

SEA/SA
of
Preferred Options for
NORTH PLYMSTOCK
Area Action Plan
Volume 2

Prepared for
Plymouth City Council

By
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July 2005

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I. STATUS OF THE REPORT

Introduction

- 1.1. This report (Volume 2) forms the second part of the sustainability appraisal (SA) and strategic environmental assessment (SEA) of the Preferred Options for the North Plymstock Area Action Plan contained in Plymouth City Councils' local development framework. (The first part of the report is contained in the SEA/SA Context Report - Volume 1).
- 1.2. In addition to the review of preferred options for the Area Action Plan this report contains a reference to future monitoring requirements.
- 1.3. A Non-Technical Summary accompanies this report and Appendices are included in Volume 3.

Previous Appraisals and Assessments

- 1.4. 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. In addition, more has been written about the emerging policies for the Cities' AAPs in the Preferred Options for the Core Strategy, which is reviewed in a separate document (Volume 2). This has been followed by a review of the policies and proposals contained within the Core Strategy which sets the context to each Area Action Plan. SEA/SA comments on the Core Strategy references to North Plymstock AAP are repeated below for ease of reference.

SEA/SA Commentary on North Plymstock AAP in the Core Strategy

The proposals for the North Plymstock Area Action Plan appear broadly sustainable although, inevitably, some conflict of interest may arise and these issues are raised through the following questions:

- *Achieving sustainable urban communities through the redevelopment of Plymstock Quarry is a positive approach to future planning. However in the design it is important that housing stock and types meets the needs of the local community, are affordable and that the design of buildings is sensitive to the surrounding built and natural environment and reflects/retains locally distinctive features.*
- *It is important to ensure that all new development proposals consider opportunities to source materials locally and through sustainable design, reduce energy and waste consumption.*
- *Proposals to redevelop on land adjacent to Moorcroft quarry and development adjacent to the existing waste management area (south west of Chelson Meadow) must consider the proximity of proposed development adjacent to quarry and potential impacts on the new community's quality of life e.g. noise from blasting and dust from air pollution.*
- *Any proposals resulting in the loss of Billacombe Green common land must consider the nature conservation importance of the land lost to development.*
- *Careful consideration should be given to cliff stabilisation and safety issues associated with site seclusion.*
- *Design proposals must consider the future management of the site and explore for example opportunities to compost and reuse grey water.*
- *Care needs to be taken to enhance the image of the waterfront position at Breakwater Employment Centre and ensure waterfront access by all is retained where possible.*
- *It is important in promoting employment growth that a wide variety of opportunities are available and the needs of the local community are met. Green travel plans should be considered alongside development proposals.*

2. APPRAISAL OF THE PREFERRED OPTIONS FOR NORTH PLYMSTOCK AREA ACTION PLAN

Introduction

- 2.1. This chapter outlines the main findings of the appraisal of the preferred options of North Plymstock Area Action Plan. In reaching our conclusions, we have drawn on our analysis of the baseline situation, the characteristics of Plymouth and the sustainability issues it faces. In addition, we have undertaken a brief review of the SA of South Hams Sherford Community Area Action Plan Preferred Options Paper. In all instances, an explanation for our assessment has been provided, in the matrices set out in **Table 2**.

Appraisal of the Preferred Options for the AAP

- 2.2. An appraisal of the Preferred Options was split into two sections, firstly a review of the SA Objectives against the principles of the Area Action Plan and secondly a more detailed appraisal of the preferred options.

Reviewing the SA Objectives against the Preferred Option Principles

- 2.3. The SEA/SA of the Preferred Options for North Plymstock Area Action Plan takes its starting point with a review of the vision and principles see **Table I**. Overall the vision and principles adhere to the sustainability objectives; however from a brief review there are a number of issues which may potentially generate negative impacts. These include:

- The proposals may lead to a sterilisation of land identified as a valuable mineral resource.
- Care needs to be taken to ensure that potential negative impacts associated with creating mixed use villages in close proximity to land use facilitating the extraction of minerals and collection, treatment and management of waste are mitigated.
- The siting of development in close proximity to the River Plym may be hampered by concerns over fluvial flooding and a potential rise in sea level.
- One area which needs to be considered in further detail is how the proposed new neighbourhoods interrelate with existing communities. Questions which will need to be considered include – will there be pressure on existing services and will there be sufficient employment opportunities during the construction phase and afterwards to respond to low employment levels.?
- Further details need to be provided in relation to car parking provision. Will the AAP be seeking to reduce parking provision in residential areas? The proposal is reliant on encouraging people to make a modal shift. Can this be achieved and if not what measures need to be taken to respond to rising levels of traffic and congestion?

- The design and construction of buildings should seek to not only reduce energy consumption but also water consumption, source materials locally and use where possible secondary materials.
- Proposals should seek to support local employment opportunities during construction and implementation.

Table 1: North Plymstock AAP SA Objectives and Principles	
SA Objectives	North Plymstock Principles
BIODIVERSITY – Biodiversity and landscape are properly valued, conserved and enhanced	CREATE NEW 21 CENTURY NEIGHBOURHOODS- establish sustainable mixed use villages, providing locally for the needs of residents and which effectively connect with and relate to the existing adjacent urban area
POLLUTION – Pollution is limited to levels which do not damage natural systems	A HIGH QUALITY PUBLIC TRANSPORT SYSTEM- new developments will link into and contribute proportionally to the implementation a new mass transit scheme
CLIMATE CHANGE – Emissions contributing to climate change are reduced and adaptation measures are in place	WALKING AND CYCLING COME FIRST – within and between neighbourhoods walking and cycling will be made easy, safe and pleasant
RESOURCES – Demands on natural resources are managed so that they are used as efficiently as possible	PROTECTED MINERALS RESOURCES & PROVIDE FOR WASTE TREATMENT AND MANAGEMENT – development and land use will protect and facilitate the extraction of minerals and collection, treatment and management of waste
ENERGY – Efficient use of energy	PROVIDE GREEN LINKS AND GREEN SPACE – development will facilitate a web of green links and the provision or contribution towards extensive areas of wildlife rich open space
WASTE – Waste is minimised and, wherever possible, eliminated	SUSTAINABLE EMPLOYMENT AND JOBS – new development will protect existing viable jobs and provide new local employment opportunities for local residents
ECONOMY – A diverse and thriving economy	MEETING THE NEEDS OF EVERYONE IN THE COMMUNITY – new neighbourhoods will provide for the health, housing, recreational, accessibility, educational, social, cultural, governance needs of the communities they serve
WORK AND INCOMES – Everyone has access to satisfying and fairly paid work and unpaid work is valued	ENHANCEMENT OF EXISTING CORRIDORS AND GATEWAYS – the relationship and quality of existing frontage development on main corridors and at gateway locations will be improved
LOCAL NEEDS – Wherever possible, local needs are met locally so support local economies	HIGH QUALITY DESIGN, ARCHITECTURE AND LOCAL DISTINCTIVENESS IS ALWAYS EXPECTED – the design of buildings and spaces, their relationship, connections and materials will be good quality and make places
HEALTH & WELL-BEING – Promoting everyone’s physical and mental wellbeing	SUSTAINABLE & ENERGY EFFICIENCY – environmental and natural resource protection will underpin the design and development of new communities, so that future generations can meet their needs and have good quality lives
LEARNING – Everyone has access to lifelong learning, training opportunities, skills and knowledge	A HIGH QUALITY OF LIFE FOR EVERYONE IN THE COMMUNITY – will be provided by creating the conditions to promote good; physical and mental health, individual and community well being ,personal and environmental safety
SAFETY – Everyone is able to live without fear of crime or persecution	PLAN DEVELOPMENT NOW TO FACILITATE FUTURE DEVELOPMENT – development in their period will be planned such that the potential for conflict is designed out and future connection designed in

DISTINCTIVENESS AND CULTURAL HERITAGE – Diversity and local distinctiveness and cultural heritage are valued, protected and celebrated		
LEISURE – Opportunities for culture, leisure and recreation are provided widely		
TRANSPORT AND ACCESS – Offering inclusive access to all service, including access for those without a car		
BASIC NEEDS, EQUALITY AND DIVERSITY – Ensuring community cohesion, tolerance, understanding and equality of opportunity		
DEMOCRACY – All sections of the community are empowered to participate in decision making		

Appraisal of each Preferred Options

- 2.4. In order to predict and assess the significance of the preferred options, the probability, duration, frequency and reversibility of the effect were determined. In making the assessment, the following issues were considered:

Timescale: are the potential effects short, medium or long term and are they temporary or permanent?

Magnitude, scale and likelihood of occurrence: What is the scale of the effect, minor, moderate or major considering the geographical area and size of population likely to be affected and where it will occur.

Significance: Will the effect of the preferred option have a positive, negative, uncertain or neutral effect.

Cumulative/secondary and synergistic effects: Identification of potential cumulative, secondary and synergistic effects through implementing development following the policies in the plan.

Mitigation: Measures where possible will consider how the effect can be avoided through conditions or changes in the way in which it is implemented. Measures will consider alternatives, the refinement of the policy, additional policies or policy criteria to reduce the impact and/or supplementary planning guidance. Where there are proposals mitigation measures can be more specific.

Table 2: SA of Preferred Options																	
Preferred Option	Sustainability Objectives																
	Biodiversity	Pollution	Climate Change	Resources	Energy	Waste	Economy	Work and Incomes	Local Needs	Health and Well being	Learning	Safety	Distinctiveness and cultural heritage	Leisure	Transport and Access	Basic Needs, Equality and Diversity	Democracy
1 Plymstock Quarry	- 1	?	1	1	2	1	1	1	1	?	1	1	1	1	1	1	0
2: Pomphlett Industrial Estate	?	0	1	1	0	1	1	1	1	0	0	0	0	0	1	0	0
3 Billacombe Green	1/- 1	0	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0
4: Wakehams Quarry, river and road frontage	?	?	?	?	?	?	1	1	1	?	?	?	1	0	?	0	0
5: South West sector of Chelson Meadow	0	?	0	0	?	1	0	1	0	-1	0	?	0	0	0	0	0
6: Chelson Meadow Restored landrise site	1	?	0	0	0	2	0	1	0	2	1	?	1	2	1	1	0
7: Saltram House and Country Park	1	0	0	0	0	0	0	0	0	1	1	?	1	2	1	1	0
8: Moorcroft Quarry	0	?	0	1	0	2	1	1	0	0	0	?	0	0	0	0	0
9: Hazeldene Quarry	?	?	0	1	?	0	1	1	0	?	0	?	0	0	0	0	0
10: Strategic High Quality Transport Links	1	1	1	0	1	0	0	0	0	1	1	1	0	1	2	1	0
11: Elburton	1	?	1	1	1	?	0	?	0	?	1	1	?	1	1	1	0
12: Potential Long term development	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	1	0

Key	
2	Strongly sustainable
1	Sustainable
0	No impact
-1	Unsustainable
-2	Strongly unsustainable
?	Uncertain

Key Findings

2.5. Below is a brief review of the findings based on each option see **Table 2** above for a summary of findings.

Option 1: Plymstock Quarry

- 2.6. **Strengths:** This option proposes to support and encourage a modal shift in transport, which in turn should have a positive effect on the health and quality of life for the local community. Seeking to generate energy from renewable measures and energy from waste (subject to financial viability) will be a positive step in reducing the consumption of natural resources. In addition, a wide range of employment opportunities should be generated, high quality design achieved which should overcome issues relating to crime and anti social behaviour and development is based on previously developed land.
- 2.7. **Weaknesses:** Although it is stated under the core principles for this AAP, the design of development should seek to minimise water consumption and ensure that where possible materials are reused/recycled. Minor short term negative effects will be generated during the construction period of the work associated with air and noise pollution. In addition it is uncertain whether new communities quality of life will be affected by air and noise pollution as well as odour given its proximity to option 5 Chelson Meadow and Option 8 Moorcroft Quarry. It is also uncertain what the potential impact of the development will be on nature conservation and landscape, especially its visual relationship with Saltram House and Park. What will be the make-up of the community and will properties be purchased by second home owners?
- 2.8. **Timescale:** Short to long term (over the next 2-11 years)
- 2.9. **Likelihood:** Uncertain
- 2.10. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Care needs to be taken to ensure that proposals reduce negative impacts through careful design and monitoring.

Option 2: Pomphlett Industrial Estate

2.11. **Strengths:** Local employment opportunities have been retained by the transfer of units to an alternative location on site.

- 2.12. **Weaknesses:** The importance of the rock face for nature conservation needs to be assessed and appropriate mitigation measures taken if necessary. There is the potential for short term impact associated with the temporary disturbance to the viability of units and access into the site for employees. There are also short term issues associated with pollution; in particular air and noise during construction.
- 2.13. **Timescale:** Short to medium term (over the next 2-11 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur.
- 2.14. **Likelihood:** High.
- 2.15. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** A risk assessment needs to be undertaken, prior to works commencing to ensure proposals to remove the narrow band of steep rock wall do not impact on adjacent land uses, ground water table or biodiversity.

Option 3: Billacombe Green

- 2.16. **Strengths:** Positive potential effects from this proposal are associated with long term measures to protect and enhance both the landscape and nature conservation interests of the site and improve pedestrian links. Indirect effects relate to healthier lifestyles and improvements in people's quality of life.
- 2.17. **Weaknesses:** Potential negative impacts on biodiversity and landscape through recreational pressure and disturbance from adjacent land uses on the site associated with noise, air and water pollution.
- 2.18. **Timescale:** Medium to long term (over the next 5-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur
- 2.19. **Likelihood:** High.
- 2.20. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Through design and monitoring care needs to be taken to assess the capacity of the site and ensure measures are take to protect areas of local nature conservation interest.

Option 4: Wakehams Quarry, river and road frontage

- 2.21. **Strengths:** This proposal will have a positive effect on the landscape through high quality design and the integration site with the remainder of the waterfront. This option should provide for a wide range of employment opportunities in both the office and retail sector.
- 2.22. **Weaknesses:** Potential impacts associated with proposals to maintain waste management facilities at Chelson Meadow(e.g noise, air pollution and traffic movements) need to be overcome if this site is going to be used for mixed use development. Although it is stated in the overarching principles the proposal does

need to consider opportunities to reduce energy consumption and minimise waste through the reuse of materials and careful design. The importance of the site in terms of nature conservation interest needs to be carefully assessed. Uncertainties relating to floodrisk need to be overcome. Careful consideration needs to be given to the viability of displaced businesses and their dependence of access network. It is uncertain whether an alternative more suitable bus depot will be found. Two important questions for the future concern the social mix and make up of the community and the prospect, given the waterfront location, that property prices will rise through acquisition by more affluent incomers and second home owners.

- 2.23. **Timescale:** Medium to long term (over the next 10-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur
- 2.24. **Likelihood:** Uncertain.
- 2.25. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Measures need to be put in place through the design of the development to ensure that potential concerns over flood risks, relocation of the existing bus depot, impact on nature conservation and from waste processing and control at Chelson Meadow are addressed.

Option 5: South West sector of Chelson Meadow

- 2.26. **Strengths:** This option has positive effects in terms of seeking to locate development away from sensitive land uses and therefore minimising the effects on community's quality of life. It seeks to retain existing employment opportunities and offers the potential to generate energy from waste, and supports objectives to recover waste.
- 2.27. **Weaknesses:** Potential negative effects could relate to air and noise pollution as well as odour and risks to health for adjacent communities. Although the proposal states that release of emissions from tipping at Chelson Meadow will be controlled the implications for future residential developments are uncertain. There is a potential incompatibility between the demands on the road infrastructure for transporting waste, the adequacy of the existing road infrastructure and proposals for the new community at Plymstock Quarry. As the location of the site is on the waterfront care adequate screening measures need to be in place.
- 2.28. **Timescale:** Short to medium term (over the next 5-20 years) depending on the availability of land.
- 2.29. **Likelihood:** Medium
- 2.30. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Care needs to be taken to ensure that proposals reduce negative impacts through careful design and monitoring.

Option 6: Chelson Meadow restored landraise site

- 2.31. **Strengths:** This proposal will have a positive effect on the local communities' quality of life, health and wellbeing through the provision of outdoor sports and leisure uses both formal and informal. The proposal could generate employment opportunities in leisure and due to its close proximity to waste facilities it should result in replenishment of soil condition.
- 2.32. **Weaknesses:** Potential issues are associated with flytipping from adjacent land uses and concerns over safety relating to the dispersal of gases generated from buried waste.
- 2.33. **Timescale:** Medium to long term (over the next 5-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur.
- 2.34. **Likelihood:** Uncertain.
- 2.35. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** A risk assessment needs to be undertaken to determine safety levels and ensure that potential pollution generated from decomposing waste is mitigated. In addition, the new public open space must be sensitively designed to reduce crime or fear of crime with lighting in key locations.

Option 7: Saltram House and Country Park

- 2.36. **Strengths:** This proposal will have a positive effect on the surrounding landscape, should seek to enhance nature conservation interests and improve the local communities' quality of life through informal and formal recreation, which in turn should improve health, quality of life and well being. The proposal should also relieve recreational pressure off Saltram Estate.
- 2.37. **Weaknesses:** Whilst there are no negative impacts, it is uncertain whether issues of safety need to be addressed.
- 2.38. **Timescale:** Medium to long term (over the next 5-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur
- 2.39. **Likelihood:** Uncertain.
- 2.40. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** In the design of the proposals it is important to ensure that the setting of Saltram Estate is respected and visual integrated into landscape proposals.

Option 8: Moorcroft Quarry

- 2.41. **Strengths:** This option has positive effects in terms of seeking to locate development away from sensitive land uses and therefore minimising the effects on community's quality of life.

- 2.42. **Weaknesses:** There is potential incompatibility between the demands on the road infrastructure for transporting waste and proposals for the new community at Sherford. The proposal does not clarify how many jobs will be created. Although the policy includes a pollution assessment criteria, there could be issues associated with air and noise pollution as well as odour for adjacent communities.
- 2.43. **Timescale:** Short to medium term (over the next 5-15 years) depending on the availability of land.
- 2.44. **Likelihood:** Medium
- 2.45. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Care needs to be taken to ensure that proposals reduce negative impacts through careful design and monitoring.

Option 9: Hazeldene Quarry - Minerals

- 2.46. **Strengths:** This proposal seeks to protect mineral reserves for future use and provides employment opportunities for the local economy.
- 2.47. **Weaknesses:** Even though there are mitigation criteria, there are potential risks which relate to water quality, air pollution, transportation, amenity, health, and erosion of the landscape/nature conservation interest which are already referred to in the proposal. 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.
- 2.48. **Timescale:** Medium to long term (over the next 10-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur.
- 2.49. **Likelihood:** High
- 2.50. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** Care needs to be taken to establish annual monitoring plans associated with any further extraction to ensure any potential negative impacts are mitigated.

Option 10: Strategic High Quality Transport Links

- 2.51. **Strengths:** The proposal is generally compatible with the sustainability objectives in seeking to introduce alternative transport solutions to respond to a rise in population within the area. If the proposal is effective it should lead to a stabilisation/reduction in vehicular movements and have a positive effect on biodiversity, air quality and communities' health and quality of life. In addition proposals seek to generate links across the A379 which should overcome issues associated with safety.

- 2.52. **Weaknesses:** Whilst negative effects are not apparent from the proposal itself, if a modal switch cannot be encouraged for the new communities, significant negative impacts will result generated from an increase in vehicular movements and traffic congestion.
- 2.53. **Timescale:** Medium to long term (over the next 10-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur
- 2.54. **Likelihood:** High
- 2.55. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** It is essential that the infrastructure is in place to encourage a modal shift at the outset of the development. In addition, opportunities should be explored to minimise car parking provision for both residential and employment land and ensure that links across the A 379 are sited in convenient locations.

Option 11: Elburton

- 2.56. **Strengths:** This proposal is generally considered to be positive against sustainability objectives. It is anticipated that the mineral buffer zone referred to under this proposal will be sufficient to diffuse air and noise pollution which may result from Hazeldene Quarry. The proposal lies within close proximity of both a proposed primary and secondary school.
- 2.57. **Weaknesses:** There is potential incompatibility between the demands on the road infrastructure for transporting aggregate to and from Hazeldene Quarry and the requirements on the local community. During the construction phase there will be localised dust and air pollution. It is uncertain whether the development will seek to use secondary/recycled materials.
- 2.58. **Timescale:** Medium to long term (over the next 10-20 years) due to the time take for development briefs to be prepared, proposals to come forward and construction to occur.
- 2.59. **Likelihood:** High
- 2.60. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** The development briefs for the area should seek to address the following issues:
- design out crime,
 - encourage the reuse of construction and demolition of waste materials in new development,
 - the sourcing of local materials,
 - a reduction in energy and water consumption, and
 - waste minimisation.

Option 12: Potential long term development

- 2.61. **Strengths:** None identified as the proposal has yet to be developed.
- 2.62. **Weaknesses:** It is unknown whether long term development will conflict with the need to exploit mineral reserves which may exist in this location and lead to the sterilisation of land. The development will potentially be hemmed in between the Hazeldene Quarry and the A38 and it is uncertain how potential impacts associated with noise, air pollution which may impact on the communities' quality of life and health will be mitigated.
- 2.63. **Timescale:** Long term (20 years plus).
- 2.64. **Likelihood:** Uncertain.
- 2.65. **Recommendations for mitigation of adverse effects and/or enhance or positive effects:** This proposal is dependent on the life span of the quarry, potential extensions to the new development and the location of a buffer zone.

Conclusions and Recommendations

Conclusions:

- 2.66. The results of the SA indicate that whilst the AAP is generally positive there are a number of general issues which need to be addressed (specific issues are covered in the preceding paragraphs).
- 2.67. Like other Area Action Plans, North Plymstock will be reliant on future investment, land negotiations and compulsory purchase orders. Care needs to be taken to ensure that throughout the phasing of development adequate facilities and services are available to meet the needs of the new community.
- 2.68. Apart from seeking to reduce energy consumption, proposals could do more to adhere to sustainable design and construction principles.
- 2.69. Development proposals are heavily reliant on the success of the new public transport system and it is critical that the infrastructure is in place and functioning before the first phase of construction is complete. Added to which, it is imperative in encouraging a modal switch that car parking provision is minimised and dual use is explored. Whilst careful thought appears to have been given to the surrounding road network, the implications of HGVs transporting waste and minerals and their use of the existing road infrastructure needs to be carefully considered.
- 2.70. Although stated in the AAP, care needs to be taken to ensure that any potential impacts associated with air, noise and water pollution as well as odour from waste management facilities, the quarry and other bad neighbour land uses are mitigated. The siting of development, close to the A379 and the A38 to the north must respond to high noise levels.

- 2.71. Potential negative issues which are highlighted throughout the review relate to the impact of developments on existing sites of environmental importance. It is important to ensure that with an increase in population and density, impacts are mitigated. New proposals relating to a county park, wildlife corridors and green space must have the carrying capacity to absorb a high population rather than placing pressure on remaining sites and the opportunity to create new habits and landscapes which will replace those lost through development. The AAP must also consider the visual impact of development proposals, particularly in relation to Saltram Park and the waterfront and on the primary access corridor into Plymouth. The question arises, could more ambitious proposals be explored to link the new community to the north such as the use of land bridges?
- 2.72. Proposals to site Sherford new development east of Hazeldene Quarry will inevitably lead to the sterilisation of future resources. In addition, even though Preferred Option 9 states that an adequate mineral supply will be kept in reserve for the future to the north of the quarry, it is implied that the future use of the site could take place within the next 20 years.
- 2.73. The siting of development proposals adjacent to the River Plym needs to respond to risks of flooding.
- 2.74. The structure of existing communities and potential changes to surrounding communities needs to be carefully considered. The proposals raise a number of basic questions:
- Will new residential development result in migration?
 - Will a significant number of houses be purchased as second homes?
 - Will targets for affordable housing be achieved and should targets be more ambitious?
 - What will be the future demographic make up of the new residential areas be like? Will it result in a predominately middle aged or retired population?
- 2.75. The issue of demographics naturally leads on to considering how local employment opportunities will be supported. Issues worth considering at this stage are:
- Will people living in the new development areas actually work there, or will there be a significant level of in-migration on a daily basis from elsewhere in the City?
 - Will the development result in an increase in in-migration from outside the City?
 - Will the creation of an attractive high quality environment result in the displacement of existing businesses from elsewhere and what is the consequential effect on local employees?
- 2.76. An overarching issue which is missing from the AAP and the SA of Sherford community, and which is fundamental, is what level of assessment has been undertaken of the relationship of the new development proposals to existing communities in Plymstock, Plympton and Chaddlewood? How will proposals change their demographic profile and will proposals result in a shift in travel to work and living patterns?

2.77. We recognise that the LDF will find it difficult to address many of the issues raised due to their uncertain nature at this stage in the design process. However, what the LDF can do is be instrumental in asking some of these questions and challenging developers. In an ideal world the LDF should push for proposals to be more ambitious in meeting sustainability objectives. This could be an exciting opportunity to put sustainable development into practice, remembering that no proposal can be considered in isolation.

Recommendations:

2.78. The following recommendations are suggested ways of improving the AAP and its relationship with the Core Strategy:

- Each development proposals and Area Action Plan should not be considered in isolation. The LDF needs to recognise that depending on the timing of proposals, implementation and funding streams impacts may occur on adjacent land uses which need to be mitigated.
- Throughout the phasing of development, it is important to ensure that the community functions sustainability with adequate services, facilities and infrastructure to meet all needs.
- A detailed assessment of recreational carrying capacity based on the future population figures for the area needs to be undertaken in order to define limits beyond which sites of nature conservation, landscape or archaeology will be suffer. Proposals must seek to recreate/enhance sites of nature conservation and landscape.
- The Area Action Plan would benefit from more text describing the context of the proposals.
- A strong link needs to be made between the Core Strategy Preferred Options and Area Action Plans particular in relation to design principles.
- 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 (i.e. minimising car parking provision) but also through the decisions of major employers. All new large scale businesses should be required to submit green travel plans and commit some level of contribution /investment where development is not adjacent to the bus network to improve footpath and cycle route links. A contingency plan needs to be available to ensure that if people cannot be encouraged to make a modal switch potential issues relating to traffic congestion and air pollution can be resolved.

- A Design Guide should be produced for all development on the re-use of construction and demolition materials on site, e.g. through planning conditions requiring developers to provide a demolition plan and cover efficient water and energy use, reuse and sourcing of local materials as part of the sustainable construction and design guidance. Design proposals should consider opportunities to support renewable energy and sustainable urban drainage schemes. This commitment should not just be reflected in residential dwellings but also for large businesses through environmental management policies.
- Opportunities should be explored to link development proposals with waste processing facilities for example through the replenishment of soil for Chelson Meadows restored land raise site.
- Buffer zones need to be clearly defined to ensure potential impacts from air, noise and odour are mitigated.
- It would be beneficial to have a clearer understanding of whether reserves which under the new Sherford development could be extracted in the future given potential advances in technology.

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, inter alia, 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.

Suggested monitoring regime for the Plymouth SEAs

- Determination of the scope of monitoring;
- Identification of the necessary information;
- Identification of existing sources of information;
 - Data at project level;
 - General environmental monitoring;
 - Other data;
- Filling the gaps;
- Procedural integration of monitoring into the planning system;
- Taking remedial action.

European Commission (2003)

- 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.