SEA/SA
CONTEXT AND BASELINE
REPORT

Relating to
Preferred Options Documents

for the

Area Action Plans:
Sutton Harbour
Central Park

Volume I

Prepared for
Plymouth City Council

by
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November 2006

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1. This report has been designed to provide a standard introduction and the context to the Sustainability Appraisals (SA) and Strategic Environmental Assessments (SEA) that have been prepared for a suite of Development Plan Documents (DPDs) that have reached the Preferred Options stage.

2. The Preferred Option Documents in question are:
   - Sutton Harbour Action Plan
   - Central Park Area Action Plan

3. The information contained in this report is common to all the appraisals and has therefore been presented in one document to avoid unnecessary printing and duplication.

4. For the avoidance of doubt it should be clearly understood that the SA/SEA for each DPD comprises this Context Report (Vol. 1) and the respective Options Sustainability Appraisal and SEA Reports (Vol.2) which have been prepared for each Development Plan Document as shown diagrammatically below.

   ![Diagram of SA/SEA structure]
5. Appendices are included in Volume 3.
I. CONTEXT AND PURPOSE OF THE SEA/SA

Introduction

1.1. Land Use Consultants was appointed by Plymouth City Council in October 2004 to undertake the Strategic Environmental Assessment (SEA) / Sustainability Appraisal (SA) of their Local Development Framework. The work has entailed a number of stages including the preparation of a Scoping Report and an appraisal of Issues and Options for a number of separate Development Plan Documents (DPDs).

1.2. The current series of reports (this report and accompanying volumes) constitute the next stage in the SEA/SA process and provide a review of the Preferred Options for:

- Sutton Harbour Area Action Plan
- Central Park Area Action Plan

1.3. The SA/SEAs will be submitted alongside the Preferred Options documents to provide the public and statutory consultees with the opportunity to express their opinions on both sets of documents. After a period of consultation the full set of documents including DPDs and the SA SEAs will be revised before they are submitted to the Secretary of State. An examination will then be held before an independent inspector to consider the soundness of the plans. It is anticipated that the Inspector’s report will be published in mid-2006 and the final Development Plan Documents will be adopted shortly after.

Compliance with the SEA Directive/Regulations/Guidance

1.4. The UK planning system is undergoing major reforms at present in response to the Planning and Compulsory Purchase Act, 2004. These changes are paralleled by equally rapid advances in the application of SEA, under the EU Directive and the mounting interest in Sustainability Appraisal. As such an increasing number of development plans have been subjected to some form of SEA or environmental/sustainability appraisal.

1.5. The objective of the SEA, as defined in the Government guidance on SEA (“SEA Guidance”) is ‘to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans… with a view to promoting sustainable development’. Whilst these aims are broadly consistent with a range of national and more local policies, and have been reflected for a number of years in planning policy formulation, the SEA Directive emphasises the need to:

(i) collect and present baseline environmental information;

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1 Planning and Compulsory Purchase Act, House of Commons, May 2004

2 The Strategic Environmental Assessment Directive: Guidance for Planning Authorities, ODPM, October 2003
(ii) predict 'significant environmental effects' of the plan and address them during its preparation;
(iii) identify strategic alternatives and their effects;
(iv) consult the public and authorities with environmental responsibilities; and
(v) monitor the actual effects of the plan during its implementation.

1.6. In July 2004 the SEA Directive was incorporated into UK legislation through the Environmental Assessment of Plans and Programmes Regulations (2004). The regulations require authorities to conduct environmental assessment of plans and programmes across a range of sectors, including the land use planning sector and the transport planning sector. The Directive will apply to plans whose formal preparation begins after July 2004, but also those that are already in preparation by that date but would not be adopted by July 2006. LDFs will be subject to SEA as they are prepared by a public body and set the framework for development consent, as confirmed by the ODPM’s recent guide to SEA (July 2004).

1.5. The latest ODPM guidance on sustainability appraisal (which supersedes ODPM’s SEA Guidance) explains the difference between environmental assessments required under the SEA Directive and sustainability appraisal of development plans as required by the UK Government. Whilst there are many parallels, there are also clear differences. Whilst the SEA Directive requires an environmental assessment of plans and programmes that fall within its scope, the Town and Country Planning (England) Regulations 1999 impose a more general duty to have regard to economic, environmental and social considerations, the three cornerstones of sustainability. This approach is supported in planning policy guidance, notably PPS 11 and PPS 12, which recommend an integrated approach towards sustainability appraisal and the requirements of the SEA Directive when appraising Regional Spatial Strategies and Local Development Frameworks.

1.7. Key outputs of the SEA /SA report are to ensure that the LDF complies with both the Directive and the English Regulations, achieves a framework for delivering more sustainable patterns of development and is a genuine aid to the planning process.

What does SEA/SA seek to achieve?

1.8. SEA involves analysing and appraising the strategic environmental issues that arise as part of any plan or programme:

- Are parts of the natural and human environment likely to be directly or indirectly affected as a result of the policies, strategies and plans or programmes being considered?
- Could these effects be of special significance?
- Are there ways of reducing or mitigating adverse effects?

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3 Sustainability of Regional Spatial Strategies and Local Development Frameworks, Consultation Paper, ODPM, September 2004
Can any beneficial effects be further enhanced by positive planning?

1.9. In the UK the requirement to carry out SEA (which is defined by the EU Directive) is reinforced by the process of Sustainability Appraisal. SA considers whether the plan or programme:

- Takes into account all the relevant and significant social, economic and environmental implications of adopting the proposals?

1.10. These attributes are often referred to as the three pillars of sustainability, but the UK Government has widened the topics to be considered by redefining the definition of sustainable development as follows:

The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without comprising the quality of life for future generations.

For the UK Government and the Devolved Administrations, that goal will 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, sustainable communities and personal wellbeing. This will be done in ways that protect and enhance the physical and natural environment, and use resources and energy as efficiently as possible.

Government must promote a clear understanding of, and commitment to, sustainable development so that all people can contribute to the overall goal through their individual decisions.

Similar objectives will inform all our international endeavours, with the UK actively promoting multilateral and sustainable solutions to today’s most pressing environmental, economic and social problems. There is a clear obligation on more prosperous nations to put their own house in order, and to support other countries in the transition towards a more equitable and sustainable world.

Five guiding principles which drive this new policy are:

- Living within environmental limits
- Ensuring a strong, health and just society
- Achieving a sustainable economy
- Promoting good governance
- Using Sound Science responsibly

(Securing the future –delivering UK sustainable development strategy, ODPM, 2005)
1.11. The SA/SEAs are designed to answer the questions raised in the five bullets above. Each assessment comprises the contents of this document and one of the separate volumes covering each DPD which include a **Non Technical Summary**.

**Structure of this Report**

1.12. This report provides the context for the appraisal process. There are four chapters, including this introduction; the other three cover:

- **Chapter 2 – Methodology**, describing the SA/SEA process, the approach used and the specific SA/SEA tasks undertaken.

- **Chapter 3 – Sustainability Context** for Plymouth LDF, discussing the review of relevant plans, policy guidance and strategies, and the character of Plymouth in terms of sustainability issues as represented by the collection of baseline information.

- **Chapter 4 – SA/SEA Framework**, setting out the SA/SEA objectives for assessing the Plymouth LDF.

1.13. A separate document (Volume 3) includes the following appendices:

- Appendix 1: Other Plans and Programmes
- Appendix 2: Review of Issues and Options
2. METHODOLOGY

Introduction

2.1. The methodology for this SEA/SA was undertaken in line with ODPM’S SA guidance, and seeks to meet the requirements of both the Planning and Compulsory Purchase Act 2004 and the SEA Directive (European Directive 2001/42/EC). This Sustainability Appraisal (SA) Report therefore includes the required elements of an ‘Environmental Report’ (the output required by the SEA Directive).

Stages and Tasks in SA/SEA

2.2. The ODPM’s SA guidance introduces the SA/SEA process and explains how to carry out SA/SEA as an integral part of the plan-making process. Table 2.1 sets out the main stages of the plan making process and shows how these link to the SA/SEA process. Progress with the preparation of the Plymouth AAPs and the SA/SEA is discussed below.

Table 2.1 Corresponding stages in plan-making and SA/SEA (from Figure 2 SA Guidance, ODPM 2004)

<table>
<thead>
<tr>
<th>Generic stages of plan-making</th>
<th>Stages and tasks</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information gathering</td>
<td>Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope</td>
<td>To document how the plan is affected by outside factors and suggest ideas for how any constraints can be addressed.</td>
</tr>
<tr>
<td></td>
<td>A1: Identifying other relevant plans, programmes, and sustainability objectives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A2: Collecting baseline information</td>
<td>To provide an evidence base for sustainability issues, effects prediction and monitoring.</td>
</tr>
<tr>
<td></td>
<td>A3: Identifying sustainability issues</td>
<td>To help focus the SA and streamline the subsequent stages, including baseline information analysis, setting of the SA Framework, prediction of effects and monitoring</td>
</tr>
<tr>
<td></td>
<td>A4: Developing the SA Framework</td>
<td>To provide a means by which the sustainability of the plan can be appraised</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Generic stages of plan-making</th>
<th>Stages and tasks</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify issues and options and prepare for consultation</td>
<td>A5: Testing the plan objectives against the SA Framework</td>
<td>To ensure that the overall objectives of the plan are in accordance with sustainability principles and provide a suitable framework for developing options</td>
</tr>
<tr>
<td></td>
<td>A6: Consulting on the scope of the SA</td>
<td>To consult with statutory bodies with social, environmental, or economic responsibilities to ensure the appraisal covers the key sustainability issues</td>
</tr>
<tr>
<td></td>
<td>Stage B: Developing and refining options</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B1: Appraising issues and options</td>
<td>To assist in the development and refinement of the options, by identifying potential sustainability effects of options for achieving the plan objectives</td>
</tr>
<tr>
<td></td>
<td>B2: Consulting on the SA of emerging options</td>
<td>To consult with the public and statutory bodies on the SA of emerging options to ensure the SA covers all the reasonable options and key sustainability issues</td>
</tr>
<tr>
<td>Identify Preferred Options</td>
<td>Stage C: Appraising the effects of the plan</td>
<td></td>
</tr>
<tr>
<td>Consult public on emerging options</td>
<td>C1: Predicting the effects of the plan, including plan options</td>
<td>To predict the significant effects of the plan and its plan options</td>
</tr>
<tr>
<td>Prepare the plan/strategy for formal consultation stage</td>
<td>C2: Assessing the effects of the plan</td>
<td>To assess the significance of the predicted effects of the plan and plan options and assist in the refinement of the plan</td>
</tr>
<tr>
<td></td>
<td>C3: Mitigating adverse effects and maximising beneficial effects</td>
<td>To ensure all potential mitigation measures and measures for maximising beneficial effects are considered and as a result residual effects identified</td>
</tr>
<tr>
<td></td>
<td>C4: Developing proposals for monitoring</td>
<td>To detail the means by which the sustainability performance of the plan can be assessed</td>
</tr>
<tr>
<td></td>
<td>C5: Preparing the SA Report</td>
<td>To provide a detailed account of the SA process, including the findings of the appraisal and how it influenced the development of the plan, in a format suitable for public consultation and decision-makers</td>
</tr>
<tr>
<td>Generic stages of plan-making</td>
<td>Stages and tasks</td>
<td>Purpose</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
<td><strong>Stage D: Consulting on the plan and SA Report</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>D1: Consulting on the SA Report alongside the plan</strong></td>
<td>To provide the public and statutory bodies with an effective opportunity to express their opinions on the SA Report and to use it as a reference point in commenting on the plan</td>
<td></td>
</tr>
<tr>
<td><strong>D2: Appraising significant changes</strong></td>
<td>To ensure that any significant changes to the plan are assessed for their sustainability implications and influence the revision of the plan</td>
<td></td>
</tr>
<tr>
<td><strong>D3: Decision making and providing information</strong></td>
<td>To provide information on how the SA Report and consultees’ opinions were taken into account in preparing the plan</td>
<td></td>
</tr>
<tr>
<td><strong>Stage E: Monitoring implementation of the plan</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>E1: Monitoring the significant effects of the plan</strong></td>
<td>To measure the sustainability performance of the plan in order to determine whether its effects are as anticipated, and thereby inform future revisions</td>
<td></td>
</tr>
<tr>
<td><strong>E2: Responding to adverse effects</strong></td>
<td>Ensure that the adverse effects can be identified and appropriate responses developed</td>
<td></td>
</tr>
</tbody>
</table>

2.3. Under the new Planning and Compulsory Purchase Act, the SA/SEA process should ideally start at the same time as the preparation of the LDF.

**Method of Approach**

2.4. This SEA/SA has been carried out in three stages involving:

- Production of a Scoping Report,
- Preparation of an appraisal of the Issues and Options Papers (covered in the review of the Core Strategy),
- This appraisal of the Preferred Options Reports.

A revised SEA/SA report will be prepared following the next round of consultations as described in paragraph 1.2.
Stage A: Setting the Context and Scope

2.5. LUC undertook Stage A (Scoping) of the SA/SEA process and consulted on the Scoping Report which provided the sustainability context for development of the Core Strategy and AAPs. The Scoping Report provided relevant background information other plans and programmes (Appendix 1), on the environmental character of the Plymouth sub-region and the way in which sustainability objectives were defined for the whole of the Local Development Framework (the suite of spatial planning documents being prepared by the City Council to cover the core strategy, individual area action plans and specific policies on transport waste and minerals).

2.6. The Scoping Report was circulated to local representatives of the statutory environmental bodies, other social and economic organisations and those stakeholders who attended the workshop on SA/SEA objectives.

Stage B: Issues and Options Appraisal

2.7. The appraisal of Issues and Options (which is reproduced in Appendix 2) represented a rapid review of the broad issues relating to preparation of the Core strategy and Area Action Plans. Given the broad generalities of most of those options the appraisal only summarised the principles involved.

Stage C: Assessing Effects of the LDF

2.8. LUC has appraised the following components of the Plymouth Local Development Framework:

- **The Core Strategy** (June 2005)
- **Devonport Area Action Plan** (June 2004).
- **Millbay/Stone house Area Action Plan** (June 2005)
- **North Plymstock Area Action Plan** (June 2005)

More recently Sutton Harbour and Central Park AAP were appraised (October 2006)

2.9. The appraisal reviewed whether the Preferred Options were of a type that could give rise to significant effects in environmental, social and economic terms and what the nature of those effects might be. Having identified options that have potential significant effects, the next step assessed how significant those effects are likely to be and whether there was scope for preventing, reducing or off-setting these consequences. The review was documented in the form of a Sustainability Appraisal Report (including the Environmental Report) which includes a detailed account of the SA process, the findings of the appraisal and how it influenced the development of the plan, in a format suitable for public consultation and use by decision makers.
Stage D: Consulting on the Plymouth Core Strategy, AAPs and the SA Report

2.10. This Sustainability Report has been produced for consultation alongside the Sutton Harbour and Central Park Area Action Plans.

2.11. It is yet to be determined whether subsequent iterations of the tasks in Stage D of the SA/SEA i.e. appraising significant changes made to the preferred options in the light of this consultation (Task D2), and providing a summary of how findings of the full SA process and consultation responses will taken into account (Task D3).

Stage E: Monitoring Implementation of the LDF

2.12. A critical part of developing the monitoring framework is to anticipate these needs during the appraisal and plan-making process. It is envisaged that a single monitoring report will be produced that will cover all three plans but that can be integrated into the individual plan monitoring regimes operating for each plan. There are three purposes of SEA monitoring and the regime will be designed to ensure adequate data to fulfil each purpose:

- To provide baseline data for the next SEA and to provide a picture of how the environment / sustainability criteria of the area are evolving;
- To monitor the significant effects of the plan; and
- To ensure that action can be taken to reduce / offset the significant effects of the plan

2.13. Monitoring of significant effects goes beyond the current monitoring regimes of all the plans under consideration. As European Commission guidance on the implementation of the SEA Directive recognises\(^5\) Knowledge and practical experience as regards monitoring of plans and programmes is at this stage relatively limited. The EC guidance also contains an informative appendix on monitoring which suggests approaching the design of a monitoring programme in a phased way. This phased process will be used to design the monitoring regime of the Plymouth SEA/SAs.

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3. **ENVIRONMENTAL AND SUSTAINABLE CONTEXT FOR PLYMOUTH**

**Requirements of Relevant Plans and Programmes**

3.1. The first stage of the SA/SEA (Stage A) involved reviewing plans, programmes and objectives relevant to the Local Development Framework at an international, national, regional sub-regional and local level. The objectives of each of these documents and their likely implications for the LDF are presented in Appendix 1.

3.2. There is a wide range of international and EU legislation, Directives and action plans relating to commitments to sustainable development and environmental standards. These, when transposed into national legislation, set mandatory standards and place obligations on Member States and, in particular, the requirement for the integration of strategic policies and programmes at local authority level.

3.3. National and regional policy documents provide additional mandatory requirements and guidance for local authorities. Sub-regionally and locally the LDF must integrate with a multitude of established policy documents. The general types of documents reviewed were:

**International**
- *International law (e.g. Kyoto Protocol, Convention on Biological Diversity)*
- *EU Directives, thematic strategies and action plans*
- *Water Framework Directive 2000/60/EC*
- *Bathing Water Quality Directive 76/1609/EEC*
- *Shellfish Waters Directive 79/923/EEC*
- *Shellfish Hygiene Directive 91/492/EEC*
- *Freshwater Fish Directive 78/659/EEC*
- *Groundwater Directive 80/68/EEC*

**National**
- *Planning Policy Guidance and Planning Policy Statements*
- *National legislation*
- *National strategy documents (e.g. Biodiversity Strategy)*
- *Planning Policy Guidance 10: Planning and waste management*
- *Planning Policy Statement 10: Planning for Sustainable Waste Management*

**Regional**
- *Regional strategies*
• Regional Planning Guidance
• South West Water – Water Resources Plan
• English Heritage – A Strategy for the Historic Environment in the South West

Sub-regional
• County documents (e.g. Devon Structure Plan)
• Other sub-regional documents
• Tamar Valley AONB Management Plan
• South Devon AONB Management Plan
• Dartmoor National Park Management Plan

Local
• Plymouth City Council local plans and strategies (e.g. The Mackay Vision. Plymouth’s Local Agenda 21 Plan, and Plymouth City Strategy and Action Plan)
• Plymouth Sound and Estuaries European Marine Site Scheme of Management (Regulation 34 Habitats Directive)
• Market and Coastal Towns Initiative (MCTi)

3.4. Further consideration will be given to other sub-regional and local strategies as the SEA progresses, including the following:

• The City Growth Strategy aims to develop Plymouth as one of a series of UK pilots of the City Growth Strategy approach, encouraging the development of interconnected business clusters.

• The Plymouth Sub-Regional Economic Strategy (2001-2004) is due for revision in 2004. Its key objectives relate to targeting investment on growth sectors and development of clusters, raising levels of entrepreneurship and providing infrastructure and support measures for business.

• Area Action Plans.

• Making Waves – A Cultural Strategy for Plymouth aims to promote civic pride and cultural and urban renewal in the city.

• The Neighbourhood Renewal Strategy for Plymouth 2002-07 seeks to achieve the regeneration of deprived areas of Plymouth

3.5. It should be noted that the above list of documents was revised during the appraisal in order to check for updated and new information against which to predict and assess Plymouth’s Core Strategy. Two additional documents at a local level were added to the review:
Baseline Information

3.6. The second stage of the Scoping Report was to provide information on the relevant aspects of the current state of the environment. The collation of existing environmental and sustainability data provided an evidence base for sustainability issues, effects prediction and monitoring and informed the key issues affecting Plymouth (summarises at the end of this chapter). In particular, it addresses the requirements of the SEA Directive for a thorough understanding of environmental issues within the plan area summarised under the headings of environment, economy and quality of life. Each section outlines key data on a topic and indicates its relevance to land use planning based on readily available monitoring data, discussions with Plymouth City Council staff and other consultees.

Environment and natural resources

Landscape, geology and biodiversity

3.7. Baseline: The majority of the rocks within Plymouth and its surroundings originate from the Devonian period. A band of Mid Devonian Limestone extends across the southern part of the City from Mount Wise to Elburton, with The Hoe forming the central ridge. This band of limestone is breached by three inlets; Sutton Pool, Millbay and Stonehouse Creek, as well as by the River Plym. Upper Devonian Slates, known locally as Shillets, extend northwards to the edge of Dartmoor, a predominately granite mass interrupted by bands of igneous rock. Drake’s island within The Sound is a volcanic plug.

3.8. Plymouth’s administrative boundaries contain, or are adjacent to, several landscape and nature conservation designations. The city is essentially surrounded by designated landscapes, the Tamar Valley AONB to the north and the South Devon AONB to the south, which are an important element of Plymouth’s setting and are also valuable resources for the city’s population. Some areas of the city fall within the AONB boundaries (Figure 3.1). Dartmoor National Park to the north east provides a dramatic recreational and landscape resource for residents as well as attracting tourists to south Devon.

3.9. While various sites in and around Plymouth are designated for their nature conservation value, valuable species and habitats are not restricted to such sites. Priority habitats in the city listed in the UK Biodiversity Action Plan are lowland beech woodland (found in the north of the city, around Tamerton Foliot), lowland mixed deciduous woodland, found south of Plympton, the mudflats and reedbeds of the Tamar-Tavy Estuary, and the maritime cliffs and slopes of the Plymouth Sound Shores and Cliffs SSSI. There is no Biodiversity Action Plan specifically for Plymouth but Plymouth City Council and other local organisations are partners in the Devon BAP.
3.10. The largest of the designated nature conservation sites in and around Plymouth are aquatic and coastal Sites of Special Scientific Interest (SSSIs), the Plymouth Sound, Shores and Cliffs SSSI and the Tamar-Tavy Estuary SSSI. Parts of each are within the city boundaries (Figure 3.2).

3.11. Smaller areas within the city boundaries designated as SSSIs for their biological or geological values include Billacombe, Wallsend Industrial Estate, Western King, Mount Wise, Faraday Road, Plymbridge Lane, Estover Road and Richmond Walk. Together, the terrestrial SSSIs within the City cover about 56 hectares. Most SSSI units are classed as in favourable condition and the main reason for unfavourable ratings was obstruction to geological features. Table 3.1 summarises the available SSSI condition information.

3.12. The Plymouth Sound and Estuaries are designated as a candidate Special Area of Conservation (cSAC) under the EC Habitats Directive (Figure 3.3) and the Tamar Estuaries Complex is defined as a Special Protection Area (SPA) under the EC Directive on the Conservation of Wild Birds (Figure 3.4).

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3.13. Plymouth has seven Local Nature Reserves (LNRs) are Southway Valley (16 ha), Woodland Wood Valley (30 ha), Forder Valley (23 ha), Efford Marshes (15 ha), Bircham Valley (6 ha), Budshad Wood (15 ha) and Whitleigh Wood. A further three are going through the designation process. The network of Sites of Local Importance to Nature Conservation covers approximately 700 ha or about 9% of the city's area.

Table 3.1: Condition assessment for SSSI units in Plymouth

<table>
<thead>
<tr>
<th>SSSI name</th>
<th>Type</th>
<th>Condition assessment (date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billacombe</td>
<td>Neutral grassland</td>
<td>Favourable (Aug 2003)</td>
</tr>
<tr>
<td>Faraday Road</td>
<td>Earth heritage</td>
<td>Unfavourable (June 2000)</td>
</tr>
<tr>
<td>Mount Wise</td>
<td>Earth heritage</td>
<td>Favourable (Oct 1998)</td>
</tr>
<tr>
<td>Plymbridge Lane and Estover Road</td>
<td>Boundary and linear features</td>
<td>Favourable (Nov 2002)</td>
</tr>
<tr>
<td>Plymouth Sound, shores and cliffs</td>
<td>Littoral sediment</td>
<td>Favourable (Nov 2000)</td>
</tr>
<tr>
<td>Richmond Walk</td>
<td>Earth heritage</td>
<td>Favourable (June 2000)</td>
</tr>
<tr>
<td>Wallsend Industrial Estate</td>
<td>Earth heritage</td>
<td>Unfavourable (June 2000)</td>
</tr>
<tr>
<td>Western King</td>
<td>Earth heritage and calcareous grassland</td>
<td>Favourable (June 2000)</td>
</tr>
</tbody>
</table>

Figure 3.2: Sites of Special Scientific Interest (SSSIs) around Plymouth

Note: Smaller SSSIs within the city boundaries are not visible at this scale
Figure 3.3: Candidate Special Areas of Conservation (cSACs) around Plymouth

Figure 3.4: Special Protection Areas (SPAs) around Plymouth
3.14. The Countryside Agency recommends the use of the Countryside Character Approach to inform the SEA process. The most recent data states that the landscape of South Devon can be characterised by:

- Rounded hills, without a strong pattern, separated by steep, intricate wooded valleys.
- Red and pink soils appear when parts of this mixed farming area is ploughed.
- Wooded rias with large expanses of tidal water and mudflats, extending far inland.
- Diverse and complex coastline with fine scenery and spectacular views, often looking deep inland along the rias.
- Sunken lanes link numerous farmsteads and hamlets, with cob, slate and thatched buildings.
- Wildflower rich, often treeless, Devon banks.
- Villages and towns generally in sheltered valley locations, with towns located at the heads of the rias.
- Distinctive landscape of ball clay extraction in the Bovey Basin.
- Cliffs and long, sandy beaches.
- Character assessments are also available for Dartmoor and the Cornish Killas.

3.15. The Countryside Agency also recommends taking into account Countryside Quality Counts which involves analysing key landscape character to as an indicator of change in the countryside. Current landscape quality data suggests that South Devon is subject to some or no change largely consistent with character, however areas of Cornwall are characterised as having some change inconsistent with character.

3.16. **Relevance to land use planning:** Development can have impacts on landscapes at a broad scale and a local scale. It can have direct and indirect impacts on biodiversity including reduction in quantity or quality of available habitat, pollution, noise, light and other forms of disturbance. Appropriate forms of development can be beneficial for biodiversity by providing for habitat enhancement. Biodiversity requiring protection and restoration is not restricted to designated sites.

**History and cultural/archaeological heritage**

3.17. Until the beginning of the 20th century Plymouth was divided into three separate settlements; Devonport, Plymouth and Stonehouse. The latter two are recorded in the Domesday Book. The naval dockyard influenced later development of the city in the late seventeenth century and the development of Stonehouse and Devonport in the nineteenth century.

3.18. Prominent events in Plymouth’s history include being the base for voyages and military encounters by Francis Drake and Walter Raleigh and the departure of the Pilgrim fathers in the “Mayflower”.

3.19. Devonport developed in the 17th century to service the Royal Naval Dockyard on the shore of the River Tamar. The Royal Dockyards not only built and repaired ships but also manufactured many of the parts. By 1823 Plymouth Dock was larger in population and extent than any other town in Devonshire. This led to the consent being granted by George IV for the town to change its name to Devonport.
3.20. The city grew rapidly in the second half of the 19th century. In 1851 the city’s population was 114,091, by 1901 it was 193,200. During the Victorian era the three towns continued to expand, with Stonehouse and Plymouth merging as a result of the construction of Union Street. Over this period high density terraced housing was erected constructed from limestone and local shillet (slate) typical of Plymouth. During the 1850’s the Royal Albert Bridge was constructed over the Tamar and Millbay docks. As a result of overlapping interests, the three towns amalgamated to become the County Borough of Plymouth in 1914, and in 1928 Plymouth was designated a City.

3.21. The early 20th century marked the further expansion of the city. Development occurred in a north east direction towards Mutley and eastwards to Mount Gould and St Judes. Development occurred in St Budeaux and North Prospect, as well as Crownhill, Compton and Lipson. Plympton and Plymstock to the east of the River Plym started to become established as commuter settlements. Despite this expansion, by the outbreak of the second world war the central areas were suffering from overcrowding.

3.22. The devastation of the war was intense, with over 4,000 houses destroyed or damaged. Virtually the whole of the shopping areas of Plymouth and Devonport were flattened and this set the scene for the radical and visionary post war plans.

3.23. After the Second World War demand increased for local community facilities, open space and industry. A programme was initiated to reclaim war damaged sites and reduce overcrowding, thereby increasing the size of the city. New estates, mainly to the north of the City were developed including Ernesettle, Honicknowle, Whitleigh, Southway and Efford. Open spaces ran through the valleys with residential areas along the hillsides, the top of slopes used for industry, playing fields and schools.

3.24. The heart of the city was also reconstructed, having suffered badly from war damage. The initiative to redevelop the town centre was led by Lord Astor and the leading town planner Professor Abercrombie advised on the layout. A new shopping and business centre was constructed to replace the three main town centres and one of the main features was a landscaped mall - Armada Way.

3.25. More recently expansion has continued mainly to the north at Eggbuckland, Belliver, Estover, Mainstone and Leigham, and in the east, at Chaddlewood and Yealmpstone Farm. This was strongly influenced by the 1943 Plan for Plymouth and subsequent Development Plan resulting in a series of new housing estates with schools and community facilities. A typical feature of more recent housing developments was an increase in residential density with a reduction in garden spaces and open space.

3.26. Due to the increasing demand for housing and reconstruction work after the Second World War, the City Council sought to expand further northwards. Such development tended to be low density, with more private garden space and separation between residential and industrial development, a strong contrast to the southern part of Plymouth which consists of high density development on low and relatively flat land with little public open space. The philosophy behind the reconstruction work and the provision for open land stems from a report published in 1943, “A Plan for Plymouth”, which described Plymouth as occupying “the
unenviable position amongst the most densely populated county boroughs of England.” The Plan proposed the development of neighbourhood units and recognised open space as an essential component.

3.27. The Plan proposed the development of several residential areas which form a neighbourhood unit. The centre of a neighbourhood unit provides material requirements; shops, banks and other services and is “a development of the medieval community around the village green”. Boundaries between units could be natural or artificial, i.e. road, railway, river or open space. Such open spaces are important in providing a background for recreation, but are also an essential feature of the town and its surroundings.

3.28. There are 14 Conservation Areas in Plymouth, around 1,500 listed buildings, over 200 historic monuments, 46 Scheduled Ancient Monuments (SAMs) and more than 3,000 other recorded archaeological sites.

3.29. No comprehensive archaeological survey has been undertaken of Plymouth but The Plymouth Environment report 1996 indicates that the main archaeologically sensitive areas in the City are to be found around Sutton harbour, Plympton Erle, Stonehouse and Devonport and at the four urban satellite villages of Plympton Ridgeway, Underwood, Oreston and Turnchapel. The most notable archaeological and historic monuments that still exist include the Citadel and Plympton Castle, Plympton Priory and the Leats which brought fresh water to Plymouth from the 16th century.

3.30. According to English Heritage work is underway to complete a historic landscape characterisation of the area which could be used in the baseline assessment.

English Heritage further suggests that the baseline takes into account the erosion of historic assets and rate of loss of historic landscape features, Heritage Counts provides an annual state of the historic environment report for the region. This report draws attention to the following issues:

• 170 grade I and grade II* buildings at risk, with a total conservation deficit of over £40 million
• Pressures facing the region’s historic environment from agricultural practices such as intensive arable cultivation, mineral and aggregates extraction, and the loss of wetland areas
• Pressures from new developments such as land-based wind farms, plans for major new road schemes, and new house building schemes
• The lack of local authority resources to tackle the large numbers of buildings at risk, particularly at grade II
• Conservation skills shortages in particular a lack of skills for dealing with traditional materials amongst contractors
• Pressures resulting from changing patterns of use such as declining and aging congregations of places of worship
English Heritage also recommends the use of the *A Strategy for the Historic Environment in the South West*, to further characterise the area. This document provides information on numbers an state of historic sites as well as digitised maps showing the character of area in and around Plymouth, which has characterised as urban (1700 – 1840), urban (modern) and high grade agricultural land.

3.31. **Relevance to land use planning:** Land use planning can provide appropriate protection for cultural and archaeological heritage from direct modification or destruction and from indirect effects such as location of inappropriate development in proximity to it.

### Land and soil resources

3.32. Most of the land within the city boundaries is urbanised, woodland or designated greenspace. Settlement form varies within the urban areas, with the area south of the A38 and west of the Plym being generally higher density development and the outlying areas being more suburban in form.

3.33. There are areas of agricultural land to the east, mainly the area between Plympton and Plymstock much of which is classed as grade 2 land. The Sherford development area considered by the Plymouth Sustainable Growth Study is located further to the east of this grade 2 land, on grade 3 land.

3.34. Plymouth’s influence on land also extends into the surrounding areas and countryside, particularly in recent years with a growth of commuting and demand for housing within the travel to work area. Although these areas are beyond the administrative responsibility of Plymouth City Council such effects will need to be considered as part of the Sustainability Appraisal process.

3.35. Due to Plymouth’s long history of industrial development associated with its dockyards and harbour areas, former industrial sites posing a contamination threat are a key issue to be tackled by the Council under Part IIA of the Environment Act 1990. The Council implemented a Contaminated Land Inspection Strategy in 2001, which was reviewed in the summer of 2003. The Strategy is used to control land and development of previously developed (brownfield) sites in the city. Plymouth City Council is also obliged under the 1990 Act to maintain a public register in support of the contaminated land regime. Currently there are no entries on the register. As part of the strategy, a database (including GIS) is being developed with information about land quality and contamination incidences.

3.36. **Relevance to land use planning:** Land use planning can direct development to appropriate sites, including brownfield sites, and ensure an efficient overall built form that facilitates the provision of infrastructure and services such as transport, energy and water.

### Water and coastal environment

3.37. All rivers in Plymouth City Council’s administrative area are classed as either ‘very good’ or ‘good’ by the Environment Agency in terms of their quality – looking at chemistry, biology, nutrients and aesthetics (using the Agency’s national General
Quality Assessment Scheme). More detailed information can be found on their website.

3.38. Estuarine and coastal water quality around Plymouth is subject to the influence of the Tamar River, which drains mainly agricultural catchments, and the Plym River, as well as stormwater runoff from the urban areas and point source discharges. As the city catchment drains directly into a sensitive estuary, unauthorised discharges could have potentially significant effects. Between 1990 and 2003 Environment Agency records show that bathing water quality at Plymouth Hoe has improved from poor to good/excellent, indicating that there has been considerable success in addressing pollution sources. The measures used are based on microbiological indicator species, which measure influences such as wastewater treatment and agricultural discharges but not chemical contamination.

3.39. Potential sources of coastal water pollution from industry in Plymouth include the dockyards, solid waste transfer and treatment sites and waste water treatment facilities. In general emissions from such sources must be licensed by, and reported to, the Environment Agency, with pollution inventory data for major processes available on the Agency’s website.

3.40. A new wastewater treatment facility was commissioned in 1999 under South West Water’s £50 million ‘Clean Sweep’ programme for the city. The project was designed to provide 100,000 people in the city centre with modern sewage treatment, and significantly clean up coastal waters under the EU Waste Water Directive. The new treatment works are located in Cattewater on the site of an old power station. Previously, effluent was discharged directly into the Sound and the lower reaches of the Rivers Tamar and Plym. According to the Environment Agency Plymouth is currently running near to capacity for sewage treatment and disposal.

3.41. The Environment Agency recommends the incorporation of a water quality baseline which includes monitoring of the effect of the influence of past mining activities that continue to affect water quality through mine discharges, run-off from spoils and remobilization of sediments. Data from the Environment Agency shows that at present water quality in the Plym is good having very good chemical indicators and low levels of nitrate and phosphate. Coastal and inter-tidal habitat areas should also be mapped and targeted.

3.42. The Environment Agency further recommends the incorporation of the following information sources into the baseline data: Environment Agency Flood Zones and Flood Map, which shows that areas immediately adjacent to the rivers Plym and Tamar may be at some risk of flooding, Environment Agency Problem Drainage Areas Map, Environment Agency Report on Regional Extreme Tide Level, February 2003.

3.43. **Relevance to land use planning:** Activities undertaken on land can have significant impacts on the water and coastal environment, particularly through pollution. Land use planning can help to address these impacts, particularly those arising from diffuse pollution.
Climate

3.44. Good historic records of Plymouth’s weather patterns are available. Temperature records kept since 1874 show a warming trend of 0.5° C over the last 125 years. Four of the ten warmest years within this period have happened since 1989: 1989, 1990, 1995 and 1999. From 1874 to the 1940s there was a warming of 0.8° C, followed by a cooling until the 1960s. However, the last two decades have shown a rapid return to the temperatures experienced in the 1940s. Plymouth’s rainfall records show an increased trend since the drought of 1975/76, although there were also periods of increasing rainfall at the start of the last Century (1900) and in the 1920’s.  

3.45. The UK Climate Impact Programme (UKCIP) has identified how the region’s climate will change up to 2080 in two different scenarios – low emissions and high emissions – reflecting uncertainties about future greenhouse gas emissions. It looked at changes in average daily temperatures and average precipitation levels. Predictions for the Plymouth area is shown in Table 3.1 (based regional findings).

Table 3.1 Climate change predictions for the South West based on two scenarios

<table>
<thead>
<tr>
<th>Year:</th>
<th>2020</th>
<th>2050</th>
<th>2080</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Scenario:</td>
<td>Low emissions</td>
<td>High emissions</td>
<td>Low emissions</td>
</tr>
<tr>
<td>Change in average daily temperature</td>
<td>0 to +1˚C</td>
<td>0 to +1˚C</td>
<td>+1 to +2˚C</td>
</tr>
<tr>
<td>Change in average summer precipitation</td>
<td>0 to -15%</td>
<td>0 to -15%</td>
<td>-15 to -30%</td>
</tr>
<tr>
<td>Change in average winter precipitation</td>
<td>0 to +15%</td>
<td>0 to +15%</td>
<td>0 to +15%</td>
</tr>
</tbody>
</table>

Source: Tyndall and Hardley Centres (n.d.) UKCIP02 Climate Change Scenarios, funded by Defra for UKCIP

3.46. A study by the Plymouth 2020 Partnership estimates that each household in Plymouth adds approximately 2.5 tonnes of carbon dioxide into the atmosphere each year, and provides data on possible future scenarios. The greatest direct negative effects are identified as being from rising sea levels and consequent flooding. Indirect effects following on from changes in other parts of the UK, Europe and the rest of the globe are stated as mainly being negative. Suggested actions to mitigate the effects of climate change are included in the report.

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9 Plymouth 2020 Environment & Sustainability Partnership (Sep 2004) Climate change: Has it sunk in yet?
3.47. Climate change impacts will include river flooding, coastal flooding and localised flooding from rainfall events. In addition, increased rainfall rates will place additional pressure on combined sewers (those carrying both sewage and stormwater) and increase the risk of overflows from these. In turn these factors may lead to additional pollution events.

3.48. **Relevance to land use planning:** Planning can help to mitigate Plymouth’s contributions to climate change through measures such as energy efficient building design, efficient transport infrastructure and appropriate management of biodegradable waste. Planning can help Plymouth adapt to the likely impacts of climate change through avoidance of inappropriate development in areas at risk of flooding, and providing for appropriate stormwater management.

**Air quality**

3.49. The main influences on air quality in Plymouth are vehicles and emissions from industrial processes. The number of days that air pollution exceeds national standards has generally declined since 1990/2000 (54 days) but rose again slightly in 2003/04 (31 days).

3.50. The City Council completed an air quality screening assessment in May 2003, as required by, as required under the Environment Act 1995. A further detailed assessment on highlighted air quality issues was completed in April 2004.\(^{10}\) This work has led to proposals for three air quality management areas (AQMAs) to deal with possible sources of air quality exceedance: Exeter Street petrol station adjacent to school (benzene), Exeter Street (nitrogen dioxide) and Mutley Plain (nitrogen dioxide). All of these sources were associated with motor vehicles (refuelling and operation).

3.51. Monitoring is also continuing at other sites for nitrogen dioxide, and there were potential issues with PM10s (small particles) associated with loading and unloading of cargoes which have required ongoing monitoring. Air quality statistics and projections for different parts of the city can be found on the UK National Air Quality Archive.

3.52. **Relevance to land use planning:** Planning can reduce air quality conflicts through addressing the sources of air pollution and through ensuring adequate separation between sources of pollution and sensitive receptors.

**Energy**

3.53. Energy sustainability options include reducing overall energy consumption through energy efficiency measures in their broadest sense (including through urban design), sourcing energy from renewable sources and, where possible, providing for renewable energy generation within Plymouth.

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\(^{10}\) Plymouth City Council (2004). *Detailed assessment of air quality in Plymouth*. Environmental Regulation Services.
3.54. The South West’s 2010 target for renewable energy production is 10-11% (or 24,600 GWh) (from research undertaken for REvision 2010\(^1\)). For Devon, the county target is to supply 151 MW, or 155,750 homes with electricity from renewable sources. At present, Devon produces little renewable energy despite good potential. In response, a Renewable Energy Strategy and Action Plan are being produced by the County Council. This is being driven forward by the Devon Renewable Energy Action Partnership (DREAP), which includes:

- Devon County Council, who have taken a lead in coordinating the development of the Devon Renewable Energy Strategy and Action Plan.
- DARE (Devon Association for Renewable Energy), who are a not-for-profit organisation with a small staff team, supported by a network of local volunteers, working to further renewable energy across Devon.
- West Country Energy Action Trust, based in Plymouth, who are managing agents for Devon Energy Efficiency Advice Centre and were set up to provide free, impartial energy efficiency advice to households across Devon.
- Envision, a not-for-profit partnership of environmental organisations across south west England, offering small businesses environmental advice.

3.55. Although large renewable energy generation facilities may not be appropriate in Plymouth there is some potential for wave and tidal generation.

3.56. Energy efficiency of existing buildings can be improved and there is substantial potential for encouraging passive solar building design and local solar electricity generation and water heating given Plymouth’s relatively sunny and mild climate. Solar electricity is used for some parking meters and bus shelters, as an indication of what could be possible.

3.57. Relevance to land use planning: Planning can reduce energy use in commercial buildings, homes and the transport system through encouraging energy efficiency or reducing the need to use energy (e.g. through reducing the need to use private cars). Planning can provide incentives for or facilitate local energy production from renewable sources.

Noise

3.58. Sources of noise in Plymouth include road traffic (notably the A38), the airport, construction, operation of port facilities and some other industrial and commercial processes.\(^2\) Neighbour noise (e.g. from sound systems) is the most frequent source of complaints, but there is little that land use planning can do to address it.

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\(^1\) Peter Capener, CSMA Consultants, CSE, ESD Ltd (June 2004) REvision 2010: Establishing County/Sub-Regional Targets for Renewable Electricity Developments to 2010, Final Report to GOSWR and SWRDA.

\(^2\) Further information on noise issues will be sought, there being little readily available monitoring information.
3.59. Noise monitoring tends to be in response to complaints rather than monitoring of ambient levels. There is, however, monitoring of vehicle movements at key sites around the city and this could be used to model noise generation.

3.60. **Relevance to land use planning:** Planning can reduce noise conflicts through addressing the sources of air pollution and through ensuring adequate separation between sources of noise and sensitive receptors.

**Resources and waste**

3.61. The City Council is promoting a greater emphasis on waste minimisation and recycling, in line with statutory targets. The Council’s targets are to recycle or compost 24% of waste by 2005/06, and it is currently achieving just over 15% (2003/04). The remainder of waste is landfilled, with no current energy recovery from waste although this is being investigated. In addition, the Landfill Directive requires the biodegradable content of waste sent to landfill to be reduced to 75% of 1995 levels by 2010, which will require further green and kitchen waste strategies. In 2003/04, an average of 527 kg of household waste was collected per head.

3.62. Plymouth has its own landfill site at Chelson Meadow. This site has capacity to receive waste until 2007 under current trends but the Environment Agency advises that it is no longer able to comply with its PPC (Pollution Prevention and Control) permit. This adds urgency to the development of a Waste Development Framework for Plymouth, requiring not only a search for long-term alternatives but also alternatives for the short to medium term. A waste facilities siting study was undertaken in 2003 and further studies are ongoing.

3.63. There is an Environmental Policy and Action Plan in place which seeks to improve the environmental performance of the Council.

3.64. **Relevance to land use planning:** Planning can provide for facilities for the efficient collection, re-use, recycling and safe disposal of waste, and manage the potential adverse effects associated with these such as road traffic, odours and health risks. Planning can encourage the use of recovered materials in construction and other applications in preference to virgin materials.

**Economy**

3.65. The Plymouth Sub-Regional Economic Partnership Annual Review 2002/03 characterised the overall economic picture in the sub-region as one of “good employment and earnings growth, a largely poor performance for higher level qualifications, worsening business formation rates, static or improving unemployment rates compared with GB (except for winter rates in Plymouth UA), and a downward trend in the number of tourist nights in the sub-region (despite substantial growth in the city itself).”

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13 A separate SEA process will be undertaken for the Plymouth Waste Development Framework.
3.66. Plymouth has experienced waves of development in the past and is currently seeking to embark on a new wave. The defence sector has traditionally been an important source of employment and income in Plymouth, along with manufacturing based industry. The transport and communications sector and the banking and finance sector have increased recently, which is thought to be mainly a result of call centre development. Some of these businesses have now closed or downsized, and there have been manufacturing job losses at Acterna, Paper Converting Machine Company, Kestrel, Toshiba and DML during 2002-03.

3.67. The sub-regional Economic Strategy\(^{14}\) aims to provide a framework for economic development for Plymouth and its Travel To Work Area. The Strategy identifies action areas of improving infrastructure, business development in key sectors, innovation and technology, inward investment, skills and learning, regeneration, image of the sub-region (marketing), state of the sub-region (monitoring) and partnership.

3.68. The Plymouth and South East Cornwall Sustainable Growth Distribution Study\(^{15}\) has two main aims:

- The revitalisation of the main urban area of Plymouth itself, promoting those forms of economic activity with most potential and most suited to a vibrant city, and

- Providing within the city the offer of attractive living that will enable the population to stabilise and rebuild.

3.69. The study notes that while population is currently falling in the urban area of Plymouth, the level of economic activity is increasing.

### Table 3.1 Employee jobs in Plymouth, the South West and Great Britain

<table>
<thead>
<tr>
<th></th>
<th>Plymouth (employee jobs)</th>
<th>Plymouth (%)</th>
<th>South West (%)</th>
<th>GB (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total employee jobs</td>
<td>101,090</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Full-time</td>
<td>63,964</td>
<td>63.3</td>
<td>64.1</td>
<td>68.5</td>
</tr>
<tr>
<td>Part-time</td>
<td>37,118</td>
<td>36.7</td>
<td>35.9</td>
<td>31.5</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>16,445</td>
<td>16.3</td>
<td>13.4</td>
<td>13.4</td>
</tr>
<tr>
<td>Construction</td>
<td>3,496</td>
<td>3.5</td>
<td>4.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Services</td>
<td>80,257</td>
<td>79.4</td>
<td>79.8</td>
<td>80.4</td>
</tr>
<tr>
<td>Distribution, hotels &amp; restaurants</td>
<td>24,051</td>
<td>23.8</td>
<td>26.8</td>
<td>24.6</td>
</tr>
<tr>
<td>Transport &amp; communications</td>
<td>4,893</td>
<td>4.8</td>
<td>5.2</td>
<td>6.1</td>
</tr>
<tr>
<td>Finance, IT, other business activities</td>
<td>13,401</td>
<td>13.3</td>
<td>16.4</td>
<td>19.6</td>
</tr>
<tr>
<td>Public admin, education &amp; health</td>
<td>32,752</td>
<td>32.4</td>
<td>26.9</td>
<td>24.9</td>
</tr>
<tr>
<td>Other services</td>
<td>5,159</td>
<td>5.1</td>
<td>4.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Tourism-related</td>
<td>6,873</td>
<td>6.8</td>
<td>8.7</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Source: annual business inquiry employee analysis (2002)


\(^{15}\) Progress Report, November 2004.
3.70. **Table 3.1** shows the relative importance of employment in public administration, education, health and manufacturing. Finance, IT and ‘other business activities’ are under-represented relative to the South West and Great Britain.\(^{16}\) There may be significant potential for growth in tourism-related employment, given that the surrounding counties are well recognised as tourist destinations. Of the Devon workforce 9.2% were employed in tourism, and 13.4% in Cornwall and the Isles of Scilly.

3.71. In the year to February 2003, 77.7% of the population was economically active, up slightly from 77.3% in the 1999/2000 year. This was lower than the South West (81.6%) and just below the Great Britain average (78.3%). A further 9.3% were economically inactive but wanted a job. The proportion of Job Seeker’s Allowance claimants (2.2%) was the same as the national average but higher than the South West (1.3%).

3.72. Average gross weekly earnings for employees living in Plymouth (2002/03) were £395, compared with £448 for the South West and £476 for England.

3.73. **Relevance to land use planning:** Planning can ensure that land, infrastructure and services are available for the types of economic activity that Plymouth wants.

**Transport and communications**

3.74. A separate SEA process is being undertaken for the Local Transport Plan, but information is presented here for completeness.

3.75. The main transport infrastructure in Plymouth, as in other UK cities, is based on roads. The A38 creates something of a north-south split in the city making cycle and foot travel from the northern suburbs rather difficult. The bounding of the city on three sides by water also constrains the options for non-vehicle transport although it may also create opportunities for growth in local water-based transport, and of course, has formed the basis of the city’s growth through shipping related activities for centuries. Aside from some rail travel, mainly by those living outside the city boundary, the main alternative modes of transport are use of bus services and walking.

3.76. A relatively low percentage of people work from home, 6.6% of those in paid employment (2001 census). The average for the South West is 11.0% and for England and Wales 9.2%). 11.9% of workers travel to work by bus, which is high relative to the South West (5.0%) and England and Wales (7.4%), 13.2% by foot, 2.6% by bicycle and 61.6% by car or van. The latter figure is similar to those for the South West and England.

3.77. There were 19,048,000 bus passenger boardings in 2003/04, a decline from 21,437,000 in 2000/01 (2004 APR). 64% of users were satisfied with local bus

\(^{16}\) Most employment data presented are from the NOMIS website.
services, which was an improvement over 2000/01. The number of cycling trips per day, as measured at monitoring sites, declined from 162 per day in 2002/03 to 130 in 2003/04.17

3.78. Peak traffic volumes have remained generally steady since 1999/2000. The APR target is 10,000 vehicles in the City Centre cordon from 8.00 to 9.00 a.m. Peak traffic volumes in strategic corridors grew from 17,000 in 1999/2000 to 18,500 in 2003/04.

3.79. The Environment Agency further suggests that water recreation and transport should be monitored for social and economic purposes.

3.80. **Relevance to land use planning**: Planning can ensure the efficient development of transport and communications infrastructure.

### Quality of Life

#### Population

3.81. Plymouth’s population was estimated at 241,500 in 2003 (ONS mid-year estimate) and has been effectively static over the preceding four years. The available statistics suggest that the population declined by 1.1%18 between 1991 and 2001, while in the same period the population of Devon grew by 8.9%, the South West by 6.9% and England by 4.3%. The population age structure is not greatly different from that of the region or the country, although there is a degree of out-migration in the 25-44 age group. The Mackay Vision for Plymouth proposes a growth in population to 300,000 or possibly to 350,000 over the very long term, which would require substantial additional development.

3.82. In relation to the rest of England a low proportion of the population belongs to minority ethnic communities. In the 2001 census 96.5% of respondents gave their ethnic origins as White – British, and a further 1.8% as White – Irish or Other. Persons of other ethnic groups (less than 2%) were generally fairly evenly distributed among the wards within the city, with higher population in some wards such as Peverell and Drake.

3.83. **Relevance to land use planning**: Planning can ensure that housing and infrastructure of the desired standard are available for the expected or intended growth in population, and can accommodate shifts in demographic structure such as an ageing population requiring residential care accommodation and health services.

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17 As the monitoring is through sampling it does not indicate the total number of cycle trips and may be subject to measurement errors.

18 We understand these statistics have been the subject of some debate as to their accuracy.
Health, wellbeing and safety

3.84. 66.8% of Plymouth residents described their health as good in the 2001 census (England and Wales 68.6%), and 23.2% as fairly good (22.2%). Teenage pregnancy rates are falling, being 21% lower in 2003/04 than the base year of 1998.

3.85. Most types of crime have fallen in recent years, in part through increasing the availability of drug treatment facilities. This applies in particular to burglaries and car theft, which were at 13.6 per 1000 households and 15.8 per 1000 population respectively in 2003/04. A Crime Audit has been undertaken in 2004 and will result in a new Crime Reduction Strategy (2004 crime data are available from the Plymouth Informed website).

3.86. In terms of road safety, 44 persons were killed or seriously injured in 2003/04: 15 pedestrians, 4 pedal cyclists, 10 motorcyclists, 14 car users and one other. Various road safety improvements are being phased in.

3.87. Relevance to land use planning: Planning can protect people’s health in a variety of ways, from developing safer transport systems and reducing pollution (prevention) to providing for recreational facilities and greenspace to encourage healthy lifestyles, and providing locations for treatment facilities.

Basic needs

3.88. Parts of Plymouth experience high levels of deprivation, as measured by the Index of Multiple Deprivation. The Plymouth Super Output Area (SOA) is the 76th most deprived in England on the overall deprivation index, out of 354 local authority SOAs. In comparison, Bristol ranks 67, Swindon 171 and Poole 225 (i.e. Poole is the least deprived of the four cities). On the employment scale, one of the components of the overall index, Plymouth is the 46th most deprived local authority, compared with Bristol (14), Swindon (122) and Poole (166). Within Plymouth the most deprived wards are mainly on the western side of the city as shown in Figure 5.3.

3.89. Index of Deprivation data cannot be used to draw conclusions about whether certain locations actually cause increased deprivation, but they provide guidance on the areas where interventions could be directed to greatest effect in reducing deprivation. In turn, such interventions may have land use planning implications such as the need for housing redevelopment or community facilities.

3.90. Plymouth has the lowest average house price among South West local authorities (approximately £119,000), although prices have grown rapidly in recent years. Annual house price inflation was among the highest in the South West, 19.4% per annum from 2000-2004. This was similar to Devon (19.4%) and Torbay (19.5%) and behind Cornwall and the Isles of Scilly (22.1%). Housing affordability in the South

19 The English Indices of Deprivation 2004 (revised). ODPM.

West is the lowest in the country behind England, with the average house costing nearly 7 times average earnings, up from 5.2 times earnings in 2000.

3.91. Currently there are just under 16,000 council homes in Plymouth. (PCC website).

3.92. **Relevance to land use planning:** Planning can help to ensure that neighbourhoods are safe and pleasant to live in, that adequate local facilities are available and that basic needs such as housing are affordable.

**Figure 3.3: Index of Multiple Deprivation scores by ward (darker shading indicates more deprived wards)**

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**Learning**

3.93. Educational achievement at Key Stage Three (14 year old) in English, Maths and Science is at 69-70% achieving level 5 or above, which is on or slightly below target. Some other measures of educational achievement in schools are below target, notable Key Stage Two English and Maths.

3.94. The level of vocational qualifications is lagging somewhat, with proportions of the population qualified to NVQ3 and NVQ4+ well below target for 2004. Factors cited
in this generally poor performance are an outflow of younger people and the relative lack of jobs available for higher qualified people.

3.95. **Relevance to land use planning:** Planning can ensure that good quality education facilities are available for the diverse requirements of Plymouth’s population.

**Distinctiveness**

3.96. Distinctiveness is difficult to define but arises out of the fact that different neighbourhoods have particular characteristics such as their landscape and built form, focus or lack of focus on retail, services and recreational facilities, and demographics. People can usually readily identify where they belong and what is special about it.

3.97. Plymouth has a variety of distinctive components, from the business district and waterfront to the outer suburbs, and the potential impacts and benefits of the Plan on neighbourhood distinctiveness and on Plymouth’s overall distinctiveness will need to be examined through the SEA.

3.98. **Relevance to land use planning:** Planning can protect and enhance the desirable characteristics of neighbourhoods. Nationally and locally important assets can play an important role in what defines distinctiveness.

**Recreation, sport and leisure**

3.99. User satisfaction with Council provided leisure facilities for 2003/04 was (2004 APR):

- libraries: 84% of users and 43% of non-users;
- museums and galleries: 77% and 38%;
- theatres and concert halls: 86% and 41%;
- parks and open spaces: 82% and 35%.

3.100. While users were generally satisfied non-users were generally dissatisfied suggesting gaps in provision. The museum is to be redeveloped which should increase attendance markedly.

3.101. **Relevance to land use planning:** Planning can ensure that sufficient, good quality recreation and leisure facilities are available. Planning can allow effective integration of Plymouth into the regional recreation and leisure network.

**Democracy and social inclusion**

3.102. Satisfaction among tenants of social housing with opportunities for participation in decision making is at 56% (estimate for 2003/04), which is above the target of 50% but still with great room for improvement. Satisfaction among black and minority ethnic group tenants is lower, at 50% (2004 APR). Participation in national or local authority elections is a further possible measure of a community’s sense of
involvement and influence. Plymouth’s LA21 Plan includes targets for encouraging community awareness of and participation in environmental issues.

3.103. **Relevance to land use planning:** Planning needs to be accessible and inclusive so that it reflects the desires of the whole population rather than those most inclined or able to participate

**Emerging issues**

3.104. From the baseline study and the issues and options paper (Core Strategy and Policy) the following key issues are identified for particular consideration within the SEA.

3.105. **Overall growth:** The proposals for population growth, as identified in the Mackay Vision, present major sustainability challenges in dimensions including developing the economy, accommodating population growth, protecting the environment, providing transport and other services and maintaining and improving quality of life. Explicit consideration will be required as to whether or not likely thresholds for such growth can be defined, (either lower thresholds which bring benefits of scale and dynamism or upper thresholds beyond which negative effects set in).

3.106. **Restructuring of the economy:** There is a clear intention to restructure the economy; by concentrating more on knowledge intensive sectors and less on traditional defence and manufacturing activities. In principle such development may have lighter effects on the environment but there are still significant implications including provision of office and commercial space and local, regional and international transport requirements. It also offers strong potential for improvements in employment, quality of employment and income.

3.107. **New housing and employment locations:** There is an identified need to provide additional Greenfield housing to account for growth plans, together with regeneration of existing brownfield locations. This is a major area of current planning which the SEA will need to consider in detail.

3.108. **Waterfront redevelopment:** The redevelopment of waterfront areas to provide a commercial, living and leisure focus should increase the city’s attractiveness as a place to live and visit. Care is required to ensure that such development is inclusive and provides opportunities for the less well off.

3.109. **Sustainable transport:** The proposals for urban growth offer a real opportunity to design in sustainable forms of transport as alternatives to motor vehicle use, and mixed use developments may offer greater potential for people to live close to their places of work and recreation.

3.110. **Distinctiveness:** Community distinctiveness is a difficult concept to define in measurable terms. The SEA will draw on available descriptions of Plymouth’s distinctiveness and consider how well the LDF is likely to protect and enhance those aspects of distinctiveness that are locally valued.

3.111. **Quality of life:** A relatively high proportion of Plymouth residents experience deprivation in terms of income, employment, access to services, health and other
quality of life measures. Land use planning will have an important role in addressing these issues.

3.112. **Climate change**: Climate change is likely to be a key issue for the LDF: on one hand addressing the sources of climate change associated with Plymouth through consideration of overall city form, transport design and building design, and on the other hand mitigating the physical, financial and economic impacts of a potential rise in sea level and change in weather patterns, including but not limited to flooding. Climate change will directly impact on the appropriate planning for waterfront due to sea level rise and increased storminess. Sea level rise may also contribute to squeezing of the intertidal habitats which could be reinforced by waterfront development.

3.113. **Pollution and resource use**: Various concerns exist, arising out of current activities and potential future activities, and again these will need to be considered in more detail in the SEA. Lifestyle and consumption trends in the UK and more widely have generally resulted in increased demands on energy and material resources. While many of the driving factors are outside the influence of the Council, others can be influenced in the direction of sustainability. Waste minimisation and recycling, water use efficiency and energy efficiency will require particular consideration, being areas where planning can have a direct role.

3.114. **Physical development constraints**: Plymouth’s topography is generally steep and many locations have limited suitability for further development.

**Alternative options:**

3.115. The ODPM guidance on SEA defines options as the range of rational choices open to plan-makers for delivering the plan objectives. It notes further that alternatives (or options) should be compared with each other and also with the “do nothing” or “business as usual” options.

3.116. The Core Strategy and Policy: Issues and Options report briefly sets out options to address the issues identified. The SEA will:

- Consider whether there are obvious options not yet included in the Issues and Options report.
- Assess the sustainability benefits and disbenefits (impacts) of the suggested options and the main alternative options available.

3.117. Some of the alternatives to be considered are described below, phrased as questions that the SEA will seek to answer in detail. Identification of further alternatives will occur as the study progresses.

**Planning for Growth:**

3.118. **Housing and employment locations:**
• What are the environmental, social and economic implications of the preferred option of an additional 10,000 homes and 80 ha of employment land within the City limits, with a further 4,500 homes and 80 ha of land in South Hams?

• What are the environmental, social and economic implications of a lower figure of accommodation and employment land, or of continuation of the status quo?

• What other locations for siting a substantial new settlement should be considered, in order to determine at this level of assessment their performance against the sustainability objectives relative to the preferred option?

3.119. **Business growth:**

• What are the likely benefits and impacts of development of the preferred growth sectors (advanced engineering, business services, creative industries, marine industries, medical and healthcare, tourism and leisure)?

• What other growth sectors are feasible in Plymouth and what are their likely benefits and impacts?

• What are the likely benefits and impacts of encouraging community businesses and co-operatives, and of failing to do so?

• What are the likely benefits and impacts of encouraging mixed use developments?

• What are the likely benefits and impacts of encouraging entrepreneurship?

3.120. **Employment, skills and education:**

• What are the likely benefits and impacts of the proposed regeneration programme in priority neighbourhoods?

• What are the likely benefits and impacts of the proposed rationalisation of school capacity?

• Are there other feasible options for education provision, such as expansion of tertiary and vocational training institutions, and what are their likely benefits and impacts?

• What is the scope for meeting some of Plymouth’s training needs, particularly specialist training, through institutions and programmes in neighbouring authority areas, and what would be the benefits and impacts of this?

3.121. **City centre and local shopping:**

• What are the likely benefits and impacts of the preferred options of maintaining a hierarchy of shopping centres and maintaining the city’s role as a regional shopping destination?
• What is the appropriate balance between using city centre space for retail purposes relative to other public uses such as parks, leisure facilities and other public spaces?

3.122. **Transport and communications:**

• Whilst alternative options will be considered in relation to the review of the proposed Local Transport Plan, this SEA will consider briefly the main benefits and impacts of the proposed transport and communications options.

• What are the likely benefits and impacts of increasing the emphasis on public transport and other non-car modes?

• What are the likely benefits and impacts of improving rail and sea transport links to and from Plymouth?

• What are the likely benefits and impacts of developing Plymouth’s airport?

• What are the likely benefits and impacts of improving telecommunications services and to what extent can these help to overcome Plymouth’s isolation in a geographic sense?

**Protecting the environment**

3.123. **Environment:**

• To what extent can the proposed level of population growth (to 300,000 plus in the long term) be accommodated without unacceptable impacts?

• What are the likely benefits and impacts of waterfront regeneration and residential development at a high density relative to lower density?

• What are the likely benefits and impacts of accepting greater or lesser controls on development?

• What are the likely cumulative impacts on designated biodiversity sites of the development envisaged by the LDF?

• What are the likely benefits and impacts associated with planning for the likely effects of climate change?

• What effect will any new development have an effect on diffuse pollution and subsequent impacts on aquatic and terrestrial areas?

• What are the likely effects on the historic environment?

• Thorough understanding of the historic environment can inform new development and avoid, or reduce, significant impacts.
• What is the cumulative effect of small impacts, or loss of features, which are not significant individually?

3.124. Resource use:

• The proposed options in the report seek to ensure the prudent use of resources and minimise energy consumption. Whilst this is the most sustainable option, alternatives should be considered which will be less sustainable.

• What are the likely benefits and impacts of achieving the target of 10% of energy use from renewables by 2010, relative to a higher target or the status quo?

• What are the likely benefits and impacts of seeking to achieve different levels of water use efficiency, e.g. the highest level of efficiency which can be promoted by the Council versus the status quo?

• What are the likely benefits and impacts of maximum emphasis on waste minimisation and recycling (again, to the extent this can be influenced by the Council) relative to the minimum required by statutory targets?

An Outstanding Quality of Life for Everyone

3.125. Affordable housing:

• What are the likely benefits and impacts of promoting the minimum amount of affordable housing relative to higher levels?

• What are the likely benefits and impacts of putting resources into improving the condition of the existing housing stock relative to constructing new affordable housing?

3.126. Health, well being and safety:

• What are the likely benefits and impacts of improved urban design and provision of leisure and health facilities?

3.127. Strong neighbourhoods:

• What are the likely benefits and impacts of improving local service provision relative to providing improved central facilities and improving access to these through better transport and, for some services, better 'virtual access' through telephone and internet?

Site Specific Options

3.128. The main options under consideration for specific sites (Devonport, Millbay, Sutton Harbour, East End) will be evaluated through the SEA along with the principal alternatives for these sites, including continuation of the status quo.
4. **SA/SEA FRAMEWORK**

4.1. In order to undertake an SEA/SA of the Local Development Framework was necessary to identify a number of objectives and indicators against which the potential effectiveness of plan policies and their eventual delivery can be assessed and monitored. Objectives and indicators are used for a wide range of purposes and sets of both already exist at regional, sub-regional and local level. The purpose of this chapter is to set out the basis on which the objectives and indicators have been chosen specifically for use in the LDF.

4.2. A set of high level objectives for sustainable development have been defined for use in preparing the Regional Spatial Strategy which forms part of the Development Plan. These high level objectives are regarded as too general for tracking the performance of individual policies and programmes in the Plymouth LDF. However, they form the starting point for defining such objectives and have been included in the first column of Table 4.1 below.

4.3. A more detailed set of regional objectives were defined for the Government Office for the South West when it commissioned Sustainability South West to prepare a Regional Sustainable Development Framework (RSDF) on behalf of the region. Based on many months of consultation throughout the region the RSDF was launched in March 2001, and progress was reviewed in 2002. These objectives are judged to be closer to the needs of an LDF assessment than the RSS objectives and are included in column 2 of Table 4.1.

4.4. Of equal importance to the two levels of objectives described above are the very detailed objectives and indicators developed by Plymouth City Council and its partners for use in monitoring community strategies, the corporate plan and a whole range of other local initiatives. Plymouth 2020, the Local Strategic Partnership, produced Plymouth’s Local Agenda 21 Plan in 2000. Further work has resulted in the production of draft Sustainable Development Goals, setting out how Plymouth will secure a sustainable future, and Sustainable Community Themes within which actions will be taken. (See Box 4.1). These detailed objectives have formed the basis of the third column in Table 4.1. They have been used selectively however, to concentrate on those objectives and indicators that are considered to have most relevance to the LDF process.
Box 4.1: Draft Sustainable Development Goals and Sustainable Community Themes for Plymouth

**SUSTAINABLE DEVELOPMENT GOALS**

*A sustainable future will be secured through:*

- A just society that promotes social inclusion, sustainable communities and personal well-being
- A sustainable, innovative and productive economy that delivers high levels of employment
- The protection and enhancement of the physical and natural environment, and the most efficient use of resources and energy
- The delivery of cost effective and appropriate services, delivered in partnership and in an integrated way
- The promotion of a clear understanding of, and commitment to, sustainable development so that everyone can contribute to the overall goals through their individual decisions and actions
- The delivery of continuous, measurable improvements in performance through the use of a best practice approach to sustainable development
- A commitment to partnership working

**SUSTAINABLE COMMUNITY THEMES**

- Active, inclusive and safe
- Well run
- Environmentally sensitive
- Well designed and built
- Well connected
- A Thriving economy
- Well served.
- Fair for everyone

4.5. **Table 4.1** shows the linkages between the sustainability principles of the RSDF, the Plymouth Sustainable Community Themes, the goals of the Plymouth City Strategy and Action Plan and the topics that must be covered in sustainability appraisals in order to comply with the SEA Directive. Although there are limitations to such comparisons, particularly because in many cases an objective in one document can be cross-referenced to more than one of the objectives in another document (i.e. there are different ways of ‘cutting the cake’), the Table indicates a high degree of correlation and synergy between the various documents.

4.6. The RSDF principles are generally comprehensive, and have been adapted as objectives in the proposed sustainability appraisal framework. Initial consultations in drafting the scoping report brought out some changes to these objectives and further suggested objectives.

4.7. **Table 4.2** shows the resulting proposed framework for sustainability appraisal of the LDF. This has three main components:

- **High level sustainability objectives**: The objectives are the outcomes that the LDF should be seeking to achieve in relation to the various aspects of sustainable development.

- **Specific objectives**: More specific objectives within the high level objectives.
• **Indicators:** The indicators are the yardsticks used to measure success in meeting the sustainability objectives. In some cases the data for the indicator is readily available, while in other cases the data may not be available for the current appraisal but it may be possible to put monitoring programmes in place for the duration of the LDF to assess progress against the indicator and feed into subsequent reviews of the LDF.

4.8. The SEA will aim to develop a concise (core) set of indicators that can be used as far as possible across the components of the Local Development Framework (planning, transport and waste), supported where necessary by additional, more specific indicators. The indicators in **Table 4.2** are, therefore, a starting point rather than the proposed final set of indicators.
Table 4.1: Links between the objectives of existing strategies and the SEA Directive’s requirements

<table>
<thead>
<tr>
<th>Local Development Framework Aims</th>
<th>Regional Sustainable Development Framework Principles</th>
<th>Linkages to:</th>
<th>Plymouth Sustainable Community Themes</th>
<th>Plymouth’s City Strategy and Action Plan Goals</th>
<th>SEA Directive topics (subject areas that all appraisals must cover)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ENVIRONMENT AND NATURAL RESOURCES</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>BIODIVERSITY – The region's biodiversity and landscape are properly valued, conserved and enhanced</td>
<td>Environmentally sensitive</td>
<td>• Environmentally sensitive</td>
<td>• A clean and sustainable environment</td>
<td>• Biodiversity • Landscape</td>
</tr>
<tr>
<td></td>
<td>POLLUTION – The region’s pollution is limited to levels which do not damage natural systems</td>
<td>Environmentally sensitive</td>
<td>• Environmentally sensitive</td>
<td>• A clean and sustainable environment</td>
<td>• Air • Climate • Soil • Natural Resources</td>
</tr>
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<td></td>
<td>RESOURCES – Demands on the region’s natural resources are managed so that they are used as efficiently as possible</td>
<td>Environmentally sensitive</td>
<td>• Environmentally sensitive</td>
<td>• A clean and sustainable environment</td>
<td>• Soil and natural resources</td>
</tr>
<tr>
<td></td>
<td>WASTE – The region's waste is minimised and, wherever possible, eliminated</td>
<td>Environmentally sensitive</td>
<td>• Environmentally sensitive</td>
<td>• A clean and sustainable environment</td>
<td>• Soil and natural resources</td>
</tr>
<tr>
<td></td>
<td>ECONOMY – The region continues to support a diverse and thriving economy</td>
<td>A thriving economy • Well designed and built</td>
<td>• A thriving economy • Well designed and built</td>
<td>• A prosperous economy • Quality buildings, places and living spaces</td>
<td>• Material assets</td>
</tr>
<tr>
<td></td>
<td>WORK – Everyone in the region has access to satisfying and fairly paid work and unpaid work is valued</td>
<td>A thriving economy • Active, inclusive and safe</td>
<td>• A thriving economy • Active, inclusive and safe</td>
<td>• A prosperous economy</td>
<td>• Population</td>
</tr>
<tr>
<td>Local Development Framework Aims</td>
<td>Regional Sustainable Development Framework Principles</td>
<td>Linkages to: Plymouth Sustainable Community Themes</td>
<td>Plymouth’s City Strategy and Action Plan Goals</td>
<td>SEA Directive topics (subject areas that all appraisals must cover)</td>
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<tr>
<td>LOCALSEEDS – Wherever possible, local needs are met locally to support local economies</td>
<td>A thriving economy</td>
<td>A prosperous economy</td>
<td>Population</td>
<td></td>
<td></td>
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<tr>
<td>QUALITY OF LIFE</td>
<td>HEALTH &amp; WELL-BEING – The region promotes everyone's physical and mental wellbeing</td>
<td>Well served</td>
<td>A safer, healthier city</td>
<td>Human health, Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEARNING – The region offers everyone access to lifelong learning, training opportunities, skills and knowledge</td>
<td>Well served; Active, inclusive and safe</td>
<td>Improved learning and skills</td>
<td>Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAFETY – Everyone is able to live without fear of crime or persecution</td>
<td>Active, inclusive and safe</td>
<td>A safer, healthier city</td>
<td>Human health</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DISTINCTIVENESS – The region's diversity and local distinctiveness are valued, protected and celebrated</td>
<td>Active, inclusive and safe; Well designed and built</td>
<td>Dynamic local communities; A celebration of Plymouth's character, culture and diversity</td>
<td>Cultural heritage</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LEISURE – Opportunities for culture, leisure and recreation are provided widely throughout the region</td>
<td>Well served</td>
<td>A safer, healthier city; An improved quality of life in every neighbourhood</td>
<td>Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACCESS – Access to basic services is available to everyone</td>
<td>Well connected</td>
<td>An improved quality of life in every neighbourhood</td>
<td>Population</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BASIC NEEDS – The region meets everyone's basic needs</td>
<td>Fair for everyone</td>
<td>An improved quality of life in every neighbourhood</td>
<td>Population</td>
<td></td>
</tr>
<tr>
<td>Local Development Framework Aims</td>
<td>Regional Sustainable Development Framework Principles</td>
<td>Linkages to:</td>
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<td></td>
<td>Democracy – All sections of the community are empowered to participate in decision making</td>
<td>Plymouth Sustainable Community Themes</td>
<td>Plymouth’s City Strategy and Action Plan Goals</td>
<td>SEA Directive topics (subject areas that all appraisals must cover)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Fair for everyone &lt;br&gt; • Well run</td>
<td>• Dynamic local communities</td>
<td>• Population</td>
<td></td>
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</tbody>
</table>
Table 4.2: Proposed sustainability appraisal framework

<table>
<thead>
<tr>
<th>High level sustainability objectives</th>
<th>Specific objectives</th>
<th>How could this be measured?</th>
<th>Possible indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVIRONMENT AND NATURAL RESOURCES</td>
<td></td>
<td></td>
<td>* already adopted &amp; recorded</td>
</tr>
<tr>
<td><strong>BIODIVERSITY</strong> – Biodiversity and landscape are properly valued, conserved and enhanced</td>
<td>To protect and enhance habitats and species</td>
<td>Area of habitat under formal protection</td>
<td>* Biodiversity (under review)</td>
</tr>
<tr>
<td></td>
<td>To protect and enhance important landscapes, features and waterscapes.</td>
<td>Area of new habitat created</td>
<td>* Community land use – the take up rate for Plymouth’s allotments.</td>
</tr>
<tr>
<td></td>
<td>To improve access to the countryside and coast.</td>
<td>Area of landscape under formal protection</td>
<td>(Loss of habitats and protection of rare species are both unrecorded)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(The community’s preferred species indicator (otters) remain unrecorded)</td>
</tr>
<tr>
<td><strong>POLLUTION</strong> – Pollution is limited to levels which do not damage natural systems</td>
<td>To reduce the impact of pollution (air, water, land and noise).</td>
<td>Air quality – ambient and site specific</td>
<td>* Air Quality – no of days when air pollution was moderate or poor</td>
</tr>
<tr>
<td></td>
<td>To reduce the negative effects of the transportation network on air quality (LTP objective)</td>
<td>Bathing water quality</td>
<td>* Bathing Water Quality – do local beaches meet the Bathing Water standards?</td>
</tr>
<tr>
<td></td>
<td>To treat and safely use formerly contaminated land.</td>
<td>Noise complaints</td>
<td>* No of noise complaints received by the City Council per year</td>
</tr>
<tr>
<td></td>
<td>To protect the quality and availability of drinking water.</td>
<td>Contaminated land remediation</td>
<td>Levels of noise and air pollutants (NOx and PM10s) along main routes</td>
</tr>
<tr>
<td></td>
<td>To prevent diffuse pollution</td>
<td>Water quality in rural river corridors</td>
<td>% of population living in air quality management areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number of flood incidents or CSO discharges might be used as indicators of water quality</td>
<td>Area of contaminated land remediated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>State of key habitats e.g. shellfish beds</td>
<td></td>
</tr>
<tr>
<td>High level sustainability objectives</td>
<td>Specific objectives</td>
<td>How could this be measured?</td>
<td>Possible indicators:</td>
</tr>
<tr>
<td>-------------------------------------</td>
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<td>---------------------</td>
</tr>
<tr>
<td>CLIMATE CHANGE – Emissions contributing to climate change are reduced and adaptation measures are in place ++</td>
<td>To reduce contributions to climate change To adapt to climate change</td>
<td>Plymouth’s overall carbon balance and emissions of other greenhouse gases Property susceptible to flooding risks and other climate change risks Loss of historic assets through the effects of climate change</td>
<td>* Climate change – progress made towards reductions in the emissions of CO2 Area or value of property subject to flood risks for a given return period (100 years?) (Overall carbon emissions not monitored)</td>
</tr>
</tbody>
</table>

* already adopted & recorded
( ) not currently monitored
<table>
<thead>
<tr>
<th>High level sustainability objectives</th>
<th>Specific objectives</th>
<th>How could this be measured?</th>
<th>Possible indicators:</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESOURCES – Demands on natural resources are managed so that they are used as efficiently as possible</td>
<td>To reduce water use. To promote and protect natural drainage systems. To use mineral resources efficiently To make the best possible use of previously developed land (brownfield sites). To maximise the life span and usability of infrastructure and make efficient use of existing buildings and infrastructure To promote an understanding and appreciation of the historic environment by using principles of characterisation. To identify, assess and incorporate the physical, social and environmental value of the historic environment in the regeneration of the boroughs townscape. To broaden accessibility to local heritage and historic spaces and buildings.</td>
<td>Water use – total and per capita Area of new development using sustainable drainage systems Loss of greenfield land to development Use of mineral resources % of all new developments (including industrial and commercial) on previously developed land Number of developments incorporating water efficiency measures</td>
<td>* Water used per person, per day in local households. Primary SD Indicator : land use – the % of new homes built on previously developed land. (or BV 106) (No figs are available for minerals use per capita or loss or Greenfield land at this time)</td>
</tr>
<tr>
<td>ENERGY – Efficient use of energy ++</td>
<td>To reduce energy use. To promote the development and use of sustainable/renewable energy technologies.</td>
<td>Energy use by households, commercial buildings and transport Proportion of energy derived from renewable sources</td>
<td>* Energy use – average SAP rating of local authority owned dwellings. (Average energy used per household per year remains unmonitored.)</td>
</tr>
<tr>
<td><strong>High level sustainability objectives</strong></td>
<td><strong>Specific objectives</strong></td>
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<tr>
<td>WASTE – Waste is minimised and, wherever possible, eliminated</td>
<td>To reduce, reuse, recycle and compost waste. To make better use of recycled/reusable materials. Recovery of construction wastes Reduce amounts of non-municipal waste going to landfill</td>
<td>Waste flows controlled by the city council Waste flows outside council control (e.g. much commercial waste) Use of recycled materials in construction and other activities Waste flows from commercial and industrial sources going to landfill New developments incorporating reduction, reuse and recycling.</td>
<td>Primary SD indicator : Waste Management – The total amounts of waste produced, recycled and composted (or BV 82a, b, c and d and BV 84)</td>
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<td>ECONOMY – A diverse and thriving economy</td>
<td>To strengthen sectors that have existing/potential concentrations of specific services or businesses. To increase the viability and vitality of commercial centres. To ensure a favourable investment climate and availability of land and infrastructure.</td>
<td>Economic activity by sector Availability of land and infrastructure</td>
<td>Primary SD Indicator : Local economy – GDP and GDP per person in Plymouth Primary SD Indicator : The Local Economy - Business start ups and closures VAT registrations (C Strategy target) Investment and output by key sectors (Requires survey)</td>
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<td>WORK AND INCOMES – Everyone has access to satisfying and fairly paid work and unpaid work is valued</td>
<td>To increase the quantity, quality and range of employment opportunities for local people. To safeguard local jobs To reduce the incidence of poverty and low pay</td>
<td>Employment and unemployment rates Lowest incomes relative to average Incidence of poverty</td>
<td>* Employment – the proportion of the working age population who are in employment. Reflects a C Strategy target. No of people in employment by sector * Local incomes – the average household income in Plymouth. A C Strategy target. * Local Incomes (benefits) – the no of Income Support claimants (including partners and dependents) as a % of the no of residents. * Levels of childhood poverty recorded in Plymouth. Links with City Strategy</td>
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<tr>
<td>LOCAL NEEDS – Wherever possible, local needs are met locally to support local economies</td>
<td>To encourage local enterprise and local products.</td>
<td>Extent of local sourcing Provision of facilities for local enterprises</td>
<td>* No of companies that secure over half their supplies from Devon and Cornwall (under review)</td>
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<td>QUALITY OF LIFE</td>
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<td>HEALTH &amp; WELL-BEING – Promoting everyone’s physical and mental wellbeing</td>
<td>* To enhance human health and safety. * To promote and support healthier lifestyles.</td>
<td>Physical and mental health statistics</td>
<td>* Community Health (Death rates from accidents, cancers, circulatory disease and undetermined injuries) * Expected years of healthy life. * Community Safety – the no of people killed or seriously injured in road accidents each year. Monitored as BV 99 road safety plus subsets.</td>
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<td><strong>LEARNING</strong> – Everyone has access to lifelong learning, training opportunities, skills and knowledge</td>
<td>* To improve the provision, quality and accessibility of services for education, training and employment. To increase opportunities for skills development (work related).</td>
<td>Educational participation and attainment Existence and locations of educational facilities</td>
<td>* Adult basic skills (under discussion for inclusion in both the SD and City Strategy scorecards) * Educational attainment: % of students gaining one or more GSCEs at grades A* to C or equivalent. (direct link with City Strategy and PCC priorities, recorded by BVPIs)</td>
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<td><strong>SAFETY</strong> – Everyone is able to live without fear of crime or persecution</td>
<td>To reduce crime and the fear of crime.</td>
<td>Incidence of crime and perceptions of crime</td>
<td>* Crime and Fear of crime – Local fear of crime levels and actual crime rates. (also a City Strategy target)</td>
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| DISTINCTIVENESS AND CULTURAL HERITAGE – Diversity and local distinctiveness and cultural heritage are valued, protected and celebrated | To protect, preserve or enhance existing historic buildings, structures, monuments, remains and areas of acknowledged importance.  
To maintain and strengthen the city’s character and identity.  
To provide a high quality urban environment with the highest possible standards of urban design. | Number of buildings lost or at risk  
Community satisfaction with urban environment and cultural heritage  
Hedgerow and hedgerow management data, and the monitoring of traditional building techniques.  
Number, location, area and % of Borough designated Conservation Areas, Registered Historic Park and Garden  
Location, area and percentage of Borough of ;local importance e.g. areas with traditional construction, areas of local landscape or townscape importance  
% Conservation Areas, Registers Parks and Gardens at risk  
% Conservation Areas, Registered Parks and Gardens with appraisal, enhancement scheme, Article 4 Directions  
Key landscape features at risk, boundary walls, vernacular and traditional buildings and features  
% of listed buildings at risk  
number of locally important buildings and % at risk  
% of scheduled monuments at risk | * already adopted & recorded  
( ) not currently monitored |

* Local heritage – the no of Listed Buildings on the Buildings at risk register. Reviewed every 5 years  
* Community perception of Quality of Life - % of respondents to local surveys who were satisfied with their community as a place to live
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<td>LEISURE – Opportunities for culture, leisure and recreation are provided widely</td>
<td>To improve access to and the quality of cultural and leisure facilities.</td>
<td>Existence, location, capacity and use of facilities</td>
<td>* Visits to key sites (originally Theatre Royal/Barbican Theatre. Could be extended as suggested to other venues) * Sporting activities – BV 119 (b) % of residents by targeted grp satisfied with the local authority’s cultural &amp; recreational activities (sports and leisure)</td>
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<td>TRANSPORT AND ACCESS – Offering inclusive access to all services, including access for those without a car</td>
<td>To reduce the actual or perceived need to use road transport. To make vehicle use more efficient. To increase opportunities for walking, cycling and public transport use.</td>
<td>Extent of provision for non-car transport Relative use of different transport modes</td>
<td>* Traffic congestion – under review. * How Plymouth’s residents travel to work – under review. * The length of way marked footpaths in Plymouth. – under review. * Public Transport – The number of bus journeys made in and around Plymouth. Is both a C Strategy and LPS target. Measured by BV 102 and 104.</td>
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<td>BASIC NEEDS, EQUALITY AND DIVERSITY - Ensuring community cohesion, tolerance, understanding and equality of opportunity ++</td>
<td>To ensure that the needs of all sections of society are respected and taken account of. To promote comprehensive regeneration across the city but focusing on the areas in most need. To ensure services, facilities and environments are available and accessible to all sectors of the community. To improve access to affordable housing and other basic needs (including fuel, food, transport and water). To improve the quality of housing stock and options for housing (including energy efficiency).</td>
<td>Access to housing and essential services Investment in regeneration Activity of voluntary groups</td>
<td>Suitable indicators suggested by Audit Commission’s QoLife indicators (Currently under review) * The no of people actively involved in one or more community or voluntary organisations (Not monitored at present but under review by City Strategy team) * Housing Quality – The number of homes judged unfit to live in. Monitored by BV 62 and BV 184. * Homelessness – the no of homelessness acceptances made by PCC each year (under review)</td>
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<td>DEMOCRACY – All sections of the community are empowered to participate in decision making</td>
<td>To improve opportunities for participation in local action and decision making</td>
<td>Participation rates</td>
<td>A suitable community participation indicator (target) is currently under discussion for inclusion in the City Strategy. * % of the population who voted in the last election (under review)</td>
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Note: ++ Additional objectives to those from the Regional Sustainable Development Framework (this does not imply that the RDSF did not consider and provide for them, but simply that they were not specifically stated as principles)