases or enhances the environmental resource; • Reduces risks to, and potentially arising from, the environment; • Respects local distinctiveness and sense of place and is of high design quality, so that it is valued by communities; and • Reflects local needs and provides local benefits. We would expect to see these general principles reflected in your LDF documents and policies.	Comments noted.
		We have no detailed comments on this document.	Comments noted.
		We also wish to draw your attention to the need to carry out Appropriate Assessment on all your LDF documents. Under the Habitats Directive and the imminent adoption of amendments to the Habitats Regulations, all LDFs must be subject to AA. The Department for Communities and Local Government (DCLG) issued a letter to all Local Authorities, to this effect on 9th March 2006.	SPD 1 supplements Core Strategy Policy ST2 and Appropriate Assessment (AA) has been carried out for that particular document. Agreed – to complete the AA process before the Document is finalised and adopted.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/07 (cont)	Tracy Jones, Planning and Transport Advisor, Natural England (North East Region) (cont)	DCLG have now provided draft guidance on the application of Appropriate Assessment under Article 6(3) and (4) of the Habitats Dircetive 92/43/EEC to Development Plans. This recommends that Appropriate Assessment (AA) should be undertaken in conjunction with the Sustainability Appraisal (SA). It would be best practice to maximise the relevant evidence gathered in the SA and to use it to inform the AA and vice versa. SA and AA outputs must be clearly distinguishable and reported on separately. Best practice will be to scope out whether an AA is required at the SA Scoping Stage and to undertake the AA alongside the development of options prior to the formal consultation that occurs at the Regulation 26 stage.	Comments noted.
		The Appropriate Assessment process should be commenced and used to inform the selection of preferred options with regard to all policies.	Appropriate Assessment (AA) will take place prior to the adoption of SPD 1. AA and Sustainability Appraisal (SA) are two separate processes with their own legal requirements. Draft guidance from the Department for Communities and Local Government *Planning for the Protection of European Sites: Appropriate Assessment* recommends that they be undertaken in conjunction, and that evidence gathered to inform the SA should also inform AA and vice versa. There are no policies contained within SPD 1 as the Document provides guidance on promoting sustainable development and construction in new developments as much as possible, rather than outline site-specific land use allocations and proposals as set out in LDF policy documents.

Reference	Respondent	Comments	Council Response
SPD1/Jan07/08	Barratt Newcastle	Documents received highlighting how Barratt are incorporating sustainable development and construction techniques into their house building programmes, drawing on the Eco Smart Show Villages and other case studies from across the UK.	Comments noted.

Appendix 5: Responses to Previous Consultations

Appendix 5: Responses to Previous Consultations

Responses to First Draft SPD 1 (August 2005)

Respondent	Comments	Response
1. Heather Evans, Cyclist's Touring Club	As walking and cycling give zero emissions, suggest changing last point under I to "Give priority to zero/low emission travel…"	Agree
	Small number of typographical errors also mentioned	Agree
2. Bob Carrick, Planning Liaison Officer, Environment Agency	The Agency is fully supportive of this sort of SPD. It believes that sustainable development should be perceived as an investment for the future rather than as a cost for the present	Noted
	Document may be confusing for the man in the street, due to too much context material. It would help to quote the wording of the LDF policies to which this guidance refers	LDF policies are subject to change, sometimes at short notice. Printing this text before the LDF Core Strategy is adopted may only add more confusion
	Flowchart in Diagram 1 on page 7 would be better if it tried to separate topic areas, as in the questions in Appendix 1, and relate each to appropriate websites where advice on each can be found	Diagram 1 is taken from 'Building-in Sustainability'. Its purpose is to illustrate an integrated process. The suggestion is an interesting one, but on consideration would appear to clash with the comment about confusing people with excessive context material
	It may be appropriate to provide a sample Sustainability Statement to demonstrate the level of detail required	Agree. This has now been done for the Eco Centre in Hebburn
	A number of detailed comments were also made about the roles of the Agency in respect of Appendix 1	Where possible, these have been incorporated. In some cases however, e.g. the fact that the Agency charges for some circumstances, are too detailed for these purposes and may actually deter from applicants contacting the Agency
3. Frank Bozic, External Development Co-ordinator, Northumbrian Water	Supports the principles of sustainable development as set out in SPD 1	Noted
	Should the reference in G on page 10 to "porous hard surfaces" relate to Sustainable Urban Drainage Systems (SUDS)?	SUDS embrace a wide range of measures, not just this one. Nonetheless, a general SUDS reference will be added
	Supports key questions H and I	Noted
4. Richard Prow, Regional Development Officer, Forestry Commission	Welcomes the document and supports its links to 'Building-in Sustainability'	Noted
	Makes several detailed suggestions to amend the key questions M, O and Q in Appendix 1	Agree. Detailed changes made
	Seek stronger encouragement for the use of renewable products and energy resources (NB – timber)	Additional references added, but cannot favour a particular product type as this is not done in 'Building-in Sustainability'

Respondent	Comments	Response
5. Jo-Anne Garrick, Policy Officer, North East Assembly	Welcomes the document as a tool which both supports the Regional Spatial Strategy and promotes sustainable development	Noted

Responses to Draft Supplementary Planning Guidance 16 'Sustainable Development' (September 2004)

Respondent	Comments	Response
1. Estates and Planning Officer, Trinity Lighthouse Service	Understands the objectives, but fears that the detailed nature of the Sustainability Statement will slow down the development process for major projects even further	The intention is to streamline the Sustainability Statement and align it to the objectives of the LDF, which is based on the Integrated Regional Framework
2. Divisional Director, Bullens Consultants Limited, Darlington	Not in favour of introducing more administration into a system that can already cope with the sustainable development issue. Believes that all of the questions could be dealt with in an Environmental Statement (as any Schedule 2 development over 0.5 hectares would require one), especially when the Council have a large input into the scoping process	Schedule 2 only applies where proposals of this scale are likely to have significant environmental effects. In any case: As respondent points out in his detailed response, over 80% of the applications would NOT require a Sustainability Statement In the cases where an Environmental Statement, retail or transport impact assessment is already required, paragraph 6.4 specifically asks for duplication to be avoided. For the avoidance of doubt this point will be added to the Sustainability Statement itself
3. Deputy Operations Manager, The Coal Authority, Mansfield	Outlines the Coal Authority's role in the process of dealing with applications for mineral development and the planning issues which most frequently arise (pre-extraction, sterilisation of resources and potential instability) Sterilisation of coal resources is contrary to the principles of sustainable development and this should be taken account of in development plans	 The saved UDP to which this guidance is linked, contains Policy NR2, which already deals with this issue
4. Honorary Secretary, Northumbria DA, Cyclist's Touring Club	Amend question 26 on Sustainability Statement to include cyclists, as well as public transport users and pedestrians Amend question 31 to ensure that cycle parking is provided in the right location, of the proper type (Sheffield racks), and where cyclists can	Wording to be changed to reflect this Appendix T (A) of the saved UDP, which is linked to Policy T17, already requires Sheffield racks or cycle lockers. No saved UDP

Respondent	Comments	Response
	cycle directly into the cycle parking area and are normally undercover	policies refer to the other points and thus this cannot be asked for in a Supplementary Planning Document. They will be considered as part of the process to replace the UDP with the emerging LDF
5. Alan D Johnston, Architect and Planning Consultant, Hamsterley Mill	Proposals for public buildings, educational establishments and social housing should be exempt from having to submit Sustainability Statements Only new build projects on previously undeveloped land of 0.5 hectares or more should need Sustainability Statement Category (f) is too vague and should be deleted Sustainability Statement questionnaire is poor and impractical. It should be flexible according to the scale, type and location of the proposal. Suggests a shorter alternative focussing on land use, open space and energy resources: *"The Council requires the Applicant to submit a statement on the sustainability of the development proposals. This should set out the reason for the development and its sustainability in environmental terms under the following headings:* *LAND USE and links to public transport/cycle routes;* *OPEN SPACE – amenity and recreational, including retention/enhancement of natural wildlife habitats; and* *ENERGY RESOURCES including surface water disposal and energy reduction proposals."*	Such an exemption would not be equitable between the public, private and voluntary sectors We need to scrutinise all Greenfield windfall housing proposals, so do not agree The vagueness of category (f) is accepted and it has been deleted It is accepted that the Sustainability Statement needs to be more streamlined, although not as radically as suggested here. It also needs to be aligned with the emerging LDF and the Integrated Regional Framework

Respondent	Comments	Response
6. Architectural and Planning Liaison Officer, Northumbria Police, Ponteland	Advocates the integration of safety and security as they affect design into the SPG. Attached copy of a summary of the Home Office Guide 'Safer Places: The Planning System and Crime Prevention'. It lists 7 key attributes of safe, sustainable places as: * Access and movement, * Structure, * Surveillance, * Ownership, * Physical protection, * Activity, and * Management and maintenance	This will be done as part of the process of aligning it with the Integrated Regional Framework and LDF Some references to safety and crime prevention are included in UDP Policies, such as ENV5 and H2 Other considerations cannot be asked for in supplementary planning guidance alone. They will need to be considered as part of the LDF process
7. Land Use Manager, Networks Strategy North East, Highways Agency, Leeds	Welcomes the requirement for Sustainability Statements, so long as they are not seen as a substitute for detailed Traffic Impact Assessments Sustainability Statement should require more quantitative information on public transport accessibility, car and cycle parking (e.g. location of the nearest existing or proposed bus stops)	In cases where an Environmental Statement, Retail or Traffic Impact Assessment is already required, paragraph 6.4 specifically asks for duplication to be avoided. For the avoidance of doubt this point will be added to the Sustainability Statement itself Applicants can submit quantitative information if they wish but will not be required initially for the Sustainability Statement per se. This will be reviewed in the light of experience
8. Regional Planner, English Heritage, Newcastle	Welcomes SPG, especially the links to the SustaiNE document Appendix 1 (page 5) only mentions Conservation Areas and Listed Buildings. Historic environment comprises many buildings, sites and features not statutorily protected (e.g. local list of buildings). Reference should also be made to Planning Policy Guidance Note 16 on Archaeology Clarification required on categories (e) and (f) (requiring Environmental Statement and other applications raising significant sustainable development issues) where a Sustainability Statement is required. Some small scale developments which affect significant heritage assets may not trigger an Environmental Impact Assessment, but cut across certain sustainability issues	Lack of mention of historic buildings that are not statutorily protected is because guidance is based on 'Building-in Sustainability'. Despite being both endorsed and financially supported by English Heritage, this document also mentions only statutory designations. However: Category (f) has been deleted. While this point is accepted, it is difficult to easily identify such applications. As LDF policies emerge requiring other supplementary information, this should be easier to achieve. A matter for early review once the system is established Again, the point about Village Design Statements comes from chapter 12 – 'The Countryside'. There is no reference elsewhere in the document to enable this to be broadened out

Respondent	Comments	Response
	Appendix 1 (page 7) reference to Village Design Statements needs to be broadened out to include any part of our environment Appendix 1 (page 5) reference to re-use of existing buildings and fabric should give more consideration to whole life costs and the sustainability of re-utilising older properties Seeks supplementary question 15a to Sustainability Statement: *"What steps have been taken to assess the significance and value of buildings, sites and features of historic conservation importance and their settings, and to ensure that they are safeguarded?"*	This will be amended to reflect the text on page 13 of 'Building-in Sustainability' This suggestion will be taken up in part by aligning the Sustainability Statement with the Integrated Regional Framework and emerging LDF
9. J Martin, Architect, South Shields	Welcomes introduction of Sustainability Statements There is a case for smaller types of development to be included, as they have an environmental impact too 34 questions is, however a mammoth task. Suggests that the questions should vary with the type of development proposed, with a maximum of 10 targeted questions (by type)	The plan is to see how the system works in practice with major proposals only and then review thresholds etc. in the light of experience Accepted that the Sustainability Statement needs to be more streamlined, but also aligned with the emerging LDF and Integrated Regional Framework. Varying the questions asked will add to the complexity of the scheme. This possibility will be considered in the light of experience in implementing it
10. Corporate Policy Team, South Tyneside Council	Should be produced in a larger print size and more readable font Several other detailed points were made	Revised version appears in larger and more readable print size Other detailed points will be incorporated into the revised version
11. Town Planning Manager, Strategic Rail Authority	In Sustainability Statement Section (f), a question should be added about what consideration has been given to the use of sustainable methods or modes of freight carriage	Transport questions will be revised to incorporate freight. See respondent number 13 for details of what is proposed
12. Design Review Programme Assistant, Commission for Architecture and the Built Environment	No comment on the guidance itself, but would welcome the opportunity to offer advice on any strategic design proposals	No response necessary

Respondent	Comments	Response
13. Planning and Transport Manager, North East Assembly	Welcomes draft SPG16 and its highlighting of 'Building-in Sustainability' Reference should be made to the Integrated Regional Framework for the North East A number of the 35 key questions from the Integrated Regional Matrix (part 3 of the Framework) should be incorporated into the Sustainability Statement To go to North East Assembly's Planning Transport Advisory Group on 24th September 2004; further comments may follow as a consequence	Reference to Integrated Regional Framework (the final version of which was not available at the time the consultation began) will be made in final version Sustainability Statement to be reformatted to relate to the objectives of the emerging LDF, which have strong links with this matrix No additional points emerged as a consequence The suggested outcome results in only 25 questions (instead of 34). This will also help to meet requests for a streamlined questionnaire by respondents 1, 5 and 9

Respondent	Comments	Response
14. Parr Partnership, Glasgow	Welcome such a reasoned stand on sustainable development Threshold size at which Sustainability Statements are required is quite low. Suggest a simplified version for medium sized developments Could streamline the process by including a "deemed to satisfy " standard or techniques for some parts of the questionnaire (e.g. Building Research Establishment Checklist, ISO 14000, BREEAM, SEAM, NEAT of Eco-homes methodologies) Key questions (e.g. on materials and passive solar gain) are vague and could be difficult to answer or easy to evade. Specific suggestions made to improve them are made Questions how the Sustainability will fit in with the ODPM proposal for a unified/simplified planning application process	Threshold reflects predominance of minor applications in South Tyneside. Running two versions would be administratively complex. This point will be considered in the light of experience of operating the system Existing questionnaire is deliberately open-ended to allow reference to be made to the achievement of any such standards. Reference will, however, be made to certain of these standards, but they will not be required at this stage. Care will be needed to ensure that such standards are not rapidly superseded by others These points are taken into consideration in aligning questions to both the emerging LDF and the Integrated Regional Matrix Proposals for a standard national planning application were the subject of a recent ODPM consultation. The document explicitly says that: *"The standard application form will provide the local planning authority with the minimum of information necessary to determine an application. However, we envisage that local planning authorities might want to add additional questions in special circumstances, for example, in areas at risk of flooding. Using their powers under section 62(3) of the new Act, local authorities will therefore be able to request additional information to support an application."*

Appendix 6: Background Schedule Linking to National and Local Planning Policy

Rules of Thumb from *Building-In Sustainability* (SustaiNE)

A. Key Planning References	Government	'Saved' UDP Policies
1. Thinking About Re-using Buildings and Land by:		
Assessing possibilities for re-using buildings	PPS1	ENV1, ENV3
Considering alternative appropriate uses	PPS1, PPS3	ENV3, ENV6, ENV7, UR3, H3, S1/1
Respecting the existing building	PPS1	ENV5, ENV6
Realising that Conservation Areas and Listed Buildings need special care	PPG15	ENV6, ENV7, ENV7/1-ENV7/11
Designing for flexibility	PPS1	
Planning to maximise active frontage, daylight and ventilation	PPS6	ENV5, S1, S2
Designing for beauty – it lasts	PPS1	ENV5
Use recycled land where possible	PPS1, PPS3, PPG4, PPS7	ENV1, ENV10/1, ENV11
Getting the right advice and guidance on land condition	PPS23	ENV10, ENV11, ENV14/3, ENV15
Establishing a remediation strategy for any contaminated land	PPS23	
Using sustainable approaches to ground preparation	PPS23	
2. Designing for Minimum Waste by:		
Designing for recycling by allocating space for storage/access	PPS10	
Asking Environment Agency and Waste Authority about reducing waste	PPS10	NR11
Maximising on-site re-use and recycling of waste	PPS1, PPS10, MPS1	NR1, NR6, NR11, S2
Using recycled materials in construction	MPG6	ENV25/2, UR2, H2, S2
3. Aiming for Lean Construction		
Refer to Section C below		
4. Minimising Energy in Construction and Use by:		
Design for use of solar heat gains in winter	PPS1, PPS22	ENV5, S2
Using renewable energy sources for electricity and heat generation	PPS1, PPS22	NR10

	Government	'Saved' UDP Policies
5. Not Polluting by:		
Understanding pollution risks from the outset and plan accordingly	PPS23	ENV12
Taking special care with dirty water run-off	PPS23	ENV12/2
Planning to avoid construction noise impacts	PPG24	ENV12, ENV15, NR4
Planning to minimise light pollution	PPS23	ENV12, ENV15
6.Conserving and Enhancing Biodiversity by:		
Seeking specialist advice ASAP (e.g. English Nature, Local Authorities)	Circular 06/05	ENV19, ENV22
Avoiding developing on areas of important biodiversity value	PPS9, Circular 06/05	ENV19, ENV19/2-ENV19/3
Aiming to enhance biodiversity of the site	PPS1, PPS9	ENV10, ENV11, ENV20
Only considering habitat or species relocation as a last resort	PPS1, Circular 06/05	
Planning the construction and operation process carefully	PPS9	ENV19, ENV20, ENV22
Involving local people, schools and groups and provide for public access	PPS1, PPG17	ENV21, RL8, RL11
7. Conserving Water Resources by:		
Providing porous hard surfaces to allow water to seep away	PPS25	
Carrying out assessment of existing water quality and quantity	PPS23	
Setting target for natural water storage	PPS25	
Designing in Sustainable Urban Drainage Systems	PPS25	
Considering reed bed technology to filter waterborne waste	PPS25	
8. Respecting People and their Local Environment by:		
Involving the local community in developing the project early on	PPS1, PPS22	
Adopting appropriate consultation methods	PPS1	
Encouraging local communities to initiate development	PPS22	
9. Thinking About the Whole Place by:		
Respecting site and setting – don't import standard layouts and designs	PPS1	ENV5, ENV18, ENV23
Respecting local vernacular styles conditions and skills	PPS1	ENV5
Relating buildings to a hierarchy of open space	PPS1	ENV4, RL4, RL5, RL7
Planning at "people scale" (e.g. make walking easy)	PPS1, PPS3, PPG13	ENV5, RL8, T6
Fixing the development into its landscape/townscape setting	PPS1, PPS7	ENV2, ENV5, ENV20, ENV23
Using land efficiently and relate development to services	PPS1, PPG13	ENV1, T1, T2, T4

	Government	'Saved' UDP Policies
Designing out crime	PPS1	ENV5, ED2, H2, S2, SC2/1,
Mixing activities for genuine interaction	PPS1, PPS3	ENV3, H2
Mixing tenures at block, street and neighbourhood levels	PPS3, PPS6, PPG13	
10. Giving People Transport Choices by:		
Planning ahead with Planning & Highway Authorities and service providers	PPG13	T2
Using planning guidance and local provision standards	PPS1, PPG13	T2
Linking to existing local transport initiatives	PPS1 and PPG13	T1, T2, T3, T4
Preparing a Green Travel Plan for larger sites	PPG13	
Designing new routes to be safe, direct and where people want to go	PPS1, PPS6, PPG13	H2, T10, RL8
Ensuring that routes are easy to find, well-lit and maintained	PPG13	ENV5, T1, T2, T5
Providing shelter and cycle storage at key destinations	PPS6, PPG13	ENV5, SC2, T2
Ensuring that routes and connections are safe, attractive and overlooked	PPS6, PPG13	SC2/1, T1, T2, T3, T4, T5
Involving disabled groups in design process and integrate their needs	PPS1, PPG13	ENV5, T2, T7, T8
Avoiding standard highway solutions and bolt-on traffic calming measures	PPG13	UR2, T1, T4, T5, T5/1, T5/2, T15
Minimising car parking provision and design to allow future uses	PPG13	T2, T17, T17/1-T17/2
Giving priority to low emission travel: walking, cycling and public transport	PPG13	ENV1, T6, T6/1-T6/6, T9, T10

B. Special Issues for the North East

	Government	'Saved' UDP Policies
1. Conserving Minerals in the North East by:		
Conserving and using valuable mineral resources efficiently	PPS1, MPS1	ENV1, NR1
Selecting minerals sites carefully to avoid adverse impacts	MPS1	NR4, NR5, NR7
Assessing environmental impacts rigorously and objectively	MPS1, MPS2	NR4, NR7, NR8
Consulting widely and involve stakeholders from the earliest stage	PPS1, MPS2	
Restoring to maximise wildlife, community and landscape benefits	PPS9, MPG7	NR7, NR8
2. The North East Countryside by:		
Developing to sustain communities – not undermine them	PPS3, PPS6, PPS7	
Locating development sensitively and respect the scale of village life	PPS7	
Producing Village Design Statements to define local character	PPS7	
Recognising the special employment and transport needs of the countryside	PPS7	
Using recreational development to provide new rural opportunities	PPS7	
Involving local rural communities	PPS1	
3. Sustainable Regeneration in the North East by:		
Not compromising high quality design for short term wins	PPS1	ENV2, ENV5, SC2, S2
4. Measuring Progress on Sustainable Development by:		
Using regional and local policies as a benchmark wherever possible	PPS1, PPS11, PPS12	ENV1

C. Other Considerations – Are You:

1. Re-using Buildings and Land by:
Taking account of whole life costs of existing and new buildings (e.g. "Long Life, Loose Fit" design)
Thinking ahead at the design stage to future refurbishments or uses?
Choosing materials that are easy to maintain?

2. Designing for Minimum Waste by:
Introducing initiatives to minimise waste at design and procurement phases?
Only ordering the amount of building materials needed?
Managing production storage and setting targets for the management of waste?

3. Aiming for Lean Construction by:
Following the Code of Considerate Practice?
Using local sources of materials and labour?
Designating an Environmental Manager to meet sustainability targets?
Using this SPD's guide in waste, pollution and wildlife sections?

4. Minimise Energy in Construction and Use by:
Improving building fabric insulation?
Installing heating, lighting and ventilation controls?
Utilising heat recovery ventilation?
Decentralising space heating system to allow part use or flexibility?
Using low emissivity glass?
Choosing your fuel carefully?
Using efficient lighting?
Using condensing heating boilers?
Using energy efficient office equipment?
Using high efficiency fans and pumps?
Using 'A'-rated domestic appliances?

5. Not Polluting by:
Using common sense site-management in a methodical way?
Managing site waste consciously and carefully?

6. Conserving and Enhancing Biodiversity by:
Maintaining and managing the site in an environmentally friendly way?

7. Conserving Water Resources by:
Ensuring that all sanitary fittings are water-efficient?
Recycling grey water (e.g. from roof to flush systems)?
Protecting any watercourses with buffer strips?

8. Respecting People and their Local Environment by:
Widening the understanding of sustainable development principles?

9. Reflecting special issues for the North East by:
Using Environmental Management Systems to improve performance?
Ensuring that regeneration has a shared vision and a positive attitude to change?
Developing partnerships for long term economic, environmental and social benefits?
Being clear about objectives and impacts?
Drawing on the wealth of existing experience to assess sustainability?

Notes
PPS – Planning Policy Statement
PPG – Planning Policy Guidance Note
MPS – Minerals Planning Statement
MPG – Minerals Policy Guidance Note
UDP – South Tyneside Unitary Development Plan
ODPM Circular 06/05 (DEFRA Circular 01/05): *Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system*

To find out more about the new Local Development Framework, contact:

Spatial Planning Team
Regulatory Services
South Tyneside Council
Town Hall and Civic Offices
Westoe Road
South Shields
Tyne and Wear
NE33 2RL

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Visit: **www.southtyneside.info/planning/strategic/ldf**

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