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I. STATUS OF THE REPORT

1. This report (Volume 2) forms the second part of the sustainability appraisal (SA) and strategic environmental assessment (SEA) of the Preferred Options for the Core Strategy of Plymouth City Councils’ local development framework. (The first part of is contained in the SEA/SA Context Report - Volume 1).

1.1. In addition to the review of preferred options for the core strategy this report contains a reference to future monitoring requirements.

1.2. A Non Technical Summary is provided with this report.

Previous Appraisals and Assessments

1.3. Stage B of the SEA/SA involved the identification and appraisal of issues and options for achieving the objectives of the LDF. It was conducted in the spring, 2005 and resulted in an analysis of the sustainability strengths and weaknesses of each of the Area Action Plans. Those findings have been carried forward where relevant into the existing appraisal. They are reproduced in Volume 3, Appendix 2 for ease of reference.
2. APPRAISAL OF THE PREFERRED OPTIONS OF THE CORE STRATEGY

Introduction

2.1. This volume outlines the background to the Core Strategy and the main findings of the appraisal of the preferred options within it undertaken by the SEA/SA assessment team at Land Use Consultants. Our appraisal is inevitably based on a number of subjective judgements (which are summarised below). In reaching our conclusions, we have drawn on our analysis of the baseline situation, the characteristics of Plymouth and the sustainability issues it faces. Detailed findings are included in Volume 3, Appendix 3.

Assumptions and factors taken into account during the SA/SEA

2.2. As noted above, the SA/SEA inevitably relies on an element of subjective judgement and predictions about how people’s patterns of behaviour will change as a result of development, and how the development itself will be implemented. The following general assumptions and factors have been taken into account when appraising the various components of the Plymouth Core Strategy:

- Whilst development focused on previously developed land will place pressure on habitats and landscape near those areas, it could offer opportunities for investing in environmental improvements such as the creation of high quality and wildlife rich open spaces.

- The effects on travel patterns are difficult to determine, since this depends on a wide range of factors many of which are outside the remit of the planning system. Of these factors, perhaps the most significant influence is the cost of fuel, although the ease of driving from ‘A’ to ‘B’ is another.

Risks/Health Warnings

2.3. There are a number of risks associated with the above assumptions. For instance in order to achieve all of the development that will be required in the LDF, some of the high quality, sustainable design or environmental protection criteria may not be realised. Alternatively, if priority is placed on meeting the environmental protection and design criteria the LDF may not be able to implement the development the City Council has identified as being necessary to meet their social and economic objectives.

2.4. Opportunities to offset these impacts with positive actions elsewhere in the City or in neighbouring authorities have been recognised by the City Council as a mechanism to balance environmental, social and economic impacts and an obvious example is Sherford new development, in South Hams. Sherford is expected to take 4,500 dwellings and 80 ha of employment land of growth required to meet the anticipated needs of Plymouth to 2016.
2.5. Plymouth and South Hams action concurs with Strategic Sustainability Assessment (SSA) Scoping Report for the South West RSS\(^1\) which discusses the role of ‘strategic substitution’ of benefits as a valuable way to reconcile potentially conflicting objectives in a plan. The report gives examples of how many negative impacts of development could be offset by positive actions if they provide the same benefits (e.g. loss of access to recreational open space could in principle be substituted by opening up another area for recreational use provided it was equally accessible to the people who lost out, and was at least as suitable for their recreational uses.)

2.6. It is recommended that Plymouth City Council follows the progress of the findings of the Strategic Sustainability Appraisal of the South West RSS, and works further with its neighbouring authorities, Devon County Council and the South West Regional Assembly as it may be that more opportunities could be explored to ensure negative impacts from development are offset by positive actions within the City or vice versa.

**Appraisal of the Preferred Options for the Core Strategy**

2.7. The following paragraphs provide a summary of the findings of the SA/SEA. The overall conclusions and recommendations are set out at the end of this section. It should be noted that due to the holistic nature of some of the preferred options and the tight timescale in which they have been produced only a limited analysis could be undertaken.

**General Comments**

2.8. The LDF Core Strategy generally strives to meet the range of sustainability objectives identified during the SA/SEA. However, as discussed at the beginning of this section, there are tensions between the SA/SEA objectives when trying to provide sufficient land and infrastructure for necessary future development within the tight confines of the City.

**Specific Comments**

2.9. A number of comments are raised the headings of which are based on the formal structure of the draft Core Strategy Preferred Options report.

**Planning Policy Context:**

2.10. Whilst all three Preferred Options relating to the planning policy context are supportive of sustainable development principles, it is uncertain how realistic higher rates of growth are and whether they are too ambitious. The SEA/SA review questions whether there needs to be some “fail safe” option in case targets are not achieved responding to an unexpected slow down or, conversely, an option for dealing with the additional pressures that would arise if the increase in growth is above that which has been anticipated in any given timescale.

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\(^1\) Strategic Sustainability Assessment of the South West Regional Spatial Strategy. Stage 1 Scoping Revised Report for Consultation. Prepared for South West Regional Assembly by Land Use Consultants, Collingwood Environmental Planning and Levet-Therivel Sustainability Consultants. 25 August 2004.
2.11. Proposals need to ensure that the LDF is flexible enough to respond to changes in levels of growth, progress is monitored and necessary action is taken.

*The City Vision and the Preferred Spatial Vision:*

2.12. The City Vision and Preferred Spatial Vision support the creation of a thriving city, with a buoyant economy, a diverse range of employment opportunities, services and facilities to meet the needs of all sectors of the community. It is however uncertain from the current proposals whether the high growth targets can avoid development within flood risks areas, achieve equality throughout the city, avoid impacts on nature conservation, landscape, archaeology and heritage and avoid placing pressure on existing utilities and associated infrastructure.

*Sustainable Development:*

2.13. The proposal under this section strongly supports all of the sustainability objectives. However, as discussed in later sections, there will be tensions which will arise as a consequence of high growth and potential negative impacts on the economy, environment and communities.

*The Overall Level of Development:*

2.14. The “Sustainability Growth Distribution Study”, 2005 highlights that the growth scenario for Plymouth will need to rely upon increasing amounts of in-migration (despite allowing for adjustments in the local population and rising economic activity rates)\(^2\) to achieve its target growth. As we have discussed earlier, under paragraph 6.11, there will need to be a considerable step change to achieve these targets and it is uncertain how realistic they are.

*Delivering Quality:*

2.15. Achieving a high quality environment for the City is vital in order to attract inward investment and encourage people to both live and work within the City. Positive effects generated from this proposal relate to improvements in the public realm, building and infrastructure, improvements in health, well being and quality of life and crime reduction. In addition, the creation of a high quality environment will instil confidence in businesses to invest and could encourage the retention of workers.

2.16. Whilst these proposals are not assessed as having any significant negative effects there are uncertainties associated with what effect proposals will have in conserving and enhancing nature conservation interest, the siting of development in areas vulnerable to flooding and how good design can adhere to sustainable principles.

2.17. Given the high level of predicted growth, proposals in the LDF need to take radical steps to reduce the consumption of primary resources, through:

- Waste minimisation,
- Reduction in energy and water consumption,
- The reuse of construction and demolition waste materials in new development/infrastructure works and thus the use of primary minerals and aggregates,
- Sourcing of local materials to reduce vehicle trips,
- Encouraging the use of renewable energy sources and sustainable urban drainage.

**Housing:**

2.18. The Core Strategy proposes a significant increase in the number of dwellings over the Plan period by seeking to provide for 10,000 homes from 2001 to 2016, and accommodating a further 4,500 in South Hams in Sherford, adjoining the City to the east. The strategic approach of locating up to 80% of new housing on previously developed land is welcome, but this still implies that several greenfield sites will have to be allocated for development. This will result in the erosion of landscape character, biodiversity, archaeology, heritage, and impact on adjacent communities and businesses.

2.19. In reviewing sites for Gypsies and Travellers, consideration needs to be given to the provision of adequate infrastructure facilities (water and energy supply) and the siting of development close to the public transport network. Proposals need to be sensitive to adjacent land uses, including the viability of businesses and communities quality of life.

2.20. Proposals should seek to ensure that new development adheres to sustainability principles of construction and design (as discussed earlier under the heading of delivering quality), seeks to minimise the number of car parking spaces and encourages connectivity and accessibility through the development itself as well as linking to existing communities.

2.21. Measures need to be taken to prevent incremental development beyond the agreed limits of new settlement boundaries and encourage the utilisation of existing buildings. As with all development the scale, duration and significant of such impacts will depend on the timing and location of development.

2.22. Taking a step back from Plymouth’s current proposals, we have to recognise that the factors which influence how people live, work and play are extremely complex. Their decisions are not merely dependent on the proximity to work/home but also on quality of life, proximity to their friends and access to the countryside. We must also question whether such development will success in meeting the needs of those currently disadvantaged in local communities (rather than those with substantial incomes) and whether a target of 25% affordable housing is achievable. By advocating high quality design and the restoration of prime sites (many of significant historical interest) such as waterfront dwellings, local communities may be priced out of the market by “incomers” able to pay higher prices and meet developers’ costs.

2.23. In reviewing the Preferred Options, consideration needs to be given to the following:
• Is Plymouth going to be a location of choice for people commuting into the location and receiving higher level than average incomes?

• Will improvements in connectivity merely widen the scope for employees to choose where to live – resulting in longer and less sustainable travel to work patterns?

• Will the makeup of existing communities be altered/ severed through new proposals?

**Employment:**

2.24. The City Council has three specific goals; ensuring that there is a sufficient range, mix and quality of employment land and premises, taking a flexible approach to unviable or surplus land/premises and safeguarding strategic employment sites. To respond to these goals, Plymouth has a target of 160 ha of employment land of which 80ha will be within the City limits. The drive towards promoting economic growth and attracting investment, and in turn stability, is critical to the LDF achieving its goals. However such goals will have negative consequences on the environment and communities which will need to be mitigated as far as possible.

2.25. The key negative impacts include the erosion of landscape character, biodiversity and heritage/archaeology, impact on communities’ quality of life, viability of adjacent land uses and displacement of existing businesses and the generation of cumulative effects from incremental development. As with all development, the scale, duration and significance of such impacts will depend on the timing and location of development.

2.26. The conclusion from the review is that proposals need to be carefully monitored to ensure that large employment sites lie close to sustainable modes of transport. Opportunities should be explored to encourage developers to submit Green Travel Plans and adhere to environmental friendly management practices.

2.27. In reviewing the Preferred Options it is considered that the LDF’s proposals may be over-ambitious. This comment is made against findings from the “Sustainability Growth Distribution Study, 2005” which states that Plymouth has one of the lowest levels of economic activity in the region; at 76.6% and the stock of VAT registered business has fallen by more than 10% over the period 1996-2002. As the report states “these are signs not of economic prosperity but of a local economy under economic stress and fragility”. From the SEA/SA review it is considered that the following questions need to be addressed:

• Will the creation of new employment sites merely result in the relocation of some businesses to more attractive, new locations having negative consequences on those areas that are vacated?

• What measures will be in place to compensate displaced businesses?

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• Are the six priority economic sectors for growth appropriate, given that the above study indicates that advance engineering and marine technologies/industries are “forecast to decline over the period to 2026”

**Retailing:**

2.28. These proposals are generally supported against the sustainability objectives. They seek to redress the imbalance in retail provision and concentrate development in local and district centres which are accessible by sustainable transport modes and will help to develop sustainable communities. Proposals should encourage a diversity of employment opportunities and support the vitality and viability of commercial centres.

2.29. Care needs to be taken when considering development that sites of landscape, nature conservation, heritage and archaeological interest are not eroded and that the local distinctiveness of the area is enhanced.

2.30. The City Council should monitor land uses to ensure an area has a broad range of uses.

**Culture and evening/night economy:**

2.31. The LDF proposals take a positive approach to redressing the conflict between promotion of evening/night uses and communities while at the same time protecting communities’ quality of life, encouraging diversity and new employment opportunities. However as our review has highlighted, it may be difficult to encourage alternative new development in areas where there are existing problems with drinking establishments/night clubs. In addition, in tourist and leisure locations care needs to be taken to ensure that proposals do not impact on communities’ quality of life during the day and night.

2.32. Incentives may have to be offered for new businesses to locate in areas suffering problems with excessive noise, litter, crime and antisocial behaviour through, for example, low business rentals. Concentration of land uses associated with evening use must be closely monitored to ensure it does not exceed capacity, and for tourist/leisure areas of the City, a detailed assessment should be undertaken into the carrying capacity of the area for tourists.

**Education/Skills:**

2.33. Proposals to invest in educational facilities and infrastructure, reuse existing infrastructure and widen the community use of school facilities are a very positive opportunity to improve access to learning, skills and training for all ages and improve community integration. Potential negative effects or uncertainties are associated with the erosion on landscape, biodiversity, archaeology and heritage through new school development. In addition, falling birth rates and smaller school roles could result in the need to widen school catchment areas which may, in turn, create a pressure on the existing public transport network.
2.34. All proposals need to be considered against the opportunity to link into the public transport network and improved cycle paths and footpaths.

**Connectivity and Transport in the Urban Area:**

2.35. Proposals relating to improvements in connectivity and transport in urban areas should instil greater business confidence, strengthen existing/future business sectors, overcome issues relating to social exclusion and deprivation, encourage more flexible working and to a lesser extent (depending on the mode of transport) have positive effects on air pollution and greenhouse gases.

2.36. Potential negative effects relate to the erosion of landscape character, biodiversity, archaeology and heritage, the severance of existing communities, the loss of important corridors for walking and cycling through the safeguarding of land for future development and the impact on adjacent land uses including the viability of local businesses and communities’ quality of life. In addition, whilst proposals seek to reduce vehicular emissions through the development of a Mass Transit Network with transport hubs and associated facilities and transport improvements by rail and sea, the promotion of a regional airport will result in an increase in air flights with negative consequences on greenhouse gases.

2.37. Added to this, the preferred options infer the application of “maximum car parking standards” but do not conclude whether there is a ceiling for the number of car parking spaces per household or per number of employees.

2.38. A number of questions face Plymouth City:

- How achievable is the Public Transport Network?
- Where will investment come from?
- Will the phasing of infrastructure proposals be in line with development proposals?
- Will it have the capacity to respond to levels of significant growth after 2016?
- What measures need to be taken if this does not occur?
- Will people make a modal switch?
- What are the implications on land safeguarded for future development?

2.39. To achieve this modal switch a strong commitment should be made, not only by the City Council but also by existing and new businesses. Employers and developers need to be encouraged to submit Green Travel plans and promote flexible working patterns as well as explore with the Council opportunities to minimise car parking spaces and consider dual use. In addition to developing a reliable, efficient, flexible, “easy to use” public transport services innovative solutions should be explored to reduce energy consumption through alternative fuel sources and solar powered signage.
**Waste:**

2.40. The urgent requirement to respond to a rapidly declining capacity to send waste to landfill is recognised in the LDF but the SEA/SA assessment team doubts whether sufficient action is being taken by the City to bring about a change in public attitudes leading to reduction of waste at source and an appropriate level of recycling. Despite the wish for Plymouth to be self sufficient and adhere to the proximity principle, the interim proposals to transport waste beyond the City limits in response to a diminishing land fill capacity at Chelson Meadows are unsustainable in the longer term. In addition, it is uncertain from the Core Strategy where waste will be transported to, what capacity such sites have and how waste will be transported. These concerns are stated baldly because this issue is seen as one of the most important affecting Plymouth’s aspirations to realise its vision as a role model amongst European cities.

2.41. Negative impacts of waste relate to air and noise pollution, odour, health, quality of life, the impact on adjacent land uses and vehicular use in transporting waste potentially long distances. These impacts will be exacerbated if waste managers have difficulties responding to the enormity of the task and new development commences within the next five years.

2.42. There needs to be a strong commitment from the City Council to address this issue which it is hoped will be covered through the Waste LDD, which should also respond to short and medium term issues. Whilst Preferred Option 2 takes a positive and proactive stance encouraging “waste minimisation and reuse, sustainable resource use during construction and the provision of adequate facilities for recycling within new developments”, more should be done to explore alternative mechanisms for waste transportation and innovative solutions to generate energy from waste.

**Minerals:**

2.43. Plymouth has a wealth of limestone reserves lying predominately to the eastern edge of the city. Potential negative impacts from the continued excavation of Hazeldeane Quarry relate to air, noise and water pollution, vibration and heavy vehicular movements from HGVs, the erosion of landscape character, biodiversity, archaeology and heritage, and impact on adjacent land uses and communities’ quality of life. The plan proposals envisage a change in the basic minerals extraction programme to allow northwards rather than eastwards extension of Hazeldene Quarry. This will maintain the present level of mineral reserves in the area while allowing for the Sherford new development to take place. There will inevitably be some sterilisation of future reserves.

2.44. The conclusion from the review is that a comprehensive EIA needs to be undertaken of the any future workings, monitoring plans need to be in place and appropriate mitigation measures take to overcome any negative impacts. In addition, where possible, there should be progressive restoration to safeguard, recreate or create new landscapes/habitats, which will include the reinstatement of soil where appropriate and rights of way.
Environment and Greenscape:

2.45. Strong tensions exist between the protection of the environment and greenspace, and major development proposals relating to housing and employment land, infrastructure improvements, waste management and minerals extraction. The Council recognises these tensions and has drafted a very supportive proposal which seeks to minimise the effects on landscape, nature conservation, archaeology and heritage, reduce the consumption of non renewable, increase renewable energy targets, minimise pollution and respond to flood risk. However, it has to be accepted that 20% of development will not take place on previously developed land and that some previously developed land is a valued resource which will be lost.

2.46. What is lacking from the proposal is how the City will respond to further sporadic/incremental development over and above the determined settlement/or employment allocated boundaries, how wildlife corridors and the visual integrity of large swathes of woodland running through valley corridors will be maintained. In addition it is unclear what sustainable development criteria will apply to proposals which may be promoted in flood risk areas.

2.47. Careful consideration also needs to be given to the visual integrity of Plymouth as a whole. Further development beyond that identified in the plan must be carefully monitored to ensure that there is no further erosion of the greenspace.

Community Health, Safety, Well Being and Social Inclusion:

2.48. The Core Strategy seeks to create sustainable districts and local neighbourhoods, where all communities have good access to health care facilities and services, to good quality homes, feel safe and where access for all is encouraged. As the Core Strategy Preferred Options Report states “health, wellbeing and safety are all interrelated.”

2.49. Improvements in the quality of facilities and services and access to such services and facilities (health care, child care, sport and informal/formal recreation and good housing and high quality design) will have a positive effect on improving healthy lifestyles, communities’ quality of life and reducing crime levels. This will in turn instil confidence in existing and prospective businesses to relocate to the area, should encourage community integration and participation and overcome social exclusion and deprivation. As “Our City’s Health” strategy indicates, the most important determinant of good and bad health is poverty and deprivation. Proposals in the strategy tie in with the Core Strategy options seeking to:

- overcome isolation through improvements in public transport,
- improve the quality of housing, public and green spaces,
- tackle poverty through improved insulation (lifetime home standards),
- Reduce levels of unemployment,
- Improve literacy and numeracy,
- Achieve minimise standards from drinking water,
• Improve on vehicular exhaust emission standards.4

2.50. Potential negative effects of the proposals relate to an erosion of landscape character, biodiversity, archaeology and heritage if new sites for primary health care, sports/recreational facilities are required. In addition, it is unclear from the proposal whether a clear assessment of future need and demand has been undertaken as part of the Sports Facilities or Playing Pitch Strategies and whether this accords with Government Guidelines in PPG 17.

2.51. A full assessment needs to be undertaken of future demand based on predicted housing and employment land allocations within parts of the City. In addition it will be important to ensure that all large formal sports facilities are linked to the public transport network and are accessible by improved cycle routes and footpaths.

**Core Strategy S106 Obligations:**

2.52. At face value, this proposal is positive in terms of generating opportunities to support affordable housing, education provision, access, local labour/training initiatives, nature conservation, public area, public realm works and recreation including the provision for open space, sports and recreation. However, in practical terms it is not possible to test the proposal itself against the Sustainability Objectives without knowing details of the measured to be taken.

2.53. In reviewing the proposal, it is considered that the City Council should monitor where monies generated from Section 106 agreement are invested to ensure that they are evenly distributed and meet demand within key locations throughout the City.

**Building Sustainable Linked Neighbourhoods:**

2.54. The proposal is supportive of sustainability objectives; creating sustainable districts and local neighbourhoods where people can both live and work, instilling investor confidence, reducing the need to travel elsewhere for services and facilities and improving the quality of the infrastructure. Whilst there are no negative effects, there are a number of uncertainties associated with how new residential development will link in with existing communities, whether the demographic profile will alter and how future increases in population over and above figures identified in the LDF will be achieved.

2.55. In reviewing development proposals, the cumulative impacts need to be monitored and carrying capacity of specific areas determined to ensure local communities quality of life is unaffected and the demographic makeup is not altered.

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4 Out City’s Health – A framework to inform, influence and challenge partners to improve health and well being and reduce health inequalities across Plymouth, Plymouth Public Health Development Unit, 2005
Area Visions and Strategies:

2.56. Nine area visions and strategies have been prepared as part of the Core Strategy covering:

- Devonport
- Millbay and Stonehouse
- The City Centre
- The Hoe
- Sutton Harbour
- East End
- Central Park
- North Plymstock
- Derriford, Seaton and Southway

2.57. Whilst all of the area visions/strategies broadly coincide with sustainability objectives a number of issues are raised from the SA/SEA review. As these points apply to most of the areas, they have been summarised in the list below:

- What measures can be introduced to ensure that new employment opportunities are available to local employees/unemployed rather than encouraging in-migration?
- Will future proposals upset the existing demographic profile in the area in question and will this have a positive or negative effect?
- Will achieving a high quality environment prejudice existing local communities by driving up costs of housing and increasing costs of convenience purchases?
- Have the impacts on communities’ quality of life from adjacent land uses (relating to night/evening economies, waste, minerals and industrial activities) been fully considered?
- Have the impacts on adjacent land uses from new development proposals been considered and will the viability of such uses suffer?
- Will there be impacts on aquatic habitats from waterside developments and, in particular, marine related industries?
- Have issues relating to overshadowing, wind funnelling and visual impacts been considered in the siting of development within high density locations?
- In areas where there will be an increase in visitor activity has consideration been given to the provision of a public transport service both day and night?
- Has the carrying capacity/threshold for visitors been determined in prime tourist areas within the City and how will this be monitored?
- What measures have been taken to minimise car parking provision?
- Is there an opportunity for dual use of facilities especially in higher density locations?
- How will the development integrate visually with other features/developments on the skyline?
- What will be the impact on displaced land uses including bad neighbourhood land uses and the implications of travel for local employees?
- Will short term impacts associated with construction and relating largely to air, noise and water pollution be mitigated?
• During the operation/implementation phase of a development, how will issues relating to vibration, noise, odour, air pollution and the movement of heavy vehicles be overcome?
• What is the proximity of development to areas at high risk of flooding?
• How will further recreational pressures from increased development and population on adjacent sites of important landscape, nature conservation, archaeological and heritage interest be overcome?

We recognise that the LDF will not be able to address some of these questions immediately, but would wish these questions to be considered when future proposals are brought forward.

2.58. All Area visions and strategies need to reflect clear design principles which seek to achieve high quality design and the use of sustainable design and construction techniques. Proposals must ensure that the following issues are dealt with (some of which are covered elsewhere in the LDF):

• Design out crime,
• Encourage the reuse of construction and demolition of waste in new development,
• Promote the sourcing of local materials to reduce vehicular trips,
• Reduce energy and water consumption,
• Minimise waste generation,
• Ensure that there is adequate provision of green space for formal and informal recreation,
• Ensure that development reflects local distinctiveness,
• Minimise car parking provision.

It should be noted that for many of the area action plans it is only possible to make limited judgements about the sustainability of the individual visions/strategies, in the absence of a clear understanding about the proportion of housing and employment land allocations, the relationship of areas to proposed improvements in the public transport network and car parking standards.

Conclusions and Recommendations

2.59. Many of the proposals and in particular the area visions and strategies are reliant on future investment, land negotiations and compulsory purchase orders. The success of elements of an area’s vision depend on the phasing of development occurring and its relationship with adjacent land uses. Conflicts between adjacent land uses could easily occur if the phasing of development does not materialise or negotiations provide unsuccessful. In some cases, this could lead to significant negative impacts.

2.60. Given that in-migration will be the primary mechanism for encouraging prosperous economic growth, the primary challenge facing Plymouth is to retain both existing and future workers, who given the more diverse range of employment and incomes on offer could be more likely to chose to live elsewhere, attracted by a better quality of life. A substantial level of investment needs to be made in the quality of the environment, and in infrastructure and public transport network for future workers
to encourage them to make a lifestyle shift. In consequence the City Council will need to consider what level of risk it is prepared to take in making its commitment to the overall vision.

2.61. Inevitably there will be environmental impacts associated with providing the required housing, employment land and associated infrastructure to meet the needs of the City to 2016. There will be particular pressures on the loss of greenfield land, landscape character and habitats if the planned urban extension goes ahead.

2.62. Challenges may also arise when trying to provide development that is in keeping with the historic character and setting of City, but also incorporates sustainable construction and design measures such as re-use of construction and demolition materials, the sourcing of local materials, water and energy efficiency measures or providing storage for waste to be recycled and adequate recycling facilities. In addition, it seems reasonable to question whether should more be done to adhere to sustainable design in new development and raise targets above 20% for lifetime home standard dwellings?

2.63. Without provision of adequate, reliable public transport network, car dependency and use will increase, having the negative effects of exacerbating traffic congestion and increasing air pollution contributing to climate change.

2.64. The City needs to consider taking a proactive stance to flood risk and rising sea level through the careful siting and design of development.

Recommendations

- The Core Strategy needs more text describing the context and supporting information for the Core Policies in order to establish a better link between the Core Strategy Preferred Options and Area Action Plans.

- In line with PPG25, flood risk will need to be assessed when deciding on specific locations for development, and Plymouth City Council should work with the Environment Agency to undertake a Strategic Flood Risk Assessment for the City, which could be drawn upon when assessing development proposals.

- Public transport infrastructure needs to be in place well in advance of new development occurring - It is important not only to influence this modal shift through residential development but also through major employees. All new large scale businesses should be required to submit green travel plans and commit some level of contribution /investment where not adjacent to the bus network to improve footpath and cycle route links.

- Apart from working with CABE for large scale developments, a Design Guide should be produced for all development on the re-use of construction and demolition materials on site, for example through planning conditions requiring developers to provide a demolition plan and cover efficient water and energy use as part of the sustainable construction and design guidance.
3. **MONITORING FRAMEWORK**

3.1. The SEA Directive requires that the significant environmental effects of implementing a plan or programme should be monitored in order to identify at an early stage any unforeseen adverse effects, and to be able to undertake appropriate remedial action. SA monitoring will cover the significant sustainability effects as well as the environmental effects.

3.2. Only a limited number of significant effects have been identified or predicted through the appraisal of the Core Strategy and Area Action Plans although there are a number of significant risks to be considered. These include:

- Development in flood risk areas,
- Over-pricing of property in district centres and desirable locations like the waterside which could price out existing local residents.

3.3. It is recommended that Plymouth City Council follow the comprehensive guidance set out in Annex 11 of the ODPM SA guidance, which suggests how local planning authorities should develop an SA monitoring framework, building on existing monitoring systems such as the Annual Monitoring Reports for the LDF. The SA guidance also notes that SA monitoring could be “authority-wide”, i.e. the same information collected through the monitoring system could be used to monitor the effects of several plans within the authority.

3.4. SA monitoring should involve measuring indicators which enable a causal link to be established between implementation of the LDF and the likely significant effect being monitored. Potential indicators have been proposed in the Scoping Report for each of the SA/SEA sub-objectives, drawing from existing sources of indicators in order to ensure recording of data for the indicator is already established (at the District, Regional or National level). These indicators should be used as a basis for developing the SA monitoring framework.

3.5. As stated in the SA guidance, information used in monitoring will in many cases be provided by outside bodies. This has already been evidenced by the additional baseline information provided by the statutory environmental consultees during consultation on the Scoping Report for this SA/SEA. It is therefore recommended that Plymouth City Council should continue the dialogue with statutory environmental consultees and other stakeholders commenced as part of the SA/SEA process, and work with them to establish the relevant sustainability effects to be monitored and to obtain information that is appropriate, up to date and reliable.

3.6. The dialogue and monitoring process could best be achieved through the establishment of an SA/SEA steering group either within the District, at the County level, or perhaps by making use of the existing steering group created for the Strategic Sustainability Assessment of the South West Regional Spatial Strategy, which meets regularly and includes representatives of the statutory environmental bodies,
the Regional Development Agency, the Regional Assembly, local authorities and other social and environmental organisations.

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3.7. Ideally, the monitoring arrangements required for ensuring the delivery of sustainability objectives will be built into routine annual monitoring programmes for ensuring that all other aspects of the plan are on course.