

Sustainability Appraisal of Marine Walk Masterplan SPD **Sustainability Appraisal Report**

Final Report
December 2009



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Sustainability Appraisal of Marine Walk Masterplan SPD December 2009

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1 Introduction

1.1 Marine Walk Masterplan

- 1.1.1 Sunderland City Council ('the Council') has produced a masterplan for the Marine Walk section of the Seafront at Roker. The masterplan is the first in a suite of detailed documents developed to deliver the Seafront Regeneration Strategy. The strategy provides a strategic platform to guide the regeneration of Roker and Seaburn seafront and deliver the objective set out in the Sunderland Strategy (2008-2025) the overarching strategy for the city which states that: *'by 2025 Roker and Seaburn will have a key role in providing cultural tourism attractions.'*
- 1.1.2 The masterplan and supporting information have been collated in the form of a Supplementary Planning Document (SPD) as part of the Sunderland City Local Development Framework (LDF). As such the document has been taken forward through the statutory planning process in accordance with the Town and Country Planning (Local Development) (England) Regulations 2004 (as amended). In addition under the requirements of the European Directive 2001/42/EC a Strategic Environmental Assessment and Appropriate Assessment have been prepared alongside the SPD. Both documents are available at www.sunderland.gov.uk/seafront. Both the Strategic Environmental Assessment and Appropriate Assessment have been subject to a 6 week consultation process in conjunction with the masterplan.
- 1.1.3 The purpose of the Marine Walk Masterplan is to support and supplement the requirements of the Unitary Development Plan 1998 (UDP) policies NA26 (Coastal and Seafront Zone), EC8 and EC9 (Tourist Facilities). It is intended to provide additional guidance setting out the key parameters and development principles, which are necessary and appropriate in order to achieve the proper planning and redevelopment of Marine Walk.
- 1.1.4 The SPD sets out the following clear vision for the area "Building on its unique natural environment and rich heritage, the seafront at Roker will be an attractive, safe, clean and accessible destination for all residents and visitors, of which the people of Sunderland can be proud. It will be a welcoming place to enjoy all year round, offering activities and events for everyone and supporting Sunderland's aspiration to be the UK's most liveable city.'
- 1.1.5 Please note that the Marine Walk Masterplan SPD is also a material consideration when determining planning applications in this area.
- 1.1.6 In order to deliver the vision a series of regeneration objectives are set out in the SPD. These are as follows:
1. To develop a sense of place and pride by building on and enhancing the area's rich heritage and natural environment.
 2. To create an attractive environment where both residents and visitors can relax.
 3. To create a family friendly area which is safe and clean.
 4. To provide high quality public amenities.
 5. To offer high quality and affordable activities and cultural events throughout the year.
 6. To create an area which is physically and intellectually accessible.

7. To maximise the impact and improve the economic vibrancy of the area.

1.1.7 The Masterplan option presented in the SPD was selected after consultation on the three broad options included in the non statutory document Seafront Regeneration Options Report that forms part of the Seafront Regeneration Strategy. These options were:

- Roker a place for passive recreation
- Roker a place for beach play
- Roker a place for sports

1.1.8 The consultation included the thoughts of 2,455 people who took part in the consultation by completing a consultation form, and almost 200 people attended 13 workshops across the city. For the purposes of this Report the options considered are the Masterplan proposal included in the SPD and the 'business as usual' option. The former is based upon the consultation and including features relating to the three broad options for the regeneration strategy. The latter is considered to be the situation without the plan.

1.1.9 The Masterplan as included within the SPD is illustrated in Figure 1.1 overleaf.



Figure 1.1: Marine Walk Masterplan

1.2 Sustainability Appraisal

- 1.2.1 The draft Marine Walk Masterplan SPD has been subject to a **Sustainability Appraisal (SA)**. SA is an assessment procedure that seeks to identify and evaluate the effects of a plan on the community, the environment and the economy – the three aspects of sustainability - and to suggest measures for improving the plans content and sustainability performance. The SA process incorporates **Strategic Environmental Assessment (SEA)** as required by European legislation.¹
- 1.2.2 The SPD has also been subject to an assessment of its impacts on conservation sites of European importance as is also required under European legislation². The **Habitats Regulations Assessment (HRA)**, also known as **Appropriate Assessment (AA)**. The findings and results of this assessment are published in a separate report entitled 'Marine Walk Masterplan and SPD: Screening for an Appropriate Assessment'. Figure 1.2 shows the relationship between all documents related to the SPD.



Figure 1.2: Relationship between Masterplan and other documents

1.3 This Report

- 1.3.1 This report sets out the findings of the Sustainability Appraisal of Marine Walk Masterplan SPD. The report is structured as follows:
- **Chapter 2** sets out the **methodology** for the assessment
 - **Chapters 3 – 14** set out the SA **findings** and **recommendations** that relate to the following Sustainability Appraisal Objectives:
 - Safeguard and enhance the region’s environmental infrastructure.
 - Secure safe waste recovery / disposal without endangering health or harming the environment.

¹ Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment.

² Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

- Protect water sources from contamination and minimise the release of harmful products into the environment.
- Minimise polluting activities and contain air pollution to within acceptable limits.
- Adapt to and mitigate against climate change.
- Promote, enhance and respect the region's culture and heritage.
- Improve health and well-being while reducing inequalities in health.
- Build sustainable communities.
- Establish a strong learning and skills base.
- Strengthen the regional economy.
- Develop a more sustainable employment market.
- Develop sustainable transport and communication.
- **Chapter 15** sets out the SA **conclusions** and our **recommendations**
- **Chapter 16** sets out initial proposals for **monitoring**
- **Chapter 17** sets out **what happens next** in the SA process

2 Process and methodology

2.1 Introduction

2.1.1 This section sets out the SA process and our methodology for undertaking the assessment of Marine Walk Masterplan SPD.

2.2 Sustainability Appraisal Process

2.2.1 Sustainability Appraisal provides a decision aiding process that should assist in the development of the plan or programme under assessment. Government guidance on local spatial planning states that “*The Sustainability Appraisal should perform a key role in providing a sound evidence base for the plan and form an integrated part of the plan preparation process. Sustainability Assessment should inform the evaluation of alternatives. Sustainability Assessment should provide a powerful means of proving to decision makers, and the public, that the plan is the most appropriate given reasonable alternative*”³.

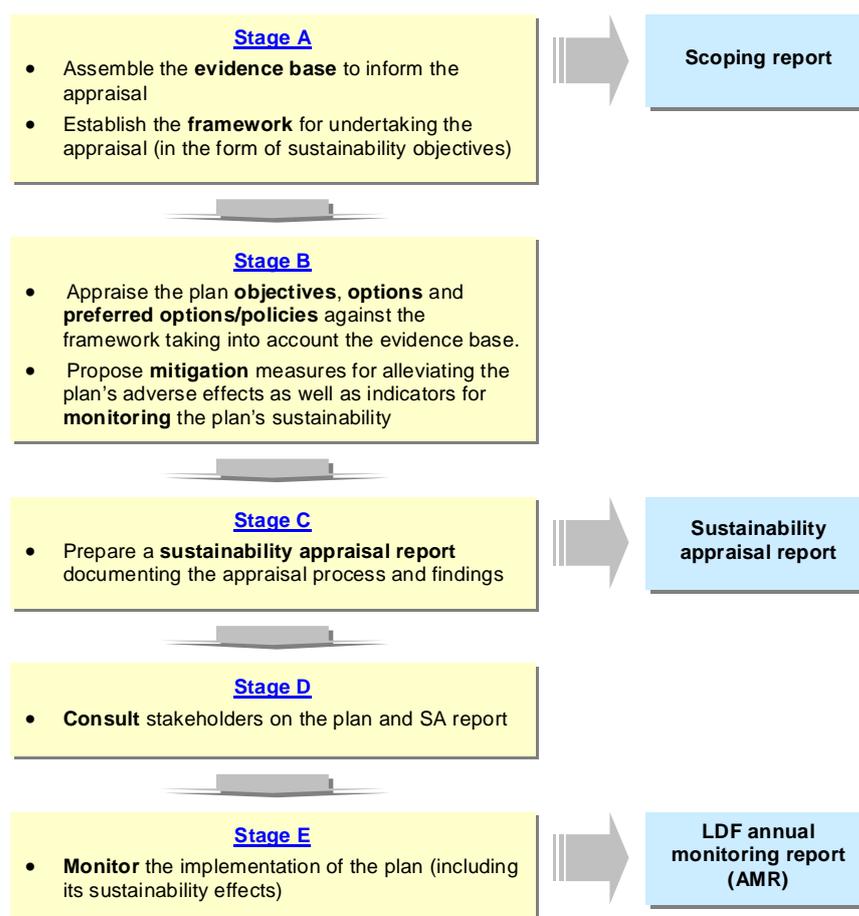


Figure 2.1: Five – Stage Approach to SA

³ Communities and Local Government (2008) Planning Policy Statement 12: creating strong safe and prosperous communities through Local Spatial Planning London:TSO

- 2.2.2 Government guidance⁴ advocates a five-stage approach to undertaking SA which is illustrated in **Figure 2.1**. **Stage A** involved gathering an evidence base and defining SA Objectives. The findings of this stage were documented in a Scoping Report that underwent consultation with stakeholders including the statutory consultees (English Heritage, the Environment Agency and Natural England).
- 2.2.3 **Stage B** in the SA process involves undertaking the appraisal itself. This involves identifying and evaluating the impacts of the SPD proposals. Mitigation measures for alleviating adverse impacts and measure to enhance positive effects are also proposed at this stage together with potential indicators for monitoring the plan's implementation.
- 2.2.4 **Stage C** in the SA process involves documenting the appraisal and preparing the SA Report (this incorporates the material required for inclusion in the Environmental Report under the SEA Directive).
- 2.2.5 Following statutory consultation at **Stage D**, the SA Report may require updating to reflect changes made in response to representations. **Stage E** concerns ongoing monitoring of significant effects.

2.3 Sustainability Appraisal Methodology

- 2.3.1 The Scoping Report proposed a framework for the assessment of the SPD. This incorporated the overarching SA Objectives derived from the regional sustainable development framework augmented by locally distinctive criteria. This report has been constructed with a chapter for each of the SA Objectives within which we have asked a series of questions:
- What's the policy context?
 - What are the key sustainability objectives we need to consider?
 - What's the situation now?
 - What will be the situation without the plan?
 - What will be the situation with the Masterplan?
 - How can we mitigate / enhance effects? (our recommendations)
- 2.3.2 These questions correspond to the key requirements of the SEA Directive, as set out in Annex I to the SEA Directive – see Table 2.1.

Table 2.1 Meeting the requirement of the SEA Directive (1)

Question for each topic	Key requirements of the SEA Directive
What's the policy context?	"an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes" (Annex I(a))
What are the key sustainability objectives we need to consider?	"the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation" (Annex I(e))
What's the situation now?	"the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme" (Annex 1(b))

⁴ ODPM (2005) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents, London

	“any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC” [NB problems relating to European sites are addressed through the HRA / AA – see Chapter 15] (Annex I(d))
What will be the situation without the plan?	“the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme” (Annex I(b))
What will be the situation with the Masterplan?	“the likely significant effects (1) on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors (1) These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects” (Annex I(f))
How can we mitigate / enhance effects?	“the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme” (Annex I(g))

2.3.3 At the end of each SA Objective chapter we have provided a summary of likely impacts. Within this table we have used a traffic light system based on the following key:

Significant positive impact
Positive impact
Neutral impact, or rough balance of positive and negative effects
Unclear impact, or no data available
Impact could be positive or negative depending on implementation of the SPD
Negative effect
Significant negative effect

2.3.4 Not all of the requirements of Annex I of the SEA Directive are recorded in the table above. These can be found elsewhere in this report or the Scoping Report – See **Table 2.2**.

Table 2.2 Meeting the requirement of the SEA Directive (2)

Question for each topic	Key requirements of the SEA Directive
“the environmental characteristics of areas likely to be significantly affected” (Annex I(c))	Scoping Report (note the Scoping Report also contains further detail in relation to Annex I a, b, d and e)
“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h))	Chapter 1 of this report
“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h))	Chapter 2 of this report (this chapter)
“an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information” (Annex I(h))	Scoping Report
“a description of the measures envisaged concerning monitoring...” (Annex I(i))	Chapter 16 of this report

“a non-technical summary of the information provided under the above headings” (Annex I(j))

Accompanying NTS document

2.3.5 The differing types of effects out in Appendix I of the Directive⁵ have been considered within each SA objective chapter and within **Chapter 16** in order to consider performance across all of the SA Objectives.

⁵ secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects

3 Safeguard and enhance the region's environmental infrastructure

3.1 Introduction

- 3.1.1 Sunderland's environmental infrastructure encompasses a broad range of physical and natural features that comprise its unique character. Sunderland has landscapes of both national and international significance for biodiversity, geodiversity and the natural processes associated with them. Future economic and social well-being depends on sustaining this environmental infrastructure. It forms the basis for the region's Green Infrastructure, and is vital in delivering quality of place, contributing towards health and in creating safe, sustainable communities which in turn attract and retain businesses and skilled workers within the region⁶.
- 3.1.2 Green Infrastructure can be defined as "... the sub-regional network of protected sites, nature reserves, green spaces, and greenway linkages. Such linkages include river corridors and floodplains, migration routes and features of the landscape of importance as wildlife corridors. Green Infrastructure has many uses, not only benefiting wildlife, but also enhancing recreational and cultural experiences and delivering ecological services such as flood protection and microclimate control. It operates on all spatial scales from urban centres to open countryside⁷".
- 3.1.3 Biodiversity is the term given to the diversity of life on Earth and this includes the plant and animal species that make up our wildlife and the habitats in which they live. Biodiversity is integral to the functioning of ecosystems and these, in turn, provide 'ecosystem services' which include food, flood management, pollination and the provision of clean air and water.
- 3.1.4 Attractive areas of open space can also help to make walking and cycling more attractive, with attendant health benefits; promote mental wellbeing; help to establish local identity and a sense of place; help to reduce air pollution; and reduce temperatures at a time of global warming⁸.
- 3.1.5 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:
- Protect and enhance sites and habitats designated for their biodiversity value
 - Enhance biodiversity in green spaces and amongst developments in urban areas
 - Bring biodiversity into the day-to-day lives of Sunderland's residents by promoting the qualities of designated sites
 - Protect and enhance sites and habitats designated for their geodiversity value

⁶ Environment Forum (2008) *North East Strategy for the Environment* [online] available at <http://www.gos.gov.uk/nestore/docs/envandrural/nese.pdf> (accessed 2 July 2009).

⁷ Town and Country Planning Association (2005) *Biodiversity by Design* [online] available at http://www.tcpa.org.uk/data/files/bd_biodiversity.pdf (accessed 2 July 2009)

⁸ CJC Consulting (2005). Economic Benefits of Accessible Green Spaces for Physical and Mental Health: Scoping study, report to Forestry Commission [online] available at [http://www.forestry.gov.uk/pdf/FChealth10-2final.pdf/\\$FILE/FChealth10-2final.pdf](http://www.forestry.gov.uk/pdf/FChealth10-2final.pdf/$FILE/FChealth10-2final.pdf) (accessed 9 July 2009); Environment Agency, Countryside Agency, English Nature, River Nene National Park and English Heritage (2005). Planning Sustainable Communities: A Green Infrastructure Guide for Milton Keynes and the South Midlands [online] available at: <http://publications.environment-agency.gov.uk/pdf/GeAN0305BIWY-e-e.pdf> (accessed 9 July 2009); Forest Research (date unknown) Determining the benefits of woodland on air quality [online] available at: <http://www.forestresearch.gov.uk/fr/INFD-62DFHK> (accessed 9 July 2009); Goode, D. (2006). Green Infrastructure, Report to the Royal Commission on Environmental Pollution [online] available at: <http://www.rcep.org.uk/urban/report/green-infrastructure-david-goode.pdf> (accessed 9 July 2009).

- 3.1.6 This assessment is informed by the content of the Scoping Report topic chapter **Biodiversity, Flora and Fauna** and **Heritage and Landscape**.

3.2 What is the policy context?

- 3.2.1 The UK is Party to the Convention on Biological Diversity (CBD), a principal objective of which is the conservation of biodiversity. Commitment to the CBD led to the preparation of the 1994 UK Biodiversity Action Plan (UK BAP), the overall goal of which is to conserve and enhance biodiversity within the UK and to contribute to efforts to conserve global biodiversity. The UK BAP identifies our most threatened biodiversity assets and includes action plans for the recovery of priority species and habitats⁹. A Biodiversity Strategy for England was subsequently published in 2002¹⁰ and includes the broad aim that planning, construction, development and regeneration should have minimal impacts on biodiversity.
- 3.2.2 Government guidance strongly emphasises the need to protect biodiversity (PPS9)¹¹. The Government's vision is to conserve, enhance and restore the diversity of England's wildlife and geology by sustaining and improving the quality and extent of natural habitats and geological sites. Furthermore, it advocates measures to improve biodiversity in green spaces and amongst developments in urban areas.
- 3.2.3 At a regional level, Durham Biodiversity Action Plan is a key strategy document dedicated to the delivery of biodiversity conservation at the local level¹². This recognises that Local Authorities have a crucial role in developing and implementing biodiversity action plans as they influence service areas where biodiversity conservation is not a primary function. This is realised in Sunderland through The Sunderland Strategy (2008) which highlights that it is essential to not only conserve and protect the Sunderland's natural environment, but to bring it into the day-to-day lives of its residents.
- 3.2.4 Government guidance also emphasises the need for local planning authorities to ensure that development plans provide for the protection of the landscape (PPS1¹³ and PPS15¹⁴). Furthermore, PPS20 highlights the important of planning to coastal landscape protection¹⁵. More locally this is recognised in the Sunderland Strategy (2008) realises the need to protect and enhance the best features of the city's landscapes, countryside and coast.



⁹ For further information on the UK BAP see <http://www.ukbap.org.uk/>

¹⁰ Defra (2002). Working with the grain of nature: A biodiversity strategy for England (available at: <http://www.defra.gov.uk/wildlifecountryside/biodiversity/biostrat/biostrategy1to4.pdf>) (accessed 2 July 2009)

¹¹ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 9: Biodiversity and Geological Conservation* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement9> (accessed 2 July 2009).

¹² Durham Biodiversity Partnership (2006). *Durham Biodiversity Action Plan* [online] available at: <http://www.durhambiodiversity.org.uk/planstructure3.htm> (accessed 8 July 2009).

¹³ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 1: Delivering Sustainable Development* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed 2 July 2009).

¹⁴ Office of the Deputy Prime Minister (1994). *Planning Policy Guidance 15: Planning and the Historical Environment* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/ppg15> (accessed 2 July 2009).

¹⁵ Office of the Deputy Prime Minister (1992). *Planning Policy Guidance 20: Coastal Planning* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicyguidance13> (accessed 2 July 2009).

3.3 What are the sustainability objectives we need to consider?

3.3.1 The key issues, problems and constraints for the seafront area with regard to environmental infrastructure are:

- Promote sustainable development by ensuring biodiversity is conserved and enhanced as an integral part of economic, social and environmental development.
- Conserve, enhance and restore the diversity of England's wildlife and geology by sustaining and improving the quality and extent of natural habitats and geological sites.
- Contribute to urban renaissance by enhancing biodiversity in green spaces and amongst developments in urban areas.
- Avoid, mitigate and compensate for harm to biodiversity and incorporate ways to restore and enhance it.
- Preserve the character of the coast, designated areas, heritage coasts and the international dimension.
- Protect and enhance the region's landscapes, ensuring they are recognised for the vital contribution they make to sense of place in attracting and retaining investment, talent and tourism.

3.4 What is the situation now?

3.4.1 Marine Walk is located within the vicinity a number of specific environmental designations. The Northumbria Coast Special Protection Area (SPA) and Ramsar site runs the length of the north east coastline between the Tweed and Tees estuaries. The southern most end of this designation at Parsons Rocks lies less than 500m from the Masterplan area. This designation is characterised by rocky shore platforms created by Magnesium Limestone cliffs, with headlands, boulders and cobble beaches, two artificial pier structures and a small portion of sandy beach at Whitburn Bents. This designation supports important numbers of breeding Little Tern and in winter the mixture of rocky and sandy shores support internationally significant numbers of Turnstone and Purple Sandpiper.

3.4.2 Approximately two kilometres to the north of Marine Walk is designated as a Special Area for Conservation (SAC). The Durham Coast SAC is valued as the only example of vegetated sea cliffs of the Atlantic and Baltic Coasts on magnesium limestone in the UK. Its designation provides protection of habitats and species which are considered to be of community interest.

3.4.3 The Durham SAC is characterised by three priority habitats identified in the UK Biodiversity Action Plan as being at risk from the effects of climate change; its Maritime Cliffs and Slopes, Reedbeds, and Magnesium Limestone Grasslands. These habitats support a number of plant species such as birds-eye primrose (*Primula farinosa*), melancholy thistle (*Cersium heterophyllum*), yellow wort (*Blackstonia perfoliata*) and pyramidal orchid (*Anacamptis pyramidalis*) as well as invertebrates and rare insects which have been recorded within the study area.

3.4.4 Both the SPA and the SAC lie within the Durham Coast Site of Special Scientific Interest (SSSI) which comprises 37 individual units all along the north east coastline from South Shields and Hart Warren. The SSSI is of considerable biological, geological and physiographic interest. It contains most of the paramaritime Magnesian Limestone vegetation in Britain, as

well as a species-rich dune system¹⁶. It is considered to be, in the main, in favourable condition.

3.4.5 The Durham Coast is also designated as a SSSI noted for nationally-important populations of sanderling and knot. Sanderling prefer sandy shorelines and therefore are likely to spend time foraging along the undesignated parts of the shore which stretch right along the seafront area.

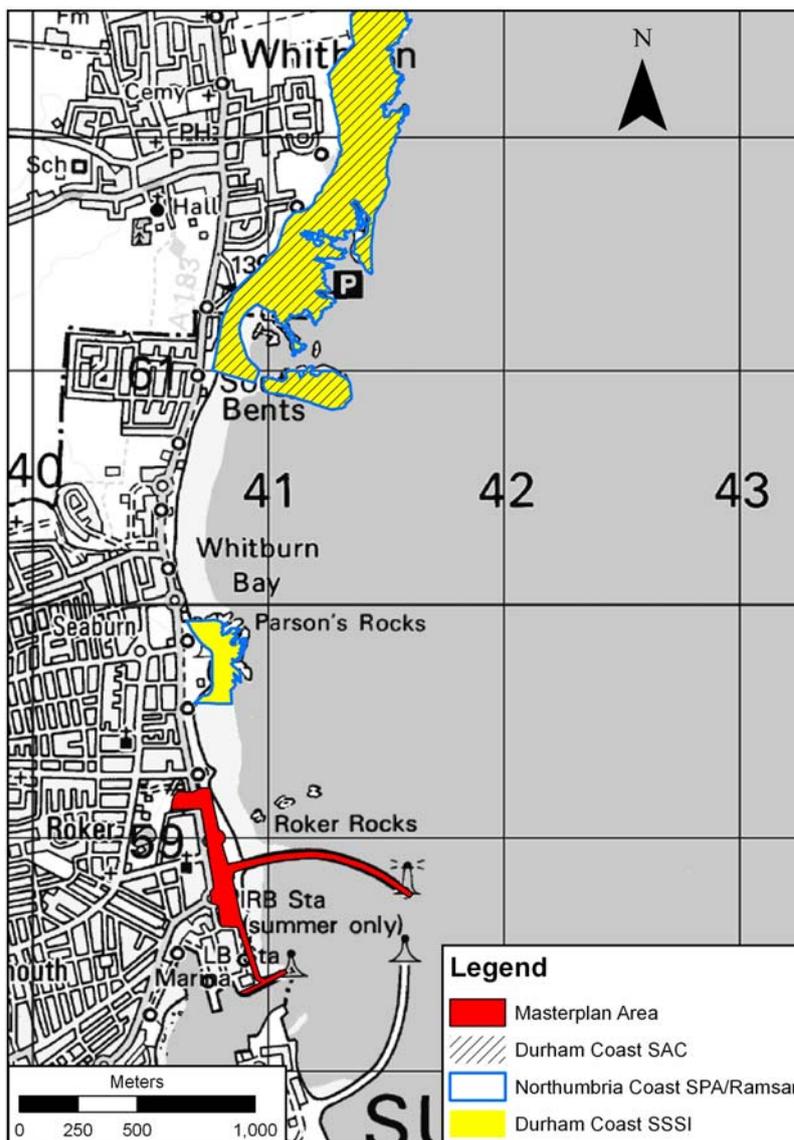


Figure 3.1: Local environmental designations adjacent to the Masterplan Area.

3.4.6 There is also a significant amount of green space adjacent to the waterfront. Roker Park is one such area which has direct links to Marine Walk through Roker ravine. Furthermore, a wildlife corridor covered in UDP policy CN23 runs along the coast from Whitburn Bents in the north of the study area to the marina. It takes in Recreation Park, Cliff Park and Seaburn Camp and the mouth of Roker Park.

¹⁶ Natural England SSSI Database (<http://www.sssi.naturalengland.org.uk>)

- 3.4.7 Geologically, the Tyne and Wear area is relatively simple and is dominated by rocks from three main periods of geological time. At Sunderland this is mainly marine limestone and evaporates of Permian magnesium limestone that have been affected by glacial erosion and deposition during the Ice Age leaving thick deposits of till or boulder clay covering the solid geology¹⁷.
- 3.4.8 The seafront area includes a significant portion of coastline formed by cliffs of magnesium limestone. Roker Cliff in the south of the Seafront area contains the unique and regionally important geological/geomorphologic rock formation referred to locally as the 'cannonball rocks'.



Figure 3.2: The 'cannonball rocks' at Roker Cliff

- 3.4.9 Much of Sunderland's landscape is now dominated by settlement and the Seafront area comprising the residential areas of Seaburn and Roker save their associated beaches is characterised as predominantly 'developed' area of Sunderland's coastline¹⁸.
- 3.4.10 The key characteristics of the area as outlined in the Sunderland Landscape Character Assessment (in draft) are:
- Open and flat landscape with long wide sandy beaches.
 - Predominantly amenity grass with no tree cover. At the northern boundary there are some rocks and remnant sand dunes.
 - Long views along the coast and out to sea.
 - Built up promenade, busy roads and urban development adjacent giving the area an urban seaside character.
 - To the south the land rises to create cliffs and steep embankments with rocky outcrops on the beach.
- 3.4.11 The majority of green or open-spaces within the study area are heavily used for recreation. The open space network links Marine Walk to Roker Park and cliffs at Parsons Rock and to the Seaburn coastline to the North. These are among the city's best features. The Council's 2007

¹⁷ For more information see Natural England 'Nature on the Map' Geological Description of Tyne and Wear [last accessed 2008] Available at: (<http://www.natureonthemap.org.uk/>)

¹⁸ Sunderland LDF (2007) *Topic Paper 1.3: River and Coast* [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed on 2 July 2009)

Community Spirit Summer Survey which collected opinions from a cross-section of Sunderland residents found the seafront to be the most visited and most important green space in the city, with 94% of respondents stating it was important to their quality of life.

3.5 What will the situation be without the plan?

- 3.5.1 The baseline has illustrated that the biodiversity designations within the area surrounding the seafront are predominantly in favourable condition. It is reasonable to consider that this picture may continue with a continued resource for ongoing management of sites.
- 3.5.2 The most important designations are the Northumbria Coast SPA/Ramsar and the Durham Coast SAC which are located a short distance from the study area. Due to a large urban population close to the coast, the coastline does suffer heavily from disturbance by human activity. There is little reason to believe that degradation of habitats by human activity will continue at any faster a pace than it is currently, but this will depend on the activities/lifestyles of the population.
- 3.5.3 Coastal erosion as a result of climate change however is considered to be the primary long term risk affecting habitats and biodiversity along the Sunderland coastline. This has implications not just for the geomorphology of the coastline but also habitats in the coastal zone. Taking into account future predictions for seas level rises and storm frequency/extreme weather events, it is not illogical to presume that coastal geomorphology will be altered and habitat quality will worsen as a result.
- 3.5.4 Green spaces along Marine Walk may become fragmented by development. Certain areas of Marine Walk currently shown signs of urban decay with significant amounts of graffiti and vandalism. Left alone these areas are highly likely to fall into further disrepair. Threatening of these green spaces may threaten the wildlife links permitted from the coast into Roker Park and Sunderland's green space network.

3.6 What will the situation be with the masterplan?

- 3.6.1 Increased accessibility and an enhanced and pleasurable local environment as provided by the Masterplan will undoubtedly add to the sense of stewardship of the waterfront environmental infrastructure by the population of Sunderland. This is further enhanced by the provision of interpretation panels and trails as detailed in the Masterplan. Furthermore, the educational facilities provided by the Roker Pods may further enhance the capacity for visitors of Marine Walk to get a sense of the unique habitats and species and geological history of this area only short distance from the city.
- 3.6.2 The planting of locally native shrubs, trees and grasses as stated in the plan will enhance the nature characteristics of the seafront providing a transition between the natural features of the coastline and Roker Park. That said an upgraded landscape at Marine Walk will also help to provide legibility between the built form of Roker and the natural features of the coastal environment. The new vegetation may also provide additional habitats for the coastline which will provide a supporting function for the local designations and wildlife.
- 3.6.3 In contrast to these obvious benefits the costs of the plan must also be considered. An increase in visitor numbers particularly during the summer months can, if improperly managed, have both primary and secondary effects on the seafront. The noise and increased activities

generated by these visitors may potentially cause disturbance to the local wildlife. It must be stressed that while there is unlikely to be any significant, adverse effect on the qualifying features of the local designations (as discussed in the HRA/AA), there will still be impacts on wildlife of local and national importance.

3.6.4 Furthermore, increasing visitor numbers will also cause an increase in waste generated and potentially discarded into the local environment. Refuse can cause devastating effects to both bird and marine life if disposed of improperly.

3.6.5 Lighting forms a significant element of the proposals. This could potentially cause disturbance to roosting patterns of birds particularly during the winter when bird populations are at their highest. The pods and their lighting could be an issue here.

3.7 How can we mitigate / enhance effects?

3.7.1 The proposed soft landscaping must ensure a seamless transition between coastal and inland plant species to facilitate natural green spaces and permit a pleasurable, natural coastline environment. The features and planting should be influenced by locally native species that could provide a supporting function to the local designations which may ultimately provide important green corridor for the seafront. Furthermore, the green spaces can be enhanced by specific areas managed to be of high biodiversity value through such means as water features and species rich grasslands.

3.7.2 Careful management of the coastline particularly during the busy tourism periods can ensure that extra waste generation does not have an adverse effect on local ecosystems. The masterplan proposals will feed in to the local waste strategy which includes provision for dealing with additional waste generation.

3.8 Conclusions

3.8.1 Marine Walk Masterplan can play an important role in making the natural features of the area more accessible to the population of Sunderland. The content of the SPD acknowledges this and contains a number of proposals that will support biodiversity objectives.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>By implementing the Masterplan proposals the use, appreciation and understanding of Sunderland's environmental infrastructure will be improved. Within a short period of time it would be expected that the local environmental designations (Northumbria Coast SPA and Durham Coast SAC) will become widely known by the population of Sunderland.</p> <p>However, the lighting of Marine Walk may impact on wildlife in the locale.</p> <p>There will be definitive short term improvements in landscape and enhancing of the green corridor along Marine Walk.</p>	<p>There are a number of proposals for population growth in the local area. These are included in the Local Development Framework the Regional Spatial Strategy of which the Sunderland Arc proposals are part of. This will increase the potential for visitor pressure which may adversely affect important environmental infrastructure. The SPA and SAC being perhaps the most vulnerable.</p>

	<p>Geological impacts will be minor and Spottee's Cave and the Ravine proposals should improve understanding of these geological formations by the public.</p>	
Long term	<p>Local wildlife populations should continue to thrive and grow living in harmony with the population of Sunderland. The Roker area will become an area of significant environmental interest for people all over the North East</p> <p>However, with the increased popularity of the location there may be potential issues associated with increasing visitor numbers and pressure on coastal ecosystems.</p> <p>The effects of the landscaping will be long term provided the green spaces along Marine Walk are maintained.</p>	<p>There are a number of proposals for population growth in the local area. These are included in the Local Development Framework the Regional Spatial Strategy of which the Sunderland Arc proposals are part of. This will increase the potential for visitor pressure which may adversely affect important environmental infrastructure. The SPA and SAC being perhaps the most vulnerable.</p> <p>Furthermore the implications of climatic change will make coastal areas more popular and visitors may increase, additionally during storm events the green infrastructure provided at Marine Walk could be negatively affected</p>
Areas likely to be significantly affected	<p>The seafront area at Roker is likely to be enhanced along with the Roker Park further inland. Northumbria Coast SAC and Ramsar site and Durham Coast SPA may also be impacted upon</p>	
Permanent Vs temporary	<p>If supported correctly the proposals should provide permanent benefits both in terms of protection of designations and impact on the environmental appreciation of visitors. However, if improperly implemented any adverse affects on the local wildlife could be permanent. Appropriate and ongoing maintenance of the landscape works along Marine Walk will ensure the benefits of these areas to wildlife will be permanent.</p>	
Secondary	<p>Visitors will be better informed and educated on the local wildlife which may in turn facilitate greater protection and enhancement of habitats and species all across the North East. This may add to pressure for conservation.</p> <p>Furthermore, visitors from further afield will frequent the area because of these natural features and in turn may stimulate the local economy.</p> <p>The use of this attractive coastline will have health benefits for those using it.</p>	

4 Secure safe waste recovery / disposal without endangering health or harming the environment

4.1 Introduction

- 4.1.1 The Environmental Protection Act 1990 identified waste as any substance that constitutes a scrap material, an effluent or other unwanted surplus. This definition was amended by the Waste Management Licensing Regulations 1994 to define waste as *'any substance or object which the producer or the person in possession of it, discards or intends or is required to discard'*.
- 4.1.2 Waste production continues to increase in the North East. Most of it could be a valuable resource, yet well over half of municipal waste still ends up in landfill. Change is currently being driven by legislation based on EU directives and Landfill Tax increases. Recent legislation and initiatives encourage waste reduction, promote the re-use of waste by business as well as households, and encourage recycling¹⁹.
- 4.1.3 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:
- Protect the human health and environment of the seafront area by producing less waste and by using it as a resource
- 4.1.4 This assessment is informed by the content of the Scoping Report topic chapter **Land Resources**.

4.2 What is the policy context?

- 4.2.1 Government policy on waste as set out in the strategy for sustainable development²⁰, is to protect human health and the environment by producing less waste and using it as a resource wherever possible. Principally, the policy sets out to move management of waste up the 'waste hierarchy' of reduce, reuse, recycle, recover energy, and disposing to landfill only as a last resort. This strategy is highlighted in PPS10²¹ which sets out key planning objectives to be integrated into local planning strategies which will help to meet the government waste policy.
- 4.2.2 This guidance has been successfully integrated into the National Waste Strategy (2007) which outlines targets to reduce the amount of household waste not re-used, recycled or composted from over 22.2 million tonnes in 2000 by 29% to 15.8 million tonnes in



¹⁹ Environment Forum (2008) *North East Strategy for the Environment* [online] available at <http://www.gos.gov.uk/nestore/docs/envandrural/nese.pdf> (accessed 2 July 2009).

²⁰ Department for Environment, Food and Rural Affairs (2005) *Securing The Future*

²¹ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 10: Planning for Sustainable Waste Management* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement10> (accessed 3 July 2009).

2010 with an aspiration to reduce it to 12.2 million tonnes in 2020 – a reduction of 45%.

- 4.2.3 Specific waste targets in the National Waste Strategy were incorporated into regional waste management plans. In the North East, the Joint Municipal Waste Management Strategy (2007) outlines objectives and targets which include a 45% increase in recycling/composting and 75% increase in waste recovery by 2020. Furthermore, at a local level The Sunderland Strategy sets out targets to support sustainable patterns of consumption by reducing waste to landfill to less than 25% by 2025.

4.3 What are the sustainability objectives we need to consider?

- 4.3.1 The key issues, problems and constraints for the seafront area with regard to waste are:

- Help secure safe waste recovery or disposal without endangering health or harming the environment.
- Manage/dispose of waste close to the source, protect green belts but recognise the location needs of waste management
- Prioritise waste management in accordance with the waste hierarchy: reduce, re-use, recycle, and recover energy from waste.
- Protect our human health and environment by producing less waste and using it as a resource wherever possible.

4.4 What is the situation now?

- 4.4.1 Waste production in the north east of England is considered to be amongst the highest in England and Wales yet the region has one of the lowest recycling records. In Sunderland, the production of municipal waste is expected to continue to grow from 159,594 tonnes in 2006 to 182,655 tonnes by 2021²².
- 4.4.2 There has been a significant upward trend of recycling of municipal waste in the city since 2002 when only 2% of waste was recycled or composted. This has increased to 26.85% in 2008. However, currently only a fraction (0.01%) of waste is recycled for energy production.
- 4.4.3 According to the Sunderland waste management inventory, Marine Walk currently does not contain substantial recycling facilities. At present, Marine Walk is served by only paper recycling presumably as a provision for residents of Roker.
- 4.4.4 Public consultation into the seafront regeneration highlighted that litter around the seafront area was regarded as a significant issue by the public particularly around “takeaways”. Furthermore, the issue of dog fouling on the beach and lower promenades was also raised. These concerns were raised despite Sunderland's Coastal Code which raises awareness of disposing of litter responsibly, sets out bylaws including dog prohibited areas between 1 May and 30 September. Furthermore, neighbourhood patrol officers currently enforce against dog fouling.

²² Sunderland LDF(2007) Topic Paper 1.13: Waste [online] available at:
<http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp>

- 4.4.5 Roker beach currently has blue flag status which recognises, amongst other things, litter free shores. While its blue flag status was temporarily revoked in 2008, this was not due to beach cleanliness with which the beach passed all criteria.

4.5 What will the situation be without the plan?

- 4.5.1 With no regeneration to the seafront it is considered to be unlikely that visitor numbers to Marine Walk will increase substantially. Consequently, there is unlikely to be a significant increase in litter generation. The area does however suffer from graffiti and neglect at the moment with some poor landscape quality. If the area continues to be neglected then it may set a precedent for improper disposal due to inadequate waste facilities. In particular, the current waste facilities clearly are not adequate to address public concerns as outlined in section 4.4.
- 4.5.2 Due to the inadequate provision of recycling facilities along Marine Walk, the area is unlikely to make a significant positive contribution towards local efforts to meet targets set out in the Joint Municipal Waste Management Strategy²³.

4.6 What will the situation be with the masterplan?

- 4.6.1 The masterplan will undoubtedly augment visitor numbers to Marine Walk particularly during the summer months. Furthermore the SPD includes a number of provisions for retail opportunities and refreshments. The likely result is for increased on site waste generation as a result of these activities.
- 4.6.2 This will cause an increase in waste generation in local municipal facilities particularly during the summer months when Roker beach will be frequented by larger numbers of visitors. This could jeopardise the ability of Roker beach to maintain its blue flag status if litter generation is improperly managed. In addition waste associated with dog walking could increase on the beach, Marine Walk and Roker Park. At present waste management is not addressed in the masterplan.
- 4.6.3 The provision of a strong link between the seafront area and Roker Park may augment visitors to the park also. This area is not covered by the Masterplan but is likely to be affected by an increase in waste generation as a result of this linkage.

4.7 How can we mitigate / enhance effects?

- 4.7.1 To ensure local targets are met the masterplan for the seafront area should heed the implications for production of municipal waste and where possible integrate with the Council's recycling programme. This can be achieved through the provision of not only standard refuse bins but also those which may permit recycling of certain wastes also. The waste facilities in Roker Park could also be tailored to cater for the inevitable increases in litter associated with the proposals. It is important, therefore, that the regeneration proposals are considered in the local waste strategy. Furthermore, owing to the increase in dog walking along Marine Walk and Roker Beach that is likely to result from the proposals adequate canine waste disposal facilities should also be provided.

²³ Gateshead Council, South Tyneside Council, Sunderland City Council (2007) *Joint Municipal Waste Strategy* [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/healthy-city/environmental-services/JMWMS-final-version.asp> Accessed (12 July 2009)

4.7.2 During times when the seafront is particularly busy, additional active measures should be put in place to ensure beach cleanliness is maintained. This will prevent potential loss of the beaches blue flag status which in turn may lower Rokers attractiveness as a destination for the people of the North East.

4.8 Conclusions

4.8.1 While Marine Walk Masterplan may increase waste production and associated litter and dog fouling, the regeneration can also provide an opportunity to help meet local waste objectives. While the content of the SPD does not directly address this, the pro-sustainability approach adopted in general by the plan should support the provision of waste recycling.

Type of Impact	Marine Walkway SPD	SPD plus other plans, programmes etc.
Short/medium term	By implementing the masterplan proposals visitor numbers to the seafront area in Roker are likely to significantly increase. Particularly during the summer months. Litter levels are considered likely to increase in the seafront area as a result of the measures. It is assumed however that current levels of street cleaning will continue to provide some mitigation.	Sunderland ARC projects, the LDF and RES will increase number of people within Sunderland and the potential number of visitors to Marine Walk. This in turn will increase the potential volume of waste that may be generated at Marine Walk.
Long term	Improper waste management of the seafront may threaten the current blue flat status of Roker Beach through a reduction in beach cleanliness.	Sunderland ARC projects, the LDF and RES will increase number of people within Sunderland and the potential number of visitors to Marine Walk. This in turn will increase the potential volume of waste that may be generated at Marine Walk.
Areas likely to be significantly affected	Roker Beach and Roker Park may both be subject to an increase in litter alongside Marine Walk	
Permanent Vs temporary	If implemented successfully the proposals could provide opportunity for effective and sustainable municipal waste disposal along the Roker seafront.	
Secondary	<p>Improper waste management of the seafront may threaten the current blue flat status of Roker Beach through a reduction in beach cleanliness. This in turn could produce a cyclical reduction in visitor numbers. Litter can detract from the quality of the environment which in turn may encourage, graffiti and other anti social behaviour. Fewer visitor numbers will also reduce revenue for local business.</p> <p>Waste on the beach could impact upon the populations of Little Tern, Turnstone and Purple Sandpiper that use the designated SPA and SAC.</p> <p>However, a sustainable and attractive seafront environment could provide an example for similar coastal resorts all over the North East coast.</p>	

5 Protect water sources from contamination and minimise the release of harmful products into the environment.

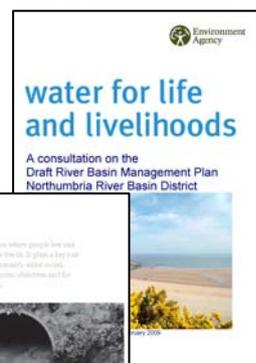
5.1 Introduction

- 5.1.1 Water is essential for all life, human as well as animal or plant, and it is important to treat water as the scarce resource it really is in order to minimise impact on the environment and human health. The efficient use of water, which takes into account its long-term availability and quality is an important factor in sustainable development.
- 5.1.2 The region has some of the cleanest rivers and best supplies of both surface water and groundwater in England, providing a vital resource for the economy and the environment. Furthermore, the North East is fortunate to have a rich and varied coastal and marine heritage which contributes to the quality of life for the region. Significant stretches of the region's coastline have been designated as Special Areas of Conservation, Special Protection Areas, Heritage Coasts and Areas of Outstanding Natural Beauty²⁴.
- 5.1.3 The region's coast and seas support nationally and internationally important biodiversity, cultural and heritage assets. They are important contributors to local economies through ports, diving, nature-based tourism and inshore fisheries. However, there are areas, particularly the lower reaches of estuaries where urbanisation and industrialisation have historically led to degradation and pollution of watercourses. Continued efforts have shown dramatic improvements over the past decade. Elsewhere coastal recreation, port related development, fisheries, and pollution can have negative impacts on these habitats.
- 5.1.4 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:
- Ensure that designated coastal bathing waters along the seafront regain 'excellent' status
 - Improve the water quality of river, ground and coastal waters that are considered to be 'at risk' of not meeting Directive objectives
 - Ensure that there current water and sewage capacity can accommodate the impact of new development and regeneration strategies
 - Ensure surface water run-off is managed in a sustainable manner
- 5.1.5 This assessment is informed by the content of the Scoping Report topic chapter **water quality and resources**.

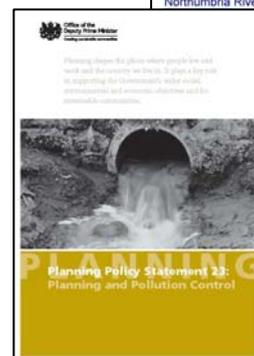
²⁴ Environment Forum (2008) *North East Strategy for the Environment* [online] available at <http://www.gos.gov.uk/nestore/docs/envandrural/nese.pdf> (accessed 2 July 2009).

5.2 What is the policy context?

5.2.1 UK Government guidance on surface water is largely derived from the EU Water Framework Directive (WFD) (2000/60/EC). This was transposed into UK Law with the Water Environment Regulations (2003)²⁵. This designated a number of River Basin Districts (RBDs) to provide integrated management of surface and groundwater bodies. The principal aim of this legislation is for surface waters to reach good chemical and ecological status in inland and coastal waters by 2015. Sunderland lies within the Northumbria RBD and as such is subject to the Northumbria River Basin Management Plan²⁶ drawn up by the Environment Agency Consultation on this plan completed at the end of June 2009.



5.2.2 Pollution control is recognised by Planning Policy Statement 23²⁷ which stipulates that the precautionary principle should be invoked with regard the harmful effects of pollution. This highlights that measures should be taken to reduce or prevent pollution even when there is no evidence that environmental degradation will occur as a result of the proposals²⁸.



5.3 What are the sustainability objectives we need to consider?

5.3.1 The key issues, problems and constraints for the seafront area with regard to water resources are:

- Protect and improve ground, river and sea water quality in the region, ensuring that water quality and quantity are considered in all developments and managed in a sustainable and integrated manner.
- Conserve and enhance the region's marine and coastal environments by adopting an ecosystem-based approach to their sustainable use and recovery to deliver benefits for people, heritage, industry and wildlife.
- Make improvements to air and water quality, protect water sources from contamination and minimise the release of harmful products into the environment

5.4 What is the situation now?

5.4.1 Major water bodies within proximity of Marine Walk area include the River Wear which is situated on the southern boundary of the masterplan area running into the sea at Roker Port. Marine Walk, by its very nature, also runs adjacent to the sea along its entire extent. The port,

²⁵ The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 [online] Available at: <http://www.opsi.gov.uk/si/si2003/20033242.htm> (accessed 9 July 2009)

²⁶ Environment Agency (2008) *Water for Life and Livelihoods* [online] Available At: <http://wfdconsultation.environment-agency.gov.uk/wfdcms/en/Northumbria/Intro.aspx> (accessed 9 July 2009)

²⁷ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 23: Planning and Pollution Control* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement23> (accessed 3 July 2009).

²⁸ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 23: Planning and Pollution Control* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement23> (accessed 3 July 2009).

sea and coastline and their related features have played a key role in the history and development of the area and continue to do so.

- 5.4.2 Water quality in the city is mixed²⁹. The River Wear is classified as transitional water which is at risk of not meeting the requirements of the Water Framework Directive by 2015. The coastal waters adjacent to Sunderland are also considered to be at risk and the whole of the Northumberland to Hartlepool area, of which Sunderland is part, is classified as being ‘at risk’ of not meeting groundwater objectives³⁰.
- 5.4.3 Sunderland’s two designated Bathing Waters are both located a short distance from the masterplan area: Whitburn North between Seaburn and South Bents, and Roker. These are considered to be ‘sensitive’ areas for water quality with any waste water requiring secondary treatment before deposition. Both areas were rated as ‘excellent’ in 2006 and currently meet the highest standard of classification in the new Bathing Directive (March 2006)³⁰.

Table 5.1 Sunderland Bathing Beaches – Water Quality

Year	Whitburn North	Roker
2001	Excellent (Guideline standard)	Excellent (Guideline standard)
2002	Excellent	Excellent
2003	Excellent	Excellent
2004	Excellent	Excellent
2005	Excellent	Excellent (Guideline standard)
2006	Excellent	Excellent
2007	Good (Mandatory standard)	Excellent
2008	Good	Excellent

- 5.4.4 In 1998 the Sunderland UDP pointed out that the southern part of the city’s coastline was affected by domestic and industrial sewage and effluent. A new sewage treatment works, in operation since 2000, and major sewerage improvements have greatly improved this situation. However during particularly high rainfall pressure on the system can result in mixed rain and foul water to be released from sea outfalls. This occurred in the summer of 2007 and contributed to the loss of the blue flag status of Roker and Whitburn Bents beaches. However, it must also be stated that a major contribution to the loss of blue flag status was due to the heavy rainfall increasing the amount of surface water run-off from both agricultural and urban areas. All these contributed to bacteriological impact on the bathing water quality.
- 5.4.5 Major aquifers in Sunderland are found in the magnesium limestone which underlies the eastern half of the city including the area where the Seafront is located. The groundwater from these aquifers is used supply over one third of the city’s drinking water and as such is vulnerable to contamination.

²⁹ Environment Agency ‘what’s in your back yard?’ [online] available at: <http://www.environment-agency.gov.uk/homeandleisure/37793.aspx>.

³⁰ Sunderland LDF Topic Paper 1.16: Pollution (Soil, Water, Air, Noise, Unstable Land) (2007) [online] available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp>

5.5 What will the situation be without the plan?

- 5.5.1 The location of the Masterplan area on a substantial portion of the Sunderland coastline means there are strong links to water resources and climatic factors such as flooding. As heavy rainfall and extreme weather events become more prevalent the chances of contamination and flash flooding events will also become greater. This potentially causes increases in sediment load in coastal waters and consequently turbidity which can have serious deleterious effects on aquatic and marine life.
- 5.5.2 The baseline data indicates that presently there is spare capacity in the local water infrastructure in Sunderland. Pressure on the sewage system by new development could lead to more contamination of coastline waters which are already considered to be 'at risk' of not meeting objectives of the Water Framework Directive. It is reasonable to assume that there will be additional development in Sunderland without the masterplan, even without development or change within the masterplan area itself.
- 5.5.3 Climatic forecasting (see **Section 7**) indicates that the prevalence of heavy precipitation and extreme weather events are likely to worsen meaning that incidences of flooding and contamination would also be greater. This may have detrimental impacts for the quality of bathing waters along the coastline. This may in turn result in the loss of the Roker and Whitburn Bents blue flag status which consequently may affect visitor numbers to Marine Walk. This aside, the quality of water should improve/be mitigated as a result of continued monitoring by the Environmental Agency, as has been the trend in recent years.

5.6 What will the situation be with the masterplan?

- 5.6.1 It is unlikely that the proposals will have any significant adverse effects on local water quality and as such there is no provision to tackle these effects within the plan. This said an increase in recreational visitors attracted to the improved Marine Walk, will have the potential to generate waste along the seafront which, if improperly managed, could impact detrimentally on the coastal waters. Furthermore, the increased number of retail units along Marine Walk may generate polluted waste water which again has the potential to be discharged directly into either ground, surface or coastal waters.
- 5.6.2 Surface materials used on Marine Walk may potentially increase the volume of polluted water into the coastal zone during high rainfall events. Water falling on impermeable surfaces may collect surface contaminants and flow into terrestrial discharge zones. Surface materials used on Marine Walk may potentially augment polluted water into the coastal zone during high rainfall events. Water falling on impermeable surfaces may collect surface contaminants and flow into terrestrial discharge zones.
- 5.6.3 The Blue Flag status is key to the success of the masterplan. Whilst increasing visitors will pose a threat to its status it may also provide the driver for investment and action to maintain the status.

5.7 How can we mitigate / enhance effects?

- 5.7.1 The SPD would benefit from incorporating measures to manage water use and run off. The SPD could state that buildings, retail facilities and public conveniences along Marine Walk should adopt sustainable water treatments if possible and ensure that no waste water is

discharged directly into coastal drainage channels. Opportunities exist for grey water recycling from rainwater harvesting. These measures could be incorporated into any new buildings.

5.7.2 Permeable surfaces and other sustainable drainage measures (SuDS) should be used along Marine Walk to prevent localised flooding of the pathways and subsequently an uncontrolled, potentially polluted, runoff during high rainfall events.

5.8 Conclusions

5.8.1 While Marine Walk Masterplan will not directly cause adverse effects to local water resources, the area is inextricably linked to this resource. Contamination of water in the coastal zone may compromise the positive effects of these proposals.

Type of Impact	Marine Walkway SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>The increase in visitor numbers to Marine Walk and potential for increasing waste (see Section 4) may cause a slight increase in the potential for contamination of local coastal and surface waters.</p> <p>Landscaping techniques and an increase in retail facilities along the seafront may increase stress on the local drainage infrastructure.</p>	<p>The growth proposed within the RSS, emerging Core Strategy and within the Sunderland Arc developments may act in tandem with the relatively minor pollution and water use issues associated with the masterplan.</p> <p>The threat on the bathing water quality of Roker is magnified particularly as the Sunderland Arc developments are located along the River Wear.</p>
Long term	<p>At present the SPD does not include adequate consideration for reducing the impact of potential pollution sources, and additionally consideration of how water may function during predicted increasing extreme weather events (see Section 7). Therefore in the long term there will be potential for contamination of the bathing waters at Roker and Whitburn Bents which could result in a long term loss of the beaches Blue Flag status.</p> <p>However, with increasing demand based on climate the blue flag status is vital for the popularity and success of the masterplan and this may increase investment to ensure the status is maintained.</p>	<p>In the long term there will be substantial growth in housing numbers within Sunderland producing waste water. There will also be increased visitors to Marine Walk who may produce waste including waste water. This has the potential to increase potential incidents of pollution of coastal waters. However, it is considered that this potential will be reduced by the proposals contained within the River Basin Management Plan and from improvements to water infrastructure undertaken by the water provider.</p>
Areas likely to be significantly affected	Roker and Whitburn Bents beaches and local coastal waters could potentially have a reduction in water quality.	
Permanent Vs temporary	If pollution incidents were not annual or continuous, effects would be temporary. With the implementation of sustainable drainage and effective wastewater disposal along Marine Walk will prevent these effects	
Secondary	Prevention of coastal water pollution is an important part of allowing the local beaches to maintain their Blue Flag status. This alone stimulates visitor numbers and consequently the local economy raises the profile of Marine Walk within the region.	

6 Minimise polluting activities and contain air pollution to within acceptable limits.

6.1 Introduction

6.1.1 Air pollution can affect the health of people, animals and plants. It can promote eutrophication of water, leading to excessive plant growth and decay. It can also damage buildings and materials and cause odour problems. The indirect health impacts of poor air quality, particularly from particulate matter, are significant: in the UK, up to 24,000 people per year may have their deaths 'brought forward' by air pollution and a health impact assessment of the Government's Air Quality Strategy suggests that the strategy will save thousands of life-years annually³¹. Securing the Future: The UK Sustainable Development Strategy (2005) noted that it is often those living in deprived areas that suffer the higher levels of pollution.

6.1.2 The North East boasts good air quality although levels are highly weather-dependent. The main source of air pollution is road traffic, and car ownership levels continue to rise. This will reverse recent improvement unless controlled. Tranquillity, freedom from noise and visual disturbance, is one of the less readily defined attributes of the countryside, but it is important to quality of life. A seven per cent loss in areas defined as tranquil was recorded between the 1960s and 1990s, and a 42% increase in light-polluted areas between 1993 and 2000. Despite this, the region still has some of the darkest skies and most tranquil countryside in the UK³².

6.1.3 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:

- Ensure development supports efforts to reduce all forms of pollution, and in particular the effects of motor vehicles

6.1.4 This assessment is informed by the content of the Scoping Report topic chapter **Air Quality**.

6.2 What is the policy context?

6.2.1 The Environment Act 1995³³ requires the setting of "standards relating to the quality of air", and "objectives for the restriction of the levels at which particular substances are present in the air". The National Air Quality Strategy³⁴ sets these standards and objectives. Standards are *'the concentrations of pollutants in the atmosphere which can broadly be taken to achieve a certain level of environmental quality. The standards are based on assessment of the effects of each pollutant on human health including the effects on sensitive subgroups or on ecosystems'*. Air Quality objectives are *'objectives are policy targets often expressed as a maximum ambient concentration not to be exceeded, either without exception or with a permitted number of exceedences, within a specified timescale.'*

³¹ Defra et al (2007). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 2, [online] available: <http://www.defra.gov.uk/environment/airquality/strategy/pdf/air-qualitystrategy-vol1.pdf> (accessed 14 May 2008).

³² Environment Forum (2008) *North East Strategy for the Environment* [online] available at <http://www.gos.gov.uk/nestore/docs/envandrural/nese.pdf> (accessed 2 July 2009).

³³ The Environment Act 1995 [online] Available at: http://www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1.htm (accessed 9 July 2009)

³⁴ Defra et al (2007). The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Volume 2, [online] available: <http://www.defra.gov.uk/environment/airquality/strategy/pdf/air-qualitystrategy-vol1.pdf> (accessed 14 May 2008).

6.2.2 Government guidance on air quality advocates the use of the precautionary principle with regard the harmful effects of pollution (PPS23)³⁵. As such, planning efforts should be made to mitigate the deteriorating effects of air pollution even if there is no clear evidence that a proposal has detrimental air quality effects. Planning guidance on transport (PPG13)³⁶ also highlights that local air quality is a key consideration in the integration between planning and transport and places emphasis on promoting more sustainable transport choices and reducing the need to travel by car. More locally the Sunderland Strategy 2008-2025 aims to achieve and maintain government standards for air quality within the city through taking necessary steps to achieve this³⁷.



6.3 What are the sustainability objectives we need to consider?

6.3.1 The key issues, problems and constraints for the seafront area with regard to air quality are:

- Polluting activities which are necessary should be sited and planned so their adverse affects are minimised and contained to within acceptable limits.
- Change the way we travel and the continued growth in road traffic to prevent damage to our towns and countryside and contribution to global warming.

6.4 What is the situation now?

6.4.1 Marine Walk is located in a predominantly developed and densely built-up area of Sunderland and is accessed by a number of transport corridors and contains a number land uses. As a result there are a number of sources affecting air quality. The last Updating and Screening Assessment in 2006 found that air quality across Sunderland is currently within pollutant limits³⁸. The primary cause of air pollution in Sunderland is transport related emissions of Nitrogen Dioxide and levels are likely to exceed in the future especially in and around the city centre³⁹. This indicates a reliance of the residents of Sunderland on private vehicle. The proximity of Marine Walk to arterial transport routes into the city infer that the area is likely to be affected by localised air pollution. It must be stated, however, that Roker is not highlighted as a 'hotspot' location where objective levels Nitrous Oxide levels are being reached.

³⁵ Office of the Deputy Prime Minister (2006). *Planning Policy Statement 23: Planning and Pollution Control* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement23> (accessed 3 July 2009).

³⁶ Office of the Deputy Prime Minister (2001). *Planning Policy Guidance 13: Transport* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/ppg13> (accessed 3 July 2009).

³⁷ Sunderland LDF Topic Paper 1.16: Pollution (Soil, Water, Air, Noise, Unstable Land) (2007) [online] available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp>

³⁸ Sunderland Updating and Screening Assessment for Air Quality (2006) [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/healthy-city/eh/pollution/documents/Updating-Screening-Assessment-of-Air-Quality-2006.pdf> (accessed 9 July 2009)

³⁹ Sunderland Updating and Screening Assessment for Air Quality (2006) Available at: www.sunderland.gov.uk/public/editable/themes/healthy-city/eh/pollution/.../Updating-Screening-Assessment-of-Air-Quality-2006.pdf

6.5 What will the situation be without the plan?

- 6.5.1 The Tyne and Wear Local Transport Plan states that car ownership in the region is growing faster than any other area in the country and as such traffic levels are expected to continue to rise⁴⁰. This indicates that localised pollution in Roker may be expected to increase at background levels. As recognised by the Tyne and Wear Air Quality Strategy (2005), the resulting poor air quality from transport does not only result in health problems and unpleasant living conditions for those residents affected by it; it is also a threat to the region's development and regeneration.
- 6.5.2 Against the background of increasing traffic is increasing vehicle efficiency and reduced emissions. This may help to suppress the volume of emissions that might be produced by vehicles at current standards.

6.6 What will the situation be with the masterplan?

- 6.6.1 The Roker Pods are designed to be Zero Carbon using renewables such as wind turbines and photovoltaic. This reduces the need for large amounts of electrical generation which has impacts not only on climate change (see **Section 7**) but also reduces airborne pollution by contaminants associated with power generation. While these effects are not likely to impact on localised air quality, they will have regional environmental benefits.
- 6.6.2 In contrast, the increase in visitors to Marine Walk expected by these proposals will also increase the volume of traffic in the area. This coupled with the reliance of the local population on private vehicles and relatively poor public transport accessibility (see **Section 14**) could result in air quality deterioration during the busiest times of the year. The SPD also includes plans for lighting and infrastructure for increasing the evening economy. This will extend and increase the number of visitors into the evening and thus will increase vehicle emissions attributable to use of Marine Walk.
- 6.6.3 It is important to consider that trips to the coast are likely to come from areas within and beyond the centre of Sunderland. As such patterns of movement will pass through areas that currently have issues with air quality. Additional travel through these areas may exacerbate these problems.
- 6.6.4 The proposals do however permit an attractive cycling route through the city which may encourage more use of bicycles as a form of transport to and from the city from people living to the north to a degree.
- 6.6.5 The net effects are considered to be some increases in local levels of air pollution during busy periods of use, with very minor regional savings through reducing demand for energy from the promotion of on site renewable energy generation.

6.7 How can we mitigate / enhance effects?

- 6.7.1 Effects on air quality by increased vehicular usage can be mitigated through the SPD strengthening and highlighting access routes to Marine Walk by walking, cycling and public

⁴⁰ 'People in Motion: Tyne and Wear Local Transport Plan (2007) Available at: <http://www.tyneandwearltp.co.uk/>

transport. This will also help to promote equality of access for those people who do not have a car. The SPD should be clearer in its promotion of sustainable transport.

6.7.2 Furthermore, limiting car parking facilities on site during periods where there is will not be unusual demand (such during events) will help to provide an incentive for people to use sustainable or public transport.

6.8 Conclusions

6.8.1 While the Masterplan proposals will not directly cause adverse effects to local air quality, the increased vehicle transport to the area as a result of the proposals is likely to have an adverse impact during popular periods for visitors to Marine Walk.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>It is considered that the masterplan will increase the number of visitors to Marine Walk of which a large proportion will use motor vehicles making use of local parking provisions. This is despite the fact that the site is crossed by two important cycle routes.</p> <p>The proposals (such as a place for holding events) seek to promote Marine Walk as a resource for local people and also for people from further afield than Roker. This increases the likelihood of people using motor vehicles and for them to pass through areas with existing air quality issues.</p>	<p>Population growth in Sunderland and in particular the new and reasonably local Sunderland Arc proposals will increase the number of potential visitors to Marine Walk. Again a reasonable proportion of these are likely to travel by motor vehicle.</p>
Long term	<p>In the longer term it is expected that vehicles technology will improve and emissions from private vehicles would reduce to negate the predicted short term increases.</p>	<p>Population increase will increase the number of trips made to Marine Walk which may outstrip advances in vehicle efficiency. This may still result in issues of deterioration of local air quality within other parts of Sunderland.</p>
Areas likely to be significantly affected	<p>Localised air quality in Roker is likely to decline, the proposals may also result in air pollution along main transport corridors where air quality may already be poor.</p>	
Permanent Vs temporary	<p>Air quality itself can be improved relatively quickly by removing the causes of pollution. However its secondary impacts – particularly on human health and biodiversity – can be permanent.</p>	
Secondary	<p>Worsening air quality would negatively affect human health (e.g. poor air quality can lead to respiratory health problems), biodiversity (e.g. acidification of habitats), and water quality.</p>	

7 Adapt to and mitigate for climate change.

7.1 Introduction

7.1.1 Climate change, caused in large part by the emission of greenhouse gases (including CO₂) will worsen droughts in the summer, floods in winter, and extreme events such as storms. Sir Nicholas (now Lord) Stern has suggested that, worldwide, climate change could reduce GDP by 20% unless it is actively tackled now⁴¹. Climate change has direct and negative impacts on agriculture, coastal and marine ecosystems, biodiversity, human health water resources and poses threats to infrastructure.

7.1.2 Much of the emissions of greenhouse gases are associated with human activity, primarily the burning of fossil fuels. Actions to mitigate for emissions include improving energy efficiency, improve vehicle efficiency and reduce travel, and increase the proportion of energy produced through renewable sources. Climate change adaptation strategies have focused on managing and conserving water, land and biological resources to maintain and restore healthy, effectively functioning and climate change-resilient ecosystems, working with nature's capacity to absorb or control impacts. For example, green Infrastructure can play a crucial role in adaptation in providing essential resources for social and economic purposes under extreme climatic conditions. Examples include improving the soil's carbon and water storage capacity, and conserving water in natural systems to alleviate the effect of droughts and to prevent floods, soil erosion and desertification.

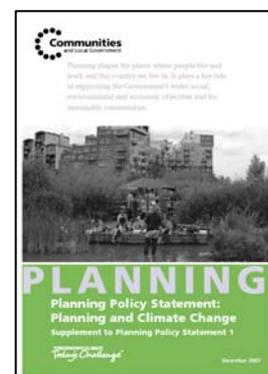
7.1.3 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:

- Make an equitable contribution to helping the UK cut its carbon dioxide emissions by 60% by 2050
- Reduce the cause and impacts of flooding
- Address the risk and impacts of coastal erosion

7.1.4 This assessment is informed by the content of the Scoping Report topic chapter **Climatic Factors, Energy and Flooding**.

7.2 What is the policy context?

7.2.1 In December 2007, the Government published Planning Policy Statement: Planning and Climate Change – Supplement to Planning Policy Statement 1⁴². This emphasises that tackling climate change is a key priority for the planning system and sets out how planning should contribute to reducing emissions and stabilising climate change while taking into account the unavoidable consequences. In providing for development, planning authorities should “*secure the highest viable resource and energy efficiency and reduction in emissions*” and “*deliver patterns of urban growth and sustainable rural developments that help*



⁴¹ Stern, N. (2006). *Stern Review on the economics of climate change*

⁴² CLG (2007). *Planning Policy Statement: Planning and Climate Change* [online] available at <http://www.communities.gov.uk/publications/planningandbuilding/ppscclimatechange> (accessed 2 July 2009)

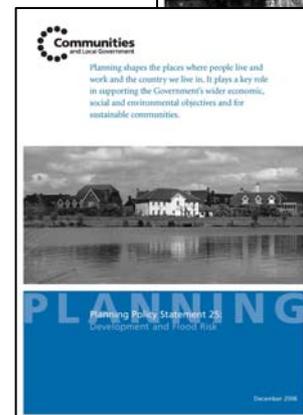
secure the fullest possible use of sustainable transport for moving freight, public transport, cycling and walking; and, which overall, reduce the need to travel, especially by car". In making decisions about their spatial strategies, planning authorities should apply a series of principles including the "spatial distribution, location and design [of new development] should be planned to limit carbon dioxide emissions" and "new development should be planned to make good use of opportunities for decentralised and renewable or low carbon energy".

7.2.2 The Climate Change Bill became law on the 26th November 2008 becoming the Climate Change Act. The Bill puts into statute the UK's targets to reduce carbon dioxide emissions through domestic and international action by at least 80 per cent by 2050 and at least 26 per cent by 2020, against a 1990 baseline. The Act provides for five-year carbon budgets, which will set binding limits on carbon dioxide emissions (thus ensuring that every year's emissions count) and three successive carbon budgets (representing 15 years) will always be in law

7.2.3 At a local level the Climate Change Action Plan for Sunderland seeks to reduce carbon dioxide emissions from housing, public and commercial organisations and transport in line with the targets set out in the Climate Change Act.

7.2.4 The Government's position on renewable energy is set out in Planning Policy Statement 22: Renewable energy⁴³ which states that "small-scale projects can provide a limited but valuable contribution to overall outputs of renewable energy and to meeting energy needs both locally and nationally".

7.2.5 Planning for flood risk is set out in Planning Policy Statement 25⁴⁴. The document seeks to manage flood risk and reduce the likelihood of flooding by ensuring that the design and location of the development maximises the use of SUDS, takes account of its susceptibility to flooding, and performance and processes of river/coastal systems and appropriate flood defence infrastructure. It goes on to state that "*Changes to the drivers associated with coastal erosion (surges, waves, coastal sediment supply and morphology, and relative sea level rise) will affect the probability of flooding to new developments*".



7.3 What are the sustainability objectives we need to consider?

7.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- Put the UK on a path to cut its carbon dioxide emissions by some 80% by 2050, with 26% achieved by 2020.
- Flood risk should be considered at all stages of the plan and development process in order to reduce future damage to property and loss of life.

⁴³ CLG (2009), *Planning Policy Statement 22: Renewable Energy* [online] available at <http://www.communities.gov.uk/publications/planningandbuilding/ppls22> (accessed 2 July 2009)

⁴⁴ CLG (2006), *Planning Policy Statement 25: Development and Flood Risk* [online] available at <http://www.communities.gov.uk/publications/planningandbuilding/ppls25floodrisk> (accessed 2 July 2009)

- Consult and take into account advice from the Environment Agency when preparing development plans and considering applications for planning permission, which should incorporate the latest information on climate change.
- Assist in the creation of a positive planning framework for renewable energy and adopt and positively strive to achieve Government's targets and aspirations for renewable energy.
- Implement an efficient and sustainable pattern of movement and communication, which enables people to have a higher quality of life.

7.4 What is the situation now?

- 7.4.1 The north east region's climate is strongly influenced by two principal factors altitude and proximity to the coast. Along Sunderland's coastline the average temperature ranges from 1.1°C in January to 19.1°C in July. Annual rainfall of up to 750mm falls on approximately 130 days per year and there is an average of 4.45 hours of sunshine per day⁴⁵.
- 7.4.2 Local weather records do show that temperatures in the North East have increased by 0.5°C over the past 150 years. There is a trend towards wetter winters with the proportion of rain increasing in that season⁴⁶. Furthermore there has been an increase in recent extreme weather events which have inflicted damage across the north east region causing disruption to services and damage to buildings and infrastructure. Most typically it is severe rain and strong winds that have caused the greatest impacts, particularly relating to road traffic accidents, flooding, direct building damage and road blockages.
- 7.4.3 Increased severe storms and rainfall have had an impact on rising sea levels sea levels in North Shields (located about 10 miles north of Sunderland on the east coast of England at the mouth of the River Tyne) have risen almost 20mm between 1850 and 2000.
- 7.4.4 In more recent years the consequences of extreme heat events have also been noticeable across the region, causing increased mortality rates, exacerbating health problems during heatwaves.
- 7.4.5 The key cause of anthropogenic climate change is widely acknowledged to be the release of greenhouse gases into the atmosphere from the combustion of fossil fuels. Increased greenhouse gases in the Earth's atmosphere create an enhanced warming effect.
- 7.4.6 Energy consumption indicators are monitored by the Department of Environment, Fisheries and Rural Affairs. In 2006, Sunderland produced about 1,930,000 tonnes of carbon dioxide each year; 35% from housing, 42% from public and commercial organisations and 23% from road transport. A further 165,000 tonnes of methane were produced from waste. Levels have only increased by 0.2%, or 2,500 tonnes, between 2001 and 2006. However, due to the decrease in population over this period, emissions per capita are over 1% higher in 2006 than 2006.
- 7.4.7 The seafront location of Marine Walk Masterplan is such that it may have to deal with rising sea levels, and greater chances of flooding from the sea and potentially the River Wear. A Strategic

⁴⁵ Adaptne (2008) 'Climate change adaptation in the North East' [online] Available at: <http://www.adaptne.org/> (Accessed 2 July 2009)

⁴⁶ North East Regional Assembly (2002) 'And the weather today is ...' *Climate Change in the North East* [online] Available at: http://www.ukcip.org.uk/images/stories/Pub_pdfs/ne_sum.pdf (Accessed 2 July 2009)

Flood Risk Assessment (SFRA)⁴⁷ was carried out for Sunderland in 2007. This found that part of seafront at Roker is classified within Zone 3a for flood risk meaning that there is a medium-high risk of flooding. Development in this zone must be for less vulnerable and water compatible development which includes public open space and recreational uses.

7.5 What will the situation be without the plan?

7.5.1 The Environment Agency and Northumbria Flood Defence Committee⁴⁸ have looked at weather trends and forecasts for the climate in the River Wear Catchment Area. The most significant changes in the climate by the 2050s are forecast to be:

- Increases in average and extreme temperatures, with extreme hot summer temperatures being around 3°C greater than the present day;
- Increases in the number of heatwaves;
- Decrease in average rainfall over the course of a typical year, but with a significant increase (of up to 20%) in winter rainfall and reductions in spring, summer and autumn rainfall;
- A notable reduction in winter snowfall (of up to 50%); and
- An increase in sea levels, surges and wave energy at the coastline.

7.5.2 The study suggests that impacts will not be of a devastating or sudden nature between now and the 2050s, but instead will occur progressively. There will be an onus therefore on structures and infrastructure to be inspected and maintained on a more frequent basis to ensure that minor damage is adequately repaired.

7.5.3 It can be considered that without Marine Walk Masterplan the existing seafront area would not be upgraded and would not be subject to the same level of maintenance as prescribed. Therefore it is possible to conclude that there could be impacts on green and built infrastructure from changes in the pattern of rain, heat and sea spray.

7.5.4 At present amenity use of the Seafront is below that which the Council is seeking. Therefore transportation movements and thus vehicle emissions to Marine Walk would be suppressed under this scenario.

7.6 What will the situation be with the masterplan?

7.6.1 Marine Walk Masterplan does not promote large scale and high density built development rather the development opportunities are relatively limited to the area surrounding the proposed Plaza in the South of the development. However, it is stated that development proposals should achieve high energy efficiency and minimise energy consumption.

7.6.2 Therefore as a minimum, BREEAM 'very good' ratings are to be achieved in any new building. Wherever feasible, 'excellent' ratings should be achieved. New development proposals are to

⁴⁷ JBA Consulting (2007) *Tyne and Wear Strategic Flood Risk Assessment* ([online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/Evidence-for-LDF/SFRA/SFRA-Homepage.asp> (Accessed 2 July 2009)

⁴⁸ Environment Agency and Northumbria Flood Defence Committee (2006) *Climate Change Adaptation on the River Wear* <http://www.energynortheast.net/lib/liDownload/2284/Wear%20Valley%20catchment%20study%20EX%20Summary.PDF?CFID=4389086&CFTOKEN=89603560&jsessionid=a830f4ebff767b234e1c>

- achieve 10% of its energy supply from renewable sources embedded within the development unless it can be demonstrated, to the satisfaction of the City Council, that this is not feasible.
- 7.6.3 Additionally throughout the Masterplan area a number of 'Roker Pods' will be constructed. These will provide educational, retail and information opportunities. The masterplan proposes that these will be constructed with a 'zero carbon aspiration'. Whilst not committing to this measure the pods will incorporate on site renewable energy such as wind turbines and photovoltaic. This should be sufficient to generate sufficient energy to power the pod and also project lighting from the pod onto surrounding features creating a sustainable light display.
- 7.6.4 Illuminations are at the heart of the masterplans proposals. It is expected that the pods will provide LED illuminations with an aim to dispose of the need for high level on-grid sodium street-lighting and generate all the power that is needed to create a more intimate ambience evocative of warmer climes. This will extend the 'life' of the resort into the evenings. Lighting proposals will be required to use high efficiency lamps with high performance optical systems with reduced light spill and light trespass.
- 7.6.5 The masterplan is considered to provide effective measures to minimise emissions of greenhouse gases. Furthermore, the plan incorporates consideration of the effects of storm conditions and climatic change within the design of masterplan features "*All products/designs must be durable and able to withstand day-to-day uses, events and seawater from storm conditions*".
- 7.6.6 The masterplan illustrates vehicular access through the development site and will be supported by existing and potentially new parking provision. The SPD does not actively seek to reduce vehicular traffic or encourage connections with public transport. Despite the fact that the coast to coast cycle route passing through the site it is considered that many users will still travel to Marine Walk by private transport. Traffic may also increase in the evenings in part due to increasing evening activity.

7.7 How can we mitigate / enhance effects?

- 7.7.1 The SPD could be enhanced by illustrating the connections with the public transport system, perhaps by promoting high quality public transport infrastructure along the upper promenade.

7.8 Conclusions

- 7.8.1 The masterplan sets a high standard for energy use for new development and it is considered that this will provide adequate mitigation. Features within the site are also required to be constructed to consider extreme weather conditions that may result from predicted climate change.
- 7.8.2 Vehicular emissions may however increase as the proposals are likely to increase visitor numbers, particular during the evenings, and this is likely to be by private vehicle.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>The SPD minimises energy use for site activities by encouraging local renewable technology to suppress demand from the grid. Furthermore it proposes design measure to plan for future climatic effects.</p> <p>However, it is likely that the masterplan area will attract an increased number of visitors of which a large proportion will use motor vehicles making use of local parking provisions.</p> <p>The net effect is increased emissions of greenhouse gases.</p>	<p>Alongside the SPD a Coastal Erosion Strategy for Sunderland's coastline will be developed. This will help to analyse and advice upon the implications of coastal erosion and subsequent flood risk for mitigating the risk of flooding for premises in the masterplan area.</p>
Long term	<p>By encouraging maintenance and high quality design of features it is considered that the masterplan will be able to adjust to extreme climatic events and to continue to provide energy from renewable sources.</p> <p>In the longer term it is expected that vehicles technology will improve and emissions from private vehicles would reduce to negate the predicted short term increases.</p>	<p>Coastal change and erosion influenced by the pattern of sea defence along the coastline will have important implications for the future of Marine Walk proposals. The Shoreline Management Plan 2 (SMP2) highlights increasing pressure on sea defences, with the potential threat of the low water moving landward and causing steepening of beaches, increased pressure on sea defences and loss of amenity. Assuming that land use policy in Sunderland adheres to the policies promoted in SMP2 Marine Walk area can to a large degree be protected from the changing climate.</p>
Areas likely to be significantly affected	<p>The precise areas that may be affected as a consequence of emissions generated on site cannot be determined at this level of assessment. However, adaptation measures will be beneficial for the Roker area.</p>	
Permanent Vs temporary	<p>Changing patterns of emissions and thus alterations to climate can be considered to be permanent as can many of the potential effects such as coastal erosion.</p>	
Secondary	<p>Climate change caused by emissions of greenhouse gases and the climatic effects associated with this can affect human health, biodiversity and the local economy in particular.</p>	

8 Promote, enhance and respect the region's culture and heritage.

8.1 Introduction

8.1.1 The cultural and historic environment of Sunderland is a rich and diverse resource that includes a range of built environment, archaeological sites, coastal and terrestrial landscapes. The city area encompasses ancient archaeological sites like Seven Sisters round barrow, to early Christian relics notably St. Peters church, some medieval remains and a rich legacy from the industrial revolution.

8.1.2 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:

- Preserve the character of the coast
- Protect and enhance historic built environment by ensuring viable uses
- Prevent new development which is at odds with the character of the site
- Improve the seafront and public realm
- Preserve the historic environmental infrastructure

8.1.3 This assessment is informed by the content of the Scoping Report topic chapter **Heritage and landscape**.

8.2 What is the policy context?

8.2.1 Government guidance strongly emphasises the need to protect and enhance the historic Environment⁴⁹. PPG15⁵⁰ and PPG16⁵¹ set this in the context of historic buildings, areas, landscapes and archaeological features and structures, and their settings. The Government's vision includes protecting and sustaining the historic environment and, in particular, ensuring that decisions have regard to any potential impact on the physical remains of the past⁵².

8.2.2 The Sunderland Strategy seeks to protect and enhance the best features of the city's urban heritage, landscapes, countryside and coast. In turn it seeks to recognise the contribution of the arts, religion and ethnic



⁴⁹ Office of the Deputy Prime Minister (2005). *Planning Policy Statement 1: Delivering Sustainable Development* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed 30 June 2009).

⁵⁰ Department of the Environment (1994) *Planning Policy Guidance 15: Planning and the Historic Environment* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/ppg15> (accessed 30 June 2009).

⁵¹ Department of the Environment (1990) *Planning Policy Guidance 16: Archaeology and planning* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/ppg15> (accessed 30 June 2009).

⁵² DCMS (2001). *The Historic Environment: A Force for our Future* [online] available at: http://www.culture.gov.uk/images/publications/historic_environment_review_part1.pdf (accessed 30 June 2008).

diversity to the community. This supports the stance within the Power of Place published by English Heritage in 2000, which starts from the premise that heritage is for everybody.

- 8.2.3 At the local level the Roker Conservation Area Management Plan and Character Appraisal⁵³ seeks to ensure that the special architectural or historic interest of the Roker Park Conservation Area is preserved and enhanced for the benefit of current and future generations and for the enrichment of the City's built heritage.

8.3 What are the sustainability objectives we need to consider?

- 8.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- The full potential of the historic environment should be realised and it should be accessible to all.
- Preserve the character of the coast, designated areas, heritage coasts and the international dimension.
- The historic environment plays a key role in growth and regeneration and highlights options for conservation-led regeneration.
- Protect and enhance the best features of the city's urban heritage, landscapes, countryside and coast; recognise the contribution of the arts, religious and ethnic diversity.
- Ensure that the special architectural or historic interest of the Roker Park Conservation Area is preserved and enhanced for the benefit of current and future generations and for the enrichment of the City's built heritage.

8.4 What is the situation now?

- 8.4.1 The Roker coastline is now dominated by settlement and the Seafront area at Roker and its associated beach is characterised as predominantly 'developed' area of Sunderland's coastline. The character of the existing area can be described as:

- Open and flat landscape with long wide sandy beaches
- Predominantly amenity grass with no tree cover.
- Long views along the coast and out to sea
- Built up promenade, busy roads and urban development adjacent giving the area an urban seaside character.
- To the south the land rises to create cliffs and steep embankments with rocky outcrops on the beach

- 8.4.2 Heritage in the Roker area is centred on the 25ha Roker Park, a Victorian pleasure ground opened in 1880 which opens out onto Marine Walk Esplanade. The park, included in the inventory of Historic Parks and Gardens, was the stimulus for the development of the suburb which until the 1840s had been agricultural land. The origins of the area are firmly rooted in its

⁵³ Sunderland City Council (2007) The Roker Conservation Area Management Plan and Character Appraisal [online] <http://www.sunderland.gov.uk/Public/Editable/Themes/Environment/PlanningandEnvironment/implementation/conservation/default.asp> (accessed 3 July 2008)

coastal location which includes the pier, north dock (built by Isombard Kingdom Brunel) and Roker Bridge one of the first man-made structures at the seafront spanning the ravine.

- 8.4.3 Roker Park was designated as a Conservation Area in 1995 on account of its historical and architectural significance. Significantly, Roker Pier is not located within the boundary of the CA; the south eastern boundary having been formed artificially. The Conservation Area was extended in 2007 to include the pier, lighthouse and lower promenade within the masterplan area.



Figure 8.1 Roker Park Conservation Area

- 8.4.4 The area contains seven buildings or structures which are listed for their individual merit. These include St. Andrew's Church, a Grade I listed building notable for its connection with a number of exponents of the Arts and Crafts Movement and locally known as the 'Cathedral of the Arts and Crafts Movement'.
- 8.4.5 Marine Walk has strong physical and historical linkages to St Peter's church. St Peter's and St Paul's church in Jarrow form the twin Anglo-Saxon monastery of Wearmouth-Jarrow, an early medieval centre of European culture and learning, and home of the Venerable Bede, the greatest scholar of his day. In recognition of its architectural and cultural significance Wearmouth-Jarrow is the UK's nomination for UNESCO World Heritage site status in 2010. Physically the candidate World Heritage Site is linked to Marine Walk via a riverside footpath and St Peter's artwork trail. The route is a high quality popular environment for pedestrians and cyclists. From the route it is possible to follow Bede's Way which runs through Roker and Seaburn to St Paul's in Jarrow.

8.5 What will the situation be without the plan?

- 8.5.1 Whilst the Roker area faces pressure from new development, in part as a result of policy to protect open spaces the seafront itself has fared less well. The popularity of the resort has waned since the 1950s as a result of changing markets and interests. Without intervention it is reasonable to consider that the trend would be set to continue.

- 8.5.2 With continued decline of the seafront area there is the potential for the risk of impacts on the built fabric of heritage assets which, without a viable function, may fall into disrepair and reflect poorly upon the character of the area. This is especially relevant to properties located within or adjacent to a conservation area. The establishment of the twin monasteries at Monkwearmouth and Jarrow should contribute to a rise in favour for the area which is closely associated with the former and provides a route between the two monasteries.
- 8.5.3 Sunderland City Council has published management strategies for a number of Conservation Areas within the City. The Roker Park Conservation Area Management Strategy proposals include:
- Conservation Area boundary was extended in 2007 to include Roker Pier and the entire Marine Walk
 - Restoration and enhancement of the heritage features of Roker Park
 - Monitoring and restoration of the surrounding terraces.
 - Preservation of villas and their settings
 - Restoration and protection of seafront properties.
 - Enhancement of Marine Walk
- 8.5.4 Thus it is clear that without Marine Walk Masterplan there would still a will to face up to the challenges of the declining seafront offer and its implications for the areas culture and heritage. Whilst threats exist to the built fabric of historic building the management strategy for the Roker conservation area seeks to restore and conserve these features and has expanded its boundary to include the whole of Marine Walk. If this management strategy is assumed to be successful it is reasonable to assume that enhancement will be possible. However, this would be on a site by site basis and would not be aided by the impetus that Marine Walk Masterplan could bring to the area.

8.6 What will the situation be with the masterplan?

- 8.6.1 The Masterplan contains a number of small scale measures that are specifically intended to create and foster and improved sense of place. In order to deliver this landscape improvements are promoted to increase the legibility of Marine Walk with the natural and historic environment.
- 8.6.2 Improvements will provide an uninterrupted link from Roker Park, a registered historic park, through Roker Ravine, containing important historical cave features, to the seafront promenade. The caves within Roker Ravine will be opened up to the public as a space for temporary arts installations and performances. The seafront promenade will feature notice boards/panels/signs within the proposed pods to display historic information. Additionally vinyls, artwork, sculptures, carvings and etchings in surface materials and other structures (both existing and new) will be incorporated.
- 8.6.3 The Masterplan proposes to remove existing gates to Spottee's cave and replace this with a reinforced glass panel installed to allow people to view the illuminated cave and find out about its interesting history. An information pod will be located nearby at Holey Rock Corner to provide information on the rich history of the seafront, its environment and geology. Furthermore there are proposals to open up the tunnel inside the pier as part of other events or

heritage open days and to explore the re opening of the old pier as a viewing platform and fishing area.

8.6.4 The net effect will be that the heritage of the area will be opened up to the public both physically and intellectually. It is hoped this will draw people to the areas and increase usage of the seafront. Understanding and appreciation of the culture and heritage of the location will be enhanced through the use of lighting enabling a new evening perspective on natural and physical heritage features.

8.6.5 It is considered that the proposals will enhance the existing heritage features contained within the Roker Park Conservation Area and will support and help to implement the objectives of its management plan. There is also the possibility of illustrating linkages with the wider historic environment including St Peter's Church and Bede's Way.

8.7 How can we mitigate / enhance effects?

8.7.1 Whilst the Masterplan SPD incorporates a great number of measures to support and importantly encourage active engagement and use of historic features it will be important that those people using and attracted to the seafront understand and appreciate the heritage features. Means to educate and communicate with users are positively encouraged through the document and it is proposed that information pods and signs at the key gateways to the south (North Pier, Car park and the Volunteer Life Brigade Museum) and north (Holy Rock Corner, Lower Promenade) provide information linking the seafront to other locally and regional the other important heritage features including St Peter's Church and Bede's Way.

8.8 Conclusions

8.8.1 Marine Walk Masterplan can play an important role in enhancing the heritage features of the area. The content of the SPD acknowledges this and contains a number of proposals that will support conservation and cultural objectives.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>By implementing the masterplan proposals the use, appreciation and understanding of cultural and heritage features will be improved. Within a short period of time it would be expected that features that may not be currently well known and used (such as Spottee's Cave) may become well known and well used features attracting use and visitors.</p> <p>The net effect will be improved historic, coastal and cultural features.</p>	<p>If the Wearmouth-Jarrow UNESCO World Heritage site proposals are successful in 2010 Marine Walk will form a key highlight of the route between St Pauls and St Peters churches.</p> <p>As part of the Sunderland Arc regeneration programme a planning framework and SPD is being prepared for the Bonnersfield/St Peters area that incorporates the candidate world heritage site. The SPD seeks to promote mixed-use development that is sensitive to and enhances the heritage site. It is considered that enhancements to this heritage site can work in tandem with Marine Walk proposals to promote the historic and cultural assets linking Roker and the coast to more centrally located historic features.</p>
Long term	<p>The improvements to Marine Walk SPD are considered to be comparable with the objectives of the Roker Park Conservation</p>	<p>Sunderland arc business plan/proposals should help to promote understanding, protection and enhancement of the cities cultural and heritage</p>

	Area and could enable better use and longevity to existing heritage and cultural buildings and features.	offering.
Areas likely to be significantly affected	The seafront area at Roker will be directly improved. Additionally increasing legibility with the surrounding environment will help to protect and enhance features within Roker Park, Roker Ravine and possibly St Peter's Church and Bede's Way.	
Permanent Vs temporary	If implemented successfully the proposals should provide permanent benefits both in terms of protection of features and impact on the cultural appreciation of visitors.	
Secondary	<p>Visitors will be better informed and educated on heritage features which may in turn encourage greater use and appreciation of heritage and cultural features within the sub region. This in turn could enhance interest and use in other heritage features such as the candidate Wearmouth-Jarrow UNESCO World Heritage site.</p> <p>Improving the understanding and appreciation of heritage of the seafront and further afield, may help to improve the sense of place and landscape of this part of Sunderland's coastline. In turn this may help to influence the design and use of new and old built environment in the vicinity. Furthermore encouraging visitors will have positive benefits for the local economy.</p>	

9 Improve health and well-being while reducing inequalities in health.

9.1 Introduction

9.1.1 According to the World Health Organisation, health can be defined as a state of complete physical, mental and social well-being and not merely the absence of disease⁵⁴. Although health matters are not central to the impetus for the creation of a vision for the future of Sunderland's coastline the SPD can influence the key determinants of public health, among them, recreation, air quality, employment and education.

9.1.2 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:

- Encourage recreation that will contribute to the health of residents and visitors.
- Improve pedestrian and cycle routes to promote healthy modes of transport.

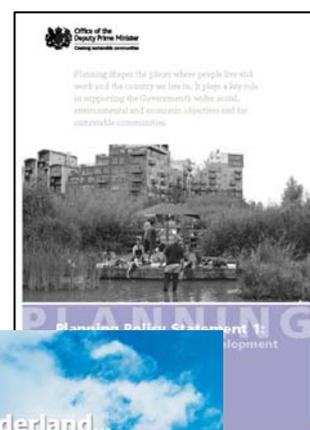
9.1.3 This assessment is informed by the content of the Scoping Report topic chapter **Community health, equality and education**.

9.2 What is the policy context?

9.2.1 Planning policy⁵⁵ stresses the importance achieving social cohesion and inclusion within land use developments. It is stressed that planning authorities should ensure that infrastructure and services are provided to support new and existing economic development and housing.

9.2.2 Planning for open space and recreation⁵⁶ states that "open spaces, sport and recreation all underpin people's quality of life. Well designed and implemented planning policies for open space, sport and recreation are therefore fundamental to delivering broader Government objectives". These objectives include supporting urban renaissance and urban renewal, promotion of **social inclusion** and **community cohesion**, and **health and well being**.

9.2.3 The Sunderland Strategy⁵⁷ has the vision that Sunderland will be a "welcoming, internationally recognised city where people have the opportunity to fulfil their aspirations for a healthy, safe and prosperous future". The strategy includes 'Sunderland: A healthy city' amongst its strategic priorities.



⁵⁴ World Health Organisation, 1948, Preamble to the Constitution of the World Health Organisation

⁵⁵ Office of the Deputy Prime Minister (2005). *Planning Policy Statement 1: Delivering Sustainable Development* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed 30 June 2009).

⁵⁶ Office of the Deputy Prime Minister (2002). *Planning Policy Guidance 17: Planning for open space and recreation* [online] available at: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/ppg17.pdf> (accessed 2 July 2009).

⁵⁷ Sunderland City Council (2008) *The Sunderland Strategy* [online] available at: <http://www.sunderland.gov.uk/Public/Editable/Themes/CityCouncil/corporate/sunderland-strategy.asp> (accessed 2 July 2009).

9.3 What are the sustainability objectives we need to consider?

9.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- Open space, sport and recreation are fundamental to people's quality of life.
- Improve health and tackling health inequalities.
- Achieve a healthier city.

9.4 What is the situation now?

9.4.1 Sunderland fares poorly in terms of a number of key health indicators. Life expectancy for men in Sunderland as a whole is just over 75 and for women 79⁵⁸. Whilst these have increased over the last 20 years life expectancy rates is in the lowest national quartile for both male and female life expectancy nationally. In addition childhood obesity has been a rising issue. The North East has the highest levels in the UK amongst children between 2 and 10 years⁵⁹.

9.4.2 However, when looking at ward level Roker compares favourably with those others within the Sunderland administrative boundary. For example the percentage of individual residents suffering from a limiting long-term illness in St. Peter's ward is middling compared with other wards in Sunderland, although the 24.19% rating is well above the national average of 17.93%⁶⁰.

9.4.3 In 2003-2007 Sunderland achieved healthy city designated status from the World Health Organisation. The accolade is not based on current level of health in the local authority area; rather it represents the acknowledgement by city authorities that health is a primary issue and their commitment to addressing issues related to poor health through initiatives such as healthy urban planning and Health Impact Assessment.

9.4.4 Community health is also influenced by crime and the fear of crime, and general deprivation. These factors are explored in more detail in **Section 10**.

9.5 What will the situation be without the plan?

9.5.1 It is reasonable to think that the health of the population of Sunderland will continue to improve alongside national trends. The city's commitment to health related objectives and status as a Healthy City may also see an improvement in health related indicators that could improve its overall performance in regards to health and life expectancy relative to the other parts of England and Wales.

9.5.2 It is reasonable to assume that Marine Walk will continue to attract recreational visitors for walking, cycling, fishing and use of the beach. However, numbers of visitors may continue to decline as the area continues to be perceived as run down.

⁵⁸ The Audit Commission Area Profiling Data Available at: www.auditcommission.gov.uk [accessed 2008]

⁵⁹ Neighbourhood Statistics Available at: www.neighbourhood.statistics.gov.uk [accessed June 2009]

⁶⁰ *IBID*

9.6 What will the situation be with the masterplan?

- 9.6.1 The masterplan has at its core the intention to create an area that will provide opportunities to enjoy the promenade, coast and beach at Roker, with strong linkages with Roker Park to create the feeling of a single unified recreational offering.
- 9.6.2 The proposals actively encourage use of the area for walking, cycling and for recreational play. Furthermore, it appears that these have been designed to offer something to people of all ages. Furthermore, lighting and evening economy activities will increase the length of time in which visitors may choose to visit Marine Walk.
- 9.6.3 The introduction of new lighting can also help improve the safety of an area at night time and will improve the feeling of safety along the promenade.
- 9.6.4 Upgrading Marine Walk may also have secondary benefits of awareness and subsequent use of cycling and walking routes such as the Bede cycle way and coast to coast cycle route.
- 9.6.5 The masterplan will have the net effect of attracting greater use of Marine Walk and will provide more opportunities for healthy activity. It is therefore reasonable to assume that the masterplan will contribute to improving health.

9.7 How can we mitigate / enhance effects?

- 9.7.1 The masterplan proposals are likely to encourage more visitors to this stretch of coastline. Given that Marine Walk is on the path of designated cycle routes there are opportunities to promote cycling as a means to visit the site. In this regard the masterplan could incorporate measures for safe and secure cycle parking in order to enable visitors to pause and partake in the activities proposed in the SPD.

9.8 Conclusions

- 9.8.1 The link between recreation and healthy lifestyles is strong, and the SPD has at its heart intent to increase recreational use of Marine Walk. Regeneration and increasing use of the area, especially during the evening, may help to increase natural surveillance and thus decreasing incidents of crime which in turn has benefits for health and well being.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	Many of the measures included in the SPD can be implemented in the short term. Landscaping features can quickly change the appearance of Marine walk and increase recreational use in the short term. It is considered that the measures would promote healthier lifestyles.	The SPD would work in line with the healthy city agenda and the programmes that this involves to improve levels of health across the city.
Long term	Marine Walk will provide opportunities for some people to make significant long term improvements to their levels of health. However, it is reasonable to assume that most use will be occasional and benefits will be of a minor significance.	Marine Walk Masterplan can be considered in conjunction with the proposals for seafront redevelopment further north at Seaburn. Potentially the image and attractiveness of a large section of coastline will be updated and upgraded. It is considered that this could increase the opportunities for active and healthy lifestyles in the

		city. Also in association with programmes under the healthy city agenda it is considered likely that there will be significant positive health effects in the long term.
Areas likely to be significantly affected	The population of Roker will have the greatest opportunities for improved health and well being associated with the masterplan. However, it is also likely to attract some people from across the city and sub region who value the seafront as the most important green space in the city.	
Permanent Vs temporary	Community wellbeing and good health take a long time to build up, good health starts before birth. The impacts of the SPD would therefore be permanent.	
Secondary	Increased use of Marine Walk will increase natural surveillance along the seafront, which in turn may help to reduce incidents of crime. Furthermore, recreational and health use will promote economic activities through retail and recreational activity.	

10 Build sustainable communities.

10.1 Introduction

10.1.1 The Department for Communities and Local Government (CLG) has defined sustainable communities as "...places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all⁶¹".

10.1.2 As such, sustainable communities embody the principles of sustainable development by: "balancing and integrating the social, economic and environmental components of their community, meeting the needs of existing and future generations and respecting the needs of other communities in the wider region or internationally to make their own communities sustainable⁶²".

10.1.3 The Scoping Report introduces the following locally distinctive sub criteria that will be considered in order to inform the assessment under this SA Objective:

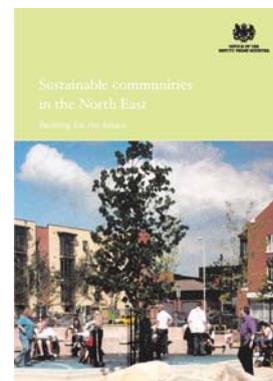
- Promote and encourage community involvement and participation.
- Stem the declining population by reducing out-migration.
- Reduce instances of petty crime and vandalism.

10.1.4 This assessment is informed by the content of the Scoping Report topic chapter **Community health, equality and education.**

10.2 What is the policy context?

10.2.1 Sustainable Communities: Building for the Future (the 'Sustainable Communities Plan') was launched in 2003 and sets out a long-term programme of action for delivering sustainable communities in urban and rural areas. The main aspects are:

- Addressing housing shortage, comprised of accelerating the provision of housing, affordable housing and tackling homelessness
- Addressing low demand and abandonment
- Ensuring all social housing is brought up to a decent standard by 2010
- Improving the local environment of all communities (liveability)
- Protecting the countryside and using land more effectively



⁶¹ Communities and local Government (2003) *What is a sustainable community* (online) Available at: <http://www.communities.gov.uk/archived/general-content/communities/whatis/> [Accessed 5 July 2009]

⁶² *IBID*

10.2.2 Planning Policy Statement 1: Delivering Sustainable Development⁶³ stresses the importance of a strong, stable and productive economy and requires planning authorities to ensure that the **necessary infrastructure** is provided to support new and existing economic development and housing.

10.2.3 In October 2006, the Government published the White Paper, *Strong and Prosperous Communities*⁶⁴. The main themes of the paper are to encourage councils to develop neighbourhood charters setting out local standards and priorities; more effective, accountable and responsive local government; stronger city region leadership models; a new performance framework tailored to local needs through the Local Area Agreement; efficiency gains as part of the 2007 Comprehensive Spending Review; greater community and resident participation in decisions; and an enhanced role for community groups.



10.3 What are the sustainability objectives we need to consider?

10.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- Promote sustainable communities.
- Put people and participation at the centre of sustainable development.
- Promote objectives for creating sustainable communities in the North East.

10.4 What is the situation now?

10.4.1 The Indices of Deprivation indicate that for health, employment and educational attainment levels for the Sunderland local authority area have all been found to be below national averages for England and Wales yet the seafront area has been found to perform well when compared locally with other districts. When accessibility ratings (referred to by Sunderland Council as Sustainable Neighbourhood Rankings) are combined with the social deprivation indicators a similar picture emerges. The seafront area is generally found to have higher accessibility and lower deprivation than the city average (as shown in **Figure 10.1**). This is in line with general trends showing that while Sunderland as a whole does not compare favourably with UK-wide statistics, the seafront area is amongst the most affluent areas in Sunderland.

⁶³ Office of the Deputy Prime Minister (2005). *Planning Policy Statement 1: Delivering Sustainable Development* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed 30 June 2009).

⁶⁴ Communities and Local Government (2006) *Strong and Prosperous Communities* [online] Available at: <http://www.communities.gov.uk/publications/localgovernment/strongprosperous> [accessed 5 July 2009]

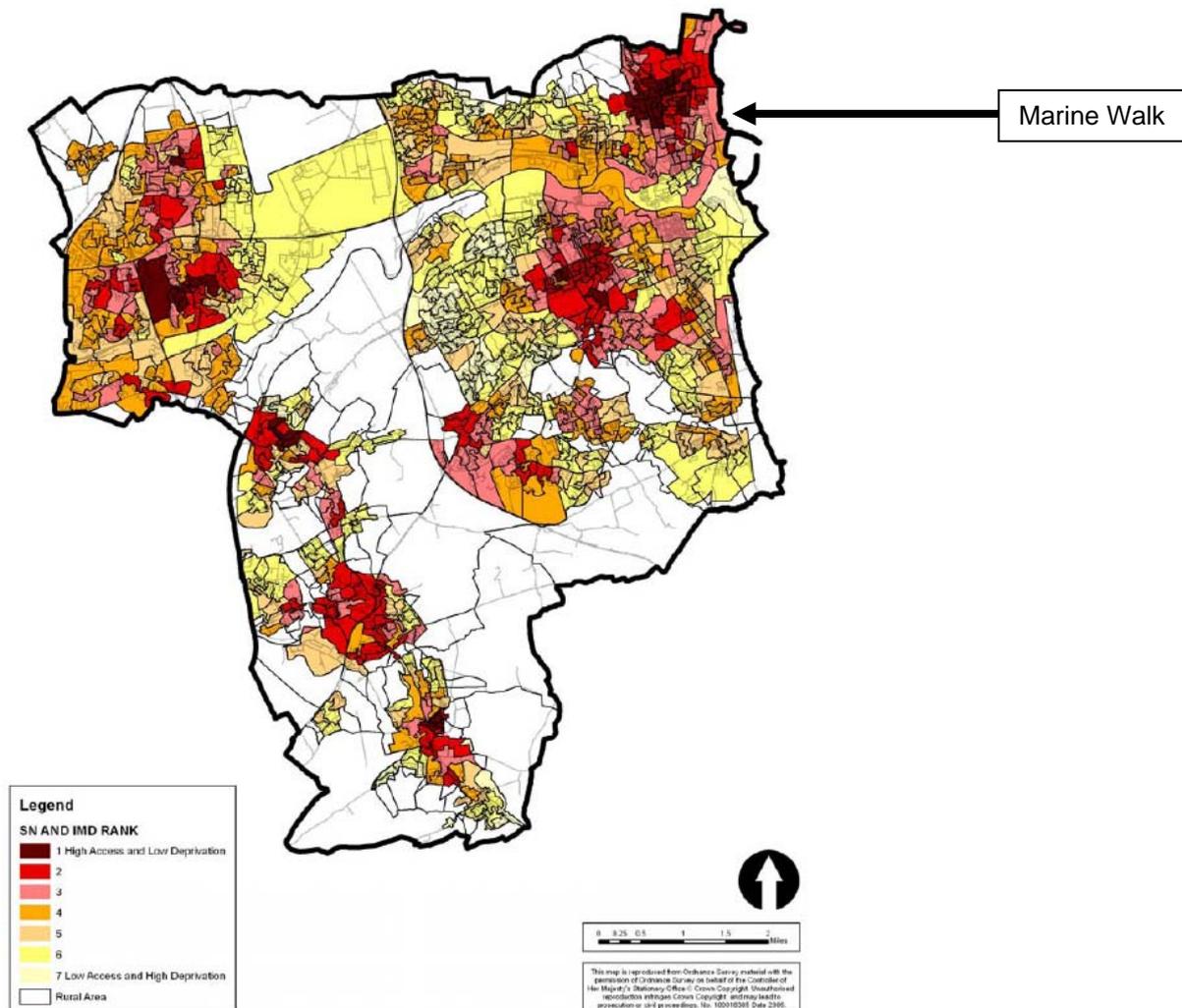


Figure 10.1 Sunderland sustainable neighbourhoods and index of multiple deprivation rank

10.4.2 Crime and the fear of crime are important components of a sustainable community. There are strong links with health, education and employment (see **Sections 9, 11 and 12**). The Indices of Multiple Deprivation illustrate that the Roker area is within the worst 50% of those in England and Wales for criminal activity⁶⁵. Crime data is available for the seafront area in the year 2006/2007⁶⁶. This illustrates that theft and criminal damage are the main causes of offence in the neighbourhood (**Figure 10.2**). Petty acts such as these tend to be opportunistic and are usually indicative of a lack of alternative amusement. They are particularly damaging for the appearance of the urban environment.

⁶⁵ National Index of Multiple Deprivation 2007 [online] Available at: <http://www.communities.gov.uk/communities/neighbourhoodrenewal/deprivation/deprivation07/> [accessed 2008]

⁶⁶ Supplied by communication with Sunderland City Council (2008)

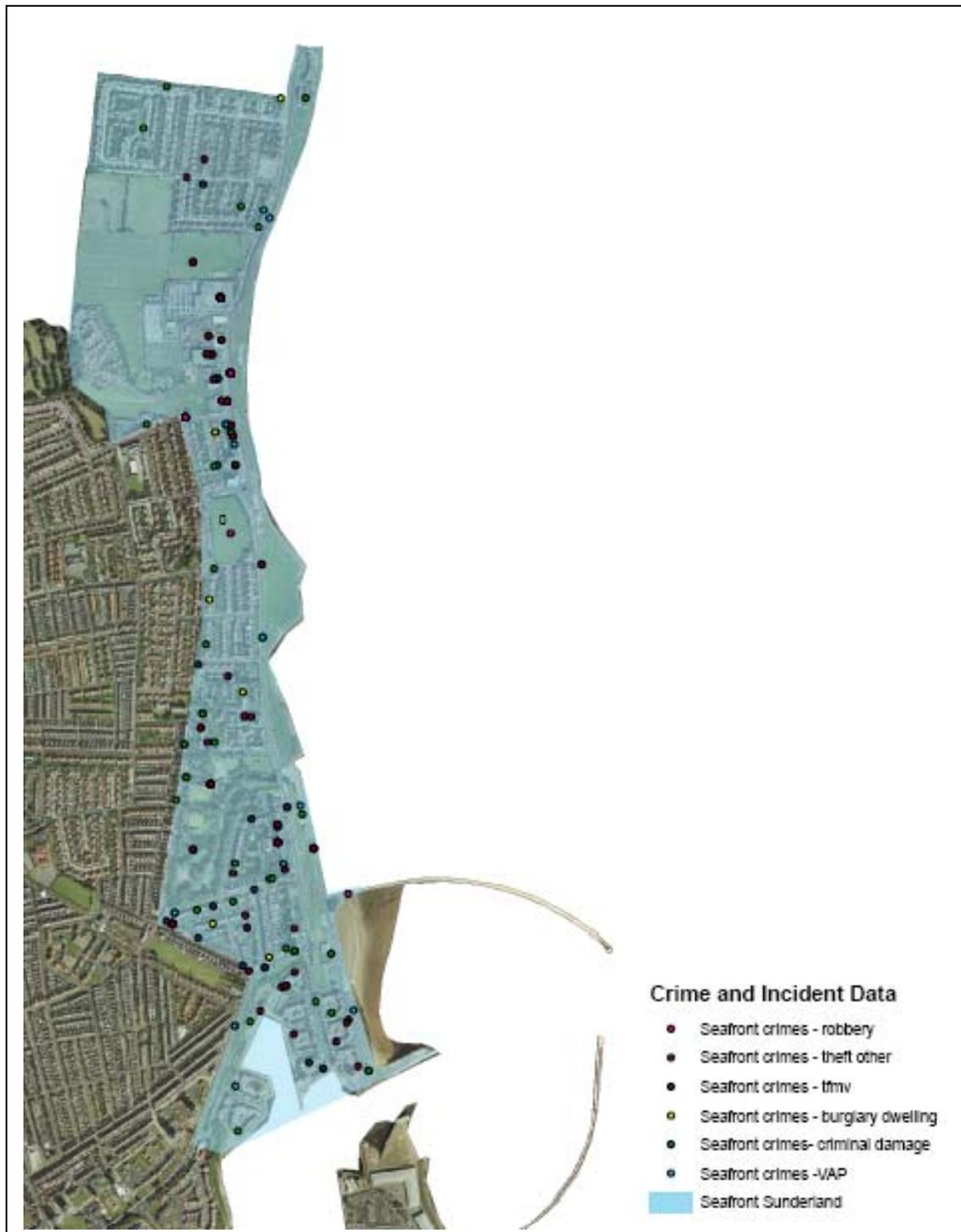


Figure 10.2 Sunderland seafront incidents of crime

10.4.3 In terms of overall deprivation the Roker area is within the 50% least deprived areas in England and Wales. However, despite this there are pockets of extreme deprivation within St Peter's Ward. Because of the relative wealth of the ward as a whole this is often overlooked.

10.5 What will the situation be without the plan?

- 10.5.1 There appears to be no reason to suggest that without the masterplan the community of Roker area will become significantly more deprived. However, regeneration in other areas of the city (such as that involved with the Sunderland Arc regeneration projects⁶⁷) may impact upon the existing performance as one of the least deprived wards in Sunderland.
- 10.5.2 In terms of crime and the fear of crime there is potential for this to continue to be an issue. Crime can be linked to areas perceived as in decline and activities to engage the population, particularly young people. Without a regeneration masterplan for Marine Walk area it can be considered that there may be a general decline, or certainly a lack of impetus to improve, the built environment.
- 10.5.3 The net effect can be considered that without regeneration there is potential for adverse, if relatively minor, effects on the sustainability of the local community.

10.6 What will the situation be with the masterplan?

- 10.6.1 While the direct impacts of the masterplan on assisting to build sustainable communities may not be as measurable as the provision of affordable housing, environmental improvements also make a valuable contribution to the creation of sustainable communities.
- 10.6.2 The increased legibility with Roker Park and Roker Ravine and throughout the masterplan area will assist in enabling the interaction of a range of different types of users attracted to the seafront. The masterplan will continue to enable existing events to be held at Marine Walk (such as heritage open day, sailing championships, and Sunderland Live music festival) and should provide opportunities for other new community events.
- 10.6.3 The masterplan is aimed at attracting a range of people with a range of requirements. Of particular note is the fact that the design team sought to go beyond the minimum standards of accessibility as set out in the Disability Discrimination Acts 1995 and 2005.
- 10.6.4 The educational aspect of some of the Roker Pods will help to promote pride and understanding in the natural and heritage features of the area. Again this may help to instil a sense of pride that is important in delivering sustainable communities.
- 10.6.5 The introduction of new lighting can also help improve the safety of an area at night time and will improve the feeling of safety along the promenade. The proposed evening uses should also help to widen the attraction of Marine Walk and provide surveillance at night time that may help to suppress existing levels of criminal activity.

10.7 How can we mitigate / enhance effects?

- 10.7.1 The text of the SPD could be enhanced to make it clear that the site must be able to perform functions for all members of the community. This is clearly the intent with Spottee's Plaza but this could be mentioned specifically within the supporting text of the SPD.

⁶⁷ Sunderland Arc regeneration information available at: <http://www.sunderlandarc.co.uk/regeneration-projects.aspx>

10.8 Conclusions

10.8.1 The masterplan clearly intends to create an upgraded environment for use by the local community and that is open to visitors from further afield. The result will be an important area of open space and community facility. Regeneration and increasing use of the area, especially during the evening, may help to increase natural surveillance and thus decreasing incidents of crime which in turn has benefits for well being and a sustainable community.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	The masterplan will create an area that will enable existing activities to be undertaken within an enhanced environment with increased legibility and patterns of use. This will provide opportunities for strengthening the local community and will enhance the local environment.	Marine Walk can play an important part in delivering sustainable communities by providing open space and recreational opportunities to compliment regeneration around the city including the housing growth associated with Sunderland Arc sites.
Long term	The SPD includes proposals for maintenance of the features and developments included in the masterplan. In the long term there is the potential for new activities and events to become established. It is likely that in the long term Marine Walk will become a well used facility valued by many parts of the community.	Marine Walk and potential Seaburn coastal developments will create important leisure and open space that will support the growth proposals within Sunderland Arc sites, Regional Spatial Strategy and Local Development Framework that will contribute towards creating more sustainable communities.
Areas likely to be significantly affected	Sunderland's coastal communities such as Roker may see the most benefit on a day to day basis but events and activities will attract people from across the city and sub region.	
Permanent Vs temporary	Community wellbeing and sustainable communities can take a long time to create. Community wellbeing is at least partly related to community stability. The contribution of an improved landscape and community has the potential to be permanent	
Secondary	An improved environment and community asset could make the Roker area more desirable to live within, which would support housing proposals within the Sunderland LDF. This will also attract a range of economic interest such as within the retail sector.	

11 Establish a strong learning and skills base.

11.1 Introduction

11.1.1 Education, learning and skills provide opportunities for all members of society to achieve their potential. They can enable inclusion and economic well being and help to create functioning and sustainable communities.

11.1.2 The Scoping Report introduces the following locally distinctive sub criterion that will be considered in order to inform the assessment under this SA Objective:

- Maintain levels of educational attainment.

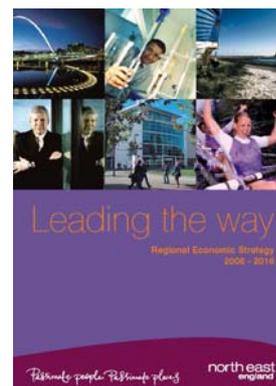
11.1.3 This assessment is informed by the content of the Scoping Report topic chapter **Community health, equality and education**.

11.2 What is the policy context?

11.2.1 The North East Regional Economic Strategy 'Leading the Way'⁶⁸ highlights the benefits and need for increasing skills within the region "*the availability of high value added skills in a region will support growth in productivity through increasing innovation and helping to attract investment*". Increasing skills in the North East is considered to be based on a range of factors:

- The extent to which people in the region have the incentive, information and access to clear progression routes to improve their skills levels, so that a greater proportion of the population has high and medium level skills.
- The extent of investment by employers and individuals in developing workforce skills.
- The skills levels which young people have attained by the time they enter the labour market.
- The skills levels which people of working age migrating to the North East bring with them, and people migrating out take away with them.

11.2.2 The Sunderland Strategy⁶⁹ has the vision that Sunderland will be a "welcoming, internationally recognised city where people have the opportunity to fulfil their aspirations for a healthy, safe and prosperous future". The strategy includes 'Sunderland: A Learning city' amongst its strategic priorities. With the following focus 'To create a city with a thriving learning culture that supports personal fulfilment. Everyone will be able to access their learning in a cohesive, inclusive city committed to social justice, equality and prosperity. We will ensure learning supports the city's economic prosperity and enables individuals to thrive in the global economy'



⁶⁸ One North East (2006) *Leading The Way* [online] Available at: <http://www.onenortheast.co.uk/page/res.cfm> (accessed 8 July 2009)

⁶⁹ Sunderland City Council (2008) *The Sunderland Strategy* [online] available at: <http://www.sunderland.gov.uk/Public/Editable/Themes/CityCouncil/corporate/sunderland-strategy.asp> (accessed 2 July 2009).

11.3 What are the sustainability objectives we need to consider?

11.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- Raise general levels of education and training in the city to improve residents' employment prospects
- Address skills shortage
- Improve the skills of the tourism workforce
- Raise aspirations and increase the entrepreneurialism and educational/vocational attainment of our children and young people

11.4 What is the situation now?

11.4.1 St. Peter's wards accommodate a number of educational establishments. Sunderland University is located on the south side of the River Wear in Sunderland City Centre approximately 500 metres from the southern boundary of the Roker area. As a consequence St Peter's Ward in which Roker is situated has one of the highest student populations in the city.

11.4.2 Educational attainment in Roker is above the average for the local authority area. The number of pupils achieving A*-C at GCSE level is 54% in St. Peter's ward where Roker is located. Only 3% of school leavers in 2002 left without any passes at GCSE grade A – G.

11.4.3 The percentage of the population aged between 16 and 74 without any notable qualifications is illustrated in Figure 11.1. It is noted that Roker is within the lowest quintile. This educational attainment fits the pattern of a relative low level of economic performance.

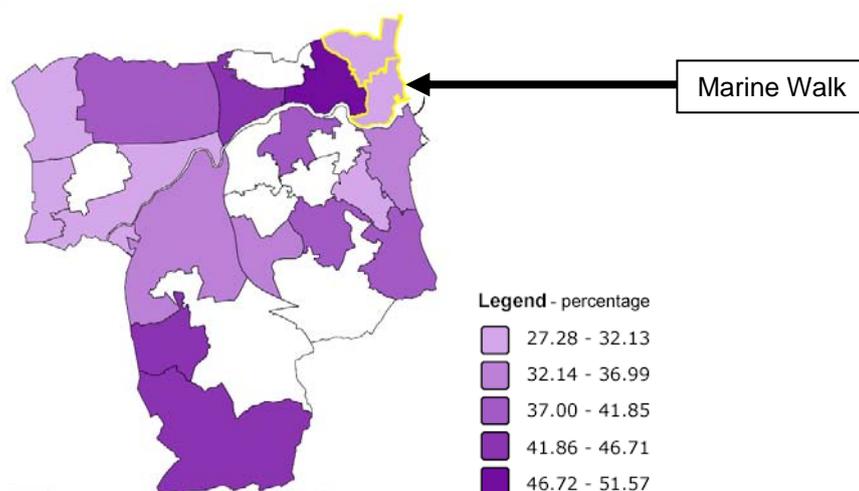


Figure 10.2 Percentage population aged 16-74 with no qualifications

11.5 What will the situation be without the plan?

11.5.1 Quality of life indicators relating to levels of skills and educational attainment are likely to continue as there is no indication that these should decline. Marine Walk currently provides some employment opportunities and hence learning of skills although these are fairly limited.

11.6 What will the situation be with the masterplan?

11.6.1 The masterplan includes the proposed Roker Pods. Education is central to the envisioned uses for the pods. This includes information on marine life, geology, local heritage and outdoor sporting and water-sports activities. An education pod which will act as an onsite learning centre will encourage more school groups to visit Marine Walk and learn about the areas distinctive natural environment.

11.6.2 In addition to organised student visits, the pods will also provide informal education opportunities to all visitors particularly in relation to the use of ecological technologies from wind turbines to waterless composting toilets.

11.6.3 The SPD also includes opportunities for the creation of jobs. Although many of these may perhaps be low skilled job creation will enhance opportunities for people to develop. For example jobs within the evening economy can increase catering skills. Furthermore, some of the Roker pods will be kiosks with the potential to encourage business start ups. There is also the potential to use local skills such as people involved in boat building to construct the pods.

11.6.4 Whilst there are educational and skills opportunities promoted within the masterplan and supporting text of the SPD measuring the effects of these on the population is difficult. Whilst it may inspire an individual to study marine ecology or geology further, whether it will make an impression on the overall level of achievement within Sunderland is difficult to determine.

11.7 How can we mitigate / enhance effects?

11.7.1 Marine Walk is a relatively short distance from the University of Sunderland. Opportunities to partner with the University to enhance the educational experience of the Roker Pods could be explored and encouraged.

11.8 Conclusions

11.8.1 When assessing the contribution of the SPD to encouraging skills and education we must consider the fact that the educational attainment of the population will not be adversely affected if the proposals did not go ahead. This said the proposals do have education at their heart and seek to maximise opportunities for study and casual learning for all visitors.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	It is considered that the proposals will help to encourage education and enjoyment of the marine environment, heritage and geology of the local area. Whilst this may not be a significant contribution for the whole of the population it is nevertheless an important positive effect.	The Sunderland Strategy supports the development of skills and increasing opportunities for education across Sunderland. It is considered that the schemes this may create can help to encourage increasing achievements alongside the proposals within the SPD.

Long term	Whilst the pods provide good educational opportunities, in the long term the ability of the pods to keep educating people is reliant on maintenance of these. Maintenance of both the condition of the pod and the information it contains will be important to continue to provide these opportunities.	Other schemes across the city should help to ensure that the educational and skills offering at Marine Walk continue to be upgraded and provide an important function.
Areas likely to be significantly affected	There is the possibility that people across the city may benefit from the opportunities provided.	
Permanent Vs temporary	It is considered that improvements to education and skills will be permanent for the individuals affected	
Secondary	Improving education and skills can improve entrepreneurial activity and the attractiveness of an area for the creation of new employment opportunities and can help to boost the economy.	

12 Strengthen the regional economy.

12.1 Introduction

12.1.1 The performance of the economy has a fundamental bearing on the achievement of sustainable development. It has both beneficial and adverse impacts. Economic activity generates waste and pollution from industry or traffic, while on the other hand the economy provides employment and generates wealth and enables the use of natural features for leisure and recreation. A sustainable economy should be seen as a part of the wider social and natural environment and, as far as possible, should not adversely affect these wider elements.

12.1.2 In the 19th and 20th centuries, the key drivers of the economy in Sunderland were mining and new heavy industries (including ship building). The city has followed the national trend in the decline of traditional industries and has mirrored the reduction of opportunities in these sectors. However, new primary sources of employment for the city's workforce that has witnessed a step-change providing more sustainable and diverse forms of economic development.

12.1.3 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:

- Strengthen the local economy by encouraging local businesses to locate to the area.
- Build the local tourist economy by attracting more visitors to the seafront.

12.1.4 This assessment is informed by the content of the Scoping Report topic chapter **Local economy and employment**.

12.2 What is the policy context?

12.2.1 Government planning policy⁷⁰ stresses the importance of a strong, stable and productive economy and requires planning authorities to ensure that the necessary infrastructure is provided to support new and existing economic development. Accessibility to jobs and services should also be addressed as a means of achieving social cohesion and inclusion. PPS1 also emphasises the need for Planning Bodies to bring forward “*sufficient land of a suitable quality in appropriate locations..... for a positive planning framework for sustainable economic growth*”.

12.2.2 The Regional Economic Strategy for the North East (RES)⁷¹ sets out how the region is going to deliver greater and sustainable prosperity to all of the people of the North East over the period to 2016. It seeks to provide the underpinning economic conditions necessary to achieve the region's vision. The RES:

- outlines the region's main economic development priorities.
- analyses the strengths, weaknesses, threats and opportunities facing the region.

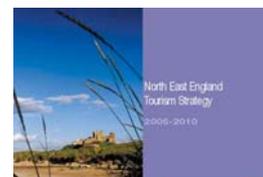


⁷⁰ Office of the Deputy Prime Minister (2005). *Planning Policy Statement 1: Delivering Sustainable Development* [online] available at: <http://www.communities.gov.uk/publications/planningandbuilding/planningpolicystatement1> (accessed 30 June 2009)

⁷¹ One North East (2006) *Leading The Way* [online] Available at: <http://www.onenortheast.co.uk/page/res.cfm> (accessed 8 July 2009)

- provides a framework for the region's public, private and voluntary and community sector organisations to deliver actions for greater and sustainable prosperity.
- provides information on the region and its economy and the key relevant Government policies for developing the region.

12.2.3 The North East England Tourism Strategy⁷² indicates that development for tourism generates a range of economic activity and new growth opportunities. It promotes expansion of tourism within the North East and indicates that it has key role to play in coastal regeneration.



12.2.4 The Sunderland Strategy sets out key aims to directly sustain and promote local economic development in the city. The Strategy under its *prosperous city* priority area seeks to 'To create an enterprising and productive global city with a strong and diverse economy. A city that provides jobs and careers for generations to come, where everyone has the opportunity to contribute to and benefit from the local economy. People will fulfil their potential to be skilled, motivated and wealth creating without losing the special characteristic of Sunderland's balanced way of life'.



12.3 What are the sustainability objectives we need to consider?

12.3.1 The key objectives and messages highlighted in the context review and relevant to this assessment are:

- Achieve sustainable development, while serving the interests of both economic growth and conservation of the environment.
- Promotes the pursuit coastal regeneration through tourism.
- Promotes an increase employment in tourism, and tourism related businesses.
- Accelerate economic growth and raise productivity across key sectors.

12.4 What is the situation now?

12.4.1 Historically economic growth and decline in Sunderland have been subject to acute levels of demographic change with key drivers influencing the economic growth of the city⁷³. In the 19th and 20th centuries, the economy in Sunderland was focused on mining and new heavy industries such as shipbuilding. Since decline of both these industries in the mid to late 1980s unemployment has risen. This has contributed to outward migration which is a continuing problem for the city⁷⁴. Sunderland does have a number of expanding sectors including the knowledge economy represented by the University and the creative media and digital sectors

⁷² One North East (2005) *North East Tourism Strategy* [online] http://www.onenortheast.co.uk/lib/liReport/983/ONE%20Report%2013454_01.pdf?CFID=5265774&CFTOKEN=96649812 (accessed on 10 July 2009)

⁷³ Sunderland City Council (2007) *Sunderland LDF Topic Paper 1.1: Economy* [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 9 July 2009)

⁷⁴ *IBID*

which have undergone rapid expansion in central Sunderland since the beginning of this century⁷⁵.

12.4.2 The economy of the seafront compares favourably with other districts in Sunderland. Roker is one of the more wealthy districts in Sunderland, as illustrated in Figure 12.1.

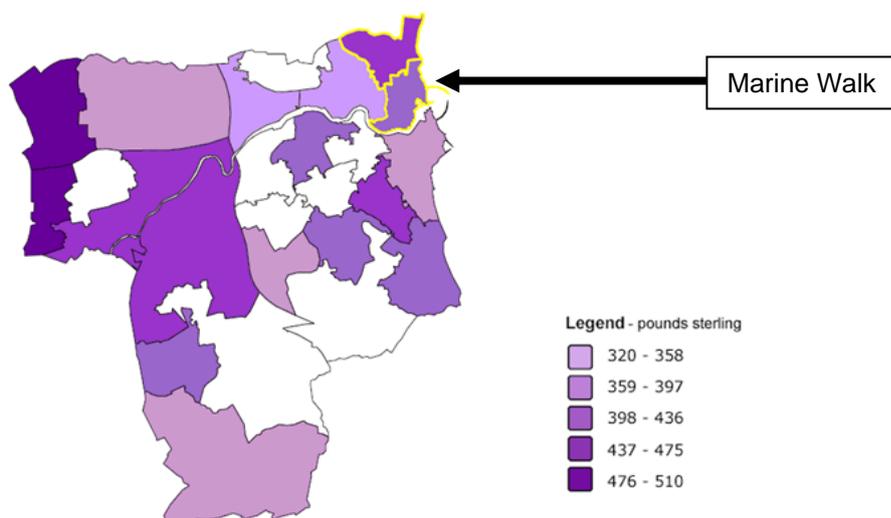


Figure 12.1 Average weekly household income total (pounds sterling)

12.4.3 The economy of the seafront area has declined since the 1950s as the draw of overseas holidays have become more accessible for tourist activities. Attempts have been made by Sunderland City Council in the past to revive the fortunes of the local area with the establishment of commercial and leisure facilities at Seaburn⁷⁶.

12.4.4 This has included the introduction a number of high profile events including the Seafront illuminations, the Sunderland International Air Show and Sunderland Live where local musicians and film makers showcased their talents. These saw a varied degree of success. More recently, several sporting events including several triathlons, sailing competition and the Great Women's Run have also occurred in the Roker/Seaburn seafront area.

12.4.5 One North East's Framework for the North East Coastal Economy emphasises Sunderland's contribution to the regional tourism economy through its reputation for successfully hosting events. The Framework states Sunderland should seek to build on the events programme at the seafront. However, the impetus of these moves may be considered to have waned with the Seafront Illuminations having been cancelled in the absence of adequate financial resources.

12.4.6 Cycling is also an important contributor to the local economy. In 2006 241,000 trips were made on the Coast to Coast cycle route with passes through Roker. This generated £10,700,000 and safeguarded 173 full-time-equivalent jobs⁷⁷.

⁷⁵ Sunderland City Council (2007) *Sunderland LDF Topic Paper 1.1: Economy* [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 9 July 2009)

⁷⁶ Sunderland City Council (2008) *The Sunderland Strategy* [online] available at: <http://www.sunderland.gov.uk/Public/Editable/Themes/CityCouncil/corporate/sunderland-strategy.asp> (accessed 2 July 2009).

⁷⁷ ONE and Sustrans (2007) *The Economic Impact of Cycling Tourism to the North East of England* [online] Available at: <http://www.sustrans.org.uk/assets/files/rmu/Economic%20Impact%20of%20Cycle%20Tourism%20NE.pdf> (accessed 10 July 2009)

12.5 What will the situation be without the plan?

- 12.5.1 Out migration is one of the major issues facing Sunderland's local economy with the impact that the resultant declining population may have on the existing workforce and labour market being a key concern for the city. This is coupled with a faster than average declining industry in manufacturing traditionally the dominant industry in the city which could lead to further unemployment unless mitigated by investment in/establishment of more modern industries. This is likely to worsen in light of the current economic conditions in the UK.
- 12.5.2 It has been shown through the baseline that the seafront area is less affected by rising unemployment and deprivation than other areas of Sunderland, despite still comparing badly to regional and national averages. Investment in local economy and business however is required to ensure that the area becomes more sustainable since the loss of its traditional tourism function.
- 12.5.3 It is reasonable to assume that these trends would continue without the plan. Although there are a number of measures for economic improvement likely to be contained within the Local Development Framework, and the emerging Regional Strategy it is doubtful these will be directed specifically at Roker.

12.6 What will the situation be with the masterplan?

- 12.6.1 The proposals for seafront regeneration at Roker are considered likely to provide localised boosts to the local economy. On site the masterplan will include retail opportunities within the Roker Pods and retail opportunities along the plaza. There will also be employment generated from education and community events. Visitors drawn to Marine Walk will also be encouraged to spend in the existing businesses surrounding the seafront, providing a boost for these businesses.
- 12.6.2 The seafront regeneration will be of benefit to the wider Sunderland community as a whole. Quality of place can serve as a major asset with regards the competitiveness of a region. Additionally the provision of events which will undoubtedly become more common through the proposals, the seafront can provide an attraction for visitors to the city which in turn can boost Sunderland's economy, and provide opportunities for access to culture, leisure heritage and attractive natural environments.
- 12.6.3 These proposals will cause a general improvement of the coastline which should cause people from all around Sunderland and beyond to come to the Roker seafront for day trips. In time, this will place the Roker seafront as a regional tourist attraction that will contribute to the overarching tourism economy in the North East.
- 12.6.4 Increase the accessibility of cycling along Marine Walk will enhance the North East's reputation as a top destination for cyclists. The reputation of Roker seafront as a link between three national cycle routes is well known and the proposals to enhance this location will undoubtedly promote the area further still among cycling enthusiasts.

12.7 How can we mitigate / enhance effects?

- 12.7.1 Whilst the SPD acknowledges the potential for events it mentions these in the context of existing events. There is potential for the masterplan proposals to be used to promote new

events that would promote the Roker seafront area as a regional attraction. For example, specific events to promote the reputation of the seafront area for cycling will raise regional and perhaps national awareness of this area among the cycling community.

12.7.2 The attractiveness of this destination for tourism and local recreation is dependent not only on the proposals themselves but also how these proposals fit in with local business. It is important that local businesses can serve not only the existing Roker community but will also complement the Masterplan proposals. The opportunity of strengthening these proposals through examining the Local Development Framework should be explored.

12.8 Conclusions

12.8.1 Marine Walk Masterplan will provide new opportunities for economic activity at Roker and will encourage more visitors to the seafront, many of which may be from beyond the Roker area. This will provide an extra economic boost for existing businesses.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>The masterplan will generate new business opportunities from the point of opening creating a local economy within the plan area. Increasing visitors will also provide support and custom for existing business</p> <p>Increased capacity for new events as a result of the plans will provide an impetus for people all over the region to frequent the Roker seafront adding further impetus to the local economy.</p>	<p>The seafront strategy covering Roker also promotes regeneration of the seafront at Seaburn. This may result in a separate SPD. This would further attract visitors and expenditure in the area strengthening the 'coastline economy'</p>
Long term	<p>Short term success could lead to an upward spiral of success in Roker with new business opening. This could help the Seafront at Roker become regional attraction in the North East which can help to provide an increase in tourism to the regional economy.</p>	<p>Short term success coupled with similar projects in the locality will help to improve the profile of Roker within the region and as a result could provide a healthy tourist based economy.</p>
Areas likely to be significantly affected	<p>At a local level Roker will benefit from an increase in custom at local businesses. The North East of England will benefit provided if the Roker seafront can be marketed as one of its key attractions.</p>	
Permanent Vs temporary	<p>Economic growth is by definition temporary. However the conditions needed to engender such growth have much more permanent effects: for instance good infrastructure, good balance of housing to employment, and good accessibility to jobs.</p>	
Secondary	<p>Economic growth is likely to have positive impacts on human health and community wellbeing. Generally speaking, it can lead to negative impacts on air and water quality, water resources, and biodiversity.</p>	

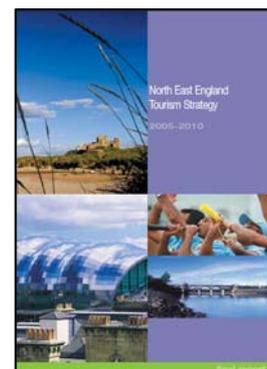
13 Develop a more sustainable employment market.

13.1 Introduction

- 13.1.1 Any expansion or contraction of the economy is likely to have an effect on employment. Providing adequate employment is key to delivering new skills, improving the health and well-being of a community.
- 13.1.2 The city has followed the national trend in the decline of traditional heavy industries large numbers of the workforce were made unemployed with no alternative economic opportunities. In Roker opportunities within tourism have declined since the seafront's heyday in the 1950's.
- 13.1.3 However, evidence illustrates new primary sources of employment for the city's workforce that has witnessed a step-change providing more sustainable and diverse forms of economic development.
- 13.1.4 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:
- Establish a more diverse local economy.
- 13.1.5 This assessment is informed by the content of the Scoping Report topic chapter **Local economy and employment**.

13.2 What is the policy context?

- 13.2.1 Marine Walk Masterplan proposals largely focus on the tourism economy and as such the employment opportunities are largely within this sector. Government guidance on planning for tourism is contained within the 'Good Practice Guide on Planning for Tourism'⁷⁸. This guidance highlights the importance of tourism to local economies and employment. It also gives importance not just of direct and indirect employment but also of induced jobs resulting from the wages of people in direct and indirect tourism employment.
- 13.2.2 Furthermore, the North East England Tourism Strategy⁷⁹ stresses the importance of increase employment in tourism, and tourism related businesses.
- 13.2.3 The Sunderland Strategy sets out key aims to directly sustain and promote local economic development in the city. The Strategy under its *prosperous city* priority area seeks to '*To create... a city that provides jobs and careers for generations to come, where everyone has the opportunity to contribute to and benefit from the local economy*'.



⁷⁸ Communities and Local government (2006) Good Practice Guide on Planning for Tourism [online] Available at: <http://www.communities.gov.uk/publications/planningandbuilding/goodpracticeguide> (accessed 10 July 2009)

⁷⁹ One North East (2005) *North East Tourism Strategy* [online] http://www.onenortheast.co.uk/lib/liReport/983/ONE%20Report%2013454_01.pdf?CFID=5265774&CFTOKEN=96649812 (accessed on 10 July 2009)

13.3 What are the sustainability objectives we need to consider?

- 13.3.1 The key issues, problems and constraints for the seafront area with regard to local employment are:
- Develop the potential of the tourism sector to create new businesses and job opportunities.
 - Promote an increase employment in tourism, and tourism related businesses.

13.4 What is the situation now?

- 13.4.1 Since decline of ship building and mining in the mid to late 1980s unemployment in Sunderland has risen. This has contributed to outward migration which is a continuing problem for the city. The majority of Sunderland's workforces are now employed in the Services sector (77.2%)⁸⁰ although this number is still considerably lower than both regional and national averages. The number of staff still employed in manufacturing roles (16.8%) remains higher than national averages, but is now declining at a much faster rate. In January 2009 the Nissan car plant in Sunderland, a major employer in the city, announced job losses of 1,200 from its factory. It is this decline in traditional manufacturing which presents the biggest issue for the changing economy in Sunderland.
- 13.4.2 More locally, the immediate seafront locality is now predominantly residential with the majority of the workforce population travelling to employment locations. The average distance travelled to work for residents of the Roker area is over 14km. As such the seafront area is less affected by rising unemployment and deprivation than other areas of Sunderland. Employment in Roker is low and primarily restricted to a small number of retail facilities, hotels, bars and restaurants.
- 13.4.3 The economy of the seafront compares favourably with other districts in Sunderland. St Peters ward is amongst the more wealthy districts of Sunderland with an average income of £430 per week. The average for the North East region is £410 per week⁸¹.

13.5 What will the situation be without the plan?

- 13.5.1 Without Marine Walk masterplan the area is likely to continue to have a small local economy with limited employment opportunities. Without further investment there is unlikely to be much further growth.

13.6 What will the situation be with the masterplan?

- 13.6.1 The masterplan will impact on local employment both in the short term and the long term. The Roker Pods will provide retail opportunities all along the seafront although these may be seasonal positions. The SPD states a willingness to *'Explore opportunities to introduce new facilities and improve existing facilities on Marine Walk. Work with existing business to help them explore new business opportunities and ensure their longevity. Consider sympathetic development opportunities and temporary uses for the derelict site adjacent to the Adventure Sunderland building'*

⁸⁰ Sunderland City Council (2007) *Sunderland LDF Topic Paper 1.1: Economy* [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 9 July 2009)

⁸¹ Neighbourhood Statistics Available at: www.neighbourhood.statistics.gov.uk

- 13.6.2 This illustrates that the proposals can support existing business along Roker Terrace, adjacent to Marine Walk. Increased business may in turn necessitate the need for additional staff particularly during the peak seasons. Expansion of the evening economy will also add impetus to existing business.
- 13.6.3 In the long term, with an increased reputation of the Roker seafront as a destination for tourists there may be an impetus for new businesses to move into the area including bars, restaurants, hotels and retail facilities. This will stimulate the local job market providing local employment opportunities for the residents of Roker and the wider Sunderland population.

13.7 How can we mitigate / enhance effects?

- 13.7.1 The ability of the masterplan to deliver increasing employment and prosperity from the success of the Roker seafront area as a destination for tourists depends on how well this can fit with employment and housing policies within the LDF Core Strategy. These should be supportive and complementary.
- 13.7.2 New business opportunities will serve not only those frequenting Marine Walk but also the residents of Roker. Due to the seasonality of tourism function, their success will depend highly on local demand and as such a careful balance must be ensured. In response the masterplan should seek to highlight opportunities for employment throughout the year.

13.8 Conclusions

- 13.8.1 There will be both indirect and direct benefits from these proposals on local employment which will be realised both in the short and the long term.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	<p>It is considered that Marine Walk Masterplan will lead to the creation of a small number of additional jobs directly through the provision of retail facilities along Marine Walk and in association with events or educational programmes.</p> <p>The increase in visitor numbers to the Roker seafront will increase business patronage in the locale and subsequently there may be an increase in local secondary employment.</p>	<p>The Seafront Strategy covering Roker also promotes regeneration of the seafront at Seaburn. This may result in a separate SPD. This would further attract visitors and expenditure in the area strengthening the 'coastline economy'. This could result in further job creation.</p>
Long term	<p>In the longer term it is consider climatic change may lead to an increase in visitor numbers. This will increase expenditure and job creation.</p> <p>Furthermore, if Marine Walk gains a regional reputation, new business opportunities will be created (for example in the hospitality and retail sectors) which will in turn create the requirement for a local workforce.</p>	<p>Short term success coupled with similar projects in the locality will help to improve the profile of Roker within the region and as a result could provide a healthy tourist based economy jobs within this and within associated business.</p>
Areas likely to be significantly affected	<p>The proposals will create a more sustainable employment market within Roker and could help Sunderland to achieve employment levels promoted within the Regional Economic Strategy.</p>	

Permanent Vs temporary	Employment opportunities are tied to the success of the economy. Many of the employment opportunities that will result from masterplan will be temporary.
Secondary	The local employment market will also be affected by jobs resulting from the wages of people in direct and indirect tourism employment. Employment growth is likely to have positive impacts on human health and community wellbeing.

14 Develop sustainable transport and communication.

14.1 Introduction

- 14.1.1 Sustainable transport is integral to the wider sustainable development agenda. An efficient transport network is a pre-requisite of a successful, modern economy. A safe and accessible transport network helps fulfil societal objectives, while a low-pollution transport network is essential to safeguard the environment and climate. Reconciling these, often conflicting, requirements is at the heart of the planning process.
- 14.1.2 Efficient transport networks must also recognise the need to plan for sustainable travel, which aims to reduce transport-related carbon emissions that contribute to climate change. Measures to ensure viable alternatives to use of private cars are important to reduce overall emissions. Alternatives can include fast, efficient, affordable public transport as well as walking and cycling for local trips.
- 14.1.3 The North East has shown continued rise in car use for both private and business travel which has served to increase congestion, greenhouse gas emissions and air pollution with knock-on effects for climate change, health and well-being issues. Forecast rises in oil prices and impact on climate change means that sustainable transport links and innovative communication techniques must be developed to reduce the need to travel long distances⁸². Sunderland has a comprehensive bus network supplemented by the Tyne and Wear Metro Service that links the City Centre to Tyneside.
- 14.1.4 The Scoping Report introduces the following locally distinctive criteria that will be considered in order to inform the assessment under this SA Objective:
- Reduce the reliance on the private car as a preferred mode of transport.
 - Reduce congestion along the A183 corridor.
 - Improve public transport links between the seafront and key services in the city.
 - Improve pedestrian and cycle routes to promote healthy modes of transport.
- 14.1.5 This assessment is informed by the content of the Scoping Report topic chapter **Transportation**.

14.2 What is the policy context?

- 14.2.1 Planning Policy Guidance 13: Transport (PPG13) states that quality of life depends upon transport and easy access to jobs, shopping, leisure facilities and services. PPG13's objectives include the integration of planning and transport at the national, regional, strategic and local level in order to promote more sustainable transport choices for both people and moving freight; promote accessibility to jobs and services by public transport, walking and cycling; and reduce the need to travel, especially by car. The guidance also recognises the role of walking and cycling in reducing air pollution.

⁸² Environment Forum (2008) *North East Strategy for the Environment* [online] available at <http://www.gos.gov.uk/nestore/docs/envandrural/nese.pdf> (accessed 2 July 2009).

14.2.2 The Regional Spatial Strategy for North East (2008) provides the long-term strategic framework which informs development plans, local transport plans and transport operators in developing their plans and programmes.

14.2.3 The Local Transport Plan for Tyne & Wear (2005)⁸³ provides a strategic response to the spatial and transport patterns of the area, reflecting the policy objectives of the five local authorities in Tyne and Wear - Gateshead, Newcastle, North Tyneside, South Tyneside and Sunderland - and the Passenger Transport Authority. The vision of this plan is “to see Tyne and Wear continue to develop as an area where all residents have better access to a more prosperous, safer, healthier and more sustainable lifestyle in a more attractive environment”. One specific target was the aim to increase cycling by 5% by 2010/11. Sunderland sets out proposals to increase cycling within the city in “On Your Bike - A Cycling Strategy for the City of Sunderland” (2002).



14.3 What are the sustainability objectives we need to consider?

14.3.1 The key issues, problems and constraints for the seafront area with regard to air quality are:

- Develop innovative communication techniques to reduce the need to travel long distance to do business, thus reducing dependency on the aviation industry as an economic driver.
- Create truly sustainable communities through regeneration that provides access to jobs and services.
- Seeks to integrate different types of transport to benefit the environment, health and wealth creation.
- Improve accessibility, changing travel behaviour and addressing transport constraints.
- Integrate sustainable transport infrastructure into regeneration schemes thus giving greater priority to pedestrians, cyclists and public transport, making these modes of travel attractive, safe and convenient.

14.4 What is the situation now?

14.4.1 Numerous road links exist westwards from the seafront area through the residential areas at Roker and Seaburn to the Sea Road shopping area and beyond; making the seafront readily accessible from many parts of the City by foot, car and public transport⁸⁴. Seaburn is also accessible through the Metro system. The primary thoroughfare is the A183 which runs the full vertical length of the masterplan area connecting South Shields in the north to the A1 south west. To the south where the masterplan area meets new high quality residential development

⁸³ Gateshead et al (2007) *People in Motion: Tyne and Wear Local Transport Plan* [online] Available at: <http://www.tyneandwearltp.co.uk/> (accessed on 10 July 2009)

⁸⁴ Sunderland City Council (2007) LDF Topic Paper 1.6: Accessibility and Transport [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 10 July 09)

on the north side of the River Wear estuary there are good cycle and pedestrian links through residential developments around the former North Dock. A walk-ability index for Sunderland has been used by the Council and illustrates that the majority of the seafront area is within walking distance of 6.5 to 7 of 10 key facilities identified⁸⁵.

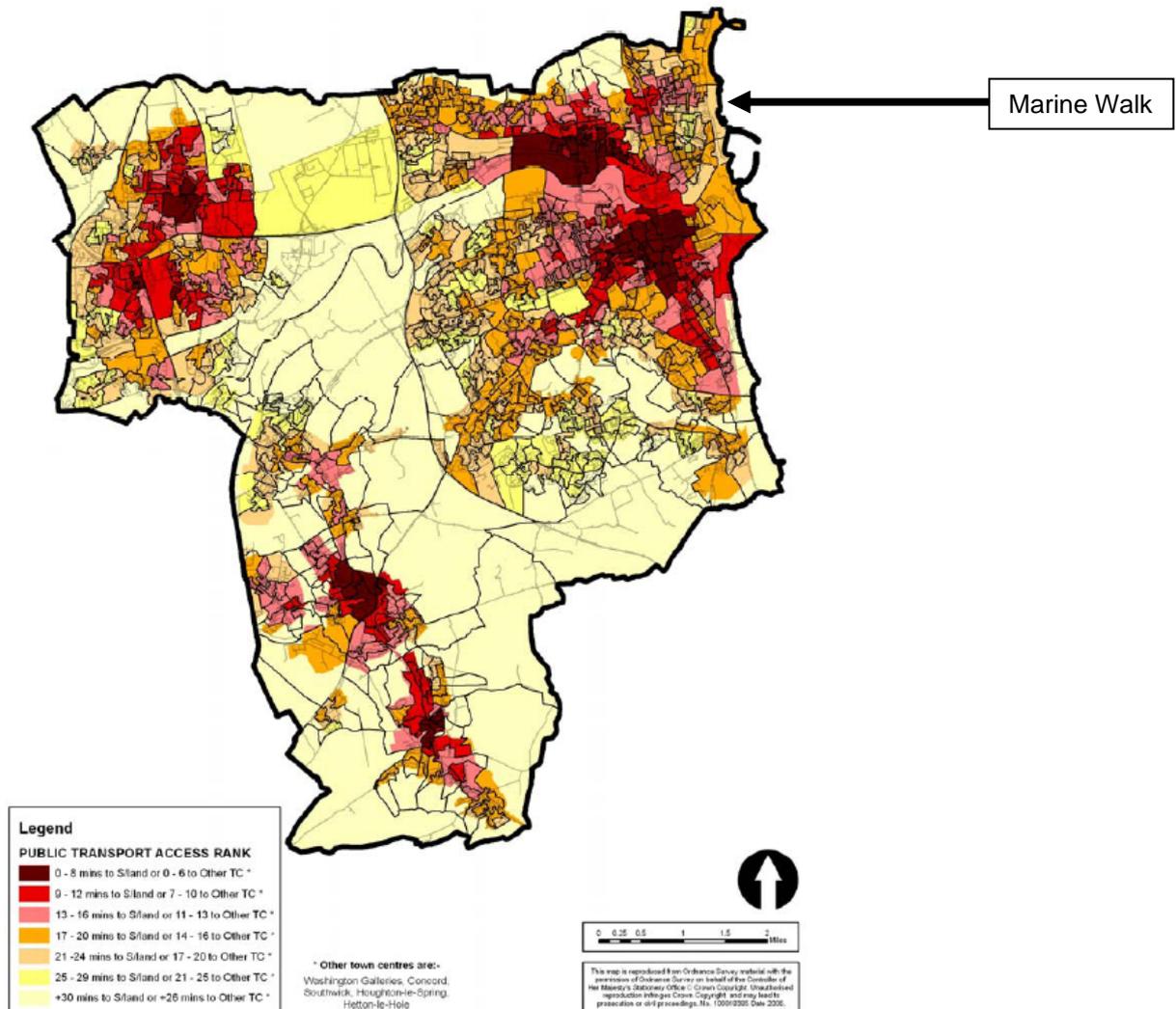


Figure 14.1: Public transport access to the nearest main centre.

14.4.2 The majority of the seafront area is within 17-24 minutes of key public transport services (**Figure 14.1**). This takes account of the frequency of services and waiting time as well as distances to public transport stops/interchanges. In general Sunderland’s public transport facilities are considered to be very good when compared to UK wide services, however patronage in Tyne and Wear has fallen by 44% since 1986; leading to various service

⁸⁵ Sunderland City Council (2007) LDF Topic Paper 1.6: Accessibility and Transport [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 10 July 09)

reductions and withdrawals⁸⁶. This is likely to be due to the trend for rising car ownership and forecasts indicate that patronage may continue to fall having detrimental implications for more key services.

- 14.4.3 Growth in car ownership is expected to rise by 20% in the period 2004-2021 in the North East according to the Tyne and Wear Local Transport Plan⁸⁷. This is likely to exacerbate problems of congestion, air pollution and carbon emissions which already affect the city. A Congestion Reduction Strategy has been developed by the Council which focuses on pinch points in the city. In particular the A183 corridor which runs through the site connecting it to Sunderland City Centre is considered to be at risk of heavy congestion during peak times⁸⁸.
- 14.4.4 To reduce the reliance on the private car, a Cycling Strategy for Tyne and Wear⁸⁹ has also been developed which aims to see cycling trips increased across the region by 5% to 2011.
- 14.4.5 Roker seafront is unique being the only place in the U.K. where three national cycle routes converge: National Route 1, Coast to Coast, and Walney to Wear cycle route. In addition the North Sea cycle route stretching 6,500km through seven countries draws cyclists from around the world to Sunderland's seafront. That said, cyclists coming to Sunderland tend to spend little time in the area due to the lack of information about the accommodation and attractions in the area. A recent study on Tyne and wear Coastal Accommodation found cyclists are not staying in guest houses on the seafront.

14.5 What will the situation be without the plan?

- 14.5.1 Without the proposed improvements to Marine Walk there will still be an attraction for cyclists, walkers and recreational use of the area. When factoring in climatic effects the Sunderland coastline could become more attractive and increase visitor numbers. There is therefore potential for increasing visitors, some of whom may drive to Marine walk.
- 14.5.2 However this should be contrasted against the detraction of the potential deterioration in environmental quality at Marine Walk. If deterioration of the masterplan area increases further, Marine Walk may become a less attractive visitor destination.
- 14.5.3 A reduction in visitors to the seafront whilst reducing some vehicle trips will conversely reduce patronage of buses to the seafront, and possibly result in uneconomic routes. This could have implications not just for the current users of the seafront area but also for the accessibility of residents of Roker to important services.

14.6 What will the situation be with the masterplan?

- 14.6.1 The proposals within the masterplan are specifically aimed at increasing the number and range of visitors to Marine Walk. Furthermore it seeks to encourage people to visit for longer or during periods in which use is currently lower, i.e. the evening.

⁸⁶ Gateshead et al (2007) *People in Motion: Tyne and Wear Local Transport Plan* [online] Available at: <http://www.tyneandwearltp.co.uk/> (accessed on 10 July 2009)

⁸⁷ Gateshead et al (2007) *People in Motion: Tyne and Wear Local Transport Plan* [online] Available at: <http://www.tyneandwearltp.co.uk/> (accessed on 10 July 2009)

⁸⁸ Sunderland City Council (2007) LDF Topic Paper 1.6: Accessibility and Transport [online] Available at: <http://www.sunderland.gov.uk/public/editable/themes/environment/PlanningandEnvironment/PlanningPolicy/LDF/ldf-folder/ldf.asp> (accessed 10 July 09)

⁸⁹ Appendix C of: Gateshead et al (2007) *People in Motion: Tyne and Wear Local Transport Plan* [online] <http://www.tyneandwearltp.co.uk/wwwfileroot/regen/ltp/LTP2AppendixCCyclingStrategy.pdf> (accessed 10 July 09)

- 14.6.2 The masterplan illustrates vehicular access through the development site and will be supported by existing and potentially new parking provision. The SPD highlights existing conflicts between users of Marine Walk with priority to particular users unclear despite the coast to coast cycle route passing through the site. It is considered that the plan aims to reduce these conflicts although it is perhaps unclear will be resolved, despite the figure illustrating primary and secondary vehicular routes.
- 14.6.3 Any increase in visitors to Marine Walk will increase transport demands. Given that bus services are not as frequent as central areas of the city and the fact that the SPD includes provision for access by private vehicles, it is reasonable to consider that the masterplan will increase car travel.
- 14.6.4 However demand for public transport services will also increase with increasing visitor numbers. This would particularly be the case during weekends and holidays when services to the seafront decrease in frequency. Provision of bus services will be a key determinant of the sustainability of the proposals.
- 14.6.5 Regeneration of the seafront may also help to increase the existing popularity of Marine Walk as a destination for cyclists. Plans to mark the start/finish of the C2C cycle route with attractive landscaping and sculptures will promote cycling in the locale and may even provide incentive for Sunderland's population to use this cycle route for local travel requirements. An opportunity exists to build upon this existing reputation.
- 14.6.6 In summary the masterplan will increase visitors to the site, the duration that they may otherwise have stayed and the time of day in which they visit. It is likely that this may lead to a significant number of new car journeys, especially for visitors from beyond Sunderland that could exacerbate congestion issues. However, there is potential for better bus services and modal shift to mitigate these effects.

14.7 How can we mitigate / enhance effects?

- 14.7.1 The cycling friendly nature of the proposals could be further enhanced by the provision of facilities for cyclists such as storage and changing areas. Furthermore, the allocation of specific lanes for cycling in will provide legibility and permit a safe and hazard free experience for all the users of Marine Walk. This will encourage more people to use this area for recreation and short range transportation and dissuade long vehicle journeys to areas afield.
- 14.7.2 During times when the use of the area is highest (for example during events and the holiday season) additional public transport services may be needed, although it is the responsibility of the bus service provider to respond with increased services. However, successful use of these services during one off events is likely to encourage people to use existing services more frequently.
- 14.7.3 The masterplan should support the limited provision of parking in the masterplan to dissuade people from using private transport and provided there are sufficient and efficient public transport services, this will not detract from the proposals.

14.8 Conclusions

- 14.8.1 Because of the scale of the masterplan proposals, it is unlikely that creation of specific new transport infrastructure will be necessary. However, the proposals represent an opportunity to provide additional public transport services to the seafront and wider Roker area. Furthermore, the masterplan will also facilitate and enhance the existing walking and cycling pathways along the Sunderland coastline.

Type of Impact	Marine Walk SPD	SPD plus other plans, programmes etc.
Short/medium term	In the short term the masterplan proposals will add additional value to Marine Walk as a destination for cyclists and walkers. In this regard it will have positive effects. However the plans will attract more visitors which is likely to increase the number of trips to the area by private vehicle, particularly during holidays and specific events. This is considered an adverse affect that may require the provision of additional public transport services to the seafront.	When viewed alongside the potential for an upgraded seafront at Seaburn and the housing proposals in nearby Sunderland Arc project development there is likely to be even further demand for use of the seafront area. Whilst some of these visitors will make use of the existing sustainable transport routes it is reasonable to consider additional demand for travel by private car.
Long term	When factoring in the potential increasing demand as a result of warmer summers, and the potential of word of mouth promotion of Marine Walk as an attraction. It is reasonable to consider that the net effect may be for increasing use of private vehicles that could add to existing congestion issues. In the long term there may be a requirement for improving public transport links to maintain popularity.	Warmer summers as a result of climate change alongside increasing population growth and potential for improvements to the sea front offering at Seaburn will increase visitor numbers. Increasing traffic and congestion may result. There will be a requirement for improvements to public transport provision in the long term.
Areas likely to be significantly affected	Increased amounts of traffic and transport will be most felt in areas with existing traffic issues such as the A183 corridor. If new public transport services are introduced the accessibility of Rokers population and those along new or improved routes will increase.	
Permanent Vs temporary	Provided the cycle ways are maintained and promoted, the sustained use of Marine Walk as a major cycle route will be permanent. With an increase in visitors of the seafront area, a permanent provision of public transport services may result.	
Secondary	The masterplan may have adverse effects on congestion, air quality and thus public and ecological health. This will also be weighed against the health benefits of the promotion of walking, cycling and healthy recreation.	

15 Conclusions and recommendations

15.1 Introduction

15.1.1 This section summarises the results of Marine Walk SPD drawing on the detail contained within the SA Objective chapters, in terms of the impact dimensions required under the SEA Directive (secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive).

15.1.2 In identifying impacts, the following key is used throughout this chapter:

Significant positive impact
Positive impact
Neutral impact, or rough balance of positive and negative effects
Unclear impact, or no data available
Impact could be positive or negative depending on implementation of the SPD
Negative effect
Significant negative effect

15.2 Likely impacts of the Masterplan

Positive and negative impacts

15.2.1 Each of the SA Objective chapters has set a narrative 'story' of the impacts of the emerging Marine Walk SPD. This includes the current status, the likely situation in the future without the SPD and the situation under the SPD. Table 15.1 summarises these effects using the colour coding above reflecting on the content of the preceding chapters.

Table 15.1: Summary of impacts

Objective	Current Status	Situation without the SPD	Situation with the SPD
Safeguard and enhance the region's environmental infrastructure	Positive impact	Negative effect	Neutral impact, or rough balance of positive and negative effects
Secure safe waste recovery / disposal without endangering health or harming the environment	Negative effect	Negative effect	Negative effect
Protect water sources from contamination and minimise the release of harmful products into the environment	Positive impact	Neutral impact, or rough balance of positive and negative effects	Neutral impact, or rough balance of positive and negative effects
Minimise polluting activities and contain air pollution to within acceptable limits	Neutral impact, or rough balance of positive and negative effects	Negative effect	Neutral impact, or rough balance of positive and negative effects
Adapt to and mitigate for climate change.	Negative effect	Negative effect	Positive impact
Promote, enhance and respect the region's culture and heritage	Positive impact	Neutral impact, or rough balance of positive and negative effects	Significant positive impact
Improve health and well-being while reducing inequalities in health	Positive impact	Positive impact	Positive impact
Build sustainable communities	Neutral impact, or rough balance of positive and negative effects	Negative effect	Positive impact
Establish a strong learning and skills base	Positive impact	Positive impact	Positive impact

Strengthen the regional economy		
Develop a more sustainable employment market		
Develop sustainable transport and communication		

15.2.2 The masterplan seeks to improve the environment of Marine Walk whilst promoting social benefits with associated economic benefits. **Table 15.1** suggests that the Draft Marine Walk masterplan would lead to:

- **Community benefits** by encouraging increasing recreational use of the seafront for a wide range of activities and for a wide range of the community. The proposals will have benefits for health and well being of the population, help to enhance knowledge understanding and use of the natural and historical environment and add to the sustainability of Roker’s community.
- **Economic benefits** from creation of retail uses at Marine Walk and from the support of existing businesses due to increasing visitor numbers to the seafront.
- **Environmental benefits** from improving the landscape and heritage features, also through the promotion of means to mitigate and adapt to climate change.
- Potential **environmental costs** from the negative effects of increasing visitor numbers to Marine Walk. For example through the potential for waste and pollution of coastal ecosystems.

Secondary impacts and the interrelationships between the impacts

15.2.3 Secondary impacts can be identified as those impacts that are not a direct result of the plan, but occur as a result of this. There are a number of linkages and themes running through the assessment. Table 15.2 shows the major interrelationships identified in the assessment.

Table 15.2: Secondary impacts

Impact of the SPD	Secondary Effects
An increase in visitor numbers	Education of the environmental and historical features of the locale
	Stimulation of the local economy
	Increase in waste generation
	Increase in vehicle congestion
	Impacts on water quality
Greater access to local biodiversity designations	Increase in awareness of local biodiversity
	Pressure on conservation efforts in the region
	Greater noise and visual disturbance to local wildlife
	Greater likelihood of pollution and waste to impact upon local wildlife
	Decrease in areas currently providing a supporting function to local environmental designations.
Increase vehicular usage and congestion	Worsening air quality
	Increase bicycle usage
	More impetus to provide increased public transport
Increase in waste generation	Potential for the loss of blue flag status of local beaches

	Decrease in visitor numbers
Enhancement of landscape	Increase in visitors using the seafront
	Increase in wildlife habitats
	Enhances attractiveness as a tourist destination
Stimulation of the local economy	Increase in local employment
	Increase in retail and hospitality facilities for the local residents
	Increased attractiveness at a regional and national level
Space for recreation	Better community health and wellbeing
Education	Sense of stewardship of the environmental features of the Sunderland coastline

Short, medium, long-term, permanent and temporary effects

15.2.4 Some of the key short, medium and long-term, permanent and temporary impacts of Marine Walk Masterplan and SPD include:

- **Short-term (<5 years):** Immediate benefits to improving the landscape and environment of Marine Walk that should increase the number of visitors to the area, particularly during the evening. Potential for impacts on local wildlife from disturbance from an increasing number of visitors. However, this is unlikely to impact internationally important sites (as detailed in the HRA).
- **Medium-term (5-15 years):** The local economy should start to show beneficial changes and will start to grow. The area may become more desirable for the local population and may increase the desirability of the local area. Active recreation will start to impact upon the health of regular users of Marine Walk and Roker beach. Traffic may have increased and will require investment in better public transport to mitigate for adverse effects. Maintenance of services and facilities provided will be needed to mitigate for sources of waste and pollution that may threaten the status of the beach and bathing water quality.
- **Long-term (15+ years):** Increasing temperatures from climate change may increase visitor pressure, but also the possibility of extreme weather events. Maintenance will be vital to enable the local economy to continue to grow and for visitor numbers to be maintained for community health benefits.

Cumulative and synergistic impacts

15.2.5 Cumulative impacts are impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with Marine Walk Masterplan. Synergistic impacts are when a total effect is greater than the sum of the individual effects.

15.2.6 Table 15.2 illustrate the impacts of the emerging SPD alongside other plans and strategies. These include the potential masterplan for the seafront at nearby Seaburn, the Sunderland Arc schemes and growth promoted in the Regional Spatial Strategy.

Table 15.2: Cumulative and synergistic effects

Objective	Situation with the SPD	SPD plus other plans and strategies
Safeguard and enhance the region's environmental infrastructure	Yellow	Yellow
Secure safe waste recovery / disposal without endangering health or harming the environment	Yellow	Red
Protect water sources from contamination and minimise the release of harmful products into the environment	Yellow	Yellow
Minimise polluting activities and contain air pollution to within acceptable limits	Yellow	Yellow
Adapt to and mitigate for climate change.	Green	Green
Promote, enhance and respect the region's culture and heritage	Green	Green
Improve health and well-being while reducing inequalities in health	Light Green	Green
Build sustainable communities	Light Green	Light Green
Establish a strong learning and skills base	Light Green	Light Green
Strengthen the regional economy	Green	Green
Develop a more sustainable employment market	Light Green	Light Green
Develop sustainable transport and communication	Yellow	Yellow

15.2.7 The table reveals that with other plans and strategies there are strong social and economic benefits for an increasing population from Marine Walk masterplan proposals but potential adverse effects from increasing visitor pressure on environmental infrastructure.

Spatially specific Impacts

15.2.8 In the main the predicted effects will apply to the seafront area and to Roker. Some effects will impact on environmental infrastructure such as the local SSSIs, Roker Park and the beach. Economic effects again will be generally localised. There is potential however for Sunderland's seafront to have an increased regional profile. Transport effects may be felt across the city.

15.3 Further recommendations

15.3.1 In addition to the recommendations included in each impact chapter we recommend that Marine Walk SPD must be considered as an integral part of Sunderland's Local Development Framework. The proposals within the SPD should be supported and enhance the policy and allocations that the LDF will contain.

16 Proposals for monitoring

16.1 Introduction

- 16.1.1 The SEA Directive includes a specific requirement for monitoring the significant environmental effects of plans and programmes and the Environmental Report on the assessment (incorporated within this report) should include a description of the measures envisaged for monitoring the plan.

The ‘Environmental Report’ required under the SEA Directive should include:

**“a description of the measures envisaged concerning monitoring in accordance with Article 10”
Annex 1(i)**

“Member States shall monitor the significant environmental effects of the implementation of plans and programmes...” (Article 10(1))

16.2 Monitoring Marine Walk Masterplan SPD

- 16.2.1 Table 16.1 summarises out the recommendations alongside suggestions for monitoring. It will be up to the Council to consider the practicalities of monitoring and what might be achievable. Monitoring should be undertaken through the Annual Monitoring Report for the Councils Local Development Framework.

Table 16.1: Monitoring suggestions

Significant Effect	Monitoring suggestion
Uncertainty exists as to the impacts of the SPD on wildlife within the local environmental designations. (The significance of this effect may be influenced by further work on the HRA)	Natural England closely monitors all SSSIs. The local environmental designations are all encompassed within Durham Coast SSSI which is in particularly monitoring for its role in supporting purple sandpiper.
Decreases in local air quality as a result of increase vehicle use and congestion	The Local Development Framework Annual Monitoring Report monitors specific “hotspot” areas of Sunderland for air quality. Monitoring at Roker may be required to identify if air pollution will become an issue.
Increases in waste generation associated with the increased visitor numbers.	Waste is monitored at a city wide level by Sunderland City Council and it is difficult to isolate waste generation in small areas. Waste disposal will continue to be part of the Councils responsibilities and localised monitoring may be undertaken by other Council services. The Local Development Framework Annual Monitoring Report monitors waste generation and recycling in the city.
There is a need to monitor the impacts of the SPD on the coastal water quality to remove the risk of compromising the beaches blue flag status.	It will be important to work closely with the Environment Agency who monitor coastal waters particularly with respect to bathing water quality. This information is available annually from the Environment Agency.

Significant Effect	Monitoring suggestion
Stimulation of the local tourism economy.	The Local Development Framework Annual Monitoring Report monitors the number of planning applications approved in tourism and cultural related developments.
Greater opportunity for pedestrians and cyclists	The Local Development Framework Annual Monitoring Report monitors the number of cycling trips made within the city.

17 Changes to the SPD

17.1 Introduction

17.1.1 In light of the findings of the Sustainability Appraisal the Council made the following changes to the SPD before completing the consultation draft.

- Make reference to improved waste management facilities and sufficient dog waste disposal facilities in street furniture (**section 5.6 of the SPD**) and maintenance (**section 6.4 of the SPD**).
- Reference sustainable water treatments and SUDS in sustainability (**section 6.1 of the SPD**).
- Make reference to exploring opportunities to improve public transport links, walking, cycling and improved signage from metros in sustainability (**section 6.1 of the SPD**).
- Make it clearer cycle storage will be provided in street furniture (**section 5.6 of the SPD**).
- Make it clearer the masterplan will create an area for all members of the community in key spaces (**section 5.2 of the SPD**) and equality and diversity (**section 6.2 of the SPD**).

17.2 Changes to the results of the SA

17.2.1 By incorporating the above into the SPD the results of the assessment in some cases will alter. Table 17.1 describes what these changes will be and the influence these changes will have on the sustainability appraisal of the SPD.

Table 17.1: Sustainability Appraisal reassessment in light of changes made by Sunderland City Council.

Objective	Situation with the draft SPD	Situation with changes to the SPD after consultation with Sunderland City Council
Safeguard and enhance the region's environmental infrastructure		Reduced waste disposal into the coastal environment associated with increased waste facilities will reduce the impacts of increased visitor numbers on local wildlife and environmental designations.
Secure safe waste recovery / disposal without endangering health or harming the environment		Improved and increased waste management facilities will lessen the impacts of litter created from increased visitor numbers. This will permit a cleaner and more pleasurable seafront for the visitors and lessen harmful effects associated with waste disposal on the coastal environment and prevent loss of Roker beach's blue flag status.
Protect water sources from contamination and minimise the release of harmful products into the environment		Provision of sustainable water treatments and SUDS will prevent harmful contamination of water resources and the marine environment with contaminated surface run-off and waste water. Increased waste management facilities will lessen contamination of coastal waters by litter disposal and prevent loss of Roker beach's blue flag status.

Objective	Situation with the draft SPD	Situation with changes to the SPD after consultation with Sunderland City Council
Minimise polluting activities and contain air pollution to within acceptable limits		Increased provisions for cyclists and increased public transport links will minimise any increase in pollution associated with increases in vehicular traffic.
Adapt to and mitigate for climate change.		The increase in provision and promotion of sustainable transport should reduce any impacts on climate change in the short term.
Promote, enhance and respect the region's culture and heritage		Increased provision and promotion of public transport links will in turn provide greater accessibility to the people of Sunderland to see local heritage sites.
Improve health and well-being while reducing inequalities in health		Increased cycling provisions promote sustainable and healthy transport along the seafront. Furthermore, waste management will prevent deterrence of the local population due to issues of cleanliness of Marine Walk.
Build sustainable communities		Increased public transport will provide the seafront and Roker area with more accessible and sustainable transport options. The seafront proposals will also promote a community based on inclusion and equality for both the visitors and locals of the seafront.
Establish a strong learning and skills base		No change.
Strengthen the regional economy		No change.
Develop a more sustainable employment market		No change.
Develop sustainable transport and communication		Increased provision and promotion of local transport links will help to provide a sustainable transport option for the visitors of the seafront area.

18 Consultation

18.1 Taking the consultation findings into account

- 18.1.1 This SA Report was subject to consultation alongside the draft SPD and the HRA/AA Screening Report. Consultation took place between 8th August 2009 and 18th September 2009.
- 18.1.2 Under Article 3 (6) of the SEA Directive a copy of the Sustainability Appraisal for Marine Walk Masterplan was sent to the following bodies for comment:
- English Heritage
 - Environment Agency
 - Natural England
- 18.1.3 In addition a number of organisations with environmental, social and economic interests received notification of both the consultation on the Sustainability Appraisal for Marine Walk Masterplan and the Masterplan itself. Comments made by consultees in relation to the sustainability appraisal are detailed in Appendix 1.
- 18.1.4 Upon completion of the consultation the findings from the SA and the associated HRA / AA of Marine Walk Masterplan were taken into account by Sunderland City Council in preparing the final version of Marine Walk Masterplan SPD. Those changes which have direct implications for the sustainability appraisal are outlined in Table 18.1.
- 18.1.5 In relation to the SA, this reflects the requirements of Article 8 of the SEA Directive (see below) which requires the assessment findings to be taken into account ‘during’ the preparation of the plan or programme. This article also requires the Secretary of State to take into account the findings of the consultation on the SPD.

Under the SEA Directive:

“The environmental report... [and] the opinions expressed [through the consultation]...shall be taken into account during the preparation of the plan or programme and before its adoption...”

(Article 8)

Table 18.1: Changes made to the masterplan in light of consultation responses.

Section	Change to the SPD with implications for the Sustainability Appraisal	Sustainability Objectives influenced
1.7 Project Background	Regeneration objectives now place emphasis on <i>“enhancing the area’s rich heritage and attractive natural environment”</i> .	1. Safeguard and enhance the region’s environmental infrastructure
4.2 Opportunities - Accessibility	Highlights sustainable modes of transport – supported by the Local Transport Plan 2 (LTP2) Promotes the use of pedestrian and cycle routes	5. Adapt to and mitigate for climate change. 8. Build sustainable communities 14. Develop sustainable transport and communication

Section	Change to the SPD with implications for the Sustainability Appraisal	Sustainability Objectives influenced
	Highlights the promotion of public transport links through the provision of public transport information points.	5. Adapt to and mitigate for climate change. 8. Build sustainable communities 14. Develop sustainable transport and communication
5.2 Key Spaces	Promotes consultation with the Environment Agency and the Coastal Protection Agency during design of key spaces.	3. Protect water sources from contamination and minimise the release of harmful products into the environment 5. Adapt to and mitigate for climate change
	Details the intention to survey for protected species in Spotee's cave.	1. Safeguard and enhance the region's environmental infrastructure
5.3 Interpretation Trail – 8. Roker Lighthouse	Interpretation panel provided to inform visitors of the heritage of Roker Lighthouse.	6. Promote, enhance and respect the region's culture and heritage
5.6 Public realm – Surface Materials	Masterplan seeks to increase feelings of safety and reduce crime through natural surveillance and improved lighting.	7. Improve health and well-being while reducing inequalities in health
5.7 Soft Landscaping	Promotes the provision of a maintenance plan for planting to help to enhance the biodiversity of the seafront.	1. Safeguard and enhance the region's environmental infrastructure
5.8 Development principles and parameters - Mix of Uses	Highlights that developments must achieve a range of indoor and outdoor facilities to provide a focus for leisure activity and tourism e.g. cafes, restaurants etc.	12. Strengthen the regional economy 13. Develop a more sustainable employment market
- Design	Promotes innovative design and local influence to maintain the aesthetics and built and natural character of the area.	1. Safeguard and enhance the region's environmental infrastructure
	Highlights consideration of flood risk including incorporation of flood resilience measures and SUDS into design.	3. Protect water sources from contamination and minimise the release of harmful products into the environment 5. Adapt to and mitigate for climate change
- Maximise Coastal Views	Promotes security of proposals through natural surveillance and high quality lighting.	7. Improve health and well-being while reducing inequalities in health
- Materials	Promote the use of appropriate materials giving consideration to the local character if the seafront.	1. Safeguard and enhance the region's environmental infrastructure
	Promotes use of energy efficient materials.	8. Build sustainable communities
- Sustainable Development	Highlights the need for sustainable energy use and building techniques to be incorporated into the design through the use of:	8. Build sustainable communities
	Renewable energy sources	5. Adapt to and mitigate for climate change 8. Build sustainable communities

Section	Change to the SPD with implications for the Sustainability Appraisal	Sustainability Objectives influenced
	Local materials	8. Build sustainable communities
	Low energy solutions	
	Waste recycling and composting	2. Secure safe waste recovery / disposal without endangering health or harming the environment.
	Water conservation	8. Build sustainable communities
	SUDS	3. Protect water sources from contamination and minimise the release of harmful products into the environment
	Green roof technology	8. Build sustainable communities
	Habitat creation and bird and bat boxes.	1. Safeguard and enhance the region's environmental infrastructure
6.1 Sustainability	Includes the consideration of bird populations within the local designations in the timing of construction activities in the area.	1. Safeguard and enhance the region's environmental infrastructure
6.5 Delivery Vehicle	Provides planning application requirements which include:	
	A transport assessment and travel plan	14. Develop sustainable transport and communication
	A sustainability statement	8. Build sustainable communities
	A noise assessment	1. Safeguard and enhance the region's environmental infrastructure
	A flood risk assessment	5. Adapt to and mitigate for climate change.
	A landscape design strategy	1. Safeguard and enhance the region's environmental infrastructure
	A health impact assessment	6. Improve health and well-being while reducing inequalities in health
Heritage Statement	Promotes the consideration of cultural heritage features in developments which have the potential to alter these features.	6. Promote, enhance and respect the region's culture and heritage
Transport assessment and travel plan	Stipulates the inclusion of a plan with planning applications likely to have significant transport impacts.	5. Adapt to and mitigate for climate change. 8. Build sustainable communities 14. Develop sustainable transport and communication
Appendix 1 – National Policy	Includes reference to PPS9 – Biodiversity and Geological Conservation	1. Safeguard and enhance the region's environmental infrastructure
- Regional Policy	Includes the strategic objectives of LTP 2.	5. Adapt to and mitigate for climate change. 8. Build sustainable communities 14. Develop sustainable transport and

Section	Change to the SPD with implications for the Sustainability Appraisal	Sustainability Objectives influenced
		communication

18.1.6 By incorporating the above into the SPD the results of the assessment in some cases will alter. Table 18.2 describes what these changes will be and the influence these changes will have on the sustainability appraisal of the SPD.

Table 18.2: Sustainability Appraisal reassessment in light of changes to the SPD recommended through consultation.

Objective	Situation with changes to the SPD after consultation with Sunderland City Council	Situation with changes to the SPD after consultation
Safeguard and enhance the region's environmental infrastructure		Consideration of the natural environment at both the strategic level and for individual planning applications show a holistic approach to protecting the local environmental infrastructure. Furthermore, the promotion of active measures to enhance local biodiversity will add to the rich natural environment present on Marine Walk.
Secure safe waste recovery / disposal without endangering health or harming the environment		Waste recycling and composting measures incorporated into any design proposals will ensure operational impacts of retail facilities on local habitats and wildlife will be limited.
Protect water sources from contamination and minimise the release of harmful products into the environment		The incorporation of SUDS and water conservation measures into design proposals and the local planning application process will ensure local water resources maintain high water quality standards.
Minimise polluting activities and contain air pollution to within acceptable limits		Promotion of sustainable transport serving Marine Walk and the incorporation of renewable technologies into sustainable design of developments as part of the SPD proposals will have implications on both local and regional air quality.

Objective	Situation with changes to the SPD after consultation with Sunderland City Council	Situation with changes to the SPD after consultation
Adapt to and mitigate for climate change.		Transport links promoted through the plan and through the local transport strategy will reduce the reliance on private vehicle and thus limiting private vehicular emissions in the region. Flood prevention measures also incorporated into planning considerations and the design proposals will reduce the impacts associated with increased flooding due to extreme climatic events.
Promote, enhance and respect the region's culture and heritage		Consideration of the direct and setting impacts on heritage features in design proposals as part of the SPD.
Improve health and well-being while reducing inequalities in health		Health impact assessments for all design proposals will ensure that the impacts on health due to the scheme proposals will be restricted.
Build sustainable communities		The promotion of sustainable transport provision to Marine Walk will ensure a reduction in the reliance on private vehicles serving the area. Design methods including local materials, low and renewable energy solutions, SUDS and green roof technology will all contribute to a local sustainable environment. Furthermore, the proposals will ensure a rejuvenation of the area bringing increased facilities for the local communities.
Establish a strong learning and skills base		No change
Strengthen the regional economy		The development principles outlined in the plan will give strength to leisure and tourism proposals including cafes, restaurants and bars. This will provide an increase in the attractiveness of Marine Walk as a national tourist destination.
Develop a more sustainable employment market		The impetus towards leisure and tourism proposals outlined in the SPD will enhance the attractiveness to businesses. This will in turn stimulate local employment opportunities in the hospitality sector.

Objective	Situation with changes to the SPD after consultation with Sunderland City Council	Situation with changes to the SPD after consultation
Develop sustainable transport and communication		The SPD makes numerous references to the Local Transport Plan (LTP 2) and promotes the plan to cyclists and pedestrians as part of the attraction of Marine Walk. The provision of public transport information points aids the use of local transport provision by both locals and tourists alike.

18.2 SA Statement

- 18.2.1 Once a plan or programme has been adopted, the SEA Directive requires those responsible for preparing it – in this case Sunderland City Council - to provide the public and the environmental bodies (English Heritage, the Environment Agency and Natural England) with information on how environmental considerations and consultation responses are reflected in the plan or programme and how its implementation will be monitored in the future.

Plan or programme proponents should ensure that, when a plan or programme is adopted, the Environmental Consultation Bodies and the public “are informed and the following items are made available to those so informed:

- (a) the plan or programme as adopted;**
- (b) a statement summarising how environmental considerations have been integrated into the plan or programme...[including] the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with, and**
- (c) the measures decided concerning monitoring [of the plan]**

(Annex 9(1))

- 18.2.2 In light of this requirement a Sustainability Statement will be required setting out the above information for publication alongside the adopted SPD.



Appendix 1

Consultation Authority	Section/Paragraph	Comments	Response/Action – Agree/Disagree
Environment Agency	General	SA must also identify indicators to inform any monitoring scheme to be implemented, which is currently not the case.	Indicators have been identified in the scoping report for information purposes. However, in the SA report we have sought to apply a methodology which allows for more subtle yet significant effects to be discussed within each objective led chapter heading, as it can be difficult to set specific target indicators in areas of sustainability. This report should be read alongside the scoping report. Once the masterplan has been adopted a Sustainability Statement will be required setting out how environmental considerations and consultation responses are reflected in the plan and hows its implementation will be monitored in the future.
Northumbria Water	5.4.4	The end of the paragraph implies that the loss of the blue flag status after the heavy rains in 2007 was due solely to the storm discharges from the sewerage system, whereas in fact the heavy rainfall also increased the amount of surface water run-off from both agricultural and urban areas and any or all these contributed to bacteriological impact on the bathing water quality. It would be helpful to amend the paragraph by mentioning all of these factors, which would tie in with the stated aims in section 6.1 of the Marine Walk Masterplan and other parts of the documents to adopt sustainable water treatments to prevent flooding and pollution from all sources of surface water.	Agreed – amendments have been made to the text (see section 5.4.4).
Natural England	3.4.6	It would be useful to show the extent of the SSSI in Figure 3.1	Agreed – figure has been amended to include the SSSI.

Consultation Authority	Section/Paragraph	Comments	Response/Action – Agree/Disagree
	3.6	This SEA/ SA should both identify issues and identify how adverse impacts can be overcome with the solutions embedded in the masterplan.	Sufficient recommendations have been made in sections 3.7 and 3.8 to inform the masterplan.
	3.6.2 and 3.7.1	Habitat enhancement should be appropriate to the area including benefiting existing features and not create an unnecessarily complex fragmented mosaic.	Agreed – text amended to stress the importance of locally native planting and local habitat enhancement.
	3.6.3	This should include addressing protected species as well as habitats and recognised sites.	Agreed- as above.
	3.7.2/ 4.7	Control and management of waste must be embedded in the masterplan. It should also be recognised that seaborne waste can also adversely affect the environment. However any beach cleaning should not remove natural materials such as seaweed and life on the beach that provides food for coastal birdlife.	Disagree – the masterplan should make reference to the local waste strategy. This should ensure adequate provisions for waste disposal in light of the regeneration proposals. Text amended to reflect this.
	3.8.1	Likely impacts on the European sites are not all clearly identified and addressed in the HRA which should ensure the masterplan is drafted to avoid any adverse effects on the integrity of these sites. The SEA should recognise that these issues have been identified and also set out how they are overcome in the plan.	Agreed – the text has been amended in light of the changes to the HRA.
		To avoid permanent impact on wildlife management and maintenance should be appropriate and on ongoing in the long term rather than 'constant'; for example mowing regimes should complement the flowering and seeding of grassland and to provide feeding areas for birds in winter, rather than be constant mowing creating a short cut sward of little wildlife value.	Agreed – text amended.

Consultation Authority	Section/Paragraph	Comments	Response/Action – Agree/Disagree
	Sections 5 & 6	Does not recognise issues of sediment load in coastal waters, increased turbidity or river and coastal waters as a pollution / contaminant which can affect aquatic and marine life.	Agreed – reference made to sediment loading in section 5.5.1.
	Section 7	Addresses causes of climate change but overlooks addressing impacts and enabling adaptation, including of the natural environment, beyond flood risk.	It is considered that flood risk from the ocean and coastal erosion is the primary impact that climatic changes will have on Marine Walk and consequently it is these issues which the SA addresses. Furthermore, the SPD places an onus on incorporation these considerations into the design of both the masterplan area and individual development proposals.